

## **TEACHERS AND PARENTS EXPERIENCES DURING THE COVID-19 PANDEMIC IN THE REPUBLIC OF SERBIA**

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### **ABSTRACT**

The COVID-19 pandemic is a global health issue and has a major impact on education in different ways. Soon after the Republic of Serbia had confirmed the first case of the novel coronavirus pandemic in March 2020, all educational institutions were enforced to rapidly convert all their courses to emergency remote teaching and learning as a mitigation strategy against the risk caused by COVID-19. Such protection measures posed a unique challenge for all the participants, students and their parents, teachers, and institutions in general. The research analyses of parents' and teachers' perceptions of the applied educational measures aim to explore the transition from regular to online teaching in Serbian schools. Data were collected through surveys with 365 parents and 289 class teachers in primary and secondary schools. The main conclusion indicates that the implementation of online learning during the pandemic has been especially problematic and challenging for families. Various problems occurred regarding both teachers' and pupils'/parents' points of view. Some of them include: 1) internet usage, 2) pupils' inadequate organization, 3) unnecessary parents' engagement and 4) planning, implementation, and evaluation of learning.

**Keywords:** COVID-19, pandemic, education, online.

### **INTRODUCTION**

The World has a long history of pandemics. Some of them were indicated as highly deadly, such as several plagues and choleras, and the most severe pandemic in recent history is simply known as the Spanish Flu influenza (causing around 50 million deaths worldwide during 1918–1920) (Trilla, Trilla, & Daer, 2008). Milder influenza pandemics occurred afterward in 1957, the Asian influenza pandemic (Henderson, Courtney, Inglesby, Toner, & Nuzzo, 2009), and in 1968, the Hong Kong Flu influenza pandemic (Jester, Uyeki, & Jernigan, 2020). These diseases were estimated to have caused 1–4 million deaths each. Since the last pandemic, humans have taken massive leaps forward in improved sanitation and hygiene, making the population healthier and less vulnerable to illnesses than ever before. Despite this, the whole world was completely unprepared for the next big pandemic.

On December 8, 2019, China notified the World Health Organization (WHO) of a case of pneumonia with unknown etiology in the central Chinese city of Wuhan. The disease was officially named Coronavirus disease-2019 (COVID-19) (Daga et al., 2021). Since the beginning of the epidemic, over 544 million people have been infected across the world, and more than 6.3 million people have died from this virus so far (World Health Organization [WHO], 2022). Considering a wide range of consequences that occur with the spread of COVID-19, it is clear that many countries have applied various measures in order to prevent the transmission of this infection.

Surprisingly, China was not the first country in the world to close all the schools. A few days before the Chinese made the decision, on January 27, 2020, Mongolia had already made this important resolution. In Europe, on March 15, 2020, 50 countries, and a day later, 108 countries all around the world had implemented the same measure. On March 17, 2020, the Serbian government ordered the emergency closure of all educational centers in the Republic of Serbia as a response to the COVID-19 pandemic. Such a decision posed great challenges, requiring teachers to adapt to

various digital tools and resources, to solve problems and implement new approaches to teaching and learning. Beyond didactic goals, teachers were also required to maintain contact with their students on account of the social integration of their learning groups. The school lockdown also confronted students and their parents with an entirely new situation. According to UNESCO (UNESCO, 2020), the impact on students from primary to tertiary level is unprecedented: school closure in countries across the world to contain the spread of COVID-19 is disrupting the education of more than a billion students, which is almost the total of enrolled learners.

After studying the existing literature, we concluded that there was no comprehensive large-scale survey on how teachers and students' parents from the Republic of Serbia experienced the unexpected and unprecedented crisis of the COVID-19 pandemic. Thus, our study presents a novel, original, and current contribution to information and speculation about education in the global health crisis by focusing on teachers' and parents' views of online learning. The basic method used in conducting the study was the survey method, which used a questionnaire as a tool. The questionnaires were created using Google Forms and spread over the network of educational communities from April 27 to May 13, 2021. Responses were automatically collected and statistically processed by the Google Forms application. Data were then imported into the Excel program (Office 365) for a clearer graphical representation, which facilitated their analysis and interpretation. The answers to the open-ended questions were categorized according to the criterion of similarity and the most frequently reported aspects are presented in the manuscript. In order to measure the influence of teachers' and students' socioeconomic status and occupational aspirations on their teaching and learning habits during school closures, the survey included two major groups of questions: (1) Parents' point of view of student's learning habits, including hours of learning before and during the period of school suspension, with and without other people's support and (2) Teachers' perceptions of their self-learning during the school closures and their perception of student engagement. The final dataset included 654 valid observations, in total – 289 teachers and 365 parents.

### **Covid-19 and Education in the Republics Of Serbia**

The first official case of COVID-19 in the Republic of Serbia was reported on 6 March 2020. To limit the spread of the COVID-19 virus the Ministry announced a series of measures, such as minimizing social contact, avoiding meeting up, and keeping physical space between people. Enhanced hygiene measures and guidelines on preventive health care were also included. All the teachers, students, and people included in the educational process needed to wear a face mask when staying indoors.

Starting on March 17, schools and Universities transferred all the classes online. The Ministry said that the teaching would be modified within the existing program. This decision created new challenges for all. The complete online education process had been done via distance learning through TV channel RTS (Radio-Television of Serbia) 3 and the RTS Planet platform, as well as through online learning platforms. The goal was to keep the children's routine they had at school. The digital lessons started at 8am, six days a week, for two/three hours a day, depending on the subject. School principals and teachers made all the necessary preparations for the transition to online teaching, which primarily meant informing pupils and their parents about how the distance learning should be organized. It is important to note that all the segments of educational system have been regulated by the daily/weekly recommendations.

For the school year (2021/2022), the Ministry has prepared two models – online and combined model. The intention was that the students had regular classes as much as possible, under the circumstances. How the complete organization was conducted can be found in (Sadiković et al., 2020).

Before the school started, parents were asked to declare in what ways they would prefer their children attended the classes. Most of them responded that they wanted their children to attend traditional schools, in a way where classes would last 30 minutes, and students would be limited to groups of 15. But due to the worsening of the epidemiological situation in our country all high schools and pupils from the fifth to the eighth grade of primary schools were mandatorily switched

to online classes, while younger primary school students, from the first to the fourth grade, continued to attend classes as before.

In this paper, we are interested to present how education system of the Republic of Serbia reacted to the measures taken in a state of emergency and how educational society adapts to this change. This paper brings together teachers' and parent's thinking about different aspects of the national and institutional responses to the situation caused by the COVID-19 in Serbia.

One of the key questions is about the capabilities and capacities of the education system for online teaching in the Republic of Serbia. The problem can be both teachers' and students' own ability to use digital technologies, and the availability of the digital equipment as well. According to (Internet and Digital Technology Use among Children and Youth in Serbia, 2020) Serbian students rate their digital literacy skills above average, while according to (Unicef, 2019) the coverage rate of Serbian families with TV and mobile telephones is very high, 98.2%, and 94.1% respectively. But the percentages fall down when it comes to possession of a computer (72.4%) or a lap-top (52.3%). At the same time, 80.8% of Serbian households with school-age children have high-speed internet access (90.5% of internet users use a fixed broadband internet connection and it is the most common type of connection, while 71.9% of domestic installations have mobile broadband internet connection).

**SURVEY**

During April and May 2021, we conducted online surveys, using Google Forms, to evaluate teachers' and parents' attitudes about the organization and experience of online classes. With respect to the content, two forms were designed to address questions that were related to a particular interest of each group. The survey consisted of up to 18 questions - 13 closed-ended, with possibility to answer by checking a box and 5 open-ended questions. All information collected in this study were treated with confidentiality and it is important to note that surveys were completely anonymous. We used mail lists, and social networks to distribute survey randomly all around the Republic of Serbia. The aim was to generate valuable information about teachers' and parents' points of view in the pandemic educational process in Republics of Serbia.

**Teacher's perspective**

As one can see from the sample, Figs. 1(a)-(d) present the demographic characteristics of the teachers: (a) gender, (b) age, (c) years of teaching experience, and (d) teaching level.

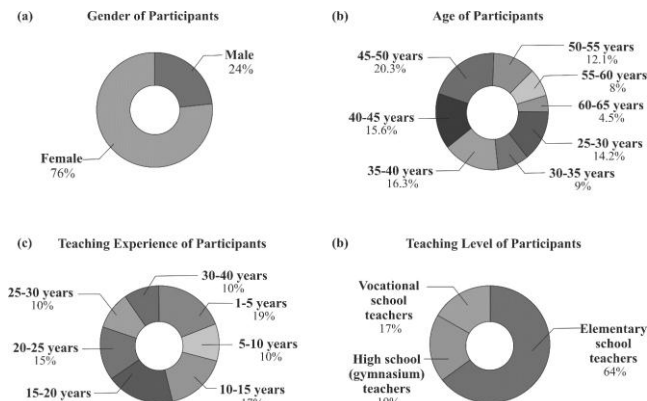


Figure 1. Pie charts showing the distribution of participants according to their: (a) gender, (b) age, (c) teaching experience and (d) teaching level.

As a novel type of teaching method, online education provided students with both real-time and non-real time learning experience. During the Covid-19 outbreak, educational IT companies produced a wide range of platforms and resources for teachers with different possibilities. Nowadays, as suggested by (Ye, 2021), online education products used in the teaching can be

divided into the following seven categories: (1) social software (Facebook and other similar social network sites); (2) communication tool (such as Zoom, Viber or Google hangout); (3) platform services (such as ones designed by Microsoft and Google – Google Classroom); (4) teaching tool (such as Microsoft Teams and Moodle); (5) public resource (such as RTS Planet in Serbia); (6) subject content (such as Tencent Classroom and People’s Open Class); and (7) comprehensive tutoring. However, the subject of several studies was always whether online learning could replace classical education or just support it. According to (Fiş Erümit, & Keleş, 2021), one of the benefits of distance education is that it is not limited by the student’s current location. Recently published findings (Adedoyin, & Soykan, 2020; Pal, & Vanijja, 2020), conducted in countries with a tradition in correspondence education, revealed that online learning was as effective as traditional forms of education if it was provided with a proper design. On the other hand, many studies (Williams, Armitage, Tampe, & Dienes, 2020; Pratchayapong Yasri, 2021) deal with the problem of social distancing and isolation, and the lack of face-to-face communication as well. According to our survey results (teacher’s choices of educational online platforms are multiple choices), among these seven types of online teaching platforms, platform service such as Google Classroom (57.48%) and communication software tools such as Viber (14.57%) and Zoom (9.71%) became the main choices for teachers to carry out online teaching. This is completely expected since the users in the Republic of Serbia preferred Zoom and Viber software for video conferencing during the COVID-19 crisis because it is free and easy to use. In addition, Microsoft Teams (8.90%) and Moodle (4.04%) were moderately used for online teaching, while Facebook (2.02%), G Suite for Education (1.21%), Edmodo (0.80%), Kahoot (0.80%) and Skype (0.47%) were not so popular. The specific analysis statistics are shown in Fig. 2.

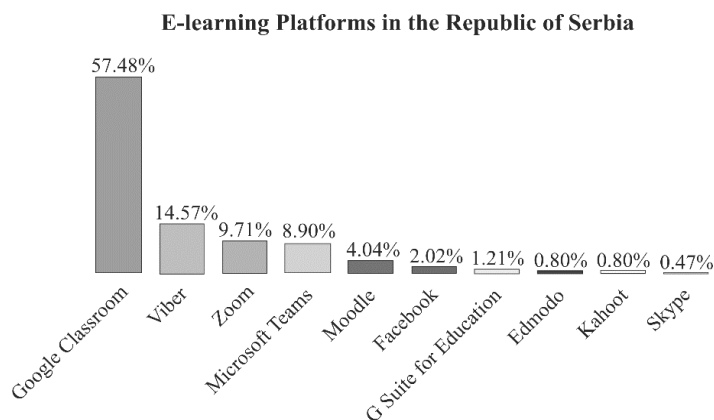


Figure 2. Statistics of used e-learning platforms in the Republic of Serbia during COVID-19 pandemic.

An important question of the survey was focused on the information that shows which electronic devices were used for online teaching by the participants (Fig. 3).

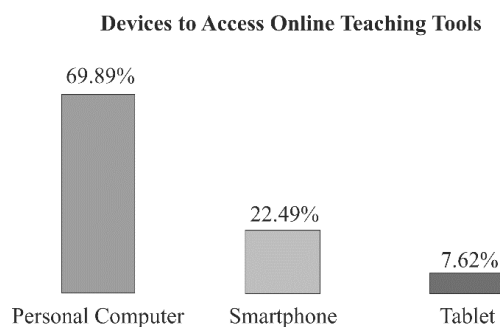


Figure 3. A diagram shows the devices used by participants to access online teaching tools.

Data presented in Fig. 3 showed that participants used different electronic devices for online teaching. In contrast to our data, the results presented in (Mahdy, 2020) indicated that the most used device among the teachers in Egypt was a smartphone (51.0%) followed by laptop (32.8%) and tablet (9.6%), while the least used was PC (6.6%). Years before the pandemic, the teachers were alerted to the use of information and communication technologies (ICT) only in schools, but in many cases, the teachers did not notice the massive and huge advantage in the use of electronic devices, which could influence the communication and also the teaching process. Nowadays, mobile learning (m-learning) is a rapidly developing paradigm driven by exponential changes in the capabilities of mobile technologies and their integration with social software. According to (France, Lee, Maclachlan, & McPhee, 2020), m-learning technologies should provide the ability to engage in learning conversations between students and teachers, within any context. This should provide the potential to bridge pedagogically designed learning contexts while contributing to personalization and ubiquitous social connectedness that sets it apart from more traditional learning environments.

To improve the online teaching methods, it is recommended to provide virtual resources to imitate the laboratory work, teach practical lessons using simulations, and produce accessible electronic teaching material for practical and theoretical lessons. The survey participants who had experienced relevant training in their schools in the Republic of Serbia reported that the training had improved their skills, particularly the application of live streaming technologies and available platforms, as well as online teaching strategies and methods. Nevertheless, most teachers experienced a short interval between receiving training and delivering online courses. According to our respondents, regardless of the online training support, they were not able to adequately prepare for the delivery of online courses within the time available. We asked our respondents to express their satisfaction with the online teaching process and Fig. 4 illustrates their answers.

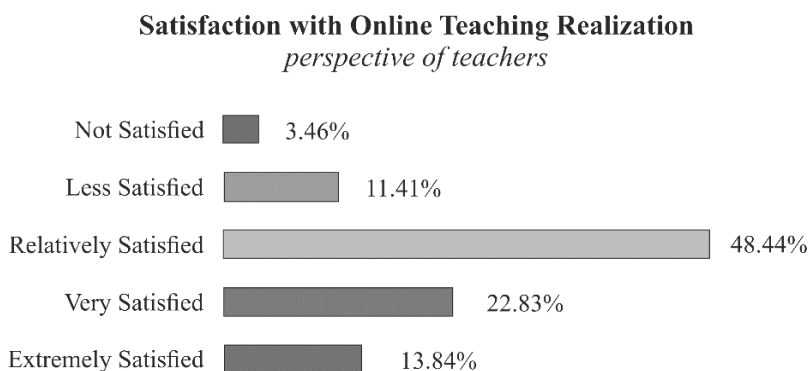


Figure 4. A diagram showing the satisfaction of online teaching process from the perspective of teachers.

The surveyed teachers were also asked what they had expected of online teaching, including their concerns. Their main worries were about the learning anxiety produced by online teaching, as well as decreased learning efficiency and study goals. According to our respondents, 61.26% of teaching staff utilized various methods to help students learn at their homes and this allowed students to alter their perspectives of their education. Nevertheless, only 11.2% of teachers suggested that the online education process would enhance the mutual understanding between teachers and students. As a benefit, online teaching and learning model provided teachers with greater opportunities to learn more about their students' family situations and study habits.

Teachers were asked to evaluate the learning outcomes for their students. The results presented in Fig. 5 are similar to those reported in (Fauzi, & Sastra Khusuma, 2020).

### Satisfaction with Online Learning

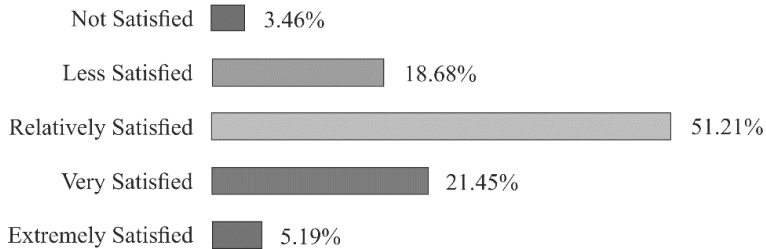


Figure 5. A diagram showing the satisfaction with online learning from the perspective of teachers.

The findings of our study revealed some challenges experienced by teachers in the online education system. The purpose of the conducted survey was to obtain information about the impact of the Covid-19 pandemic on teaching activities in primary and secondary schools in the Republic of Serbia. The statements are the English translation of participants' original responses. For example, teachers pointed out the following problems: "I cannot cover the learning and teaching outcomes as fast as during the traditional class."; "I think children lose their social life, especially younger students. At school, they can interact with other students, but during the pandemic occasions they cannot."; "I have to work until late at night to prepare for the online teaching process."; ...

### PARENT'S PERSPECTIVE

The demographic characteristics of the parents in the sample: (a) gender and (b) age, is presented in Figs. 6(a) and 6(b), respectively.

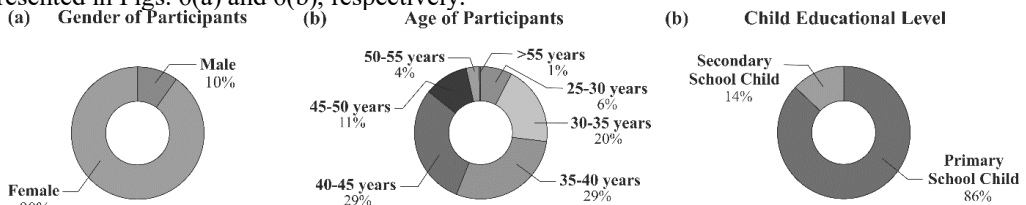


Figure 6. Pie charts showing the distribution of participants according to their: (a) gender, (b) age and (c) childrens' educational level.

Parents were asked to evaluate and express their satisfaction with the realization of online classes. Fig. 7 illustrates their responses.

### Satisfaction with Online Teaching *perspective of parents*

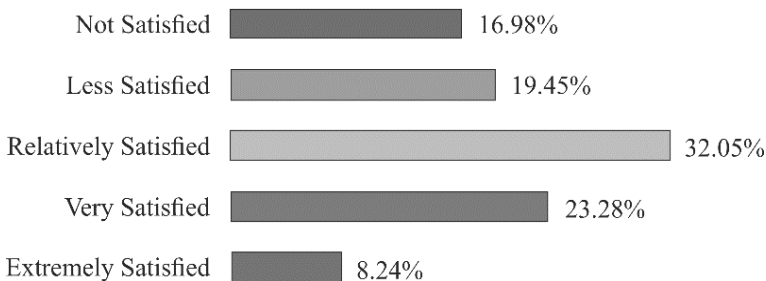


Figure 7. A diagram showing the satisfaction with online teaching process from the perspective of parents.

We compared our findings, with available results in the other countries and found similar results. According to the research conducted by the Education week, parents in the USA supported virtual schooling. Even 76% said they were likely to support more online education at home, even after the COVID-19 passes. One more survey conducted across 204 districts in India, during the June 2020, showed that 64% of parents were not in favor of online classes (Alvi, & Gupta, 2020). We note that interesting and valuable data can be found in (Lau, & Lee, 2020) which shows that 64.1% parents are satisfied regarding online learning activities. Continuation of the evaluation of the online teaching process and outcomes has been conducted through the question related to children's duties during the online activities. This particular question was motivated by widespread parent's impression that online classes brought much more duties to children. The figure below shows the percentage of parent's opinion about this question.

### **Did children's duties change during the pandemic?**

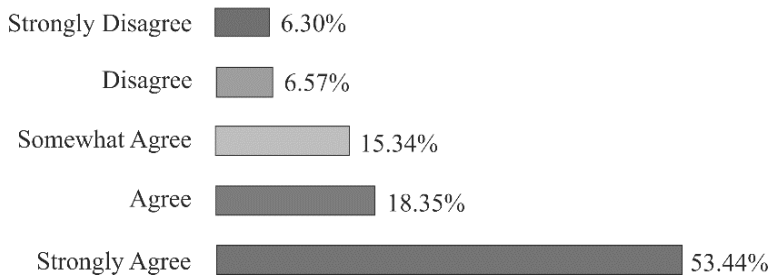


Figure 8. Respondents' answers to question: Did children's duties change during the pandemics?

Next question explores parent's involvement in the children's duties during online classes. The question was for the parents with primary school children.

### **Was your guidance more mandatory during the pandemic circumstances?**

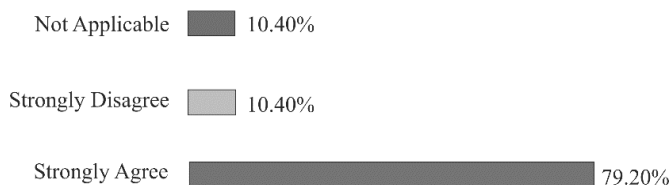


Figure 9. Respondents' answers to the question: Was your guidance more mandatory during the pandemic than during the regular circumstances?

Almost 80% of parents reported that their involvement in children's school activities was more necessary during online teaching than in regular circumstances. This shows that, for families with children in primary schools, online classes have significantly disrupted their daily routines. Different research shows that such a situation is not characteristic only for Serbia (see (Government of Canada, 2020; Rasmitadila et al., 2020). It is important to note that the majority of women (64%) reported that mostly they helped children with homework, while only 19% of men did that. New circumstances related to online teaching unmask the socio-economic inequality experienced by families. Unfortunately, many households do not have the technology, space, and access to a broadband connection at home that is fast enough to support online learning or the environment for online learning. This is characteristic especially for rural areas.

## Parent's opinion about online learning opportunities

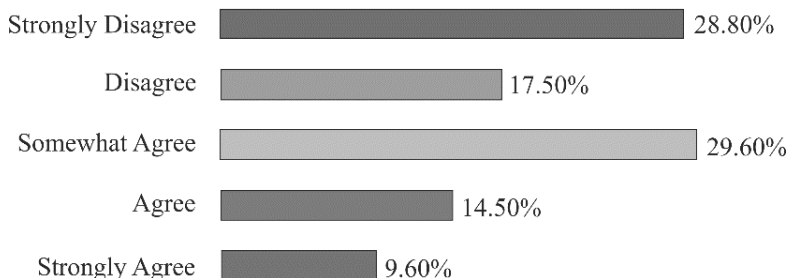


Figure 10. A diagram showing the parents' opinion about online learning opportunities.

Results presented in Fig. 10 show that in the Republic of Serbia there is an inequality in conditions for online teaching. It is obvious that the unavailability of proper digital tools, no internet connections, or Wi-Fi caused reduced learning opportunities for many children. This is the opinion of almost half of the respondents.

## CONCLUSIONS

Over the centuries, global disease outbreaks have determined the outcomes of wars, but also, ironically, cleared the way for innovations and advances in science, technology, and education. COVID-19 pandemic has triggered significant changes in education systems worldwide and shifted it from a face-to-face model to an entirely virtual. According to the United Nations, more than 91% percent of students all around the world have been impacted by temporary school closures, while close to 1.6 billion young students were out of school. Our findings suggest that the lack of previous experiences in the online educational environment, as well as the lack of competencies from the schoolteachers for online teaching, directly contributed to making this pandemic experience more challenging. This study shined a light on the teacher's and parents' perspectives with the aim to point the problems in order to improve online teaching, and, at the same time, pupils' achievements. Also, study showed the existence of some inequalities and challenges, as well as benefits. These challenges and inequalities will be the new realities in the educational sector in the Republic of Serbia and many the other countries.

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