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## University Teachers' Perspectives on the Quality of Emergency Remote Teaching — the Case of Serbia During the COVID-19 Pandemic<sup>3</sup>

**Abstract:** The study deals with the quality of emergency remote teaching (ERT) during the COVID-19 pandemic in higher education in Serbia. We aimed to explore how university teachers assess the quality of ERT and whether their assessments are related to their previous online teaching experiences and their beliefs on the potentials of online teaching. The survey included 443 teachers from the University of Belgrade. The findings show that the teachers were not satisfied with the quality of ERT in terms of the interaction with students, students' motivation, and the quality of their engagement during classes. Teachers who had prior experience in online teaching and more positive beliefs regarding the potentials of online teaching/learning, used a greater variety of online tools, teaching methods, and activities during ERT and, in turn, were more satisfied with the quality of online teaching. Therefore, attention should be paid to expanding teachers' knowledge and awareness of the potentials of online teaching/learning as the ERT did not allow for its full potential to be realized.

**Key words:** emergency remote teaching; online teaching; higher education, COVID-19 pandemic; university teachers.

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<sup>3</sup> This work was supported by the European Commission under Erasmus+ StudES project ("Effective teaching for student engagement & success in digital learning environment"), Grant No. 2020-1-RS01-KA226-HE-094538.

## Introduction

Most of the published papers in the past year begin by pointing out the consequences of the COVID-19 pandemic and the shift towards living, working, teaching and learning in a digital environment. In the field of education, there is a growing interest among researchers in the consequences of emergency remote teaching (ERT) — the transformation of education, the quality of online teaching, student achievement and wellbeing, and teachers' competencies and the challenges they face, etc.

Research into the response of higher education institutions show that the rapid spread of the pandemic led to the transformation of higher education (Garcia-Morales et al., 2021) all over the world, forcing such institutions to switch from the traditional classroom setting to the online environment in order to ensure the continuation of teaching and learning (Bozkurt & Sharma, 2020; Bozkurt et al., 2020; Crawford et al., 2020). This presented both an opportunity and a challenge for higher education (Toquero, 2020). Research shows that prior to the pandemic, higher education institutions had both different strategies for the digitalization of university teaching and different starting points (Crawford et al., 2020), which made the transition to ERT in terms of the use of technology and the quality of online teaching more or less challenging from country to country (Alemu, 2015; Peres et al., 2018). One study which assessed the readiness of higher education institutions to move to online teaching concluded that even in high-income countries universities were not fully prepared for such a sudden shift to remote education (Salmi, 2020). One of the surprising results was that poorly prepared universities in most countries were oriented towards a rapid shift to online teaching (OECD, 2021). This was also the case for the University of Belgrade, where teaching before Covid-19 was primarily on-site with sporadic cases of hybrid combinations of online and face-to-face teaching. However, the traditional classroom setting moved to the online environment overnight, requiring teachers to quickly familiarize themselves with new technologies and master their use as teaching tools. Our intention in this study is to examine university teachers' perspectives on the quality of online teaching/learning during the COVID-19 crisis.

## The Specifics of ERT

Higher education institutions have been in the process of adopting digital technologies for decades. This process was uneven and very often slow, demanding a wide range of administrative, educational, and research activities. The COVID-19 pan-

demic caused the digitalization of teaching and learning to accelerate at a rapid pace, and it is expected that the intensified integration of digital technology into higher education is one change likely to remain once the pandemic ends (OECD 2020). As Strielkowski and Wang (2020, p. 2) point out, the COVID-19 pandemic might be the “decisive push factor” towards the 4<sup>th</sup> generation of university evolution — the online and digital university. Even in regular circumstances, the technological transformation of education involves profound changes in teaching methodologies, teacher competencies and assessment strategies (Jensen, 2019). The sudden switch to online teaching led teachers as well as students into unfamiliar terrain (Carolan et al., 2020), demanding rapid change while implementing and adapting available resources, and relying on teachers who lacked digital competencies and experience in using digital technologies as teaching tools. This new scenario tested the adaptability, willingness to change, and flexibility of teachers all over the world (Quezada et al., 2020).

The result of the immediate response to the COVID-19 crisis in higher education was ERT, planned and executed rapidly with urgent redesigns of courses originally conceived for the traditional classroom setting. ERT differs from well-planned online teaching and learning and involves the use of fully remote teaching solutions for education which was primarily intended to be delivered face-to-face or as blended in regular circumstances. Hodges et al. (2020) highlight that the primary objective of ERT is not to re-create a robust educational ecosystem, but rather to provide rapid and temporary access to instruction and instructional support in a manner which is readily available during an emergency. Other authors also indicate that making a distinction between ERT and online education is important due to the degree to which teachers believe in online education these days will play a significant role in the prosperity of post-Covid online education (Bozkurt & Sharma, 2020). They also point out that, compared to online education which has always been an alternative and flexible option for students, ERT is an obligation, which requires using different strategies with different priorities.

ERT implied many challenges for teachers who were forced to improvise and innovate on the spot. This made flexibility, adaptability, and creativity the defining words for addressing the challenging role of teachers in the process of ERT. Teachers were presented with the challenge to redesign and plan how to teach courses originally conceived for teaching in traditional classrooms, to adapt teaching and learning materials and activities, and to provide students with support for learning in a digital environment — all of this was done in a very short period of time in order to ensure the continuation of teaching and learning.

According to Bates (2019), moving teaching online means changing the learning environment, and implies design models where the teaching method is

adapted to the learning environment. In other words, a structured environment is required for gaining the full benefit of online teaching. This means that an effort needs to be made to provide this structure using a range of collaboration tools and engagement methods instead of replicating a traditional face-to-face class either through video clips or synchronous lectures. Nevertheless, in the context of ERT and the rise of synchronous learning platforms, Bates' concept of "old wine in new bottles" for the classroom-type online learning (Bates 2019, p. 159), gains a new dimension — a synchronous classroom design model for online learning. Due to the need for a rapid response combined with the lack of competencies and experience in teaching with digital technologies, teachers mostly used the form of synchronous lectures, at the same time trying to comply with the time frames provided for regular lectures, which led to students "being bombarded with lectures... while sitting in front of a webcam" (Bozkurt & Sharma 2020, p. iii). Normally, online education offers flexibility in terms of both time and space. When lectures are delivered in a synchronous mode, the aspect of time flexibility is lost, and with this imperfection, the students' working environment, housing situation, technical capabilities and infrastructure are aligned. So, the question arises, while in rushing to implement ERT, were the students' wellbeing and the learning process disregarded. Bozkurt and Sharma (2020) imply that the hitherto focus on students' engagement has become an afterthought, and point out the importance of building support communities, and sharing the knowledge and experience to provide efficient and meaningful teaching and learning processes.

### Evaluating the Quality of ERT

According to Hodges et al. (2020), the type of online teaching introduced during the COVID-19 crisis should not be compared to regular online teaching in terms of experience, planning and development. These authors point out that the quality of online teaching depends on the design process and careful consideration of different design decisions, aspects which are usually absent in ERT.

The rapid approach that ERT demands may be expected to diminish the quality of teaching, especially because of the speedy redesign of courses conceived for regular classroom settings. In that sense, it is not advisable to compare the quality of ERT to face-to-face teaching. Surry and Ensminger (2001) give three reasons why media comparison studies are weak and inappropriate, and provide no real value. They start by pointing out that a medium is just a way of delivering information, and one medium is not inherently better than another, which means that any medium can deliver either good or bad instruction. In addition,

it is important to understand different media and the ways people learn with them in order to design effective teaching, and one medium cannot be expected to be better than another for delivering instruction to all types of students at all times. Their third argument is that there are too many confounding variables for the results of any media comparison study to be valid and meaningful. Starting from this point, for the purpose of this study, teachers' perceptions of the quality of ERT are examined without comparison with the quality of regular teaching.

There are a few studies which focus on assessing the quality of ERT (Mohammed et al., 2020; Ramírez-Hurtado et al., 2021). Mohammed et al. (2020) used the CIPP evaluation model to assess the context, input, process, and product output. They considered both synchronous and asynchronous learning modes and found the synchronous mode to be more effective in terms of student interaction. In the process evaluation it was observed that the students' responses varied according to the module and assessment types, and the students' feedback showed that the adopted ERT model is supportive, convenient, and appropriate for the critical period, providing the students with a high level of flexibility (e.g., watching the recorded sessions on platforms at a convenient time). As Hodges et al. (2020) indicate, the ERT evaluation should focus on the context, input, and process rather than the product (learning), as the shift to ERT usually occurs with staggering speed within a short period of time. In the study carried out by Mohammed et al. (2020), the product evaluation of the ERT model was conducted with the aim of assessing the impact of ERT on students' interaction and measuring whether or not the pre-defined objectives were achieved. The study demonstrated that according to the students and teachers' responses, the ERT model successfully facilitated the teaching and learning process. A few important by-products of ERT emerged in this study: ERT provides a substantial opportunity for students to become self-learners and convergent thinkers; it fosters the skills of students and teachers in dealing with technologies and enables them to fully exploit social networking tools; ERT provides an excellent opportunity for teachers to develop their skills through various teaching and learning strategies which will have a huge impact on the students' skills and attitudes during future emergencies.

While switching to ERT, those universities which relied on the traditional face-to-face teaching model have striven to adopt strategies to ensure the service quality of their emergency online teaching. Ramírez-Hurtado et al. (2021) measured the quality of online teaching of subjects originally designed for the classroom setting for the purpose of identifying which elements or attributes of online teaching needed to be improved and developed further. The results of this study suggest a set of priority areas which require improvement: students' interaction,

the level of students' concentration in online classes, reviewing online tests, the usefulness of the system, and the diversity of assessment tests.

### The Quality of ERT and Teacher-Related Factors

The literature shows that the challenges of ERT can be observed at the level of both institutional and individual factors. Institutional factors relate to the preparedness of higher education institutions for online teaching, which includes the technological infrastructure and support, instructional support, and available tools and resources (Baran & Correia, 2017; Buchanan et al., 2013; Eder, 2020; Garcia-Morales et al., 2021; Watermeyer et al., 2020). As regards individual factors, research studies focus on the following: technology acceptance (Granić & Marangunić, 2019; Ritter, 2017); motivation and the workload related to online teaching (Kebritchi et al., 2017; Polly et al., 2021); teachers' digital competencies (Amhag et al., 2019; Martin et al., 2020; Ritzhaupt et al., 2018), previous experience in using digital technology in teaching (Marek et al., 2021; Scherer & Teo, 2019; Scherer et al., 2021), self-efficacy for online teaching (Corry & Stella, 2018; Horvitz et al., 2015; Ma et al., 2021); attitudes towards digital technology in education (Amhag et al., 2019; van der Spoel et al., 2020), etc. In the context of ERT caused by the COVID-19 crisis, these individual factors and coping with the challenging situation appear to be of crucial importance. Given that in our study we deal with teachers' previous experience with online teaching and their beliefs on the potentials of online teaching/learning, in this section we will provide an overview of the findings from other studies on the related factors.

#### *ERT and teachers' previous experience with online teaching*

As expected, during the lockdown, university teachers and students intensified their use of educational technology. The ongoing digital transformation of society prior to the pandemic had resulted in a certain familiarity with educational technology among university students and teachers, which facilitated the switch to online teaching (Mishra et al., 2020). This conclusion was supported by other studies (Marek et al., 2021; van der Spoel et al., 2020), which showed that the success of online teaching during the pandemic correlated with teachers' previous experience with educational technology. These studies found that teachers who had previous

experience with online teaching reported a more positive experience and fewer difficulties in teaching online during the pandemic than those who had had little to no experience. The research carried out by Marek, Chew and Wu (2021) also indicates that most teachers experienced much higher workloads and stress than in face-to-face classes and recognized the need for adaptability and good planning. Studies also confirm a link between online-teaching self-efficacy and previous experience with online teaching (Corry & Stella, 2018; Ma et al., 2021).

### *Teachers' attitudes towards technology in education and online teaching/learning*

Teachers' perceptions or attitudes toward technology in education are seen as a deciding factor when it comes to the incorporation of technology in teaching (van der Spoel et al., 2020). The Technology Acceptance Model (TAM) (Venkatesh & Davis, 2000) can be used for predicting teachers' attitudes towards incorporating new technology in the teaching/learning process. This model addresses two core beliefs: perceived ease of use and perceived usefulness of the application or technology. These two variables have been proven to be antecedent factors affecting the acceptance of learning with technology (Granić & Marangunić, 2019).

Relevant research results confirm that teachers' attitudes toward technology in education influence the rate of digital technology integration into the context of higher education (Amhag et al., 2019; van der Spoel et al., 2020). Some studies indicate that teachers with digital and instructional skills who value digital tools and resources and recognize the potentials of educational technology for teaching in higher education reported more willingness to teach online (Tabata & Johnsrud, 2008). The findings of Amhag, Hellström and Stigmar (2019) show that low expectations of the usefulness of educational technology for teaching can have a negative impact on the actual use of technology in the teaching/learning process.

Studies also show that the success of online teaching depends to a large extent on teachers' attitudes towards online teaching/learning (Van Raaij & Schepers, 2008; Volery & Lord, 2000; Wasserman & Migdal, 2019). Some researchers focus on developing instruments for assessing teachers attitudes towards online teaching/learning (Martin et al., 2019; Sangwan et al., 2021) as they recognize that teachers' competencies to teach online require them to adjust their attitudes towards technology and teaching.

## The Aim and Context of the Present Study

Starting from the insights from the studies presented, our intention was to explore how university teachers assess the quality of online teaching during the COVID-19 crisis and to examine whether their assessments are related to their previous experience with online teaching, and their beliefs on the potentials of online teaching. The following questions are at the focus of our study: What were the characteristics of ERT — how was educational technology used for teaching and how diverse were the methods and activities used in online teaching? How do university teachers assess the quality of different aspects of online teaching during the first semester of ERT? Are teachers' individual characteristics, such as previous experience with online teaching and beliefs on the potentials of online teaching, related to the characteristics of their teaching and their assessment of the quality of ERT?

The study was conducted with teachers from the University of Belgrade (Serbia), the largest and oldest higher education institution in Serbia, established in 1808. It consists of 31 faculties and has more than 4,000 employed teaching staff and more than 90,000 students. Even though the Law on Higher Education and accreditation procedures recognize distance learning study programs, there are only a few programs that are accredited as such at the University of Belgrade. Cases of using blended learning or implementing courses fully online before the pandemic were, to our knowledge, sporadic and limited to enthusiasts.

The state of emergency in the Republic of Serbia due to the COVID-19 pandemic was introduced on March 16, 2020. As the state ordered the closure of all educational institutions, faculties were tasked with adjusting their work plan in accordance with the situation, which in most cases implied a transition to online teaching/learning. Some of the faculties already had learning management systems (LMS) in place (e.g., Moodle) or platforms which were used for video-conferencing, which were further exploited for ERT. However, at most faculties the teachers were left to their own devices and relied on their own resources to organize teaching in the changed conditions.

## Method

### *Sample*

A total of 443 teachers employed at the University of Belgrade (Serbia) completed the survey, among which 173 were males (39.1%) and 270 females (60.9%). The teachers' average number of years of experience in university teaching was around



17 (Min = 1; Max =41; M =16.84; SD = 9.24). The teachers were from 25 different faculties of the University of Belgrade: 175 teachers were from the field of social sciences and humanities (9 faculties), 155 from the field of technology (8 faculties), 68 from the field of healthcare (4 faculties), and 45 from the field of natural sciences (4 faculties).

### *Instrument and procedure*

The data used for this study was gathered within the Erasmus+ StudES project and its research component, which aimed to explore university teachers' experiences of online teaching during the COVID-19 pandemic. The data were collected in October 2020 through an online survey hosted on Google Forms. The invitation to complete the questionnaire was sent via e-mail to individual faculties to distribute to their teachers, by the University of Belgrade management. The questionnaire was designed specifically for the purpose of the project, but only part of the collected data is presented in this paper. We used the following 5-point Likert scales: the frequency of different methods and activities in online teaching (7 items), beliefs on the potentials of online teaching/learning (5 items), and the quality of different aspects of online teaching (6 items). The teachers were also asked whether they had prior experience in online teaching (before ERT), and to mark and/or add the tools and platforms they used during ERT.

The teachers' assessments of the quality of different aspects of online teaching/learning were used as the dependent variables, while the score on the scale related to the frequency of different teaching methods and activities (representing diversity of teaching), score on the scale on beliefs on the potentials of online teaching/learning, prior experience in online teaching, and the number of platforms and tools used in online teaching were used as the independent variables. The scale on beliefs on the potentials of online teaching/learning showed an acceptable level of reliability ( $\alpha = .738$ ). Only one component, which explains 50.43% of the variance, was extracted using the principal component analysis with varimax rotation. The factor loadings for all the scale items were high (ranging from .594 to .820).

### *Data analysis*

The data was analysed in SPSS for Windows using descriptive statistics, Pearson's correlation coefficient, and the t-test for independent samples. Hedges'  $g$  was used as a measure of the effect size.

## Results

### *The teachers' assessment of the quality of ERT and the diversity of activities in online teaching/learning*

as reported by the respondents (Table 1), the activities which were the most common in the first semester of ERT were lectures via video conferencing platforms or as recorded presentations, students' independent literature reading, and work on assignments provided by the teacher. More interactive and student-led activities, such as discussions, students' presentations, group work, as well as quizzes and knowledge tests, were less represented. On average, the diversity of activities in ERT was moderate ( $M = 21.03$ ;  $\text{Min} = 7$ ,  $\text{Max} = 35$ ). The majority of the teachers used multiple tools and/or platforms ( $M = 2.78$ ;  $\text{Min} = 1$ ;  $\text{Max} = 8$ ;  $SD = 1.31$ ). Most of the teachers used video conferencing platforms (60.5% used Zoom, 34.3% Skype, 30.7% MS Teams, 19.6% Webex, and 15.8% Google Meet). The most used LMS were Moodle (53.5%) and Google Classroom (25.7%).

**Table 1.** Activities in online teaching during the first semester of ERT (N = 443)

Items	Min	Max	<i>M</i>	<i>SD</i>
Teachers' lectures via audio/video call or recorded presentations	1	5	3.83	1.35
Posting or sending materials for student's independent reading	1	5	3.54	1.07
Providing students with assignments	1	5	3.49	1.08
Initializing discussions in written or spoken form	1	5	2.97	1.13
Assigning quizzes and knowledge tests	1	5	2.48	1.42
Students' work in pairs or groups	1	5	2.37	1.29
Students' presentations and reports	1	5	2.31	1.31
Composite score:	7	35	21.03	4.75

*Note.* The teachers provided their responses on a five-point Likert scale ranging from 1 (Not represented at all) to 5 (The most represented).

As presented in Table 2, the teachers estimated that most of the qualities of teaching/learning during the first semester of ERT, such as students' motivation and devotion to the activities during classes, interaction, and cooperation between students, as well as the quality of knowledge the students demonstrated, were relatively poor. The teachers were the most satisfied with the students' timeliness in completing course assignments, while they recognized the quality of interaction with students as the greatest shortcoming of ERT. The teachers' scores on the composite scale for diversity of teaching are positively correlated with their

assessment of different aspects of online teaching/learning: student motivation ( $r = .250, p < .001$ ), students' timeliness in completing course assignments ( $r = .261, p < .001$ ), student engagement ( $r = .330, p < .001$ ), the quality of students' knowledge ( $r = .279, p < .001$ ), the quality of interaction with students ( $r = .292, p < .001$ ), and the quality of interaction and cooperation among students ( $r = .254, p < .001$ ).

**Table 2.** Teachers' assessments of different aspects of online teaching/learning during the first semester of ERT (N = 443)

Aspects of online teaching/learning	Min	Max	<i>M</i>	<i>SD</i>
Student's motivation for work and learning	1	5	2.62	0.96
The quality of interaction with students	1	5	2.08	1.06
The quality of interaction and cooperation among students	1	5	2.52	0.99
Student's timeliness in completing course assignments	1	5	3.04	0.98
The quality of student engagement in activities during classes	1	5	2.65	1.05
The quality of knowledge the students demonstrated in pre-exam assignments and the exam	1	5	2.64	0.81

*Note.* The teachers provided their responses on a five-point Likert scale ranging from 1 (Very poor) to 5 (Very good).

### *Previous experience in online teaching and the quality of ERT*

Most of the university teachers (281 out of 443; 63.4%) did not have prior experience in online teaching, i.e., ERT was the first time they had organized online teaching. The t-test shows that those teachers who had prior experience in online teaching used more diverse activities in their teaching ( $M = 22.45; SD = 4.45$ ) compared to those who were engaged in online teaching for the first time ( $M = 20.22; SD = 4.73$ ),  $t(440) = 4.868, p < .001, g = 0.48$ . They also used more tools and platforms ( $M = 3.20; SD = 1.44$ ) than the teachers who did not have prior experience in online teaching ( $M = 2.54; SD = 1.16$ ),  $t(438) = 5.240, p < .001, g = 0.52$ . Both previously mentioned effects are of moderate size. The teachers who had previous experience with online teaching also assessed the quality of ERT more positively. They were more satisfied with the students' motivation ( $t(441) = 3.739, p < .001, g = 0.37$ ), their timeliness in completing assignments ( $t(441) = 2.430, p = .016, g = 0.23$ ), the quality of their engagement in activities during classes ( $t(441) = 3.842, p < .001, g = 0.38$ ), as well as with the quality of knowledge the students demonstrated in pre-exam assignments and final exams ( $t(441) = 4.050, p < .001, g = 0.40$ ).

*The teachers' beliefs on the potentials of online teaching  
and the quality of ERT*

On average, we could say that the university teachers have mixed beliefs regarding the potentials of online teaching. As presented in Table 3, the teachers agreed that certain teaching/learning goals cannot be achieved in an online environment, and they were the most skeptical of the possibility to organize exams in such a context. The greatest variations in the level of the teachers' agreement are observed for the possibility to organize valid exams in an online environment and the possibility of online teaching/learning being of equal quality as face-to-face teaching.

**Table 3.** Teachers' beliefs on the potentials of online teaching (N = 443)

Items	Min	Max	<i>M</i>	<i>SD</i>
I believe that online and face-to-face teaching can be of equal quality.	1	5	2.84	1.34
Online teaching could have positive effects on my approach to teaching and the quality of my work.	1	5	3.07	1.19
Working in an online environment has a negative influence on the quality of students' knowledge.	1	5	2.97	1.21
Certain teaching/learning goals cannot be achieved in an online environment.	1	5	3.88	1.15
I believe it is possible to organize exams in an online environment in a valid manner.	1	5	2.54	1.45

*Note.* The teachers provided their responses on a five-point Likert scale ranging from 1 (Completely disagree) to 5 (Completely agree). Negative items were rotated in further analysis.

The results of the t-test indicate that the teachers who had prior experience in online teaching had more positive beliefs on the potentials of online teaching ( $M = 0.29$ ;  $SD = 0.99$ ) when compared to those who were involved in online teaching for the first time during the pandemic ( $M = -0.17$ ;  $SD = 0.96$ ),  $t(441) = 4.880$ ,  $p < .001$ ,  $g = 0.48$ . It is also evident that those teachers who have more positive beliefs on the potentials of online teaching also tend to use more diverse activities in their teaching ( $r = .299$ ,  $p < .001$ ), and give higher assessments of the quality of different aspects of ERT: student motivation ( $r = .432$ ,  $p < .001$ ), the quality of interaction with students ( $r = .452$ ,  $p < .001$ ), interaction and cooperation among students ( $r = .353$ ,  $p < .001$ ), students' timeliness in completing course assignments ( $r = .401$ ,  $p < .001$ ), the quality of the students' engagement in activities ( $r = .514$ ,  $p < .001$ ), and the quality of knowledge the students demonstrate ( $r = .456$ ,  $p < .001$ ).

## Discussion

In this study we aimed to explore how university teachers assess the quality of ERT and whether their assessments are related to their previous experience with online teaching, and their beliefs on the potentials of online teaching.

The findings indicate that the teachers were not fully satisfied with the quality of online teaching/learning in the first semester of ERT, foremost in terms of the quality of interaction with students, which is in line with the findings from other studies (Ramírez-Hurtado et al., 2021). Since the most prominent activities in teaching/learning during ERT were of a transmissive nature (lectures via video calls, recorded presentations, and posting materials), it is understandable that the students' motivation and engagement, as well as student-teacher interactions and interactions between students, fell short of the desired extent and quality. We could argue that many teachers tried to mimic their usual in-person classes, relying primarily on synchronous communication through video conferencing tools and/or on sharing materials on online learning platforms, which in turn limited the potentials of online teaching/learning, as also observed by Bozkurt and Sharma (2020). As ERT came as a sudden change, the teachers did not have enough time, and in many cases lacked the required competencies, to plan and organize online teaching in a different manner, e.g., by employing an asynchronous mode of work, using more interactive teaching methods, etc. However, we could argue that the greater representation of asynchronous teaching/learning would not necessarily lead to more/better student interaction, as students are not used to such a way of working. That could be the reason why the synchronous mode was found to be more effective in terms of student interaction in some studies (Mohammed et al., 2020).

Our findings show that those teachers who had prior experience in online teaching and positive beliefs regarding the potentials of online teaching/learning used more online tools and a greater variety of teaching methods and activities during ERT, which is in line with the insights from other studies (Amhag et al., 2019; Granić & Marangunić, 2019; Tabata & Johnsrud, 2008; van der Spoel et al., 2020). Moreover, they were also more satisfied with the quality of online teaching/learning. Other studies also found that the success of ERT is related to teachers' prior experience with educational technology (Marek et al., 2021; van der Spoel et al., 2020) and their attitudes towards online teaching (Van Raaij & Schepers, 2008; Volery & Lord, 2000; Wasserman & Migdal, 2019). However, given that most of the teachers from our sample did not have prior experience in online teaching, and their beliefs related to online teaching/learning are not encouraging, we could argue that the pandemic was not the best opportunity for

university teachers to gain confidence in such a way of working and to develop positive attitudes towards online teaching/learning. In other words, experience with ERT does not, by itself, lead to positive beliefs among university teachers who are novices when it comes to online teaching/learning, as they are probably influenced by the experienced quality of ERT. Therefore, we argue that teachers' beliefs related to the potentials of online teaching/learning are crucial for the quality of online teaching/learning, but also that experience in online teaching could, in turn, facilitate a change in teachers' beliefs.

### Conclusion

Regardless of the medium used, good teaching requires careful planning. However, planning teaching/learning for the online environment and in the context of a pandemic certainly brings certain specificities and requires teachers who have the skills to adapt their teaching to these specificities and to their students' needs (Bates, 2019). As the transition to online reality was sudden during the COVID-19 pandemic, teachers had to rely on their own pre-existing competencies and capacities. Therefore, it is no surprise that prior experience and positive beliefs on the potentials of online teaching/learning served as a valuable asset for teachers during the ERT. Thus, training related to different aspects of online teaching should be provided for university teachers who, driven by their experience in ERT, are motivated to further develop their competencies and to integrate online tools into their everyday face-to-face teaching and/or to organize university courses which will be delivered online. Special attention should be paid to expanding teachers' knowledge and building positive beliefs on the potentials of online teaching/learning, as the ERT during the pandemic did not allow for such potentials to be fully exploited. As many authors (Bozkurt & Sharma, 2020; Bozkurt et al., 2020; Hodges et al., 2020) emphasize, ERT should not be equated with online teaching and nor should its quality be compared with the provision of regular online education. Therefore, it is particularly important to stimulate debate among teachers on the goals and qualities of ERT and to highlight the differences between ERT and online teaching/learning. This does not necessarily mean that ERT does not offer some of the qualities of good (online) teaching, but rather calls for a review of its qualities in a wider context. Namely, in the time of the pandemic, the priority of many education systems and institutions was to ensure continuity in education (Hodges et al., 2020; OECD, 2021; Schleicher, 2020) and not to rapidly develop high quality online teaching/learning. Therefore, the quality of ERT could primarily be measured in terms of

providing students with opportunities to learn despite the pandemic and in line with the changed realities of students' lives due to the pandemic.

Further research should explore teachers' perspective on how the quality of ERT should be operationalized and how those perspectives are related to specific teaching practice. In addition, given that our findings suggest that teachers who experienced online teaching for the first time during the pandemic did not have positive beliefs on the potentials of online teaching/learning and were less satisfied with the quality of teaching, further research could focus on exploring whether teachers' beliefs and the quality of their teaching changes over time, as they gain more experience and undergo training related to online teaching.

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## Perspektive univerzitetskih nastavnika o kvalitetu nastave na daljinu u vanrednoj situaciji – situacija u Srbiji tokom pandemije kovida 19<sup>6</sup>

**Apstrakt:** Ova studija se bavi kvalitetom nastave na daljinu u vanrednoj situaciji u sferi višeg i visokog obrazovanja u Srbiji tokom pandemije kovida 19. Namera nam je da ispitamo kako univerzitetski nastavnici procenjuju kvalitet nastave na daljinu u vanrednoj situaciji i da li je njihova procena povezana s njihovim prethodnim iskustvima u onlajn nastavi i uverenjima o potencijalima onlajn nastave. U ispitivanju su učestvovala 443 nastavnika sa Univerziteta u Beogradu. Utvrdili smo da nastavnici nisu bili zadovoljni kvalitetom nastave na daljinu u vanrednoj situaciji u pogledu interakcije sa studentima, motivacije studenata i kvaliteta njihovog angažovanja tokom nastave. Nastavnici koji su imali prethodno iskustvo u onlajn nastavi i pozitivnija uverenja o potencijalima onlajn nastave/učenja primenili su raznovrsnije onlajn alatke, metode podučavanja i aktivnosti prilikom nastave na daljinu u vanrednoj situaciji. Samim tim, oni su bili zadovoljniji kvalitetom onlajn nastave. Dakle, treba obratiti naročitu pažnju na unapređivanje znanja nastavnika i njihove svesti o potencijalima onlajn nastave/učenja, budući da nastava na daljinu u vanrednoj situaciji nije ostvarila svoj puni potencijal.

**Ključne reči:** nastava na daljinu u vanrednoj situaciji, onlajn nastava, više i visoko obrazovanje, pandemija kovida 19, univerzitetski nastavnici.

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<sup>6</sup> Ovaj rad je nastao uz podršku Evropske komisije u okviru projekta Erasmus+ StudES („Effective teaching for student engagement & success in digital learning environment“), br. granta 2020–1-RS01-KA226-HE-094538.