UNIVERSITY CLASSES DURING THE STATE OF EMERGENCY IN SERBIA INTRODUCED AFTER THE OUTBREAK OF THE COVID–19 PANDEMIC CRISIS: STUDENTS' ATTITUDES*

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ABSTRACT

The state of emergency was declared in Serbia in the spring of 2020 due to the pandemic of the new disease, COVID–19. As a result, distance learning was introduced for the first time at Serbian universities – online learning in utterly specific crisis circumstances caused by the outbreak of the pandemic of a completely unknown infectious disease. This model of learning was adjusted to that fact in the form of emergency remote teaching. The paper presents the results of examining the attitudes of female students of teacher education faculties in Serbia regarding the efficiency and sustainability of the distance learning model in which they gained experience. The sample included 399 female students, who completed an online survey designed for the purposes of this research. The results of the survey showed the strengths and weaknesses of distance learning as a formerly untapped potential in higher education in Serbia, which specifically refers to the teaching model applied during the state of emergency introduced due to the crisis caused by the COVID–19 pandemic. Also, the differences in the knowledge of digital technologies by the professors came to the fore in terms of the methods that the professors used in their work. The results suggest that distance learning can be a useful tool in the process of knowledge transfer in higher education, but that final year students are most affected by the

inability to acquire knowledge in practice that cannot be virtually compensated, which is a very important step in their work training, as well as the pronounced general problem of lack of social interaction and meeting social needs, arising as a result of the pandemic. In contrast, increased leisure time and health reasons stand out as the main advantages of the new teaching model, which is significantly characterized by the crisis environment.

INTRODUCTION

1. COVID–19 and state of emergency

At the very end of 2019, on December 31, the People's Republic of China reported the appearance of a new virus from the coronavirus group, which was named SARS–CoV2. The SARS–CoV1 epidemic originated from the People's Republic of China during the first decade of this century, while the MERS–CoV epidemic originated from the same group of viruses at the beginning of the second decade of the 21st century, first from Saudi Arabia. The former resulted in 8,000 patients in 29 countries and 774 cumulative deaths (Pasley, 2020), while the latter, in the period 2012 – January 2020, resulted in 2,519 cases and 866 cumulative deaths worldwide (WHO, 2020), of which almost half of the cases were reported in Saudi Arabia. In the case of both epidemics, the diseases only "brushed" through Europe and the United States with a relatively small number of cases, so they were not given enough attention. Chomsky explains this by "wrong market signals", i.e., by the fact that at that time it was thought that less money would be made on the production of vaccines for these diseases than on "body milk production", although it was known that a new coronavirus epidemic would very likely break out, which actually occurred (Chomsky, 2020), but on a pandemic scale. The neoliberal agenda pursued since the last decade of the 20th century, which made Europe abandon the idea of a "welfare state", has led to the collapse of public health systems in these countries, which, in the absence of solidarity among EU member states characterizing the initial stage of the COVID–19 pandemic, proved fatal at the time of its outbreak (Đurić & Stojadinović, 2020; Šuvaković, 2022).

Despite the fact that the WHO warned of the possibility of the disease spreading, and recommended taking standard anti–epidemic measures, the recommended actions were delayed or not taken in many countries. On the other hand, the WHO did not propose any suspension of international trade and traffic with China. After putting the city of Wuhuan – in which the first case was registered – in quarantine,

China put the entire province of Hubei in quarantine on January 25. In the third week of February, there was already a large number of patients in Italy, South Korea, Iran, Spain, France, Belgium, Brazil, etc. The first cases in the USA were recorded at the end of January. As early as March 6, or just within 3 months of the first reported case in China, more than 100,000 patients were officially registered in the world. It was not until March 11 that the WHO officially declared the COVID–19 pandemic (WHO, 2020). On March 8, Italy adopted measures to isolate the north of the country, and then other regions, and France and Spain did so a few days later. Sweden is an exception in that its strategy was aimed at creating the so–called population infestation, and therefore it did not take other measures like those that other countries took (Jens, 2020). As early as March 18, 200,000 cases were recorded worldwide. In twelve days, the number of infected people doubled. According to data published by Johns Hopkins University on April 3, 2020, 204 states and territories had reported cases by then, and only 18 states (some island states (e.g., Sao Tome and Principe, the Solomon Islands), isolated states like North Korea, or the war–stricken states (e.g., South Sudan) had not reported patients diagnosed with COVID–19. On that day, there was over a million infected people in the world, with more than 56,000 deaths (JHU). It can be stated that a pandemic of the disease broke out, which, in peacetime conditions, spread fastest in the history of mankind. Smallpox, for example, took more than 3000 years to reach Australia, where it was brought by European sailors in the late 18th century (Šuvaković, Baljošević & Obradović, 2014).

The first case of SARS–CoV2 infection in Serbia was confirmed on March 6, 2020 (Marković, Šagrić, Višnjić, Stojanović, Ignjatović & Deljanin, 2021). It was a man in his forties from Subotica (northern Serbia, Vojvodina), who was infected after having visited neighbouring Hungary. Nine days later, on March 15, the state of emergency was declared in Serbia (Republic of Serbia, 2020), which was in force until May 6, 2020. The measures taken in that period included full twenty–four–hour quarantine for all persons over 65 years of age living in cities, or over 70 years of age living in rural areas, a ban on movement for the entire population from 20.00 to 06.00, mandatory social distance, which was a wrong, but ideologically caused term for 2–meter physical distance between people (Šuvaković, 2020), obligatory wearing of masks in public space, banning public gatherings and switching to online work in companies where it was possible, closing schools and a complete ban on all modes of transport (Petrović, Dimić & Ljubojević, 2021).

2. The concept and historical development of distance learning

Although the coronavirus pandemic has brought the concept of distance learning to the forefront, it should be noted that its beginnings date back to the 19th century, at the University of Chicago, USA. Namely, in 1840, Isaac Pitman formulated a kind of interactive concept of distance learning that took place in the form of postal items or, more precisely, correspondence between lecturers and students (Alan, 2003; Bataineh & Atoum, 2021; Bušelić, 2012; Pokorni, 2009; Stanković, 2006). This met with a very good response, which resulted in other colleges and universities adopting this practice (Illinois Wesleyan College in 1874, Chautauqua School of Theology in New York State in 1881, Correspondence University, Ithaca, New York, in 1883), as stated by Mathieson (1971) and Pittman (2001). The University of London introduced the concept of distance learning as its regular form of teaching for the first time, in 1858. With the development of science and technology, the role of mediator in the process of acquiring knowledge is taken over by radio, and later by television. Koet and Aziz (2021) state that in 1987 the United States Distance Learning Association was founded, the main purpose of which is to study various aspects of the process of acquiring knowledge and skills through teaching that includes the use of different types of technologies in the distance learning process.

Digital technologies bring a new way of teaching via the Internet, first by e–mail, and later by various means of communication, not only written but also audio and video materials, in a specific format of online learning (Đorđić, Cvijetić & Damjanović, 2021; Li, Baker & Warschauer, 2020; Sun & Chen, 2016). Antonijević (2021) emphasizes that "the development of ICTs and the Internet is an essential and irreplaceable basis for the development occurring in the area of distance education". With the development of technologies, it is also defined as e–learning in the literature, and subsequently, with the development of mobile telephony, m–learning (Holmberg, 2008). These types of learning can take place separately or in combination with traditional forms of teaching, such as the so–called blended learning (Bonk & Graham, 2006; Margulieux, McCracken & Catrambone, 2019). It should also be noted that modern forms of teaching through distance learning can be performed via appropriate platforms, synchronously, when there is communication between actors in the real–time learning process (e.g. Zoom, Google Meet, etc.), as well as asynchronously, when mutual communication and interaction are not conditioned by the current time (e.g. Moodle, Google classroom, etc.), thus allowing participants to carry out certain activities at any time (Marjanović & Veljković, 2021; Poe & Stassen, 2002).

The use of electronic textbooks or electronic textbook supplements as permitted in Serbia by the enactment of the Law on Textbooks (2018), which may be based on the application of artificial intelligence, as well as the introduction and use of artificial intelligence for educational purposes that is at the very beginning of its development in Serbia (at the Teacher Education Faculty in Belgrade, where the Centre for Robotics and Artificial Intelligence in Education was established and located), may largely facilitate and support distance learning, but also constitutes support to traditional forms of teaching. "Software based on artificial intelligence are not a sole source of information, but a teacher may combine them with previous technologies and productive methods, thus enabling students [and college students, added by the authors] to independently research, think, conclude and solve problems" (Milutinović & Mandić, 2022).

Given the diversity of ways of teaching, it is difficult to give a single definition of distance learning. One of the most comprehensive definitions is given by Keegan (1998). He states that distance learning is determined by several important segments: physical (spatial – anthropometric) distance between the teacher and the student (or students), and between students themselves, which is bridged by using various technological innovations in the teaching process to achieve successful communication and interactions (both in terms of vertical student–teacher communication and in terms of horizontal communication between students); as well as the institutional provision of a curriculum, teaching materials in support of students, which unifies the process of acquiring knowledge, thus making it different from self–education and non–formal knowledge. In addition to all these, Holden, Westfall & Gamor (2010) also list the evaluation of what has been learned as an important segment in the process of acquiring knowledge, primarily due to evaluation, self–correction and motivation of students.

The essence of the application and permanent improvement of techniques and technology used in the teaching process is to achieve the desired outcomes as quickly and efficiently as possible (Arsić & Krulj, 2011) but also the possibility of their practical application through the concept of lifelong learning and continuous improvement. Some of the advantages of different types of distance learning are: accessibility to a large number of stakeholders (regardless of spatial and temporal distance), lower material costs, enabling interaction of individuals from different cultural and social backgrounds with common interests and aspirations, availability of diverse teaching materials in any at which time, tasks can be performed in accordance with the pace of learning, obligations and capabilities of the individual, in places where they want, students can influence the level and intensity of interaction during the learning process, adopt and practice different skills in using different technologies, teachers also have the opportunity to learn from students who independently search for information through various electronic sources, etc. (Hiroshi & Shintaro, 2002; Jorge, Jorge, Gutiérrez, García & Díaz, 2003). Due to all

these items, Bušelić (2012) concludes that distance learning is the fastest growing form of education, contributing to its learning outcomes in social and economic development, as it can be used at different levels of education and in different forms of training. However, Biesta (2019) notes that, despite all the above advantages, there is one methodological imperfection: passivity and receptivity of those who acquire knowledge. The student is very often placed in the position of a passive spectator of the one who works according to the teacher's instructions. The development and arger application of artificial intelligence in education would have the potential to remove this type of objections.

Moreover, until the outbreak of the COVID–19 pandemic, distance learning was predominantly represented in higher education (Juszczyk & Kim, 2020), as well as various forms of non–formal learning. The results obtained in the USA from 2015 and 2016 show the reasons for the low interest in this type of teaching are (58.7% of higher education institutions in the USA did not plan to conduct distance learning in 2015) (Allen, Seaman, Poulin & Straut, 2016), while the data further show that only about 5.8 million students had access to some form of online teaching (Yen, Lo, Lee & Enriquez, 2018), which is the issue of the Internet availability, costs of teaching, legitimacy of the teaching process in the classical sense, a high dropout rate and demotivation of students to participate in online lessons (Castro, 2019; Hu & Hui 2012; Park 2007).

3. Distance education in the Republic of Serbia

In the former socialist Yugoslavia, as early as the late 1960s, there was experience in using radio and television programs for educational purposes. Programs for learning Serbian and foreign languages were broadcast, the school program on Belgrade Television (the forerunner of the Radio Television of Serbia, the main state–owned information channel) was highly developed to supplement and support school learning in various subjects (the Serbian language, history, geography, mathematics, physics, chemistry, biology, foreign languages, such as English, German, French, Russian etc.). Even today, the First Program of Radio Belgrade broadcasts the show "Serbian in Serbian" on a daily basis, which through dramatization resolves linguistic – grammatical and spelling – dilemmas in the Serbian language. The show is intended for all ages, and can be seen as an example of support for school learning and as an example of the use of distance learning within the concept of lifelong learning. The use of electronic mass media for the purposes of regular and supplementary teaching certainly meets the criteria of distance learning as a type of teaching organized on the principle of "spatial distance between teachers and students" (Vilotijević & Vilotijević, 2016). Technical development has contributed to the emergence of increasingly sophisticated media for distance learning: from correspondence via e–

mail, telephone, radio and television, to the development of computers and computer systems for its support, emphasizing the frequent combination of different technical means in distance learning, for example. computers and television (Vilotijević & Vilotijević, 2016). During the COVID–19 pandemic, especially during its initial stage, when the state of emergency was declared in Serbia, we had exactly this combination of technologies in distance learning for primary– and secondary–school students.

As early as the 1970s, research was conducted in former Yugoslavia on the use of computers in teaching, which critically examined the possibilities of computer technologies at the time (Matijević, 1973). Subsequent development of computer technology led Serbian researchers in the field of educational technology to conclude about computers "as effective teaching aids that enable control, regulation and management of teaching and learning through continuous feedback, which has strong motivational power and is the basis of evaluation and fair assessment (Mandić & Mandić, 1997). Distance learning, which has been greatly facilitated with the development of the Internet, has enabled the realization of the concept of "ideas travel instead of people" (Mandić & Ristić, 2006). This contributed to the mass character of higher education, the possibility of one teacher's lecture being simultaneously listened to in different parts of the world or at the time when the student wants to watch the recording, which produces significant savings in the organization of teaching, both in terms of finance and time (Soleša, 2007; Stojanović, 2020) However, despite the existence of such knowledge and the indisputable monitoring of educational and technological achievements in the world by Serbian researchers, resistance to distance learning in Serbia is still rather pronounced (Table 1).

Table 1: The number of distance learning programs accredited in the Republic of Serbia in the period 2009–2013 and 2014–2018 according to the number of faculties that accredited them, the type of ownership of these institutions and the scientific and educational field (KAPK, 2018)

Number of faculties / integrated universities	Accreditation period	Number of distance learning programs at all three levels of study	Scientific field of accredited distance learning programs	The type of ownership of the institution that accredited the distance learning program
10	2009–2013	15	9 technical and technological; 5 social–humanistic; 1 interdisciplinary	3 state–owned; 7 private
8	2014–2018	29	6 technical and technological; 2 interdisciplinary; 16 social–humanistic; 2 natural sciences – mathematical; 3 arts	2 state–owned; 6 private

Table 2: The number of distance learning programs accredited in the Republic of Serbia in the period 2009–2013 and 2014–2018 according to the number of higher vocational schools that accredited them, the type of ownership of these institutions and the scientific and educational field (KAPK, 2018)

Number of vocational colleges	Accreditation period	Number of distance learning programs at all three levels of study	Scientific field of accredited distance learning programs	The type of ownership of the institution that accredited the distance learning program
6	2007–2013	7	5 technical and technological 2 socio–humanistic	2 state–owned 5 private
5	2014–2018	8	7 socio–humanistic 1 technical–technological	1 state 4 private

Table 1 and Table 2 show that, out of the total number of study programs at all three levels of study in the Republic of Serbia, or 2,672 (KAPK, 2018), 69 distance learning study programs were accredited from the initial accreditation in Serbia to the beginning of 2018, which is a symbolic share of 2.6% in the total number of accredited study programs. At the same time, it should be noted that a significantly smaller number of distance learning study programs were accredited by state institutions, and that in the period 2014–2018, one private integrated university and one private faculty accredited 20 out of a total of 29 accredited distance learning programs. Such a low share of accredited distance learning study programs cannot be explained by legal restrictions on the share of students who can study at a distance within the same higher education institution, or by the lack of technical conditions and equipment they require, but they are primarily of social character (Matijašević Obradović & Joksić, 2014). It is primarily a matter of a firmly rooted traditional pattern of study, which is present in both teachers and students, institutional conservatism in terms of changes in established patterns of teaching organization, even when allowed by the legislator. The noticeable disproportion between the number of distance learning programs accredited in private and state higher education institutions is not the result of greater commitment of private higher education institutions to the application of new teaching technologies based on IT achievements, but their exclusive focus on profit and applied knowledge for market and profit (Marković, 2004; Stanković,

2018; Šuvaković, 2014; 2019), and that the advantages of distance learning make it easier for them to achieve these goals.

It was with this situation in terms of the application of distance learning that Serbia faced the outbreak of the COVID–19 pandemic. After the declaration of the state of emergency in the Republic of Serbia, all primary and secondary schools and faculties in Serbia switched to distance learning, with different ways of teaching. Depending on students' age, primary and secondary schools had classes in several subjects (Serbian, mathematics, history, physics, chemistry, geography, biology, English as practically compulsory subject in Serbian primary and secondary schools (Šuvaković, 2018) through the use of the channels of the public television service RTS2, RTS3, RTS Planeta and RTS Internet platform, whereas teaching in the languages of national minorities was not neglected at all (Milinković & Banđur, 2021; Stojanović, 2020), while for other subjects different Internet platforms were used (e.g. Viber, Facebook, e–mail). In that respect, the researchers list positive examples of the models applied in primary and secondary schools in Croatia and Serbia, which started only one day after the declaration of the state of emergency, reminding that the distance learning model via television had been used for literacy purposes, particularly in rural regions, in Italy from the end of World War Two to the 1960s, and that these facts "suggest the use of multiplatform approach, where TV can be ranked among different proposed technologies" (Ferri, Grifoni & Guzzo, 2020). Due to health and safety reasons, the classes in Serbia were first recorded for TV in the classroom environment, while in the further course of implementation teachers were allowed to work from home, in accordance with the available and accessible resources of the school and teachers (Decision, 2020). Within the segment referring to online classes, the use of Viber, Zoom, Microsoft Teams, and the national platform My School, was recommended. A similar principle was used by the Chinese education system during the lockdown by establishing online classes entitled "Disrupted classes, Undisrupted Learning" (Huang, Liu, Tlili, Yang & Wang, 2020).

Unlike the primary and secondary schools, which organized classes with the help and support of the Ministry of Education, Science and Technological Development, the Institute for the Advancement of Education and the Radio–Television of Serbia (Đorđić, Cvijetić & Damjanović, 2021; Stojanović, 2020; ZVKOV, 2020), the faculties applied solely distance teaching through autonomous organization (Government of the Republic of Serbia, 2020) by using different Internet platforms (Šuvaković, 2020a). The universities were given framework recommendations and guidelines for work, leaving the possibility for independent decision–making to faculties in accordance with the needs of teaching each educational profile and subject individually, but within the framework of online teaching (see, for example, the University of Belgrade, 2020). The data show that over 220 million students worldwide were affected by some form of school dropout of varying duration due to the pandemics and lockdown (UNESCO, 2021).

The introduction of online teaching at the faculties without accredited study programs for this type of teaching, in an extremely short period of time, raised numerous issues and caused difficulties in terms of work organization, technical equipment, technological literacy of teachers and students, availability of online resources and In general, the possibility of conducting certain types of work in practice live, which is the meaning of most classes of exercises, practices and special forms of teaching, which in most cases are planned in the final years of study, so that students, after acquiring general knowledge, better prepared to solve specific cases and problems in the practice of their future profession (Nikolić, 2018). In medical sciences, the issue of safety was raised, followed by student work protocols, in STEM professions there was a problem related to laboratory work and availability of equipment, while in social sciences and humanities there was a problem in disciplines that required direct contact with others. people, due to the recommended social distance. The problem is even bigger when there is no possibility of virtual replacement, but only physical contact, as is especially the case in the teaching and educational profession. The teaching profession is focused on working with children at different stages of development, when intellectual development, as well as biological development is not yet complete, and teachers have the role of agents of socialization and their personality and knowledge, directly or indirectly, can influence the process of forming children. personality and the formation of personality traits themselves, as relatively permanent dispositions of personality, which are manifested in the daily behaviour and functioning of the individual, which later affects society as a whole. Numerous studies indicate that this problem is present among all students, regardless of their future profession (Arroio, 2020; Asgari, Trajkovic, Rahmani, Zhang, Lo & Sciortino, 2021; Gorghiu, Pribeanu, Manea, Lamanauskas & Makarskaitė–Petkevičienė, 2021; Makamure & Tsakeni, 2020; Sepulveda–Eskobar & Morison 2020). Distance teaching introduced in this manner by the Decision of the Government of the Republic of Serbia constituted involved the programs adjusted to the conditions of their performance at a distance, in a crisis situation caused by the pandemic of the new infectious disease COVID–19. University teaching was performed online, as "the most efficient and modern form of distance education" (Marjanović & Veljković, 2021), again with the necessary adjustments to the fact that it was not planned for such performance". The experiences of such realization of classical programs by the distance education model are acquired "on the go", so that both good and bad sides are observed through the process… Adjustments are necessary because it is impossible to conduct a program, originally intended for the classical classroom, at a distance in an identical manner, so that certain modifications happen to be requisite for achieving a certain quality level of the program realization" (Antonijević, 2021). Such adjustments had their consequences in the scientific terminology as well through the introduction of the

concept of *emergency remote teaching*[1], which is not necessarily related only to the COVID–19 pandemic crisis, but has developed and become current with its outbreak. The key difference is that it is not previously planned online teaching, but the change in the performance of teaching and temporary acceptance of an alternative way of its performance due to the arising crisis circumstances. "It fully includes the solutions of distance teaching, teaching that would otherwise be performed face–to–face, or as combined or hybrid courses, and which will turn back to that format only when the crisis or the emergency subdues. The primary goal in these circumstances is not to recreate a strong educational ecosystem, but to ensure a temporary approach to teaching and teachers' support in the manner that is established quickly and reliably and is reliably available during an emergency or crisis" (Hodges, Moore, Lockee, Trust & Bond, 2020), whereas the researchers point out three aspects of challenges faced by this form of online teaching: technological, pedagogical and social (Ferri, Grifoni & Guzzo, 2020). We would like to say that emergency remote teaching is a form of performing distance teaching significantly characterized by the following features: *application* in specific, or crisis situations (emergencies), *adaptability* to the crisis nature and *temporality*, or limited application of this form of teaching until the recovery of usual circumstances, when teaching returns to the form of its performance as previously intended or planned.

Since this form of distance teaching online, having in mind that it was a pandemic of an infectious disease, was the only way of teaching applied at Serbia's universities during the state of emergency (March 15–May 6, 2020.), in the text below we will use the terms reflecting the meaning of this concept and taking into account the fact that the by female students could gain the experience of the performance of online teaching only on the basis of the performance of emergency remote teaching, and thus form their attitudes to it.

4. Research problem, focus and aim

Therefore, the subject of this research is to examine students' satisfaction with a new, formerly unused type of teaching, which differs significantly from pre–pandemic functioning in all its segments. Namely, although distance learning relies on the application of modern technologies in the work, and the content, goals and learning outcomes declaratively remain the same, there are modifications primarily in the

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[1]   According to the frequency of the use, Bond, Bedenlier, Marín & Händel (2021, Table 6), give an overview of ten most frequently used terms for online teaching during the COVID-19 pandemic. Although the term *emergency remote teaching* terminologically denotes quite a specific concept of model online teaching applied during the COVID.19 pandemic, it is used in only 5.3% of 282 consulted studies, while the terms on-*line learning*, *e-learning* and *distance learning* are used in 56.7% consulted studies.

roles of teachers (from lecturers to course managers) and students (from passive recipients to someone who has freedom regarding issues of interaction and the manner of performing tasks and obligations). At the same time, the process of acquiring knowledge is modified, which can directly affect the transfer of knowledge, the quality of teaching, as well as satisfaction with the results of knowledge acquired through the application of distance learning. Finally, it is not the application of distance programs that is formerly designed as such, but the adjustment of the programs designed for being performed in the classroom (university lecture halls) to the circumstances caused by the COVID–19 pandemic. Most of the research published in Serbia so far has addressed the issue of the attitudes to this type of teaching by teachers and professors, while much less attention has been paid to schoolchildren's and students' attitudes and satisfaction; on the other hand, the situation abroad is somewhat different (see Bond, Bedenlier, Marín & Händel, 2021, Table 7).

The authors were primarily interested in the perception of distance learning experience by students, attitudes, opinions and satisfaction with distance learning during the emergency state in Serbia declared due to the outbreak of the COVID–19 pandemic, given the specifics of the profession for which students are educated, and in which social sciences such as pedagogy, psychology and sociology[2] are crucial, including the development of social skills, given that one of the recommendations on the issue of infection was to maintain physical distance (often called social, implying reduced contact between people, as one of the key concepts of communication and socialization process).

The aim of the research is to determine whether there are differences in the perception of distance learning among students of teacher education faculties depending on the field of study (educators and teachers) and in the aspects of teaching itself, and their opinions about the advantages and disadvantages of distance learning in relation to classical teaching, and whether certain differences among students themselves contribute to different views of satisfaction with emergency teaching at a distance.

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[2]   According to the analysis of the published papers in Serbia until the middle of 2021. Vuletić (2021) critically observes that "for sociology, the source of the crisis in not in the medical disaster itself, but in the manner in which institutions and the society deal with it" (cf. Marković Savić, 2020; Pavlović & Petrović, 2020).

■ **METHOD**

Sample

The sample included 399 students of basic academic studies at teacher education faculties in Serbia: Belgrade, Sombor, Užice, Jagodina, Vranje and Leposavić. The research also included male students, but given the pronounced dominance of women in the total student population at teacher education faculties in Serbia (RSZ, 2021) of over 91% women studying highly feminine professions (primary school teacher, kindergarten teacher), only the results related to female students are presented in the paper

The faculties included in the sample are state–owned and their basic academic studies last for 4 years. The one–year master's studies were left out due to sample homogenization:

a) It is possible to transfer from other faculties to teachers at the master level;
b) The master's studies can also be enrolled by middle–aged students, whose views are significantly different in relation to the student population enrolling in the master's studies immediately after completing their basic academic studies.

According to the type, it is a virtual exponential non–discriminative snowball sample (Parker, Scott & Geddes, 2019). This sample type has become very common in the social sciences, qualitative research, and belongs to the appropriate samples, i.e., samples that do not rest on probability. However, unlike the usual occasional sample, the snowball sample is characterized by the attempt to objectify it by providing a large number of access points to the questionnaire.

The snowball sample was considered particularly suitable for examining various marginalized groups, usually difficult to access by researchers for various social reasons, either because those groups were engaged in some kind of illegal activity such as drug addiction and prostitution (Anieting & Mosugu, 2017; Tansey, 2007), or they were various stigmatized social groups (infected with or suffering from AIDS, members of LGBT). The COVID–19 pandemic has also revealed its new dimension: its virtual design is suitable for conducting research at the time of the existence of pandemics or epidemics of infectious diseases. Thus, it is not only specific populations suitable for testing with this sample, but also specific social situations that require its use. Although research based on this type of sample has also been designed traditionally, this sample has recently been most often applied virtually (Baltar & Brunet, 2012).

Procedure

The research was conducted immediately after the state of emergency was lifted in Serbia, from October 2020 to January 2021, while the pandemic was still ongoing and before vaccines against COVID–19 were approved in Serbia. Therefore, conducting a field survey was unfeasible and unethical, as it would endanger the health of respondents and interviewers, and pose a threat to public health due to the ease of spread of SARS–CoV2 virus, which would inevitably occur with a large number of contacts during the survey. Therefore, the survey was conducted online

In the survey, the researchers provided a link to the questionnaire to all teacher education faculties so that it could be posted on their websites; to students whose e–mail addresses were available, with a request to forward the addresses to their colleagues from the teacher education faculties, regardless of whether they came from the faculty where they studied or from another faculty in Serbia; to student parliaments of teacher education faculties so that the link could be posted on social networks used by students (Facebook, Viber, e–mail). This provided dozens of different entry points into the questionnaire, thus virtually eliminating bias. The survey was anonymous and voluntary.

Tools

For the purposes of the survey, a questionnaire was constructed with a series of open and closed questions (usually Likert's five–point assessment scale), which included students' opinions about the regularity of lectures and exercises, the quality of their performance, satisfaction with the distance learning process in the pandemic conditions, advantages and disadvantages of the applied distance learning model, the teaching performance models during the state of emergency, as well as some basic data about the respondents (their major subjects and the year of study).

Variables

The independent variables in this study were as follows: Major subjects for teachers (n = 194) and educators (n = 205) and the year of study (first n = 97, second n = 83, third n = 141, fourth n = 78). The average age of female students was M = 21.3 (SD = 1.6). The dependent variables in the research were formulated as a set of questions related to online teaching, which examined the regularity and quality of teaching, advantages and disadvantages of emergency online teaching, the methods used to conduct online teaching, and whether online teaching should become a permanent form of teaching and to what extent.

Data processing methods

The data were processed in the SPSS 22.0 program. On that occasion, frequencies, percentages, chi–square test, measures of descriptive statistics, t–test for independent samples and univariate analysis of variance ANOVA were used for data processing.

■ RESULTS

The results showed no statistically significant differences in relation to the field or year of study in terms of regularity of lectures at teacher education faculties in Serbia. However, there are statistically significant differences in relation to the organization of exercises and the work of assistants in relation to the year of study (χ^2 = 33.890, df = 18, p < .013). Exercises were held most regularly in the fourth year and the least regularly in the third year.

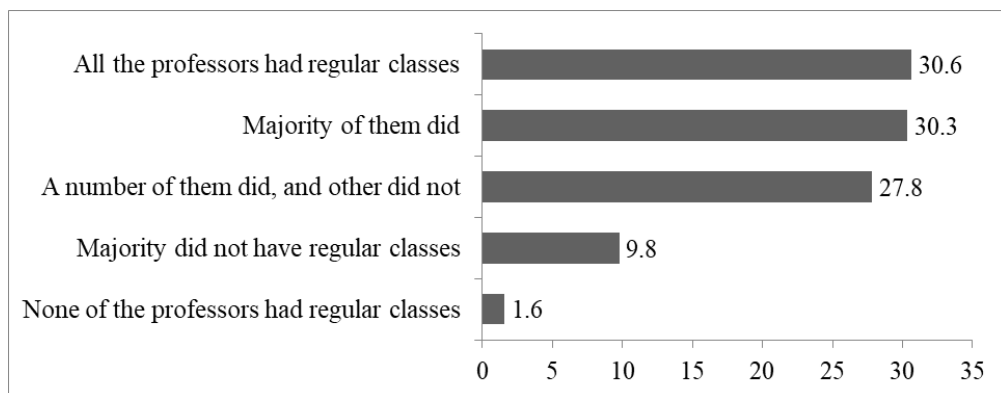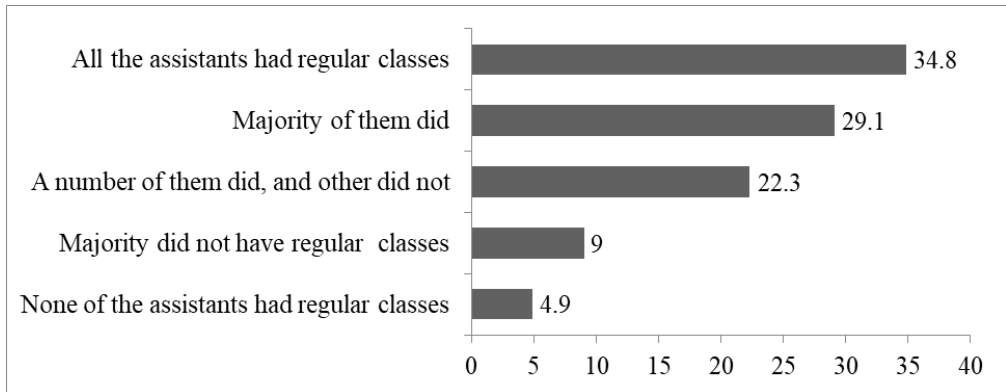Figure 1: Regularity of lectures by professors (%)

Figure 2: Regularity of exercise classes organized by assistants (%)

Of all the online teaching methods, professors and assistants most frequently used e–mail for sending presentations (Figure 3). In addition to the offered options, Viber, Hangout, Meet and direct download of presentations from the faculty website appeared as a form of teaching in 1.8% of cases. A small percentage, or 3.6% of the respondents stated that they did not receive materials at all. It turned out that most professors and assistants combined different methods: as many as 30% of the teachers used only one method, 41% two, and 22% combined three methods in their work, and 7% four. Differences depending on the study majors did not exist, but they manifested in relation to the year of study ($\chi^2 = 22.198$, df = 9, p < .008). One to two methods were used most in the first year and three or more in the second year of study.

Figure 3: Representation of individual methods of online teaching
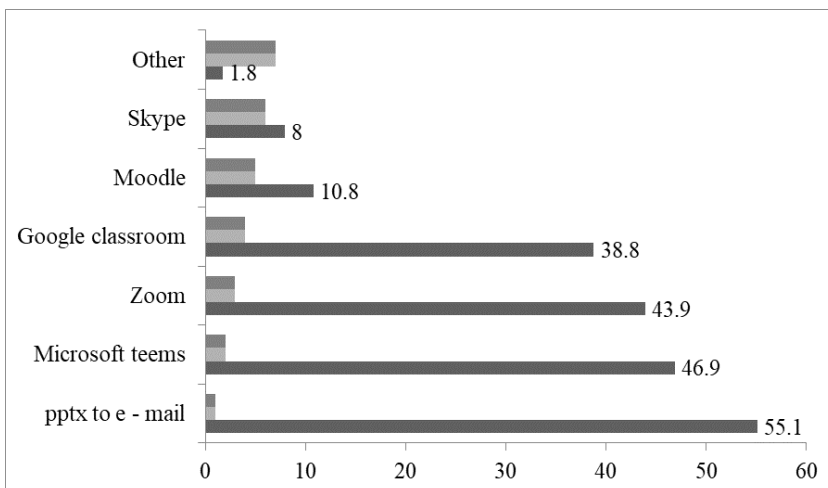
Statistically significant differences in the study majors appeared only in the case of the use of Moodle, which was used more by teachers (χ^2 = 15.258, df = 1, p <.000).

Regarding the year of study, there were no statistically significant differences only in the use of Skype. Microsoft Teams was used most in the first year and least in the fourth (χ^2 = 11.573, df = 3, p < .009), followed by Google classroom (χ^2 = 13.735, df = 3, p < .003) and presentations (χ^2 = 8.238, df = 3, p < .041). Zoom was used most in the fourth year (χ^2 = 45.964, df = 3, p < .000) and least with the first year. Moodle was used most in the fourth year (χ^2 = 15.258, df = 3, p < .000) and least in the second year.

T–test for independent samples showed no statistically significant differences in the assessment of the quality of lectures (M = 3.60, SD = 1.07) and exercises (M = 3.62, SD = 1.16) in relation to the field of study (with the grades ranging from 1 – not satisfied at all to 5 – very satisfied). The variance analysis showed no statistically significant differences in the assessment of the quality of lectures in relation to the year of study.

Half of the female students did not think that online teaching applied during the state of emergency in Serbia due to the COVID–19 pandemic was better or worse than traditional teaching, but still 42% of considered this form of teaching worse and less useful for learning compared to traditional teaching, while only 8% saw this way of teaching as better and more useful.

Figure 4: Opinion about the usefulness of online teaching (%)
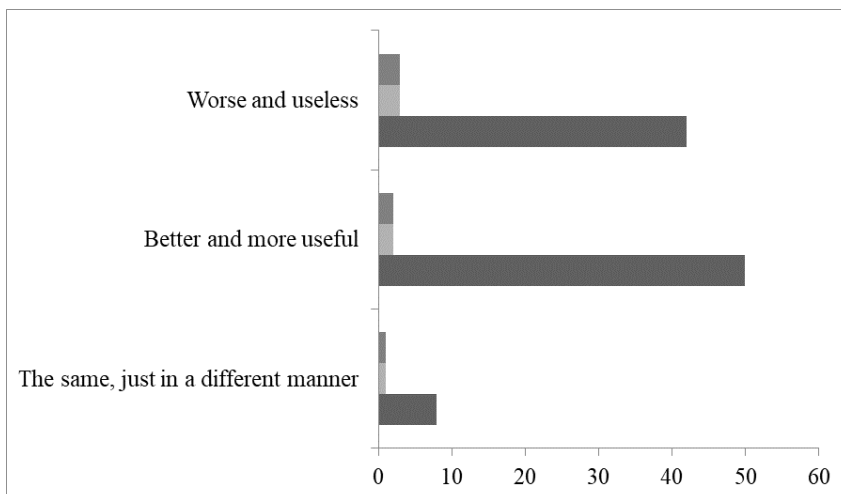
In relation to the year of the study regarding the usefulness of emergency remote learning, the fourth–year students had the most unfavourable opinion, while the second–year students mostly considered both teaching methods equally useful (χ^2 = 16.905, df = 6, p < .010).

As advantages of online teaching, the students mentioned 11 categories of answers covering 91% of the given answers, while the remaining 9% could not be categorized because the answers appeared once, or were long descriptive answers from which it was not clear what the respondent wanted to say, and some respondents answered in such a manner that there were no good sides although the questions clearly asked for the benefits to be listed. Of these, 39% cited only one advantage, 19% two, and 10% three advantages. In relation to the field and year of study, there were no differences in the number or type of response categories in terms of these advantages. The categories into which 91% of the answers indicating the advantages of online teaching during the state of emergency in Serbia due to the COVID–19 pandemic could be classified were as follows:

1. *Saving time* – in going to and returning from the faculty, as well as due to long breaks between lectures that did not allow time to be adequately filled or enough time to return home. In their opinion, online teaching enabled them to spend this time in a quality manner: to staying with the family and friends, to have more time for studying and for other rewarding activities;

2. *Security* – the possibility of being infected with COVID–19 at the faculty is eliminated;

3. *Repetition* – unlike classical teaching, students had the opportunity to record lectures and review them an unlimited number of times;

4. *Comfort* – they experienced online learning as a form of work from home: they could attend lectures "without getting out of bed", "in pyjamas", and they could do more activities at the same time (small household chores) if they turn up the sound;

5. *Interesting feature* – they thought that online teaching brought dynamics and something new into the learning process, as well as that they themselves were forced to acquire new IT skills to follow the lessons, to which they would otherwise pay no attention;

6. *Finance* – online attendance has reduced the cost of transportation, food, textbooks (pdf and other formats used), rent (since many have cancelled their rented apartment in the place of study and returned home, while going the faculty only to take the exam exams and do administrative duties);

7. *Accessibility* – they believe that online teaching is available to everyone and in any place, and that it is especially beneficial for students who work and study at the same time;

8. *Flexibility* – online teaching gave them the opportunity to decide about the time and pace of work, as well as when to attend lectures, while some students said that they were able to have online classes in time slots as agreed with the professor and not exclusively at a fixed and prescribed time

9. *Answers* – the students state that the professors were faster and more extensive in answering the questions asked, as well as that everyone had the opportunity to ask a question, which was not the case in traditional teaching, since some professors do not come to their scheduled consultations at all or reply to students' e–mails, and that some lectures and exercises have insufficient capacity, so that, due to the size of the group, professors simply do not hear students' questions or see that someone has raised their hand, which discourages students from asking anything;

10. *Efficiency* – the students believe that the online form of teaching forced them to be more active and manage themselves in different ways, not only to have the passive role of the recipient, but also to be able to better focus on what happens virtually, which was not possible due to the crowds and murmurs during certain exercises and lectures. All this contributed to their subjective experience that they mastered the material faster and more successfully;

11. *Commitment* – professors and assistants had the opportunity to pay more attention to each student individually through online teaching, but they also had to be more engaged and creative in the process of knowledge transfer.

Figure 5: Representation of categories of advantages of online teaching (%)
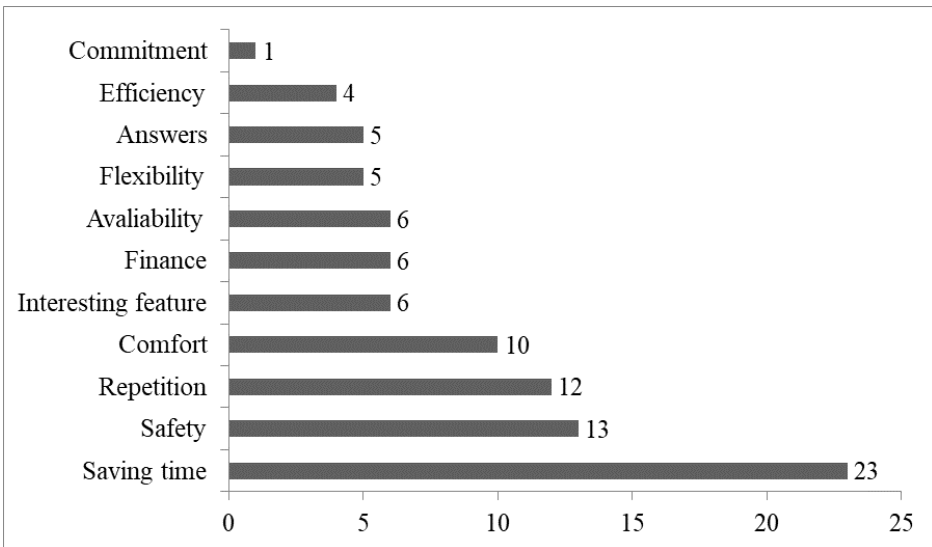
As shortcomings of emergency online teaching, the students listed 16 categories of answers covering 100% of the answers given. Of these, 22% cited only one flaw, 18% two, and 14% three flaws. In relation to the study majors and the year of study regarding these shortcomings, there were no differences in the number or type of response categories.

Figure 6: Representation of categories of disadvantages of online teaching (%)
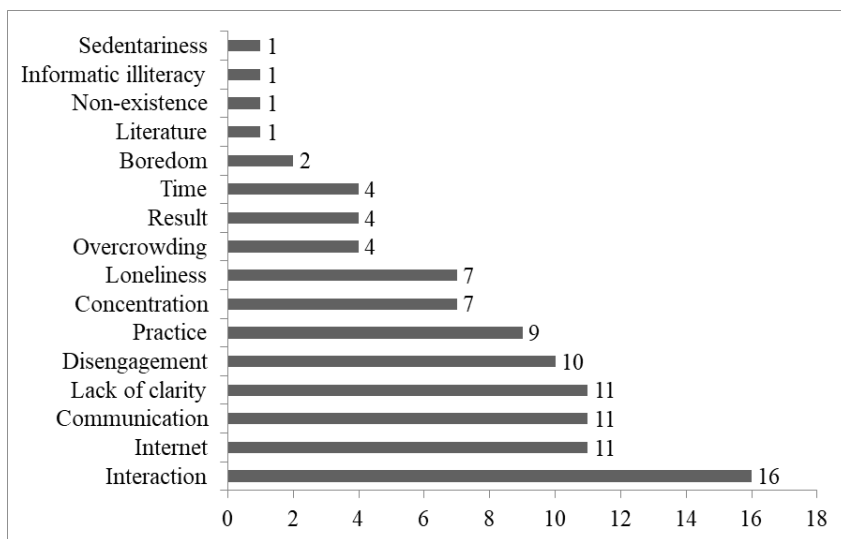
The categories into which the disadvantages of online teaching during the state of emergency in Serbia due to the COVID–19 pandemic could be classified were as follows:

1. *Interaction* – a large number of students state that they were bothered by the impossibility of live contact with both professors and colleagues;
2. *Communication* – very often the answer is supported by the observation that "nothing can replace the living word" and that it is a very valuable experience in their work. Spontaneity and nonverbal communication are lost and students are unable to interrupt the professor and ask a question when they want to;
3. *Internet* – problems related to connection, flow rate and computer equipment, including lack of financial resources for its purchase;
4. *Uncertainty* – inability to understand what the professor is saying, extremely fast covering of the material, too many professional terms that are new and presumed to have already been adopted, while the recording must be

rewound several times and the recorded lecture demands students' further engagement to understand what is being said;

5. *Disengagement – mutual.* The unwillingness of professors to get out of the pattern of classical teaching and the impression of delaying work, in terms of abbreviated presentations and significantly shortening the time of lectures and exercises compared to traditional teaching, but also students pretending to be present after connecting, but leaving home or do something else; some students, by their own admission, turn off the sound or deliberately fail to listen to the lecture, causing a false impression of presence;

6. *Practice* – lack of practice, especially in exercises, which is necessary due to the nature of the profession;

7. *Concentration* – inability to focus only on the lecture due to interference from other members of the household, who also perform their activities and fulfil needs;

8. *Loneliness – indulgence in independence in work* to which they are not accustomed and lack of feedback during the work process (feedback is received only when the activity is completed and cannot be corrected and improved);

9. *Overcrowding* – some professors sent too much material that they did not have time to review and did not have enough time to complete the assigned tasks;

10. *Result* – a few students think that they achieved worse results in the exams due to online teaching and that they would have learnt the material better and got better grades if they had attended the traditional type of teaching;

11. *Time* – unrealistic deadlines for tasks caused anxiety and the impression that they were constantly late;

12. *Boredom* – a few students think that online teaching is extremely boring, monotonous and difficult to follow;

13. *Literature* – inability to obtain the required literature due to limited movement and increased risk of infection in transport (bookstores, libraries)

14. *Non–existence* – some students state that there was no online teaching at their faculty

15. *Information illiteracy* – insufficient training of professors and assistants and their ignorance and poor handling of modern technologies and applications

16. *Sedentariness* – sedentary lifestyle and attachment to computer, phone or tablet, which causes lack of physical activity and brings potential health problems.

In relation to the subject majors regarding the opinion about whether online teaching should be introduced as a permanent form of teaching in normal circumstances, the educators were somewhat more inclined to do so (χ^2 = 16.905, df = 2, p < .030), while there were no significant differences in relation to the year of study: a total of 34% of female students were in favour of online teaching being introduced as a permanent form of teaching in normal circumstances.

In relation to the direction of the opinion about whether online teaching should be introduced as an additional form of teaching in normal circumstances, the teachers were somewhat more inclined to do so (χ^2 = 6.069, df = 2, p < .048), while there were no significant differences in relation to the year of study: a total of 60% of female students were in favour of online teaching being introduced as an additional form of teaching in normal circumstances.

In relation to the year of study regarding the introduction of online teaching as a form of teaching only at the time of a pandemic or some other extraordinary circumstances, the fourth–year students were somewhat more inclined to be in favour of it (χ^2 = 13.605, df = 6, p < .034) while the third–year students thought the opposite, while there were no significant differences in relation to the field of study. A total of 69% of female students were in favour of introducing online teaching as a regular form of learning only at the time of a pandemic or some other extraordinary circumstances.

In relation to the year of study, the opinion about whether to wait for the pandemic to pass and then have regular classes, there was no difference of opinion: the idea was acceptable only to 10% of the female students.

DISCUSSION

When analyzing the data obtained from the research, it should be borne in mind that all the students' encounter with emergency online teaching (distance learning) was the first encounter ever with this type of teaching, during the state of emergency in force in Serbia. This fact certainly influenced their attitudes and provided answers considering the impossibility of movement, rather short deadlines for establishing a functional teaching model at different educational levels and from different fields and professions, as well as the ever–present danger of the possibility of getting infected with COVID–19, a highly contagious and easily transmissible disease, about which there was no previous knowledge, but knowledge about the symptoms and treatment procedures was acquired in progress (Petrović, Dimić & Ljubojević, 2021). In addition, it should be emphasized that it was the students' only experience of rdistance learning, online learning, i.e., emergency or crisis online learning, and that

such crutcial fact mostly determined the students+ attitudes to this type of learning in general.

The share of the teachers and assistants who did not teach at all during this period was negligible; most of them organized lectures or exercises regularly or mostly regularly. Similar data were obtained by Kaličanin, Brdar and Vesić in their research (2021). This indicates the seriousness and conscientiousness in the approach of the teaching staff in Serbia to their obligations, even in the state of emergency conditions. Different platforms were used for teaching: from e–mailing already completed presentations to Internet platforms supporting vice versa communication, with Microsoft Teams, Zoom and Google Classroom being the most common ones. Similar results were obtained in the study by Đorđević, Pavlović and Vesić Pavlović (2020), Kaličanin, Brdar and Vesić (2021), Škobo (2022), and Vidosavljević (2022). It is the use of different platforms (especially when only one is used) that can partially explain the differences in the female students' experiences with distance learning. Teachers' insufficient training is most often cited as the reason for the diverse use of distance learning tools, in which the way of communication and presentation of teaching takes place on the platform the professor is familiar with, no matter f whether it suits the students and the subject (Gorghiu*et al.*, 2021; Singh–Pillay & Naidoo, 2020; Thakker, Parab & Kaisare, 2021). However, it should be noted that the dominant form of teaching is asynchronous, without direct live contact with the students themselves, which allows students multiple access at times when they want and / or can, and not when prescribed, which can be explained by harmonization of obligations in the private lives of teachers and students and a complete change in the organization of life and work (Asgari *et al.*, 2021; Ortiz Lovillo & Gidi Martí, 2021; Rahman, Rahman, Salamzadeh & Jantan, 2021; Singh–Pillay & Naidoo, 2020).

Almost half of the female students (42%) consider distance learning worse for learning compared to only 8% who prefer this type of learning over the traditional way, while the other half do not notice any difference in efficiency between distance and traditional ways of learning. It can also be assumed that the short time between the beginning of the application of this method to the actual examination prevented these students from noticing the difference in performance. Other research has shown that professors as no less important participants in the learning process have a similar view (Karchmer–Klein & Fisher, 2020; Rizun & Strzelecki, 2020), while the secondary–school teachers in Serbia have a somewhat better opinionabout the possibilities of this form of teaching, but they also objectively judge its weknesses (Jovanović & Dimitrijević, 2021). Nevertheless, the application of emergency remote teaching in this period certainly made some of its faults become visible during its performance, while its advantages were partially suppressed. It is the result of adjusting one concept of teaching (in the classroom) to a completely different condept (remote), in a crisis situation.

The female students' experiences regarding the same characteristic are different. While some emphasize the commitment of professors and assistants to work, including individual attention to the student, others, in a significantly higher percentage, point out their lack of commitment and "delay" of work, both among students and professors; some point out the "interesting feature" of distance learning as an advantage, while others consider (in a smaller procedure) that it is "boring"; a smaller number of female students emphasize the efficiency of this type of teaching, which forces them to be independent in their work, while there is a slightly higher share of those who see this loneliness in work as a flaw. Accepting responsibility for one's own work and learning outcomes instead of delegating responsibility to teachers is something that was implied in the work of traditional teaching even before the pandemic, especially students (Arkorful & Abaidoo, 2015; Jovanović, 2012). However, it seems that students did not like too much autonomy in working in a lockdown situation (Baptista, Costa & Martins, 2020; Vidosavljević, 2022) as they consider it a burdensome factor. Although such teaching was introduced precisely to eliminate the possibility of infection with COVID–19, safety is in the second place in the list of the distance learning advantages, while the first place is held by saving time, which is recognized as a significant factor in other studies (Abe, 2020; Đorđević, Pavlović & Vesić Pavlović, 2020; Stojković & Jelić, 2021; Xie, Siau & Nah, 2020), but also as an important, lasting advantage of distance learning and working conditions before the pandemic (Arkorful & Abaidoo, 2015; Sagheb–Tehrani, 2009; Sun & Chen, 2016).

Regarding the shortcomings of this type of teaching, there is a lack of interaction and communication – both vertical (student – professor) and horizontal (which is one of the main results of research to determine the negative aspects of distance learning (Asgari *et al.*, 2021; García–Alberti, Suárez, Chiyón & Mosquera Feijoo, 2021; Matijašević Obradović & Joksić, 2014; Ortiz Lovillo & Gidi Martí, 2021,), irreplaceability of the living word, lack of nonverbal communication, etc., as the results of previous research (Bettinger, Fox, Loeb & Taylor, 2017; Lee, 2012; Liu, Gomez & Yen, 2009; Kaličanin, Brdar & Vesić, 2021; Mullen & Tallent–Runnels 2006; Osterman 2000; Xu & Jaggars, 2014; Zhang, Zhao, Zhou & Nunamaker, 2004) in terms of distance learning in general, not only in a pandemic situation and an extreme form of quarantine.

The absence of practice in a living environment (school, kindergarten) – which is of special importance for the teaching and educational profession – is certainly a great and easily noticeable shortcoming of this type of teaching, which can only be partially eliminated by using virtual simulations and programs based on artificial intelligence. There are, of course, technical problems related to the Internet and technical support in general, which occurs as a result of research that does not cover only the pandemic period, with a special emphasis on the importance of economic aspects and material opportunities in terms of pandemics. the means and availability

of monitoring distance learning, both of the individual and of entire social strata, even countries (Adnan & Anwar, 2020; Almazova, Krylova, Rubtsova & Odinokaya, 2020; Baptista, Costa & Martins, 2020; Đorđević, Pavlović & Vesić Pavlović, 2020; Kamarianos, Adamopoulou, Lambropoulo,s & Stamelos, 2020; Matijašević, Obradović & Joksić, 2014; Nikolić & Milojević 2020; Lovillo & Martí, 2021; Policy Brief: Education during COVID–19 and beyond, 2020; Singh–Pillay & Naidoo, 2020; Vidosavljević, 2022; World Economic Forum, 2020). The main directions of technical problems were identified: lack of devices (mobile "smart" phone, computer, tablet), lack of Internet access and poor connection, lack and incompatibility of programs and applications, lack of training in handling various applications and platforms, and irregular Internet environment in which viruses or hacker intrusions can disable the information system and disable the use of the program, or produce other damage to users, such as changing and deleting data, and not only those related to distance learning (Đurović & Grujić, 2008). This safety aspect of distance learning is neglected, as it is not visible enough to students and professors, because it is not in the focus of attention, but it can certainly be studied from the aspect of performing on line teaching in emergency situations, including cyber peer violence (Kostić, 2021), not only in the conditions of pandemics, but also of natural disasters and war. as is currently the case in Ukraine (Petrović, 2021).

The female students' attitudes towards online teaching, obtained in current research, many of which are opposed, can be explained by the fact that this type of teaching is met for the first time, that this encounter occurred during the infectious disease pandemic of and state of emergency declared due to it (at the peak of the lockdown and restrictive measures in Serbia), and that it was a form of online teaching adjusted to the pandemic circumstances. Research has shown that the implementation of restrictive measures during quarantine can also affect mental health and self–confidence (Landrum, 2020; Lamanauskas & Makarskaite–Petkevičiene, 2021; Singh–Pillay & Naidoo, 2020), that the students' experience at the time of the survey was short–lived (two and a half months), that at the beginning of this type of teaching universities in Serbia were institutionally, technically and personnel unprepared for distance learning (they were not accredited for such teaching), that it is performed using Internet platforms with significantly different characteristics, that the programs were not intended for such manner of performance, all of which has brought about such diversity in terms of assessing the advantages and disadvantages of distance learning.

However, there is almost complete agreement that it is not justified to wait until the end of the pandemic, and then organize classes in the traditional way (only 10% of female students would accept that). Slightly more than two thirds of the female students believe that distance learning should be a common type of teaching only in emergency situations, but it is accepted as a supplementary type of teaching (in addition to traditional teaching) by almost the same share of the respondents – about

60%. On the other hand, one third of the female students are in favour of distance learning being introduced as a permanent way of teaching. From this it can be concluded that the female students:

a) are not ready to waste the time they planned to study waiting for the pandemic to end, and then to resume studying;

b) have a relatively conservative attitude towards the types of teaching and therefore do not accept distance learning as the only permanent type of university teaching, which is in line with the results of the studies by Chung, Subramaniam & Christ Dass (2020), Kaličanin, *et al.* (2021), Prodanović and Gavranović, (2020), Škobo (2022), Tanjga (2021). However, caution is necessary when making conclusions here, since these students had no previous experience of distance learning (online learning), but with an emergency form of such teaching, in which many faults are fully pronounced and it affects the formation of the students' attitudes;

c) the fact that 60% of female students accept distance learning as an additional form of teaching is an indicator that with gaining more experience in maintaining this type of teaching, particularly in crisis situations, there could be a more positive attitude towards distance learning, including a gradual complete transition to this type of teaching, which is in accordance with the conclusion that, based on the research among the students by Blatešić, Stanić and Šakan (2021) – namely that previous experience with distance learning has a direct impact on preferences and motivation in the work of students during the implementation of this type of teaching. Similar results were obtained by other researchers, for example Đorđević *et al.* (2020) and Rizun & Strzelecki (2020).

The weakness of the research was its focusing on the technical aspects of the satisfaction of the learning process more than on the individual aspects, e.g., satisfaction with the quality of learning materials and their availability, motivation for work, the importance of assessment and feedback on student performance as a form of self–regulation. Matijašević Obradović & Joksić (2014), for example, believe that teaching materials are the most important element of distance learning, since they are the main source of knowledge, while in traditional education they only support to the teaching process, while the teacher is the central figure. Moreover, various mental and emotional states, such as anxiety, personality traits, the effect of Zoom fatigue, technological anxiety and cognitive presence, which could affect the assessment of individual satisfaction, were not taken into account in this study.

On the other hand, although distance learning relies on the latest technical and technological advances, the process of learning and acquiring knowledge still requires the application of knowledge from different fields and a multidisciplinary approach to work (Temdee, 2020), which necessarily leads to changing perceptions

expectations of the teacher role. Teachers become managers who manage teaching activities, where a far more active role is expected from students than in the classic model of teaching, with a shift of focus to the features of the material itself, i.e., teaching content. All this places the professor in the position of a person who must possess pedagogical, social, psychological knowledge, but also managerial skills as well as technological ones (Florence, Ritzhauptb, Kumar & Budhrania, 2019). Therefore, distance learning has its secondary benefit in the training of students and teachers to work in a new technological environment and mastery of new information technologies, including also the technologies based on the application of artificial intelligence. The results of current research offer feedback to professors of social sciences and humanities on the results of their work, how students see and evaluate their ability to adapt to the new virtual environment and enable better adaptation of teaching and use of teaching materials, tools and methods to improve the acquired knowledge.

The recommendation for future research is a potential comparison of the opinion of students of teacher education faculties from Serbia with the opinions of the students from the same fields in other countries, as well as a comparison with the opinions and experiences of other faculties in Serbia, as well as a potential examination of satisfaction with the teaching of certain groups of subjects, in order to establish where this form of teaching could reach its full potential in the future. Furthermore, it would be interesting to examine the satisfaction of postgraduate students of different levels, since they already have some practical experience and are mostly already employed, so the lack of practice cannot be a problem, while previously acquired experiences and harmonization with working hours and family responsibilities would, from their point of view, most likely have the greatest significance in terms of their attitude towards distance learning.

■ CONCLUSIONS AND IMPLICATIONS

The research whose results are presented in this paper was conducted immediately after the abolition of the state of emergency in Serbia, in the midst of the COVID–19 pandemic as an insufficiently known infectious disease and at the time when vaccination had not yet been implemented. In addition, the respondents encountered distance learning, particularly emergency online learning, for the first time in their lives, without any prior preparation or knowledge about it, even insufficiently technically equipped to participate in this type of teaching. Hence many doubts about the advantages and disadvantages of this type of teaching – what some see as advantages, others see as disadvantages. In addition, since the rapid transition to this type of teaching was forced by the pandemic, which is in itself a stressful experience,

there was no uniform quality and IT support for distance learning at all faculties where the research was conducted, nor were the teaching staff sufficiently trained to use the educational information technologies at their disposal in full capacity.

The results of the paper indicate that the female students recognize both advantages (saving time and money, space comfort and convenience, flexibility in terms of maintenance time and methods of work, interesting and accessible work materials, greater commitment of the teaching staff to teaching) and disadvantages of distance learning (lack of social interaction and communication, technical–technological problems, as well as difficulties in stepping out of the classical classroom environment, which concern the teaching process itself such as ambiguity, lack of commitment and lack of concentration) in the conditions of its application in the crisis situation.. However, the only important advantage that stands out and is directly related to the pandemic and the extraordinary conditions for organizing classes, is the security felt by the students during the performance of this type of teaching. Furthermore, the question is to what extent the time, i.e., locking and reducing the number of social contacts, as well as the inability to go outside, intensified the perception of social interaction and communication as the most prominent shortcomings of distance learning, combined with the reported sedentary lifestyle, boredom and loneliness, which are also cited as reasons. It is also necessary to emphasize the fact that distance teaching was performed in a crisis situation as emergency distance teaching, and that the students acquired a direct experience of such type of education. Therefore, it is not surprising that the final choice of students is that distance learning is acceptable only in emergency situations or as an additional form of teaching if necessary. This is supported by the feeling of deprivation for acquiring practical knowledge, which is the basic meaning of these two professions, since it is difficult to establish knowledge transfer and gain personal experience, by simple observation without direct participation in working with children, or in artificially created circumstances and environment, since the basic meaning of both professions is interaction.

Distance learning is certainly a useful form of teaching, fully applicable and widespread in normal situations. The basic meaning of emergency online teaching is to maintain the continuity of the process of acquiring knowledge in situations when it is not possible to establish a classical form of teaching, especially in extraordinary circumstances. However, it entails a number of unknowns and difficulties, but also advantages, some of which are presented in this paper. The pandemic has become a driver of change in educational institutions at all levels, in all countries of the world, forcing them to develop innovative, comprehensive, accessible and easily usable solutions in an extremely short time. However, one should keep in mind the opinion of Stanković (2012) that due to the technologization of the teaching process leads to its industrialization and division of labour. Therefore, if the teaching method is merely copied, without recognizing specific requirements dictated by the crisis situation,

opportunities, potentials and resources and the adaptation of all participants in the process to them, the transfer of knowledge, especially practical knowledge, may be brought into question.

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