Determining the Readiness of the Mechanical Engineering Programme Candidates for Distance Education

Daniel Sekyere-Asiedu[1]([✉]), Nikolay A. Mashkin[2], Elena V. Mochelevskaya[3],
Marina G. Petrova[4], Marina R. Zheltukhina[5,6]

[1] Department of Computer Information Systems, Near East University, Lefkosa, North Cyprus
[2] Plekhanov Russian University of Economics, Moscow, Russia
[3] Kazan National Research Technical University named after A.N. Tupolev – KAI, Kazan, Russia
[4] Peoples' Friendship University of Russia (RUDN University), Moscow, Russia
[5] Volgograd State Socio-Pedagogical University, Volgograd, Russia
[6] Moscow City University, Moscow, Russia
danielassieduapp@gmail.com

Abstract—The general purpose of this research is to determine the readiness of the mechanical engineering programme candidates for distance education. The quantitative research method was used in the study. The research was carried out in the spring term of 2020–2021. The working group consists of mechanical engineering students studying at universities in the Turkish Republic of Northern Cyprus and the Russian Federation. 460 volunteer university students participated in the study. In order to improve their readiness in the research, a 4-week online training was given to the mechanical engineer programme candidates. The 'readiness for distance education' measurement tool, which was developed by the researchers and was prepared by calculating the reliability coefficient, was applied to the university students. The measurement tool was simplified by consulting experts in the field. Data were collected by an online questionnaire and a hand-held questionnaire. The collected data were analysed using the SPSS programme. Frequency, percentage, mean, standard deviation, minimum and maximum values were used to analyse the data obtained from the measurement tool. According to the results of the research, it was concluded that the university students' readiness for distance education showed positive results and they did not have any problems while using the distance education system in their classes.

Keywords—mechanical engineer programme candidates, university students, distance education, readiness

1 Introduction

It is known that teaching and education is a process that has a very important place in terms of the progress of people and is constantly changing and necessary. It is also

known that changes are being made in education and training activities due to some factual problems experienced by societies [17]. In order to seek answers to these reasons, it can be seen that there are tendencies from face-to-face education to distance education [22].

1.1 Conceptual framework

When we look at the history of distance education, it is accepted that it started in ancient times and it is seen that distance education, which emerged as a concept in the 1700s, has become more common, thanks to the developing technology [5]. When we look at the definitions of distance education, it is seen that it is a discipline that provides lifelong learning, fulfils the personal and social needs of education and realises the self-learning of the person who makes use of technology [21].

While distance education is accepted as a teaching method in which the teacher and the learner use different technologies to communicate independently of time and place, it is now seen that web-based applications come to the fore to provide this communication [13]. It is seen that there is a transition from the distance education process, in which communication tools such as letters, radio and television were used, to the distance education process, which includes Internet environments; therefore, with the development of computer technology, distance education studies are generally carried out with computer applications [16].

When we look at distance education applications in computer applications, the interaction be-tween the teacher and the learner comes to the fore. In this case, synchronous and asynchronous applications are used [3]. While synchronous education is defined as environments where students and teachers interact with each other at the same time in different places, asynchronous education is defined as education where there is no communication between the student and the teacher, in which the necessary documents for the course are shared with the student on the Internet, regard-less of place and time [26]. It is seen that synchronous education allows teachers and students to interact in various ways, eliminating the necessity of being in the same environment and allowing the advantages of face-to-face education to be used [20]. Asynchronous education, on the other hand, is known to provide the student with the opportunity to learn independently from the teach-er, as well as a richer content for the student [1]. In the current research, the importance of supporting educators in educational and technical terms in the emergency distance education process is frequently emphasised [27]. It is known that the use of communication technologies in the distance education process contributes to the formal education process and provides permanent behavioural change in students by supporting the lifelong learning principle [25]. While it is known in the world that education and learning is a lifelong process that starts with birth, distance education allows people to learn whenever they want by removing learning from the boundaries of school [24]. In addition, distance education consists of a system structure that allows education to continue in cases where traditional education and training activities cannot be performed [7] [23]. In this way, students cannot be deprived of their education rights, but can become independent and organise their learning activities as they wish [9]. Accessibility of computer-assisted teaching mate-rials has an important

place in distance education [4]. Various materials such as books, exams and lectures that can be published over the Internet must be available.

1.2 Related studies

Muzammil et al. (2020) aimed to analyse the student satisfaction and participation effect in online learning, which is affected by student interaction, and as a result, it was found that the interaction between students and teachers and the interaction between students and content had a positive effect on student participation. It can be said that the researches increase the student–teacher effect in the online environment. It is seen that the role of student–teacher has developed in the online environment, and it is seen that the education in an environment where students can express themselves comfortably contributes to both student achievements and the teacher's teaching goals [15] [19].

Anderson and Rivera-Vargas (2020) investigated educational technology applied in the context of programmes and institutions that offer purely distance education courses in 2020, and as a result, all education in the 21st century, networking, text and image creation and editing, and the use of information search and retrieval are used by nearly every teacher and student. They have reached the conclusion that digital education and distance education are where the student ends his life. In this context, each work carried out affects the student closely; it can also be said that both the correct transfer of education and the formation of permanent behaviours are directly proportional to the model to be selected [2] [12].

In addition, it is emphasised in the study that it is important to ensure interaction between the teacher and the university student and to have a permanent education. The use of interactive synchronous and asynchronous content during live lectures and the selection of appropriate soft-ware for them affect the efficiency of education [6] [8].

The general purpose of this research is to determine the level of readiness of the mechanical engineering programme candidates in distance education, their thoughts and expectations about the request and the level of use of the mechanical engineering programme candidates. In the other dimensions of the research, the aims, applications, findings and results will be continued.

1.3 Purpose of the research

The general aim of this study was to determine the readiness levels of the candidates of the mechanical engineering programme for distance education. In order to reach the problem situation in the research, answers to the following questions were sought:

1. What is the readiness level of the mechanical engineering programme students for distance education?
2. Is there a significant difference in the synchronous course status of the mechanical engineering programme students according to the gender variable?
3. Is there a significant difference in the asynchronous course status of the mechanical engineering programme students according to the gender variable?

4. What are the opinions of the students of the mechanical engineering programme about the university distance education system?

2   Method

In this section, the research method, study group, type and source of data, data collection tools and statistics used in the research are discussed.

2.1   Research model

In this research, the descriptive study method was chosen from the research methods and continued by using the survey model. The screening method is a research method that aims to describe an event that has continued from the transitional experience to the present, as mentioned earlier [10]. In this research, the determination of the important and methodological aspects of examining the population migration patterns related to distance education and geography course of university students by means of scanning method were described according to the variables of gender, educational status and duration of education.

2.2   Working group/participants

The research was carried out on a voluntary basis with 460 mechanical engineer candidates who voluntarily agreed to participate and continue their education at universities in the Turkish Republic of Northern Cyprus and the Russian Federation during the spring year of 2020–2021. The measurement tool used in the research was applied to 460 mechanical engineer candidates and accepted.

Gender. In this section, the distribution of mechanical engineer programme candidates according to their gender is given in Table 1.

Table 1. Distribution of mechanical engineer candidates by gender

Gender	F	%
Male	242	52.60
Female	218	47.40
Total	460	100

As seen in Table 1, 52.60% (242 people) of the mechanical engineer programme candidates in the study group are male and 47.40% (218 people) are female. In the gender section, the findings reflect the actual gender distribution.

Technology use cases. In this section, the technology usage status of the mechanical engineer programme candidates during the day is examined and detailed information is given in Table 2.

Table 2. Technology usage status of mechanical engineer programme candidates during the day

Technology Use Cases	F	%
1–3 hours	127	27.60
4–6 hours	100	21.74
7 hours and above	233	50.66
Total	460	100

As seen in Table 2, the technology usage status of the working group mechanical engineering programme candidates during the day was examined and the highest value (50.66%, 233 people) was for 7 hours or more, 27.60% (127 people) was for 1–3 hours and 50.66% (100 people) was between 4 and 6 hours.

Age status. In this section, the age status of the mechanical engineer programme candidates is examined and detailed information is given in Table 3.

Table 3. Distribution of mechanical engineer programme candidates by age

Age States	F	%
18–24	380	82.60
25–29	74	16.08
30 and above	6	1.32
Total	460	100

As can be seen in Table 3, among the mechanical engineer programme candidates in the study group, the majority (82.60%, 380 people) are in the 18–24 age group, with 16.08% (74 people) in the 25–29 age group and 1.32% (6 people) in the age group of 30 and above. In the age status section, the findings reflect the actual distribution.

2.3 Data collection tools

The data collection tool used in the research is called the distance education readiness measurement tool, which was created by the researchers, and a personal information form developed by the researchers in order to collect the necessary information from the mechanical engineering programme candidates was used. The content validity of the developed measurement tool was examined by experts, seven professors working in the field of distance education and computer, and unnecessary items were removed from the measurement tool and rearranged. 18 items of the measurement tool consisting of 22 items were used, and 4 items were removed from the measurement tool, thanks to experts' opinions. The opinions of mechanical engineer candidates on two factorial dimensions – 'distance education aptitude' and 'distance education systems' – were consulted. Cronbach's alpha reliability coefficient of the measurement tool as a whole was calculated as 0.91. The measuring points were 'strongly disagree' (1), 'disagree' (2), 'undecided' (3), 'agree' (4) and 'strongly agree' (5). The measurement tool was also collected from university students in the form of an online environment.

2.4 Analysis of data

The data obtained from university students were analysed in the Statistics programme using frequency (f), percentage (%), mean (M), standard deviation (SD) and *t*-test. The data obtained from the programme are given in the findings section accompanied by tables and comments.

2.5 Application

An online education environment was prepared for 460 volunteer mechanical engineer programme candidates who continue their education and training in the Turkish Republic of Northern Cyprus and the Russian Federation, and it has been organised by showing it to experts in the field of education. During the 4-week training, information such as 'distance education', 'distance education systems', 'distance education effectiveness' etc. were given to the mechanical engineer programme candidates in the form of online training, and performance assignments were given and requested every week from the mechanical engineer programme candidates on this subject. It is thought that these assignments will provide a better reinforcement of the subject. After the 4-week training, the measurement tool and information form were applied to the candidates of the mechanical engineer programme and the data are given in the findings section in tables. Five sections were determined through the Microsoft Teams application programme, which is preferred by most universities, and each section was distributed over weeks to be limited to a maximum of 95 mechanical engineer programme candidates, each training programme was covered in a total of 50 minutes, 35 minutes of which was training and 15 minutes of which was questions and answers. In the case of online education, university students were expected to participate in the education by using devices such as tablets, phones and computers with videos and microphones. The measurement tool applied to university students was collected by means of an online questionnaire and transferred to the SPSS programme by coding in the computing software environment.

3 Results

In this section, the findings obtained as a result of the analysis of the data obtained in the research are added in tables, and various interpretations are included in the direction of the findings.

3.1 Distance education status of mechanical engineer programme candidates

In this section, the distance education status of the mechanical engineer candidates was investigated under two headings and the information about the distance education findings was added to Table 4.

Table 4. Distance education status of mechanical engineer programme candidates

Distance Education	N	M	SS
Distance Education Predisposition	460	4.35	.439
Inability to Use a Distance Education Environment	460	4.10	.580

When Table 4 is examined, two situations for mechanical engineer programme candidates to be prone to distance education and not to use distance education environment are examined, and it is seen that there are findings where there are scores of not being able to use it (M=4.10). According to these values, the table shows that university students are prone to distance education and can use the environment.

3.2 Distribution of synchronous course status of mechanical engineer programme candidates according to the gender variable

In Table 5, the *t*-test was applied to find out that the synchronous course status of the mechanical engineer programme candidates does not differ in terms of gender.

Table 5. Distribution of synchronous course status of mechanical engineer programme candidates according to gender

Mechanical Engineer Candidates	Gender	N	M	SS	sd	t	p
Synchronous Lesson	Male	248	4.20	.442	460	-2.280	.021*
	Female	218	3.95	.415			

According to the *t*-test results applied in Table 5, it can be concluded that the difference in the gender variable dimension of the scores of the mechanical engineer programme candidates for the distance education synchronous course was significant [t(460)= -2.280, p<.05]. When the arithmetic averages in the dimension of synchronous course in distance education are examined, it is seen that the average of male mechanical engineer candidates is M=4.20; the average of female mechanical engineer candidates is M=3.9, showing that male mechanical engineer candidates have high scores. Accordingly, it can be said that male mechanical engineer candidates are more prone to synchronous course situations than female engineer candidates.

3.3 Distribution of asynchronous course status of mechanical engineer programme candidates according to the gender variable

As seen in Table 6, the *t*-test was applied to find out that the mechanical engineer candidates' asynchronous course status does not differ according to gender.

Table 6. Distribution of mechanical engineer candidates' asynchronous course status according to gender

Mechanical Engineer Candidates	Gender	N	M	SS	sd	t	p
Asynchronous Course	Male	248	4.30	.568	460	-2.253	.022*
	Female	218	4.25	.596			

According to the results of the *t*-test applied in Table 6, it can be concluded that the difference in the gender variable dimension of the scores of the mechanical engineer candidates for the distance education asynchronous course was significant [t(460)= -2.253, p<.05]. When the arithmetic averages in the dimension of their asynchronous course in distance education are examined, it is seen that the average of male mechanical engineer candidates is M=4.30; female mechanical engineer candidates' asynchronous course status average is M=4.25, showing that male mechanical engineer candidates have high scores. Accordingly, it can be said that male mechanical engineer candidates are more prone to asynchronous course situations than female engineer candidates.

3.4 Opinions of the mechanical engineer programme candidates on the university distance education system

In this section, the opinions of the mechanical engineer programme candidates against the distance education system were taken and detailed information is given in Table 7.

Table 7. Opinions of mechanical engineer programme candidates on the distance education system

No	Distance Education System Opinions	M	S
1	Live lessons run in Microsoft Teams environments are more effective	4.50	0.51
2	Taking lessons in Microsoft Teams environments provides the opportunity to devote more time to my social life.	4.48	0.62
3	Instant correspondence and asking questions with the teacher who teaches the lesson in the Microsoft Teams environment is a very effective method.	4.41	0.59
4	Accessing the recording of the lesson taught in the Microsoft Teams environment is more effective in reinforcing the lesson.	4.43	0.63
5	With Microsoft Teams, it is an advantage for me to be able to learn information whenever and wherever I want.	4.35	0.61
6	I don't experience any disconnection during live lessons with Microsoft Teams.	4.49	0.65
7	I have the opportunity to learn how information technologies are used by taking lessons in the Microsoft Teams environment.	4.41	0.65
8	It gives me pleasure to chat with my friends while taking lessons in the Microsoft Teams environment.	4.36	0.69
9	I can watch course video recordings when they are uploaded in the Microsoft Teams environment.	4.41	0.60

10	I can download the contents of the course taught in the Microsoft Teams environment from the system whenever I want.	4.39	0.73
11	I find Microsoft Teams effective and useful	4.29	0.74
12	It gives me pleasure to be in the system as a virtual agent while the live lesson is being held in Microsoft Teams.	4.41	0.66
13	Raising hands in Microsoft Teams makes me feel like I'm in a formal education environment	4.41	0.59
14	I think that my communication is very effective in Microsoft Teams environment.	4.60	0.54
15	I believe that Microsoft Teams is very useful and effective for me in general.	4.43	0.63
16	Being simultaneously with my teacher in the Microsoft Teams environment increases my interest in the live lesson.	4.57	0.55
17	The materials used in the Microsoft Teams environment allow me to better understand the subject	4.41	0.59
18	Sharing files in the Microsoft Teams environment allows me to get feedback from other students while preparing my lecture presentations.	4.58	0.51
	Overall Average	4.44	0.63

As can be seen in Table 7, the opinions of the mechanical engineer programme candidates on the distance education system were taken and the table indicated that the opinions were high. Even if there is a significant difference in each statement, it was found that the highest expression 'I think my communication in Microsoft Teams is very effective' is M=4.60., and another value given by the mechanical engineer candidates for the distance education system is 'Sharing files in the Microsoft Teams environment allows me to get feedback from other students while preparing my lecture presentations' It was found that M=4.58. It was found that 'Being concurrently with my teacher in the Microsoft Teams environment increases my interest in the live lesson' M=4.57.

It is seen that distance education systems have become an advantage for university students. Another finding is that when considering the opinions of the mechanical engineer programme candidates, 'Raising hands in Microsoft Teams environment makes me feel like I am in a formal education environment', 'Instant correspondence and questioning with the teacher who teaches the lesson in Microsoft Teams environment. Asking is a very effective method', 'I can watch the video recordings of the lessons in Microsoft Teams when they are uploaded' and 'It gives me pleasure to be in the system as a virtual agent while the live lesson is being taught in Microsoft Teams' It is seen that M=4.41. In this context, all values in Table 7 have a positive meaning. Based on the findings, it can be said that the opinions of the mechanical engineer programme candidates about the distance education system are positive.

4   Discussion

Gökbulut's (2020) study aimed to determine the views of undergraduate and graduate distance education students about the education they received, and as a result, students who stated that the university's distance education infrastructure is technically very good; they also concluded that they had almost no technical problems and that

they liked the distance education system. It is also seen in the study that the studies carried out in this context are important for both distance education and university students and mechanical engineer candidates who will use it in the next generation [13].

In the study of Chaney et al. (2007), they aimed to evaluate the quality of distance education courses given in a university in the south of the United States, i.e., student attitudes, opinions and perceptions of distance education, and as a result, a model was created from the quality distance education system and ecological framework. It can be concluded that the quality of the systems and the attitudes of the students increased, when this result of the research was taken into consideration; it can also be concluded that the participation of the mechanical engineer programme candidates to the live lesson increased their interest in the lesson. The research conducted in 2007 is seen as a light for our article and it is seen to benefit the literature; distance education systems are being renewed and developed day by day; it is seen as the most powerful interpretation of this study [11].

In the study of Makedonas et al. (2021), it was aimed to investigate the students' views on the online tools and methodologies (platforms, software etc.) used to teach distance education courses and the effectiveness of simultaneous online education compared to traditional face-to-face teaching. They stated that the tools used were useful for the lesson, when this study was handled with the result of the research, it was concluded that the mechanical engineer programme candidates liked the Microsoft Teams application used and it was useful in the lessons. In this context, it can be said that these systems will be beneficial for students studying at the university [18].

The discussion environment is of great importance for every study, and in this research applied to mechanical engineer programme candidates, it was aimed to use distance education systems and a 4-week training was organised; it is important for students to have high success for both research and future studies, This study, which took place in the Turkish Republic of Northern Cyprus and the Russian Federation, is also expected to direct distance education.

5　Conclusion

When the results are considered, it is seen that there are people in the first results; the number of people is important for each study and reaching a large number of people and getting a common result is of great importance for the problem situation. Another result of the research determined the situations of technology use during the day; it is an important element that students use technology in today's situation; it is also an important factor that they do not fall behind in their education. In this age when education is in our pocket, students are not missing from their daily lives and the gains continue are directly proportional to this situation. The study group of mechanical engineering programme candidates were examined during the day, and it was concluded that the highest value (233 people) was for 7 or more hours.

It is emphasised that the dimensions of use and susceptibility are important in the studies; it is known that the use of an event and its functionality create permanent behaviours for education and for students. According to this, it was concluded that the

score of being inclined to distance education was M=4.35, while the score of not being able to use distance education environment was M=4.10. According to these results, it was concluded that the mechanical engineer programme candidates are inclined to distance education and they can use the environment, while it is concluded that these two values are an advantage for the mechanical engineer programme candidates. Another result of the research is that the difference between the scores of the mechanical engineer programme candidates for the distance education synchronous course in the dimension of the gender variable was examined and it was concluded that the difference was significant. It was concluded that the mechanical engineer programme candidates had higher than average values. In addition, it was investigated whether the difference in the gender variable dimension of the scores of the mechanical engineer programme candidates for the distance education asynchronous course was significant, and it was concluded that the difference was significant. When the arithmetic averages for the asynchronous course in distance education were examined, it was concluded that the average of male mechanical engineer programme candidates is higher than the asynchronous course status average of female mechanical engineer programme candidates. Synchronous and asynchronous are two elements that complement each other.

The opinions of the mechanical engineer programme candidates, which are the last value of the research, were taken on the distance education system and it was concluded that the opinions were high. According to the opinions, the mechanical engineer programme candidates thought that their communication was very effective in the Microsoft Teams environment and sharing files in the Microsoft Teams environment provided feedback from other students while preparing their course presentations. It was concluded that being in the Microsoft Teams environment simultaneously with their teacher increased their interest in the live lesson, raised their hands in the Microsoft Teams environment, they felt like they were in a formal education environment and being in the system as a virtual agent while the live lesson was being taught in Microsoft Teams gave them a positive response to the opinions. In this context, it has been concluded that the readiness of the mechanical engineer programme candidates for each value of the research is high as they use distance education systems actively in the course and they do not experience any difficulties. Finally, it is thought that this study supported by technology will be beneficial for the next generation. It is also expected to benefit the student population.

6 References

[1] Aguilera-Hermida, A. P. (2020). College students' use and acceptance of emergency online learning due to Covid-19. *International Journal of Educational Research Open*. Advance online publication. https://doi.org/10.1016/j.ijedro.2020.100011

[2] Anderson, T., & Rivera-Vargas, P. (2020). A critical look at educational technology from a distance education perspective. *Digital Education Review*, (37), 208-229. https://doi.org/10.1344/der.2020.37.208-229

[3] Aydin, H., Ogurlu, U., Andrew, K., Masalimova, A. R., Dorozhkin, E. M., & Malygin, A. A. (2019). High school students' perceptions of global citizenship in central public high

schools: Implications for teacher educators. *Revista de Cercetare si Interventie Sociala, 65,* 187-205. https://doi.org/10.33788/rcis.65.12

[4] Bąk, T., Kardis, M., Valco, M., Kalimullin, A. M., & Galushkin, A. A. (2019). A philosophical-sociological diagnosis of youth subcultures in the context of social changes. *XLinguae, 12(2),* 163-185. https://doi.org/10.18355/XL.2019.12.02.14

[5] Bates, T., & Glikman, V. (2021). Une histoire des technologies et des médias dans la formation à distance. *Médiations Et médiatisations*, (6), 12-34. https://doi.org/10.52358/mm.vi6.190

[6] Bayanova, A. R., Sivova, I. V., Kamasheva, Y. L., Popova, O. V., Semyanov, E. V., Shagieva, R. V., & Yusupov, I. D. M. (2020). Student Online Services Consumption: Routine Practices or Mistrust to Digital Service?. *Contemporary Educational Technology, 11(1),* 47-54. https://doi.org/10.30935/cet.641767

[7] Borelli, J., Lai, J., Yunusova, A., Rivera, A. P., Labbaf, S., Hu, S., ..., Rahmani, A. (2020). Nine months in the life of a college student during 2020: A case study using multi-modal assessments to capture personalized contexts of well-being. Advance online publication. https://doi.org/10.31234/osf.io/wb4ds

[8] Caliskan, S., Guney, Z., Sakhieva, R., Vasbieva, D., & Zaitseva, N. (2019). Teachers' views on the availability of web 2.0 tools in education. *International Journal of Emerging Technologies in Learning (iJET), 14(22),* 70-81. https://doi.org/10.3991/ijet.v14i22.11752

[9] Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry research, 287*, 112934. Advance online publication. https://doi.org/10.1016/j.psychres.2020.112934

[10] Çelik, B., & Uzunboylu, H. (2020). Developing an attitude scale towards distance learning. *Behaviour & Information Technology*, 1-9. https://doi.org/10.1080/0144929X.2020.1832576

[11] Chaney, B. H., Eddy, J. M., Dorman, S. M., Glessner, L., Green, B. L., & Lara-Alecio, R. (2007). Development of an instrument to assess student opinions of the quality of distance education courses. *The American Journal of Distance Education*, *21*(3), 145-164. https://doi.org/10.1080/08923640701341679

[12] Genç, Z., Masalimova, A., Platonova, R., Sizova, Z., & Popova, O. (2019). Analysis of documents published in scopus database on special education learning through mobile learning: A content analysis. *International Journal of Emerging Technologies in Learning (iJET), 14(22),* 192-203. https://doi.org/10.3991/ijet.v14i22.11732

[13] Gökbulut, B. (2020). Distance education students' opinions on distance education. In *Enriching Teaching and Learning Environments with Contemporary Technologies* (pp. 138-152). IGI Global. https://doi.org/10.4018/978-1-7998-3383-3.ch008

[14] Jiang, X., Zhuo, J., & Chen, H. (2015). Empirical study on the important function of mobile interactive model for MOOC. *Global Journal of Computer Sciences: Theory and Research*, *5*(1), 24–29. https://doi.org/10.18844/gjcs.v5i1.29

[15] Kayumova, L. R., Gainullina, L. N., Akhmadieva, R. S., Matvienko, V. V., & Kabakhidze, E. L. (2021). Using Interactive Platform "Round" to Organize Online Leisure Activities for Children During the Pandemic. *Eurasia Journal of Mathematics, Science and Technology Education*, *17*(10), em2016. https://doi.org/10.29333/ejmste/11182

[16] Keser, H., Bicen, H., & Caliskan, S. (2016). Determination of teacher candidates' opinions about the efficiency of virtual classes used in distance education. *Global Journal of Information Technology: Emerging Technologies*, *6*(2), 143–148. https://doi.org/10.18844/gjit.v6i2.1335

[17] Kirliauskiene, R., & Abramauskiene, J. (2020). Intuition in music education. *Global Journal of Arts Education*, *10*(2), 157–166. https://doi.org/10.18844/gjae.v10i2.4734

[18] Makedonas, C., Chasapis, S., Thodis, G., Diakonou, M. K., Fanidis, C., & Pouloudi, M. (2021). Opinions of the students of the Model High School "Evangeliki School of Smyrna" about the synchronous distance education during the Spring of 2020. https://doi.org/10.35542/osf.io/s75fp

[19] Muzammil, M., Sutawıjaya, A., & Harsasi, M. (2020). Investigating student satisfaction in online learning: the role of student interaction and engagement in distance learning university. *Turkish Online Journal of Distance Education*, *21*(Special Issue-IODL), 88-96. https://doi.org/10.17718/tojde.770928

[20] Okur, M. R., Aydin, S., & Gumus, S. (2016). Emerging student support trends on social media platforms in open education system. *New Trends and Issues Proceedings on Humanities and Social Sciences*, *2*(3), 27–33. https://doi.org/10.18844/gjhss.v2i3.1051

[21] Pulker, H., & Papi, C. (2021). L'histoire de l'université à distance pionnière au Royaume-Uni: l'Open University - Entretien avec Martin Weller. Médiations *Et médiatisations*, (6), 97-102. https://doi.org/10.52358/mm.vi6.204

[22] Rincon, V., & Barrutia, J. (2017). The Global Demand for Higher Education in European Countries. *Global Journal of Business, Economics and Management: Current Issues*, *7*(1), 209–216. https://doi.org/10.18844/gjbem.v7i1.1344

[23] Tavukcu, T., Kalimullin, A., Litvinov, A., Shindryaeva, N., Abraukhova, V., & Abdikeev, N. (2020). Analysis of Articles on Education and Instructional Technologies (Scopus). *International Journal of Emerging Technologies in Learning (iJET)*, *15*(23), 108-120. https://doi.org/10.3991/ijet.v15i23.18803

[24] Tugun, V., Bayanova, A., Erdyneeva, K., Mashkin, N., Sakhipova, Z., & Zasova, L. (2020). The opinions of technology supported education of university students. *International Journal of Emerging Technologies in Learning (iJET)*, *15*(23), 4-14. https://doi.org/10.3991/ijet.v15i23.18779

[25] Uzunboylu, H. (2007). Teacher Attitudes Toward Online Education Following an Online In-service Program. *International Journal on E-Learning, 6*(2), 267-277. Waynesville, NC USA: Association for the Advancement of Computing in Education (AACE). Retrieved August 31, 2021 from https://www.learntechlib.org/primary/p/19803/

[26] Yang, J., Wen, L., Volk, S., & Lu, J. (2021). Parent-subsidiary temporal closeness and expatriate staffing: the communication synchronicity effect. In *Academy of Management Proceedings* (Vol. 2021, No. 1, p. 12767). Briarcliff Manor, NY 10510: Academy of Management. https://doi.org/10.5465/AMBPP.2021.12767abstract

[27] Yuzer, T. V., Firat, M., & Dincer, G. D. (2016). Use of Social Networks in Open and Distance Education: What Sociology Students Share?. *New Trends and Issues Proceedings on Humanities and Social Sciences*, *2*(3), 39–44. https://doi.org/10.18844/gjhss.v2i3.1052

7   Authors

Daniel Sekyere-Asiedu, Department of Computer Information Systems, Near East University, Lefkosa, North Cyprus. He is doctoral student and he is from Ghana (ORCID: https://orcid.org/0000-0002-9721-2629).

Nikolay A. Mashkin is a Doctor of History and Professor with the Department of State and Legal Disciplines at Plekhanov Russian University of Economics. He is well known in Russia for his scientific works dedicated to the different problems of business law, commercial law and corporate right. He has more than 50 articles published in

international journals and conference materials (email: Mashkin.NA@rea.ru, ORCID ID: https://orcid.org/0000-0003-4890-1791).

Elena V. Mochelevskaya is a PhD in Philology and Associate Professor with the Department of Economics of Mechanical Engineering at the Kazan National Research Technical University named after A.N. Tupolev – KAI. Her main scientific and professional interests are connected with professional educational programmes, accreditation procedures and language education. She actively studies the problems of adult education, teacher education and educational environment possibilities. She has more than 60 published articles in Russian and international journals (email: x.alena@mail.ru, ORCID: https://orcid.org/0000-0002-0829-8169).

Marina G. Petrova is a PhD in Education and Associate Professor with the Department of Foreign Languages in Theory and Practice of the Institute of Foreign languages, Peoples' Friendship University of Russia. She is the founder of TV studio ARTIST, author and producer of educational and scientific TV programmes for children and youth, documentaries and shows. Her research interests include artificial intelligence in education, digital content creation in the multifunctional TV studio, Intralinguodidactics, learning games, e-assessment, teacher inquiry and learning analytics. She is a member of the International Federation of Journalists, the Eurasian Society of Applied Linguistics (EALS) and the Association of academic writing experts 'National writing Centres consortium'. She has been a PI for numerous national and international projects, including the Erasmus+: AI in FLT. She has more than 60 published articles in Russian and international journals (email: petrova-mg@rudn.ru, ORCID: https://orcid.org/0000-0002-9147-6199).

Marina R. Zheltukhina is a Dr.Sc. (Philology), Professor and Member of the Russian Academy of Natural Sciences, Professor of the English Philology Department, Institute of Foreign Languages, Volgograd State Socio-Pedagogical University and with Moscow City University, Moscow, Russia. She is also the Head of the Research Laboratory on 'Discourse Linguistics' and Director of the Centre for Communicative Technologies. Her research interests are socio-, psycho- and pragma linguistics; cognitive linguistics; political; business; advertising discourse and media discourse; theories of influence; manipulation; verbal and non-verbal suggestiveness; theory of the comic (humour, irony, satire and sarcasm); cultural semiotics; cultural anthropology; intercultural communication; educational innovations; judicial linguistic examination; globalisation linguistics; distance education and e-learning. She actively studies the problems of adult education, teacher education and educational environment possibilities. She is a member of the dissertation councils for the award of scientific degrees in Moscow and Maikop. She has more than 500 published articles in Russian and international journals (email: zzmr@mail.ru, ORCID: https://orcid.org/0000-0001-7680-4003).