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HIGH SCHOOL STUDENTS' PERCEPTIONS OF EMERGENCY REMOTE TEACHING IN SERBIA DURING THE COVID-19 PANDEMIC

Abstract: Following the declaration of the state of emergency in Serbia, after the novel COVID-19 outbreak was declared a global pandemic, all the educational institutions in the country were closed, and the different modes of emergency remote teaching (ERT) were introduced. In order to highlight the problems and attitudes of students, in regard to the newly introduced online-based emergency remote teaching model, we conducted a survey with high school students. The research question was how the unplanned switch from the traditional learning setting to online learning affected the learning practice, and what the outcomes of the integration of digital technology in education are. The aim of the study was to determine the best advantages and the biggest disadvantages of the introduced emergency remote teaching model, from the students' point of view, during the initial phase of the teaching model implementation. The obtained results indicated the best advantages of the applied learning model in the domain of learning time management opportunities, and the biggest disadvantages in relation to the teaching and learning technical support problems and social distance. The results of this study could be used by policymakers and practitioners in order to prepare plans and programs for emergency remote teaching, and also to improve traditional teaching models.

Keywords: emergency remote teaching, online learning, COVID-19 pandemic, social distance, Serbia.

1. INTRODUCTION

The COVID-19 pandemic disrupted life as we know it, and its effects we are only beginning to realize. During the COVID-19 pandemic, due to the mandatory quarantine and isolation of people, communication and social connections are being based on the use of technology. Every aspect of society was affected by this new state, including the educational sector, and one of the challenges was the adjustment of the educational sector to the new circumstances. Education is seen

as the process by which society transmits its accumulated knowledge, values, and skills from one generation to another (Oyeniran et al. 2020). This emphasizes the importance of educational institutions for the society wellbeing. According to UNESCO, by May 12th 2020, 69.4% of total enrolled learners, from pre-primary to tertiary education levels, in 162 countries had their education disrupted by the spread of COVID-19, with nationwide shutdowns of educational institutions, as a type of social distancing practice outlined as an emergency response by the public health officials (COVID-19 Educational Disruption and Response 2020). Long-term educational institutions closure not only affects communities and families, but it can have potential adverse implications on the education of students who are no longer able to attend classes, and for whom alternate ways of learning must be found (Hodge et al. 2008). A temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances could be described as an emergency remote teaching. This practice involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face. The primary objective is to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is available during the crisis (Hodges et al. 2020).

During the COVID-19 pandemic, Serbia was one of many countries that responded to educational institutions closures by implementing emergency remote teaching, in different forms of online distance learning. This study is concerned with the evaluation of the online learning model applied in the case of emergency remote teaching in high school education in Serbia, during the initial phase of the teaching model implementation. It relies on the previous theoretical studies that deal with the basic concepts of online learning in general. Although arguments to advance education in emergencies often draw on evidence at very different ends of the spectrum: macro level analysis (i.e. global numbers out of school) and more anecdotal sources (i.e. stories of children out of school in a particular crisis) (Nicolai, Hine 2015), this research is based on students' personal experience, with the evaluation of emergency remote teaching focused more on the context, input, and process elements than product (learning) (Hodges et al. 2020), since the course design features are not always clearly connected to evidence-based student learning outcomes (Florence et al. 2019).

1.1. EDUCATION DISRUPTION AND SCHOOL RESILIENCE

In literature from across the world there are many examples that show that children and youth are generally more vulnerable to disasters than other age groups, due to their developing mental and emotional capacity (Nanda, Raina 2018). Serious impacts on educational services and sudden interruption of the educational process could lead to mental disorders in students (Mirzaei Mohammadinia et al.

2019). Children and youth experiencing education disruption are susceptible to short and long-term compounding psychosocial impacts such as depression, anxiety, sleep disorders, and behavioral problems. Further, educational institutions closures increase drop-out rates, reduce content coverage, test scores, and students' academic confidence and perception of themselves (Paci-Green et al. 2020).

It is recommended that educational institutions employ disaster preparedness programs that focus on educating employees about cultivating accurate threat perceptions and respond accordingly, in order to maintain school resilience (Weber, Schulenberg, Lair 2018). Resilience has been defined as the ability of a social or environmental system to absorb disorders by maintaining a basic structure, ways of functioning, organizational capacity, and the ability to adapt to stress and change (Mirzaei et al. 2019). In regard to the importance of school resilience, it is of great importance that, together with the awareness program which provides the individuals with information and proficiency and enhance school preparedness, a successful emergency remote learning model is established (Sharma et al. 2017).

1.2. ONLINE DISTANCE LEARNING AND DIGITAL TECHNOLOGY

During the COVID-19 pandemic there has been a growing reliance on the use of technology to learn, live, and stay connected. This also applies to educational system. Since the early 2000s, a growing group of educators has been interested in using information technology, particularly computers, to mix face-to-face and online instructional methods for courses that are commonly referred to as hybrid, blended, flipped, or inverted (Margulieux, McCracken, Catrambone 2016). This practice implies the integration of particular aspects of online learning into traditional settings. The emergency remote teaching model is essentially based on the concept of online learning, although it is always developed on a short notice and conducted with limited resources, due to specific circumstances. Online distance learning can be defined as any curriculum delivered to a student separated by time and/or space from an instructor (Sagheb-Tehrani 2009). Following the development of online learning over time its definition has evolved, first of all in relation to the development of information technology and different mediums and communication channels it relies on (Sun, Chen 2016). Today, every distance learning model is based on the use of Internet, which provides numerous communication channels and platforms, and the use of computers, tablets, smart phones and similar technological devices in the teaching and learning process. With the widespread adoption of online learning to replace classroom learning, it is essential to understand how the mechanism of online interactions supports a meaningful online educational learning (Choy, Quek 2016: 106).

Numerous advantages of the use of digital technology in the teaching process are being recorded. There are five reasons suggested for technology use in edu-

cation: (1) motivation, (2) distinctive instructional abilities, (3) higher productivity of teachers, (4) essential skills for the Information Age, and (5) support for new teaching techniques. Learning content presented through interactive visual media makes the learning process more dynamic and more interesting, enhancing the students' motivation to engage in the learning process as active participants. This is in accordance with the main aim of learning which implies knowledge preservation, transmission and creative application (Oyeniran et al. 2020). Online learning concept allows the focus of education to be on students' needs and interests. Also, the study on learners' perception on online learning in the midst of the COVID-19 pandemic in Indonesia, which is in line with Popovic and Mironov (2014), reveals that students are deeply aware of the changes brought over by the digital technologies, and their impact on the learning process (Deli Girik 2020).

Although online learning concept as an emergency remote learning is a solution for preventing compounding psychosocial impacts on children and youth, due to educational disruption and students' decreasing academic achievement or negative behavioral responses to these situations, providing the continuity of appropriate educational services, there are some disadvantages of online learning noticed (Stough et al. 2020). It has been stated that there is a lack of visual cues and an absence of the nuance of body language to mediate interactions and discussions (Philippa Isom 2018). Also, non-completion in the higher online educational context (e.g. blended and higher distance education) appears to range from 78% to around 99% (Delnoij et al. 2020). According to Van Popta (2017), the possible learning benefits of providing peer feedback in online learning have not been extensively studied (Popta et al. 2017).

Based on the findings, some authors argue that effective online instruction is dependent upon (1) well-designed course content, motivated interaction between the instructor and learners, well-prepared and fully-supported instructors; (2) creation of a sense of online learning community; and (3) rapid advancement of technology (Sun, Chen 2016). Every innovation introduced in the didactic and methodic organization of the teaching process should be progressive and scientifically based (Parlić-Božović 2014). Although online education has been relying on smart learning environment, supporting learning and teaching still requires the knowledge from the multidisciplinary area (Temdee 2020; Vasilj, Zovko, Vukobratović 2017), particularly since studies have shown that the role of an instructor has been shifted from subject matter expert to a course facilitator, with the facilitation including four categories: Pedagogical, Social, Managerial, and Technical (Martina et al. 2019).

2. RESEARCH METHODOLOGY

The main intention of the research was to determine the best advantages and the biggest disadvantages of the introduced emergency remote teaching model

(ERT), from students' point of view, during the initial phase of the teaching model implementation. The emergency remote teaching model was conducted as a distance learning model, and this was the first time that the Serbian education system introduced this mode of teaching on all the levels of education. This distance learning model included TV broadcastings of the previously recorded lectures presented by teachers. The main shortcoming of this teaching model was the complete lack of interaction between students and teachers. In order to enable the student–teacher interaction and communication, this teaching practice was complemented with the use of different online platforms and social networks.

The survey sample included 339 high school students from various regions of Serbia. For the purpose of survey conduction a specialized questionnaire was designed and distributed in different online channels during the declared emergency due to the COVID-19 pandemic in April 2020. The questions were divided into three categories. The first category consisted of questions regarding independent variables in relation to school type, and socio-economic status of students, which are shown through their technical equipment for online learning (5 closed-ended questions). The second category was focused on students' experiences, perceptions and assessment of the implemented emergency remote teaching model (26 Likert Scale-type questions). The questions referred to the technical organization of teaching, as well as its scope, communication with teachers and other students, the manner and quality of assessment, and the perception of the online learning process itself. The third category included 3 open-ended questions about the advantages and disadvantages of this learning model, so the students were able to describe their observations in their own words. IBM SPS Statistical 25 software was used for data processing and Microsoft Office 2013 (EXCEL) was used to display data. The data were presented by the methods of descriptive and multivariate statistics. In order to reduce the number of variables, the detection of patterns and reveal hidden variables of emergency remote teaching, a factor analysis was applied.

2.1. SAMPLE DESCRIPTION

Of the given sample, 128 male and 210 female participants took part in the survey. The sample was stratified by the type of high school – gymnasium (216) and specialized school (123), and the type of equipment used for accessing the learning content and instructions, Figure 1. By far the highest percentage of students (89%) had technical equipment that included smart phone, rewind TV and computer with Internet connection. Even though this distance learning model was primarily based on the presentation of the learning material in the form of TV broadcastings, 58.7% of students stated that they do not follow lectures presented on TV. 49.57 % of students considered the teaching process well organized, while 26.25% of them did not declare on this issue (Vučetić, Vasojević, Kirin 2020).

Figure 1. Technical equipment of students
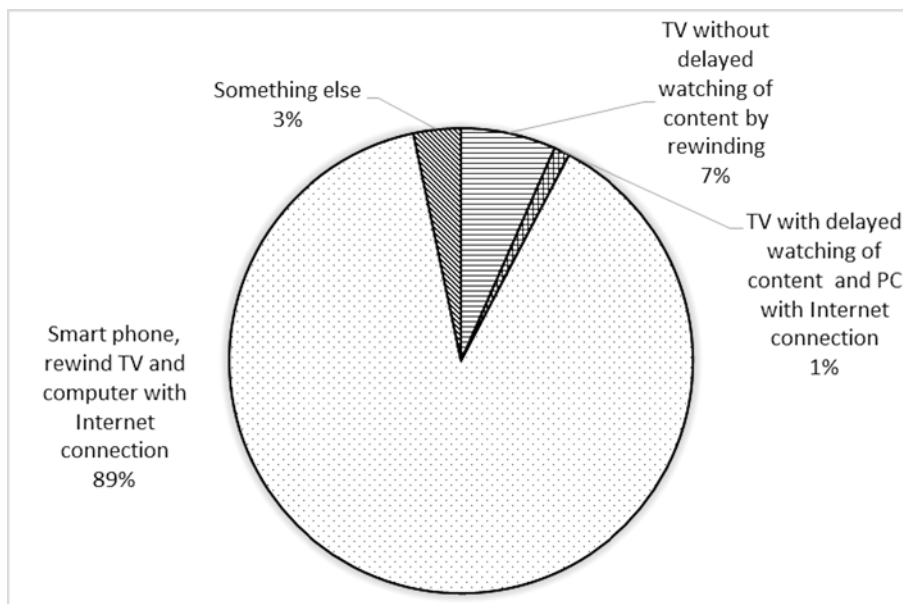
In intercommunication and in communication with professors the highest percentage of students (35.7%) used mobile applications for exchanging text messages and video chat: Viber, Skype, WhatsApp, etc.; 25.7% of students used social networks, like Facebook, Instagram, Discord etc.; while 11.2% of students used digital learning platforms and services, like e-mail, Zoom, Google drive, Google Hangouts, Google classroom, Teams, etc., mostly for the purpose of presentations, projects, homework and tests. According to this data, no uniform educational platform was used in the teaching process, and teachers choose various online websites and applications for the exchange of the teaching material and communication with students, in regard to their own preference.

3. RESEARCH RESULTS

Although the use of digital technology in online learning brings many advantages when it comes to the quality of the teaching and learning process, the results of this research show that technology issues are also the main cause for the interruption of the education process flow and delays. The problems caused by the malfunction of the technical equipment and Internet connection are showed to be the main reason for delays in online courses (61%). The most common reasons for waiting for the class to begin are given in Figure 2.

Figure 2. The most common reasons for waiting for the class to begin
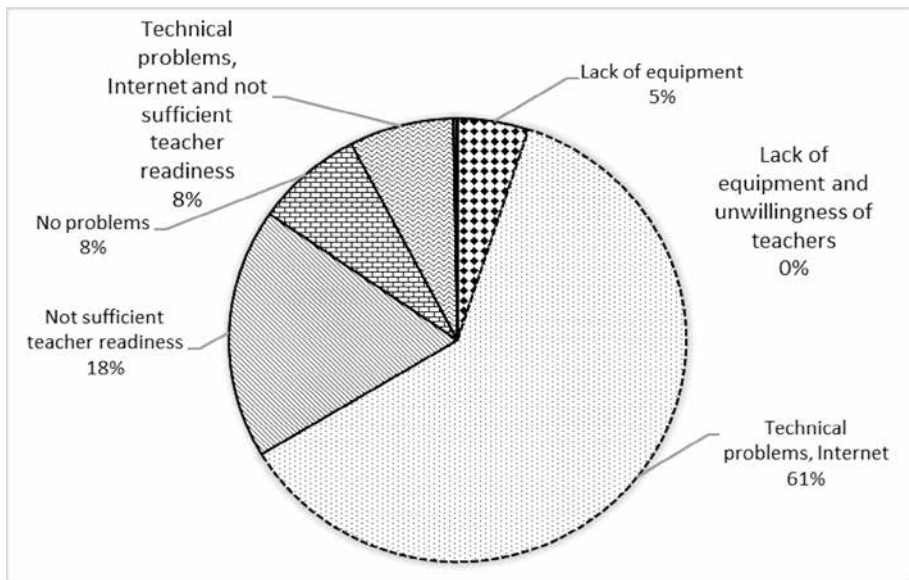
According to the research results, from the students' point of view, the best advantages of the introduced emergency remote teaching model are connected to the flexibility of the learning organization, time management and overall effectiveness. The main benefits of the applied emergency remote teaching model are shown in Table 1.

Table 1. The main benefits of emergency remote teaching model

	Frequency	Percent	Valid Percent	Cumulative Percent
More time for learning, more free time, no time spent on he way to school and back…	161	47.5	47.5	47.5
Better grades, copying in exams, less learning – better grades, more flexible learning content presentation	34	10.0	10.0	57.5
There is no advantage	40	11.8	11.8	69.3
I organize learning myself, I organize my time, I can review the material several times, I manage my assignments myself…	76	22.4	22.4	91.7
No answer	17	5.0	5.0	96.8
Better time scope for learning and independent organization of learning time	10	2.9	2.9	99.7
More free time and better grades	1	0.3	0.3	100.0
Total	339	100.0	100.0	

3.1. DETERMINING THE MAIN FACTORS FOR THE APPLIED EMERGENCY REMOTE TEACHING MODEL

Factor analysis was applied to 26 variables on the functioning of the implemented emergency remote learning model, in order to determine the most significant impacts that need to be addressed. Factor analysis, as a multivariate technique, is used to reduce a large number of variables to a smaller number of new (latent) variables when necessary, in order to provide a clearer view of the phenomenon being studied. The method works by grouping variables that are correlated with each other into one new variable, which was not apparent at first glance, and this is implemented for all the initial variables. In this way, the main factors of influence are being more clearly represented (Vasojević, Kirin 2019). Prior to the applying Principal Component Analysis, the suitability of the data for

Table 2. KMO and Bartlett's Test

Kaiser–Meyer–Olkin Measure of Sampling Adequacy		0,888
Bartlett's Test of Sphericity	Approx. Chi-Square	3434.725
	Df	325
	Sig.	0.000

factor analysis was assessed. The correlation matrix showed a significant number of coefficients of 0.3 and higher. Kaiser–Meyer–Olkin Measure of Sampling Adequacy = 0.888, which is higher than the minimum recommended value of 0.6, as shown in Table 2. Bartlett's Test of Sphericity has reached statistical significance (Sig < 0.001). These results confirmed the adequacy of Factor analysis application.

Figure 3. Scree Plot
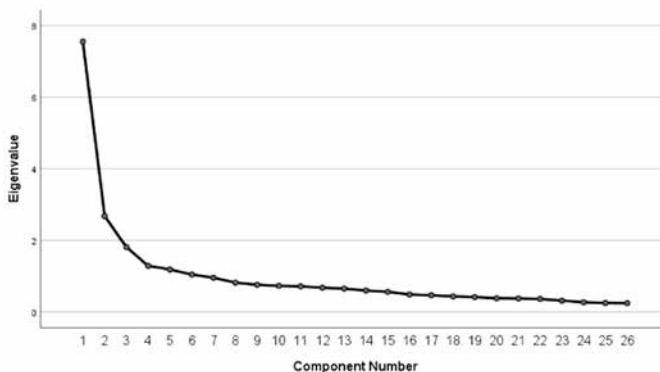
As the Principal Component Analysis method was applied to extract factors, the variance equals the eigenvalue. Using the Kaiser criterion, only the factors with eigenvalues that are greater than 1 were retained. The Scree plot, Figure 3, orders the eigenvalues from the greatest to the smallest. The first six factors have variances (eigenvalues) that are greater than 1. The percentage of variability explained by Factor 1 is 0.2904 or 29.04%. The percentage of variability explained by Factor 2 is 0.1029 or 10.29%. The percentage of variabilities explained by factors 3, 4, 5 and 6 are, respectively, 6.96%, 4.94%, 4.56%, and 4.03%. The Scree plot shows that the first six factors account for the most of the total variability in data (explained a total of 59.82% of the variance). The remaining factors account for a very small proportion of the variability, and are likely unimportant. In order to make the components easier to interpret, the Varimax orthogonal rotation was implemented, presented in Table 3.

Table 3. Rotated Component Matrix

	Component					
	1	2	3	4	5	6
The learning content and the amount of the learning material corresponds to the learning time scope	0,774	0,099	0,264	0,106	0,107	0,041
I manage to review all the learning material, do my homework and learn what is planned by curriculum	0,733	0,203	0,080	0,130	0,015	0,223
I manage to prepare for the class adequately	0,658	0,237	0,121	0,253	0,023	0,171
I need less time to finish all my school assignments	0,656	0,083	0,016	0,391	0,045	0,136
I can organize my learning time myself, and I can access the learning material multiple times	0,613	0,162	-0,053	0,323	0,045	0,124
Classes are well organized	0,609	0,226	0,396	0,032	0,122	0,175
Lessons are clearly and understandably presented	0,578	0,165	0,322	0,065	0,215	0,263
Any interference due to technical equipment and Internet connection issues is quickly eliminated	0,158	0,781	0,181	0,124	0,077	0,028
Teaching process flow is not interrupted due to technical equipment and Internet connection issues	0,216	0,729	0,073	0,044	0,132	0,003
A good way for students to communicate with each other is provided (group work)	0,113	0,682	0,077	0,215	0,116	0,083
A good way for students to communicate wi h professors is provided	0,232	0,601	0,356	0,156	0,166	0,228
Additional and supplementary classes are provided by teachers	0,023	-0,102	0,665	0,199	0,078	0,087
Teachers ask for a feedback on to what extent we are satisfied with the teaching process	0,099	0,223	0,657	0,212	0,110	0,067
School is well equipped with technological devices required for online distance learning conducting	0,199	0,375	0,610	0,035	0,009	0,024
Professors are well versed in the techniques required for online distance learning conduc ing	0,326	0,406	0,584	0,104	0,027	0,099
Professors answer the questions on a short notice	0,328	0,380	0,473	0,065	0,044	0,095
This ERT model suits me better than the traditional learning setting	0,235	0,195	0,026	0,754	0,243	0,065
ERT model is more interesting than the traditional school setting	0,206	0,231	0,055	0,705	0,266	0,025

	Component					
	1	2	3	4	5	6
No time spent on traveling to and from school is significant for me	0,085	-0,003	0,274	0,679	0,011	0,085
It is easier for me to learn with his ERT model	0,366	0,111	0,072	0,602	0,354	0,033
Online test is NOT enough for the fair assessment of my knowledge (without verbal communication)	0,010	-0,075	-0,146	0,020	0,736	0,016
Online tests allow more copying then in traditional settings, therefore it is less objective	0,196	-0,083	-0,154	0,145	0,703	0,126
Lack of face-to-face instructions and communication with professors affects the quality of learning	-0,190	0,059	0,161	0,134	0,667	0,026
I miss social contact with my schoolmates, and that affects my mood	-0,063	-0,052	0,117	0,296	0,588	0,154
I review the learning content shared by the professors	0,115	0,160	-0,002	0,137	0,119	0,834
I watch lectures presented on TV	0,224	0,017	0,273	0,002	0,058	0,610

Extrac ion Method: Principal Component Analysis. Rotation Me hod: Varimax with Kaiser Normalization. Rotation converged in 12 iterations.

Extraction Method – Principal Component Analysis, and Rotation Method – Varimax with Kaiser Normalization were used. Rotation converged in 12 iterations. After the examination, the variables associated with the individual components are interpreted as follows: 1. *The adequate learning scope and learning time*; 2. *The technical quality of the teaching organization*; 3. *The teacher's preparedness and engagement*; 4. *The advantages of ERT model*; 5. *The disadvantages of ERT model*, and 6. *The way of learning.* In this manner 6 new independent variables were constructed, which do not correlate with each other. The main components related to the emergency remote teaching model, as well as the variables on the basis of which they were determined, are presented in Table 4.

Table 4. The main components related to emergency remote teaching model

The adequate learning scope and learning time	The technical quality of the teaching organization	The teacher's preparedness and engagement	The advantages of ERT model	The disadvantages of ERT model	The way of learning
The learning content and the amount of the learning material corresponds to the learning time scope	Any interference due to technical equipment and Internet connection issues is quickly eliminated	Additional and supplementary classes are provided by teachers	This ERT model suits me better than the traditional learning setting	Online test is NOT enough for the fair assessment of my knowledge (without verbal communication)	I review the learning content shared by the professors
I manage to review all the learning material, do my homework and learn what is planned by curriculum	Teaching process flow is not interrupted due to technical equipment and Internet connection issues	Teachers ask for a feedback on to what extent we are satisfied with the teaching process	ERT model is more interesting than the traditional school setting	Online test allows more copying than the test conducted in the traditional set ing, therefore it is less objective	I watch lectures presented on TV

The adequate learning scope and learning time	The technical quality of the teaching organization	The teacher's preparedness and engagement	The advantages of ERT model	The disadvantages of ERT model	The way of learning
I manage to prepare for the class adequately	A good way for students to communicate with each other is provided (group work)	School is well equipped wi h technological devices required for online distance learning conducting	No time spent on traveling to and from school is significant for me	The lack of face-to-face instructions and communication with professors decreases the quality of learning	
I need less time to finish all my school assignments	A good way for students to communicate with professors is provided	Teachers are well versed in the techniques required for online distance learning conducting	It is easier for me to learn with this ERT model	I miss social contact with my schoolmates, and that affects my mood	
I can organize my learning time myself, and I can access the learning material multiple times		Teachers answer the questions on a short notice			

4. DISCUSSION

The largest percentage of students (89%) had technical equipment that included smart phone, rewind TV and computer with Internet connection. In intercommunication and in communication with professors the highest percentage of students, 35.7%, used mobile phone applications; 25.7% of them used social networks, while 11.2% of them used digital learning platforms. According to students who participated in the survey, the main benefits of this emergency remote teaching model are more free time and no time spent on traveling to school (47.5%); followed by the possibility to organize studying time in accordance to their own convenience, and to review the learning material multiple times (22.4%); and better grades, the possibility of copying on tests, less learning and more flexible teaching instructions (10%).

The emergency remote teaching perception model contains 6 independent components obtained by factor analysis. The obtained factors represent the constructs that connect different stakeholders of the education system: the state's education policies creators and managers, teaching staff and students. Factor 1 is primarily concerned with the adequate learning scope and learning time management, and depends on the education policy makers' decisions and competences to create an educational program which corresponds to the students' capabilities. Factor 2 primarily addresses the school's technical equipment required for the ERT model realization. Factor 3 focuses on teacher's preparedness for ERT, and

engagement in the teaching process. Factors 4 and 5 imply ERT model characteristics, both advantages and disadvantages. Factor 6 is related to the learning material presentation techniques and methods.

It is shown that the variables *The adequate learning scope and learning time* and *The technical quality of the teaching organization* have the strongest influence on students' attitude to emergency remote teaching. But these influences are in the opposite. To be able to cope with the volume of the presented learning content and manage the studying time efficiently increases the students' satisfaction with online teaching instructions. These findings are in accordance with the previous research findings, given that convenience and flexibility that this learning format offers to students is confirmed to be the major impetus for the rapid growth of online education (Abe 2020). However, the problems due to distance are connected with the extreme decreasing of students' satisfaction with online learning. The poor quality of communication, related both to technical issues in regard to the teaching process flow, and reduced possibility of interaction with professors, is also a predictor of significant influences and it decreases the satisfaction with online learning, as well as the lack of social contact and creative cooperation with other students. These findings are consistent with the recent research findings illustrating that students valued instructor-to-student interactions most when compared to student-to-student and student-to-content strategies (Florence et al. 2019). This is also in line with the results of the previous research that indicated the need for visual communication and body language to mediate into interactions and improve discussions during the learning process (Stough et al. 2020). The most common reasons for delay in the process of emergency remote teaching, according to the results of this research, are technical problems and problems with Internet connection (61%), followed with "teacher's unpreparedness" (18%), and "the lack of technical equipment" (5%).

In regard to the findings presented, certain limitations of the study should be highlighted. The research included only high school students in Serbia, indicating their perspective in relation to the emergency remote teaching model, not taking into account students' ambitions and school achievement. Further research should consider these factors as well, in order to provide more accurate information about the relationship between the students' interests and success and online learning satisfaction. The survey could be extended to primary school and higher education students, to investigate if there is a significant difference between the perceptions of online learning method effectiveness on the different education levels. The examination of the teachers' attitudes should be included as well, so the positive examples of distance online learning practice could be presented.

5. CONCLUSION

During the crises, emergency remote teaching in a form of distance online learning is often the only possible way to maintain the continuity of education. The obtained results in presented study indicate that students perceived both advantages and disadvantages of distance online learning method, and that the use of digital technology contributes in a significant manner to both. The use of digital technology in the learning environment may introduce innovative ways of the learning content presentation and communication. As in traditional education settings, in order to provide the effective learning practice, the curriculum and the volume of the learning material should be well balanced with the time scope and the students' feedback. The use of interactive visual media and digital learning environment may improve the learning process in terms of dynamic, students' activity, flexibility, time management and mobility, but the lack of verbal communication and visual contacts followed by the absence of body language may limit students' interaction and motivation. These findings are in accordance with previous studies which showed that, from student's point of view, the best advantage of online courses is flexibility, and the biggest disadvantage is "not having constructive feedback on complex concepts", followed by "more time constraints on online tests" and "no face-to-face contact" (Sagheb-Tehrani 2009).

The new technology also brings challenges for teachers who should be well prepared and trained to work in a digital learning environment, engaged and present in correspondence. In addition, the interactive online learning community should be formed, in order to maintain intercommunication, so the lack of face-to-face contact, distinctive for traditional education settings, is compensated to some extent. The results of the presented research could contribute to better understanding of the educational process participants' attitudes about the model of emergency remote teaching to which they were exposed without preparation. These findings also contribute to a broader view of the application of the new digital technologies in the educational process, both for the improvement of the traditional teaching settings, and in planning the model of emergency remote teaching and online education in general, providing guidelines for developing skills to teach and learn in an online environment, in order to form learning environments that are flexible, inclusive, and student-centered, and which contribute to the functional knowledge development.

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ИСКУСТВА УЧЕНИКА СРЕДЊИХ ШКОЛА ТОКОМ ПРИМЕНЕ МОДЕЛА НАСТАВЕ НА ДАЉИНУ У ВАНРЕДНИМ УСЛОВИМА У СРБИЈИ ТОКОМ ПАНДЕМИЈЕ КОВИДА 19

Резиме: Након проглашења глобалне пандемије ковида 19 у свету, а затим и увођења ванредног стања у Републици Србији, суочили смо се са бројим друштвеним променама које су и даље присутне. Образовни систем се нашао пред огромним изазовом, услед затварања свих образовних институција и увођења различитих модела наставе на даљину у ванредним условима. Како би се утврдили ставови ученика и проблеми са којима су се сусрели током примене овог наставног модела, спроведено је истраживање на узорку ученика средњих школа. Циљ студије је био да се из угла ученика сагледају најистакнутије предности и највећи недостаци модела наставе на даљину у ванредним условима, који је тада имплементиран. Такође, истраживање је имало задатак да утврди на који начин и у којој мери је непланирани прелазак са традиционалног на онлајн модел учења утицао на праксу учења, и који су исходи интеграције дигиталне технологије у образовање. Добијени резултати показују да су највеће предности примењене методологије учења уочене у домену могућности управљања временом, а да се највећи недостаци првенствено односе на техничку организацију наставног процеса и проблеме настале услед социјалне дистанце. Резултати ове студије могли би да буду од користи креаторима образовних политика и практичарима за припрему планова и програма за реализацију наставе на даљину у ванредним условима, као и за побољшање традиционалних модела наставе и учења.

Кључне речи: настава у ванредним условима, онлајн-учење, пандемија ковида 19, социјална дистанца, Србија.