

FOREIGN LANGUAGE FOR SPECIFIC PURPOSES COURSES IN THE SPECIFIC CIRCUMSTANCES CAUSED BY THE COVID-19 PANDEMIC

Vesna Đurović, Banja Luka College, vesna.djurovic@blc.edu.ba

Slavica Išaretović, Banja Luka College, slavica.isaretovic@blc.edu.ba

Zorana Agić, Banja Luka College, zorana.agic@blc.edu.ba

Original scientific paper

DOI: 10.31902/fl.42.2022.8

UDK 81'232:[371.3:004.738.5

Abstract: The Covid-19 pandemic resulted in the closure of educational institutions around the world. Policies of social distancing and restrictive movement made it impossible to teach in the traditional way in the classroom, and forced higher education institutions to organize classes using digital technologies. The transition to online teaching was a great challenge for both teaching staff and students, but it also paved the way for the introduction of digital teaching and learning. This research aims to evaluate and compare the success of those students who attended traditional classes before the pandemic and the success of the students who attended online classes during the pandemic. The data were collected for a group of students who attended the first part of the Foreign Language Course 1 in traditional classes in the period March - June 2019, as well as data on the same group of students who attended the Foreign Language Course 2 online in the period March - June 2020. The data were processed using the IBM SPSS Statistics statistical programme. In order to get the results, i.e. to answer the main research question of whether the way of conducting and monitoring classes affects the success of students, a T-test of paired samples was conducted. The obtained results show that there is a significant difference in the success of the students who attended classes in two different ways. Given the uncertain epidemiological situation, it is necessary to adequately prepare for the next academic year. The paper presents suggestions for improving online teaching and learning.

Keywords: traditional learning, online learning, foreign language of profession, the Covid-19 pandemic

Introduction

The Covid-19 pandemic spread very quickly and affected almost all countries, and locking strategies were used as necessary actions to control disease transmission.

Measures of lock down and social distancing have also led to the closure of educational institutions in most countries. Globally, the Covid-19 pandemic has affected about 1.6 billion students in more than 200 countries (Pokher and Chhetri 133-141), and about 500,000 students in Bosnia and Herzegovina stopped attending classes in March 2020. During that period, classes were suspended at higher education institutions as well, but the teaching process continued very quickly in virtual classrooms. The rapid transition to online teaching has decreased the damage caused by the interruption of the teaching process, but the consequences at the economic and social level will still be long-term. Although information and communication technologies were used in higher education even before the pandemic, online teaching has become a novelty for both students and teachers. It is only during online classes that most teachers have begun to accept the fact that in the coming period the educational process of young people must be directed towards building competencies that differ from those that have been dominant so far. The European Commission has set out eight key competencies that every European citizen should have in order to prosper in a knowledge-based society and economy.

The mentioned competencies include: the ability to communicate in mother tongue and foreign languages, built core competencies in mathematics, science and technology, digital competencies, interpersonal and intercultural skills (European Commission 3).

Computer literacy skills holds a significant place, which became very important during the pandemic. However, the great opportunities provided by information technology are not sufficiently used in many development countries (Muller, Schindler and Slany 7721-7730), and the main reason is the insufficient technical equipment of educational institutions and poor training of teachers for their application.

The main obstacle to greater integration of information and communication technologies into the education system is their cost, as educational institutions generally have a small amount of funding. Despite the high cost, the introduction of information and communication technologies in education is necessary and represents an imperative for the future period in which interruptions in education caused by the Covid-19 pandemic, which is still ongoing, can be expected again. It is safe to say that the Covid-19 pandemic caused unprecedented disruptions in education, but at the same time initiated the transformation of traditional education. Therefore, it should be seen as an opportunity for all countries, including Bosnia and Herzegovina, to review traditional educational practices and accelerate the process of digitalization and innovation in this sector.

Digitization of education is a great challenge for all countries and for all education systems, but also for educators who need professional training in order to better prepare for the period ahead.

Many believe that online teaching will continue after the pandemic, that is, that a new hybrid model of education will emerge (G. R. Said 4).

Therefore, it is necessary to find out whether the success of students depends on the way of teaching, and if so, whether students achieve better results during traditional or online classes. This is the goal of this research, which analyses the success of a group of students who followed a foreign language in traditional classes before the pandemic and online classes during the pandemic. The obtained results can be used by foreign language teachers during the preparation of classes for the next academic year.

The paper is divided into five parts. After the first, introductory part, an overview of previously conducted research is given, which is the basis for the conducting of this research. After that, the methodology used was described, and the obtained results were presented. Based on the results, conclusions were formulated and a proposal of measures for the improvement of online teaching and learning in the coming period was given.

Literature review

The information society is a force that has changed many aspects of the way we live today (Oliver 6), and information technology became an important element in education in the early twentieth century. The application of information and communication technologies in education has become especially important after the outbreak of the Covid-19 pandemic in early 2020. Although teachers and students used technology before the pandemic, they faced a number of problems when the teaching process was transformed overnight from traditional to online. At that time, not many thoughts were given to the problem itself, but the best possible solution was sought to solve it, so that teaching could be realized and knowledge acquired. The Covid-19 pandemic launched a digital revolution in higher education, but most universities and colleges were not ready for it.

The transition to online teaching has attracted the attention of academic circles, and scientists around the world have conducted various researches on the challenges, problems, advantages and disadvantages of this way of learning and teaching.

The challenges of online learning related to accessibility, availability, flexibility, learning pedagogy, lifelong learning and educational policy have also been identified (Murgatroid 7).

In less developed countries, including Bosnia and Herzegovina, there is also the problem of unavailability and unreliability of the Internet connection, and a number of students cannot afford an online learning device. Research has shown that the technical equipment students need for online learning is a very important factor influencing their perception of online learning (Velichova, Orbanova and Kubekova 1633-1639). The availability and quality of equipment and the internet connection greatly affect the quality of acquired knowledge and the results that students achieve in this way.

At the beginning of the pandemic, there were fears that students would find teachers less demanding during online classes compared to traditional teaching conditions, but research showed that students felt that teachers' demands during online classes were greater than their demands in traditional classes (Velichova, Orbanova and Kubekova 1633-1639).

In addition, it was predicted that the level of academic success of students in the final exam and at the end of the year would be reduced due to lack of contact between students and teachers, as well as lack of consultation with teachers when students face difficulties in learning or understanding the material (Sintema 10).

Therefore, several studies have been conducted comparing the success of the final exam in students who followed traditional and online classes. The results of the conducted research mostly show that there are no significant differences in the success of students, i.e., that their success does not depend on the way they followed the lessons. This is the result that Cavanaugh and Jacquemin (2015), Soesmanto and Bonner (2019), Lorenzo-Alvarez et al. (2019) and Said (2021) (Cavanaugh and Jacquemin 6), (Soesmanto and Bonner 90), Lorenzo-Alvarez, Rudolphi-Solero and Ruiz-Gomez (644-650), (G. R. Said 8) came up with. On the other hand, Nyer (2019) came to the conclusion that the rapidly created methods of online teaching had the effect of reducing student performance compared to student performance during traditional teaching (Nyer 1648-1656). So far, only one survey has been conducted on the success of students who attended traditional classes before the pandemic, and online and combined classes during the pandemic in Bosnia and Herzegovina. The obtained results show that the students achieved the best success in traditional teaching, because working in classrooms is much closer to them and allows them to communicate "face to face" with teachers (Išaretović, Đurović and Agić 703-713).

Students' experiences during online classes are divided. The results of Xiong, Mok and Jiang research suggest that fewer students (about 27% of respondents) had a positive experience with online learning, while more (about

60% of respondents) who believe that the effectiveness of online learning is worse than the effectiveness of traditional learning (Xiong, Mok and Jiang 11). On the other hand, there are research results that show that students enjoyed online teaching methods, that they accepted online learning very well and that they became more independent in learning (Samarasinghe and Piri 6). Samarasinghe and Piri in their research results showed that students enjoyed online teaching methods, that they accepted online learning very well and that they became more independent in learning.

Although students' opinions differ, most teachers agree with the fact that they had problems conducting online classes (Korkmaz and Toraman 293-309).

One of the problems is related to the use of web platforms (Microsoft Teams, Google classroom, Zoom and similar) through which teachers taught and students followed classes. The problems arose because neither of them used the mentioned platforms in the educational process before the pandemic, and during the pandemic they could not attend adequate training for their use.

Although both teachers and students pointed out the lack of practice in online education, both groups showed a positive attitude towards change and pointed out that they quickly adapted to the transition to online teaching (Hjelsvold, Bahmani and Loras 9).

It is likely that online education will become a normal practice in regular circumstances as well. Online education represents the digital transformation of the traditional education system into a new one (Alsoud and Harasis 1404-1414), and this method of learning and teaching allows teachers to use the Internet when giving teaching materials to their students (Ompusunggu and Sari 58-66).

The rapid development and application of advanced information technologies, such as digital libraries and electronic publishing, will influence changes in the organization of online education and the way teachers teach and evaluate students (Lang and Zhao 103-127). Besides that, the application of new technologies should contribute to improving efficiency and effectiveness, as well as encouraging students to be more active during the class and to his independent work (Viduka, Ličina and Kraguljac 40-49).

Without a doubt, the Internet has enabled educational institutions to share knowledge that is available to all students regardless of their financial status and thus reduce the digital difference between them (Zakoath, Best and Geib 6). The obstacle to the introduction of online education is insufficient digital literacy of both teachers and students. The importance of digital literacy is especially emphasized in the academic literature, and positive effects on student's

motivation are identified (Royo, Sicilia and Sime 10). As Glister implies digital literacy does not only suggest the use of devices, but the ability of an individual to understand and use information in several formats, paying more attention to critical thinking in communication, using technological skills (Glister 8).

The results of available empiric research showed that students with a higher level of digital literacy and higher income were more satisfied with the efficiency of online learning compared to those with a lower level of digital literacy and income (Xiong, Mok and Jiang 14). Undoubtedly, online education will be present in some higher education institutions even after the Covid-19 pandemic, because it has numerous advantages, such as ensuring the continuity of education (Akinbadewa and Sofoworo 119-133), ensuring lifelong learning (Serhan 57-62) and decreasing the costs connected to traditional education (La-Husban 82-91). In addition to the above, there are other advantages of distance learning in the literature, including the ability to learn from anywhere at any time, saving money and time, and flexibility in choosing subjects. However, this way of learning and teaching has certain shortcomings related to the use of complicated technology, the possibility of interference during classes, lack of social interaction and difficulties in maintaining contact with the teacher (Sadeghi 80-88).

Higher education institutions must be prepared for the difficult path that will follow the Covid-19 pandemic, as their decisions will shape and guide the future of their students (Pavlović, Ivanišević and Radišić 189-192).

Some authors believe that the sudden transition to online teaching during the Covid-19 pandemic is a social phenomenon (Shahzad, Hassan and Aremu 805-826) but there are already recommendations that, with appropriate teacher training and technology support, both traditional and online classes should be conducted for individual subjects (Tan, Du and Jan 19-40). By implementing this plan, vital educational goals could be achieved, such as reducing the density of students in the classroom, improving the expertise of teachers and technological infrastructure of educational institutions and the gradual transformation of aforementioned students into lifelong learning students.

Research methodology

The Covid-19 pandemic caused the biggest disruption of education in modern history (Dušanić-Gačić and Agić 81-90), but also opened the door to online teaching at most higher education institutions around the world. Almost overnight, traditional teaching was completely transformed into online teaching, and teachers and students did their best to adapt to the new situation and the new way of teaching and learning.

Recent literature generally indicates the negative impact of the Covid-19 pandemic on education, but it should also be seen as an opportunity to accelerate the digitization of education. Research conducted before the pandemic showed a high level of exposure of young people to digital content (Išaretović 69-80), so they are almost ready to use digital teaching materials. In the coming period, it is necessary to train teachers and students to freely use advanced software for teaching and learning, because the Covid-19 pandemic is still ongoing and possible disruptions in education are possible. In addition to training teachers and students for online teaching, it is necessary to develop and further strengthen mechanisms for monitoring education because most education authorities have stated that they have no insight into the manner of teaching in higher education. Given the lack of data on online teaching in Bosnia and Herzegovina, a survey was conducted to compare student achievement during traditional and online teaching.

The research is based on the hypothesis that there is no statistically significant difference between the success achieved by students during traditional teaching and the success achieved by students during online teaching. Prior to the research, basic demographic data on students were collected, as well as data on success achieved during traditional classes before the pandemic (March - June 2019) and data on success achieved during online classes during the pandemic (March - June 2020). The data used in the research were collected by professors of a private higher education institution in Bosnia and Herzegovina, which gave its consent for anonymous data processing and publication of results for academic purposes.

A total of nine variables were included in the research: gender of the student (*sex*), number of points in the first colloquium in traditional teaching (*Colloquium 1 – Traditional*), points from the second colloquium in traditional teaching (*Colloquium 2 – Traditional*), points from the final exam in traditional teaching (*Final exam – Traditional*), the final grade in traditional teaching (*Grade – Traditional*), points on the first colloquium in online classes (*Colloquium 1 – Online*), points on the second colloquium in online classes (*Colloquium 2 – Online*), points on the final exam in online classes (*Final Exam – Online*) and the final grade in online classes (*Grade – Online*). Using the collected data, a comparison was made of the success achieved by one group of students in two, interconnected, subjects that were realized in two ways (traditional and online). Traditional classes were conducted in the classroom in the spring of 2019, and online classes were held in the spring of 2020. During online classes, lectures and exercises were held in the form of meetings on the platform *Microsoft Teams*, and all materials were available on the already mentioned platform and the platform *Moodle*. Regardless of the way of teaching, students were able to attend 30 hours of lectures and 45 hours of exercises during the semester

in both subjects, and the final exam was held in the traditional way, at the headquarters of the higher education institution.

Student grading was identical in both cases. The total number of points on the course is 100, and it represents the sum of points from the first colloquium (up to 20 points), points from the second colloquium (up to 20 points), points for attendance and activity (up to 10 points) and points from the final exam (50 points). It should be emphasized that the authors in this study did not specifically consider the presence and activity of students in lectures and exercises. Based on the number of points achieved by students during the semester, the subject teachers formed the final grades as follows: grade 5: 0 - 50 points, grade 6: 51 - 60 points, grade 7: 61 - 70 points, grade 8: 71 - 80 points, grade 9: 81 - 90 points and grade 10: 91 - 100 points. Only the first grade, grade 5, is insufficient and if the student gets it, it is considered that s/he has not passed the exam.

The main research question in this study is whether there is a difference in the success of students who attended classes in two different ways, i.e., traditionally in the classroom and online. In order to obtain the concrete answer, a T-test of paired samples was conducted, which is used to compare the mean values of the characteristics of the same group of people in two different situations. The square was used for calculation of the student's achievement influence. To present basic demographic data of students, descriptive statistics was used, which is incorporated when there is a large amount of data to be organized, interpreted and summarized (Holcomb 68). In addition to the above, the Chi-square test method was used to compare the distribution of grades that students received in the final exam, after following the traditional and online classes. The data used in the research were collected by the subject teachers, and they were processed using statistical program *IBM SPSS Statistics Version 26*. The results of the research are given below.

Results and discussion

In order to answer the main research question of whether there is a difference in the success of students who attended classes in two different ways, a T-test of paired samples was conducted. Data on the success of a group of students who traditionally attended classes in Foreign Language for Specific Purposes Course 1 were collected in the period from March to June 2019, and classes in Foreign Language for Specific Purposes Course 2 were followed online in the period from March to June 2020. Data on the success of 108 students were presented of which 65 students (60.2%) were female and the remaining 43 students (39.8%) were male. In addition to demographic data on the observed group of students, the authors analysed the number of points achieved by students during the semester and their final grades in the final exam, in order to determine whether student success depends on the way

they attended classes. Basic deviation data (mean and standard deviation) were obtained using descriptive statistics, the comparison was performed using the t-test, and the comparison of the distribution of scores was performed using the Hi-square test. The results of descriptive statistics, the T-test and the Hi-square test are given below, respectively. The observed group of students followed the teaching of a foreign language in two ways - during the spring of 2019, students followed only traditional classes in the classroom, and during the spring of 2020, they followed only online classes. Data on the success they achieved in the knowledge tests (points from the first and second colloquium and points from the final exam) were collected, and on the basis of which the subject professors formed the final grades. The data were compared with descriptive statistics, and the results are given in Table 1.

	<i>N</i>	<i>MIN</i>	<i>MAX</i>	<i>Mean</i>	<i>St. dev.</i>	<i>Std. Error Mean</i>
<i>Colloquium 1 – Traditional</i>	108	5	20	16,68	3,509	,338
<i>Colloquium 2 – Traditional</i>	108	4	20	16,69	3,479	,335
<i>Final exam – Traditional</i>	108	18	50	37,96	8,789	,846
<i>Grade – Traditional</i>	108	5	10	8,56	1,698	,163
<i>Colloquium 1 – Online</i>	108	1	20	15,20	4,561	,439
<i>Colloquium 2 – Online</i>	108	2	20	15,10	4,859	,468
<i>Final exam – Online</i>	108	0	46	33,84	11,706	1,126
<i>Grade – Online</i>	108	5	10	8,00	1,986	,191

Table 1. Results of descriptive statistics
Source: Authors' work

The obtained results show that the average number of points achieved in the first colloquium during traditional classes (Mean = 16.68, St. dev. = 3.509) is higher than the average number of points achieved in the first colloquium during online classes (Mean = 15.20, St. dev. = 4,561). In addition, the average number of points achieved in the second colloquium during traditional classes (Mean = 16.69, St. dev. = 3,479) is higher than the average number of points achieved in the second colloquium during online classes (Mean = 15.10, St. dev. = 4,859). Students achieved better results in the final exam they took after traditional classes (Mean = 37.96, St. dev. = 8,789) compared to the results of the final exam they took after online classes (Mean = 33.84, St. dev. = 11,706). Based on the above, it is clear that the average grade in traditional teaching (Mean = 8.56, St. dev. = 1,698) is higher than the average grade in online teaching (Mean = 8.56, St. dev. = 1,986) because final grades formed on the basis of success accomplished during the semester.

The results of descriptive statistics show that students had on average a higher number of points on knowledge tests that were organized in the period when classes were monitored in the traditional way compared to knowledge tests that were organized in the period when classes were monitored online. However, in order to reliably answer the question of whether the success of the observed group of students depends on the way they followed the classes, the collected data were compared using a t-test of paired samples. The results of the t-test will show whether there is a statistically significant difference in the mean values of points and grades that students received during traditional classes and online classes. The obtained results are presented in Table 2, and when interpreting the results, it is necessary to connect them with the results of descriptive statistics that were previously presented.

	<i>Mean</i>	<i>St. dev.</i>	<i>Lower</i>	<i>Upper</i>	<i>T</i>	<i>df</i>	<i>Sig (2-tailed)</i>
<i>Colloquium 1 – Traditional</i> <i>Colloquium 1 – Online</i>	1,472	5,089	,501	2,443	3,007	107	0,003
<i>Colloquium 2 – Traditional</i> <i>Colloquium 2 – Online</i>	1,583	5,089	,613	2,553	3,236	107	0,002
<i>Final exam – Traditional</i> <i>Final exam – Online</i>	4,120	13,917	1,466	6,775	3,077	107	0,003
<i>Grade – Traditional</i> <i>Grade – Online</i>	,565	2,389	,109	1,020	2,457	107	0,016

Table 2. T-test results
Source: Authors' work

The T-test of paired samples was used to assess the impact of the way the students follow the success of the course during the semester. In other words, it was assessed whether the number of points that students achieved in the knowledge tests and their final grades depend on the way they followed the classes. The presented results show that there is a statistically significant difference between the success achieved by students during traditional teaching and the success achieved during online teaching. The t-test was used to determine a statistically significant decrease in the number of points that students had on knowledge tests during online classes, compared to the number of points they had on knowledge tests during traditional classes.

The obtained results show that there is a statistically significant decrease in the number of points in the first colloquium from the period when classes were conducted in the classroom (Mean = 16.68, St. dev = 3.509) to the period when

classes were held online (Mean = 15.20, St. dev. = 4,561), $t(107) = 3,007$, $p = 0.003$. The average decrease in the number of points at the first colloquium was 1,472 points, and it was determined that the impact of the way of monitoring classes on the achieved results is moderate (this square is 0.08). The situation is similar with the number of points that students achieved in the second colloquium. The results of the t-test show that there is a statistically significant decrease in the number of points in the second colloquium from the moment when students followed classes in the traditional way (Mean = 16.69, St. dev. = 3,479) to the moment when they followed online classes (Mean = 15, 10, St. dev. = 4,859), $t(107) = 3,236$, $p = 0.002$. The average decrease in the number of points in the second colloquium is 1,583 points, and the value of eta squares (0.09) shows that this is a moderate impact of the way of monitoring classes on the results achieved in the second knowledge test.

After taking the first and second colloquium, the students had the final exam. The results of the t-test show that they had a lower number of points in the final exam they took after online classes (Mean = 33.84, St. dev. = 11.706) by 4,120 points compared to the points from the final exam after traditional classes (Mean = 37.96, St. dev. = 8.789). The obtained value of the eta square (0.08 for $t = 3.077$) also indicates a moderate influence of the way of monitoring teaching on the results achieved in the final exam. Accordingly, it could be expected that students' grades were lower in the period when they followed online classes (Mean = 8.00, St. dev. = 1.986) compared to the period when they followed traditional classes (Mean = 8.56, St. dev. = 1,698). This was confirmed by the obtained results, which show that the grades were reduced by an average of 0.565, and this square shows that the way of monitoring classes affects student success in a small percentage of 5.34%.

The Chi-square test method was used to compare the grades of the observed group of students, but also to determine whether there is a statistically significant difference in the distribution of grades. An overview of the distribution of grades for students who first attended traditional and then online classes is given in Table 3.

Period	GRADE								
		5	6	7	8	9	10	Success	Fall
Traditional education	Count	8	13	4	18	15	50	100	8
	%	7,4%	12,0%	3,7%	16,7%	13,9%	46,3%	92,6%	7,4%
Online education	Count	16	21	8	9	10	44	92	16
	%	14,8%	19,4%	7,4%	8,3%	9,3%	40,7%	85,2%	14,8%

Table 3. Overview of the distribution of grades

Source: Authors' work

The result of the Hi-square test shows that there is a statistically significant difference between the grades obtained by students in the final exam held after traditional classes and the grades they received in the final exam after online classes ($N = 108$, Chi-Square = 5,020, $df = 5$, $p = 0.013$). The correlation coefficient (Phi coefficient = 0.216) indicates a small impact, i.e. a weak correlation between students' grades and the way they attended classes. Based on the presented data, it can be concluded that the observed group of students achieved better success during the traditional classes they attended in the classroom.

After conducting the overall analysis, it can be concluded that there is a statistically significant difference in the success of students who first attended traditional and then online classes. Using the t-test of paired samples, the influence of the way of monitoring the teaching on the success that students achieved in the knowledge tests during the semester was assessed. There was a statistically significant decrease in the number of points that students had on knowledge tests from the period when they followed the classes in the traditional way to the period when they followed the online classes. Furthermore, with the help of the Chi-square test, it was determined that the students had better grades on the knowledge tests that were organized after the classes that they had followed in the traditional way in the classroom. It is important to note that the obtained result was confirmed in previously conducted research which shows that students achieved a better result on the final exam, which was organized after following the classes in the traditional way (Nyer 1648-1656, Išaretović, Đurović and Agić 703-713). Therefore, in the following period it is necessary to use possibilities that digital technologies offer, in order to upgrade the quality of digital technology while students reach the same level of knowledge obtained in the traditional way of teaching (Živković and Stojković 70-76). The authors of this paper imply that not only digital technology should be upgraded, but also the knowledge and skills of students and professors in digital technology.

Conclusion

The research was conducted with the aim of assessing and comparing the success of a group of students who followed traditional classes before the pandemic, and the one attending online classes during the pandemic. The obtained results show that this sudden transition from the traditional to the online way of monitoring classes did not result in poor student success, as expected at the beginning of the pandemic. Nevertheless, the results show that students had a better performance on the knowledge tests organized in traditional classes. The result obtained is a bit unexpected because students were born and raised in a digital environment.

Some professors believe that students achieve better results in traditional teaching because they are used to this way of working (Išaretović, Đurović and

Agić 703-713), and there are those who think that students are not interested in online learning because it is less enjoyable than traditional (Hasan and Bao 1-9).

The Covid-19 pandemic caused major disruptions in education, but also accelerated its transformation. Without a doubt, online learning and teaching of students will be present in the coming period as well, because some universities and faculties have started to apply this way of working in order to attract more students. Therefore, it is necessary to increase the quality of online teaching. Universities and faculties have a big role in that process. They should increase the speed of the Internet connection, buy licenses and e-learning tools, organize training for students and professors and enable better channels of communication between students and professors. Professors need to put a lot of effort into finding new teaching methods, increasing attendance and interactivity in online lectures, and instructing students in regard to assignments, colloquia, and exams during online classes. All that remains for students is to accept this way of working, regularly attend and be active in online classes, and ask for help if there are any ambiguities or problems. If universities, colleges, professors and students are actively involved in the process of transforming education, the quality of online teaching will increase and reach the quality of traditional education.

WORKS CITED

- Akinbadewa, Bukola, and Sofoworo Olaniyi Alaba. "The Effectiveness of Multimedia Instructional Learning Packages in Enhancing Secondary School Students' Attitudes toward Biology." *International Journal Student Education* 2 (2020): 119-133.
- Al-Husban, Naima Ahmad. "Critical Thinking Skills in Asynchronous Discussion Forums: A Case Study." *International Journal Technology Education* 3 (2020): 82-91.
- Alsoud, Anas Ratib, and Ahmad Ali Harasis. "The Impact of Covid-19 Pandemic on Student's E-Learning Experience in Jordan." *Journal of Theoretical and Applied Electronic Commerce Research* 16 (2021): 1404-1414.
- Cavanaugh, Joseph, and Stephen Jacquemin. "A Large Sample Comparison of Grade Based Student Learning Outcomes in Online vs. Face-to-face Courses." *Online Learning* 19.2 (2015): 1-8.
- Dušanić-Gačić, Svetlana, and Zorana Agić. "Finansiranje obrazovanja tokom pandemije Covid-19." *Aktuelnosti* 39 (2021): 81-90.
- European Commission. "DG Information Society and Media at a Glance." *DG Information Society & Media*, February 2006. Available at: https://ec.europa.eu/information_society/doc/factsheets/001-dg-glance-en.pdf.
- Glister, Paul. *Digital Literacy*. New York, USA: Wiley Computer Pub, 1997.
- Hasan, Najmul, and Yukun Bao. "Impact of "E-Learning Crach-up" Perception on Psychologic Distress among College Students during Covid-19 Pandemic: A Mediating Role of "Fear of Academic Year Loss"." *Children and Youth Services Review* 118 (2020): 1-9.

- Hjelsvold, Rune, et al. "Online Teaching and Learning: First Impressions from Educators and Students as NTNU Transitions to an Online Only Mode of Learning." 30 April 2020. *Centre for Excellent IT Education*. 28 May 2021. Available at: <https://www.ntnu.edu/excited/first-impressions-from-educators-and-students-as-ntnu-transitions-to-an-online-only-mode-of-learning>.
- Holcomb, Zealure. *Fundamentals of Descriptive Statistics*. Oxfordshire: Routledge, 2016.
- Išaretović, Slavica. "Značaj medijske pismenosti u infodemiji." *Aktuelnosti* 39 (2021): 69-80.
- Išaretović, Slavica, Vesna Đurović, and Zorana Agić. "Impact of the Covid-19 Pandemic on Higher Education: The Case of Republic of Srpska." *Journal of Teaching English for Specific and Academic Purposes* 9.4 (2021): 703-713.
- Korkmaz, Güneş, and Çetin Toraman. "Are We Ready for the Post-Covid-19 Educational Practice? An Investigation into What Educators Think as to Online Learning." *International Journal of Technology in Education and Science (IJTES)* 4.4 (2020): 293-309.
- Lang, Karl, and Leon Zhao. "The Role of Electronic Commerce in the Transformation of Distance Education." *Journal of Organizational Computing and Electronic Commerce* 10.2 (2000): 103-127.
- Lorenzo-Alvarez, Rocio, Teodoro Rudolphi-Solero, Miguel Ruiz-Gomez, and Francisco Sendera-Portero. "Medical Student Education for Abdominal Radiographs in a 3D Virtual Classroom versus Traditional Classroom: A Randomized Controlled Trial." *American Journal of Roentgenology* 213.3 (2019): 644-650.
- Muller, Matthias, Christian Schindler, and Wolfgang Slany. "Engaging Students in Open Source: Establishing FOSS Development at a University." *Proceedings of the 52nd Hawaii International Conference on System Sciences*. 2019. 7721-7730, Available at: <http://hdl.handle.net/10125/60210>
- Murgatroid, Stephen. *Covid-19 and Online learning*. Alberta, March 2020. Available at: https://www.researchgate.net/publication/339784057_COVID-19_and_Online_Learning.
- Nyer, Prashanth. "The Relative Effectiveness of Online Lecture Methods on Student Test Scores in a Business Course." *Open Journal of Business and Management* 7.4 (2019): 1648-1656.
- Oliver, Ron. "The Role of ICT in Higher Education for the 21st Century: ICT as a Change Agent for Education." 2002, Available at: https://www.researchgate.net/publication/228920282_The_role_of_ICT_in_higher_education_for_the_21st_century_ICT_as_a_change_agent_for_education
- Ompusunggu, Vera Dewi Kartini, and Nazmi Sari. "Effectiveness of Edmodo-Based E-Learning Use on Mathematical Communication Skills." *Journal Curere* 3 (2019): 58-66.
- Pavlović, Aleksandra, et al. "Impact of Covid-19 and On-line Learning on Higher Education in Serbia." *XXVII Skup Trendovi razvoja: On-line nastava na univerzitetima*. Editor: Vladimir Katić, Novi Sad, 2021. 189-192.
- Pokher, Sumitra, and Roshan Chhetri. "A Literature Review on Impact of Covid-19 Pandemic on Teaching and Learning." *Higher Education for the Future* 8.1 (2021): 133-141.
- Royo, Carolina, et al. "Digital Wellbeing Educators: A Compendium of Best Practices." *E-Journal of University Lifelong Learning* 3.1. Portugal: Averio, 2019: 13-18.

- Sadeghi, Manijeh. "A Shift from Classroom to Distance Learning: Advantages and Limitations." *International Journal of Research in English Education* 4 (2019): 80-88.
- Said, Ghada Rafea El. "How Did the Covid-19 Pandemic Affect Higher Education Learning Experience? An Empirical Investigation of Learners' Academic Performance at a University in a Developing Country." *Advances in Human - Computer Interaction* (2021): 1-10.
- Samarasinghe, Don Amila Sajeevan, and Imelda Piri. "Online Learning Experience of Construction Students during the Covid-19 Pandemic." *Conference: Unitec Research Symposium*. 2020: 1-16.
- Serhan, Derar. "Web-Based Homework Systems: Students' Perceptions of Course Interaction and Learning in Mathematics." *International Journal Social Education Science* 1 (2019): 57-62.
- Shahzad, Arfan, et al. "Effects of Covid-19 in E-learning on Higher Education Institution Students: The Group Comparison between Male and Female." *Quality & Quantity* 55 (2020): 805-826.
- Sintema, Edgar John. "Effect of Covid-19 on the Performance of Grade 12 Students: Implications for STEM Education." *EURASIA Journal of Mathematics, Science and Technology Education* 16.7 (2020): 1-6.
- Soesmanto, Tommy, and Suzanne Bonner. "Dual Mode Delivery in an Introductory Statistics Course: Design and Evaluation." *Journal of Statistics Education* 27.2 (2019): 90-98.
- Tan, John, et al. "Contributing Factors on the Effectiveness of Delivering Business Technology Courses: On-Ground Versus Online." *International Journal of Accounting and Financial Reporting* 9.4 (2019): 19-40.
- Velichova, L'udmila, Darina Orbanova, and Anna Kubekova. "The Covid-19 Pandemic: Unique Opportunity to Develop Online Learning." *TEM Journal* 9.4 (2020): 1633-1639.
- Viduka, Dejan, Boris Ličina, and Vladimir Kraguljac. "Open Model of Education Using Open Source Principles." *Trendovi u poslovanju* IX.17 (2021): 40-49.
- Xiong, Weiyang, Ka Ho Mok, and Jin Jiang. "Hong Kong University Students' Online Learning Experiences under the Covid-19 Pandemic." *The 3rd NCCU-Lingnan International Research Seminar: The Impact of COVID-19 Pandemic on Higher Education Policies: International Mobility, Student Learning Outcomes and Research Development 2020*. 2020: 19-20
- Zakoth, David, et al. "Open Source Photonics at the Abbe School of Photonics: How Maker spaces foster Open Innovation Processes at Universities." *Fifteenth Conference on Education and Training in Optics and Photonics: ETOP 2019*. 2019: 1-8.
- Živković, Slađana, and Nadežda Stojković. "To Modernize or Not to Modernize - There is no Question." *Academic Journal of Interdisciplinary Studies* 11.2 (2013): 70-76.

**ИНОСТРАННЫЙ ЯЗЫК ДЛЯ СПЕЦИАЛЬНЫХ ЦЕЛЕЙ В КОНКРЕТНЫХ
ОБСТОЯТЕЛЬСТВАХ, ВЫЗВАННЫХ ПАНДЕМИИ COVID-19**

Пандемия Covid-19 повлияла на закрытие учебных заведений по всему миру. Политика социального дистанцирования и ограничения передвижения сделала невозможным проведение занятий традиционным способом в классе и вынудила высшие учебные заведения организовать занятия с использованием цифровых технологий. Переход к онлайн-обучению был большой проблемой как для преподавателей, так и для студентов, но он также проложил путь к внедрению цифрового преподавания и обучения. Это исследование направлено на оценку и сравнение успеваемости учащихся, которые посещали традиционные занятия до пандемии и онлайн-занятия во время пандемии. Собраны данные по группе студентов, изучавших первую часть предмета «Иностранный язык для специальных целей» на традиционных занятиях в период март-июнь 2019 г., а также данные по той же группе студентов, изучавших предмет «Иностранный язык для специальных целей 2» 2 онлайн в период март-июнь 2020. Данные обрабатывали с помощью статистической программы IBM SPSS Statistics. С целью достижения результатов, т.е. ответа на главный исследовательский вопрос, влияет ли способ проведения и контроля занятий на успешность учащихся, был проведен t-тест парных выборок. Полученные результаты показывают, что существует значительная разница в успешности студентов, которые следовали за занятиями двумя разными способами. Учитывая нестабильную эпидемиологическую ситуацию, необходимо достойно подготовиться к новому учебному году. Документ содержит предложения по улучшению онлайн-преподавания и обучения.

Ключевые слова: традиционное обучение, онлайн-обучение, иностранный язык профессии, пандемия Covid-19.