Resilience of Higher Education Institutions in Serbia: A Student's Perspective

Olja Jovanović[1*], Ana Pešikan[1] and Slobodanka Antić[1]
[1]University of Belgrade/Faculty of Philosophy, Belgrade, Serbia
[*] olja.jovanovic@f.bg.ac.rs

Abstract: *The present study investigates the experiences of undergraduate students in pursuing their studies in the initial months of the COVID-19 pandemic. In this study, we use an exploratory descriptive approach through an online survey with a convenient sample of 467 undergraduate students. The results indicate that the students have experienced emergency remote education (ERE) as more demanding in comparison to the pre-pandemic face-to-face learning/teaching. Since the ERE has been largely dependent on the resources of learners and their families, it is important to highlight that 25.1% of students reported that none of the teachers showed interest in differences among students in their living and learning contexts, while 34.5% reported that none of the teachers individualized their teaching, accordingly. Recommendations are presented to build the resilience of higher education institutions in Serbia during future emergencies.*

Keywords: *resilience; higher education; COVID-19 pandemic; education in emergencies*

1. INTRODUCTION

In the face of disturbances, such as pandemics, natural disasters, wars, and social unrest, higher education (HE) has an important role to maintain academic quality and continuity. As Bartusevičienė et al. [1] emphasize, educational institutions have to be able to respond to a crisis and continue to provide uninterrupted services through adaptation and adjustment. In this context, resilience as a quality of being able to return quickly to a previously good condition after facing disruptions is becoming crucially important for HE institutions (HEIs).

One of such disturbances calling for resilient HEIs was the COVID-19 pandemic. The pandemic has imposed increased demands on HE and seriously shaken the established ways HEIs run their courses [2]. This process, emerging from a global context burdened with uncertainty and prosocial concerns and characterized by a rapid and unplanned shift towards remote education, is recognized in the literature as emergency remote education (ERE) [3]. Overview of the studies on the ERE shows that the main challenges are associated with lack of technical and material resources, lack of digital and pedagogical/learning skills, as well as lack of social interaction in learning/teaching process [4]. Consequently, the ERE is associated with increased stress, burnout and mental health problems for both teachers and learners [4].

The first recorded case of the coronavirus in Serbia occurred in early 2020. Following its rapid spread, the government announced restrictions with stringency increases as the COVID-19 virus spread. An expansion of government-imposed restrictions continued until May 2020, after which a first steps towards limited reopening were introduced. In the initial months of the pandemic, university classrooms and dorms were emptied. HEI's management have responded by moving academic and related activities online with a sense of urgency. Research indicates that for a majority of the HE teachers in Serbia online teaching was a novel task, i.e., they did not have the experience with online teaching prior to the ERE [5]. HE teachers have experienced a mismatch between available resources and support, and previous experiences with remote teaching practices and technologies, on the one hand, and demand for high quality online teaching/learning practices, on the other hand. However, how has the transition from in-class to remote education been experienced by HE students in Serbia remains under-researched.

1.1. Organizational Resilience

The concept of resilience regained attention following the COVID-19 pandemic. It has been used to describe individuals, organizations, and/or systems that are able to respond to and recover from threatening experiences with minimum disruption to their stability and functioning [6]. The authors focusing on a level of institution describe this feature as organizational resilience. If organizations are not sufficiently prepared to mitigate impacts and effectively respond to crises, it could have a negative impact on their members. For example, studies indicate the significant role for

the HEIs in providing resources to help students effectively cope with stress and mental health issues during the COVID-19 pandemic [7]. In the presence of adequate HE support, the effect of stress on development of psychological problems is reduced and may even be fully remedied.

Organizational resilience is defined as an organization's capability to anticipate possible risks, successfully cope with unexpected events, and learn and adapt to changing situations [8]. A crisis could trigger self-organizational process in organization and lead to organizational transformation. As Bento et al. [9] mentioned, the exploration of new possibilities is required for system and institution level adaptation. Often, innovation in teaching practices in HE is the outcome of emergent processes rather than planned design [9].

Based on the literature, organizational resilience is primarily built on knowledge, resource availability, social resources, and power-based relationships [1, 8]. More specifically, organizations with these attributes are likely to come out of crises more easily than those lacking in these factors [6].

The abovementioned suggests that resilience is not a one-time response to a specific event, but is rather an iterative process that requires pre- and post-event preparation, learning, and adaptation. Therefore, we would like to explore how have HE institutions in Serbia anticipated and coped during the pandemic. Moreover, we are interested to learn how HE institutions' adjustment and organizational transformation in the post-COVID era could be supported.

1.2. Aim of the Study

The COVID-19 pandemic could be considered a major disturbance, which will be part of the evolutionary history of educational institutions [8]. With a focus on the continuity and quality of HE during the COVID-19 pandemic, we aim to understand how the undergraduate students in Serbia have experienced the ERE, and to explore how sensitive HEIs have been to differences among students. We have considered important to approach the issue of HEIs' resilience from students' perspective, having in mind that the key indicators of organizational resilience could be recognized in students' experiences and outcomes.

Based on the findings, we will discuss how lessons learned from the experience of a sudden transition from face-to-face to online learning can be used to maintain academic continuity and build organizational resilience in the HE in Serbia.

2.   METHOD

Due to the novelty of the phenomena, the study undertook an exploratory descriptive approach.

2.1. Participants

All study participants were HE students, actively enrolled in a study programme at universities throughout the Serbia. Of the participants who partook in the study, those who had successfully completed the survey were included in the dataset. The convenient sample included 467 undergraduate students enrolled at state universities in Belgrade (48.8%), Novi Sad (3.2%), Niš (6.0%), and Kragujevac (42.0%). In the present sample, 32.3% of the participants were in their first academic year, 22.5% were in their second year, 23.6% were in their third year, and 21.6% in their fourth year of undergraduate studies. Females represented a higher proportion (328; 70.2%) of the sample than males.

2.2. Data Collection

Across four state universities in Serbia, students were invited to complete the survey. The survey was disseminated online via Moodle survey tool during the first lockdown period – March to May 2020. Its' completion was in accordance with European guidelines on General Data Protection Regulation (GDPR). Participation in this study was voluntary and not part of a course requirement. Participants were required to give consent prior to proceeding.

The survey was designed to capture the wide range of experiences of higher education students during emergency remote education. The survey consisted of the following sections: demographic information, changes introduced in the learning process due to the COVID, experience of these changes in comparison to face-to-face learning and a role of HE teachers in the ERE. To examine the impact of COVID-19 on their learning experience, an initial open question asked students to compare their experiences with face-to-face and online learning.

2.3. Data Analysis

Descriptive statistical analysis of data was performed in order to generate an overview of the ERE experiences by students.

3.   FINDINGS

The findings on the ERE from the students' perspective will be used to understand how have the HEIs in Serbia been anticipating and coping with the COVID-19 pandemic.

3.1. How was the ERE delivered?

Students were exposed to different modes of remote teaching during the ERE (Figure 1). The majority of students (376; 80.5%) reported that they had the opportunity to participate in all modes of remote teaching offered in the survey – recommendation of learning resources via email, publishing learning resources and additional learning materials on an online platform, providing

individualized instructions and consultations, and teaching using video conference platforms.
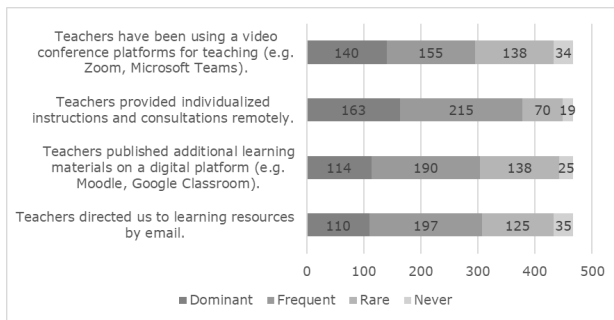

Figure 1. *Frequency of different modes of the ERE*.

Similar to the previous research [5], a significant number of students report that they were exposed to teacher-led unstructured learning activities, in which the main role of a teacher was to select and ensure relevant sources for learning. Pešikan et al. [4] interpret similar findings as a tendency of HE teachers to apply pre-COVID epistemological beliefs and practices to the COVID context, hindering in that way transformational process in HE.

Additionally, different modes of the ERE could indicate a sensitivity of HEIs to differences in students' living and learning contexts, teachers' competencies and resources, and teaching methodics of different subjects. However, it could also indicate lack of the common vision of the ERE goals within HEI, lack of coordination among HEI's staff and lack of support for these goals to become achieved at the level of HEI.

3.2. How have Students Experienced the ERE?

The students evaluated how demanding were different aspects of the learning in the ERE context in comparison to the face-to-face context. Fig. 2 shows that approximately 40% of students participating in the study, consistently recognize that the ERE context was more demanding regarding learning. The largest number of participants (46.4%) reported difficulties in ensuring optimal learning environment during this period. Namely, 48.5% participants that lived independently prior to the pandemic reported that they had to move back to the family homes.
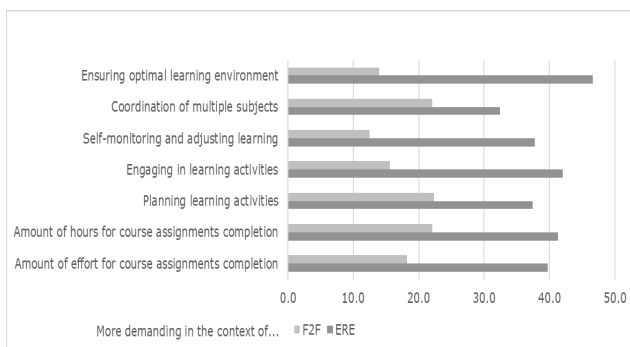

Figure 2. *Students' evaluation of learning in the ERE and face-to-face context*.

Moreover, the findings suggest that for a significant number of students (app. 40%) self-regulated skills, related to planning learning activities, managing time and tasks, self-monitoring and adjusting learning process, become even more important in distance learning than it was in traditional learning settings, which is aligned with previous studies. [10, 11]. All these changes in the context of the COVID-19 pandemic, had negative effect on students' capacity to regulate their motivation for learning: 20.2% of students retrospectively reported low motivation for learning prior to the pandemic, and this percentage increased to 48.4% during the ERE.

The findings warn that increased demand for self-regulation of students, could become a risk factor for students' learning motivation and performance, if it is coupled with the lack of HEIs' support.

3.3. How has the HE Teaching Adapted to the Changes in the Students' Lives and Learning?

A shift to a remote education introduced different considerations into planning process, such as having added uncertainties about available equipment and Internet access, learning about new types of technology and how to manage an online context, feelings of isolation and remoteness, all amidst personal circumstances and concerns about health and financial affairs [12]. The changes in the both living and learning context of students, required certain level of individualization of teaching and learning process. Therefore, it is important to highlight that the one quoter of participants in our study (25.1%) has no experience of teachers who showed interest in differences among students and their living/learning context, while 46.5% of students report that some teachers showed interest (Figure 3).
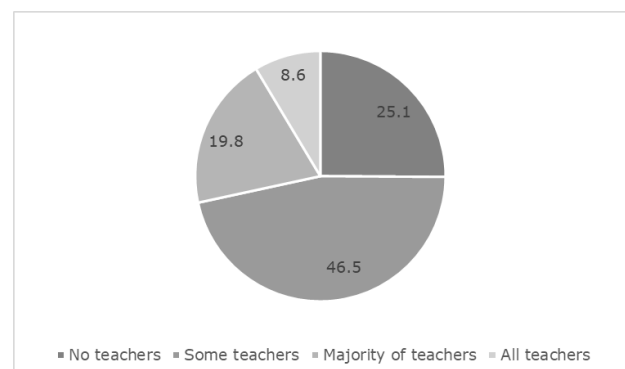
Figure 3. *Students' responses to the question "Teachers showed interest for differences among students and their living/learning context." (%)*

Beside acknowledging differences among students, HEIs and teaching staff were expected to make adjustments to the differences among students and

their living/learning context. One third of students (34.5%) report that none of the teachers adjusted teaching and learning to their individual strengths and needs, while 39.2% of students report that was the case for some teachers (Figure 4). In other words, only 7.9% of students reported that they were engaged in an individualized learning/teaching process, across the subjects.
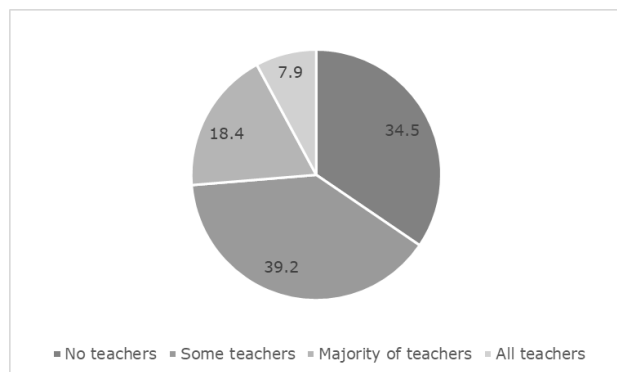
Figure 4. *Students' responses to the question "Teachers adjusted teaching and learning process to differences among students and their living/learning context." (%)*

4. DISCUSSION AND RECOMMENDATIONS

Resilient HEIs are capable to anticipate possible risks, successfully manage unexpected events, and adapt to changing situations [8]. Since our study took place during the first wave of the COVID-19 pandemic, we are interested in the ways HEIs in Serbia anticipated risks related to the ERE and how they have coped with it.

As Shaya et al. [6] described, anticipation in the context of a resilient organization is not limited to forecasting events (which may be impossible), but includes the concept of preparation: activities aimed at expanding knowledge and skills of staff, as well as improving availability and accessibility of scarce resources. The coping stage, on the other hand, is the process of devising and implementing solutions to a crisis [9]. This stage comprises accepting the evolving situation and the ability to seek a solution and put it into action [6]. Looking at our findings through the lens of organizational resilience is not resulting in an optimistic view.

The study shows that although the pandemic has imposed changes in different aspects of the learning process (e.g., learning environment, learning resources, learning activities), these were not commonly taken into account by HE teachers and institutions, highlighting the need for enacting pedagogy of care. A care approach to education pushes educators to recognize and address the diversity of students' experiences and vulnerabilities, allowing them to be more receptive not only to the assumed needs of students but also their individual needs [13]. This becomes particularly important in the context of emergency,

since the usefulness of the existing support systems and established practices and habits is at risk.

The findings suggest that students have experienced the ERE as more demanding in comparison to face-to-face learning/teaching, indicating insufficient support from the HEIs in the process of transition from the 'normal' to the 'new normal'. While Covid-19 restrictions continue to demand online learning, student wellbeing, motivation for learning, and learning outcomes may be enhanced by increasing the availability of HE support services. Moreover, HEIs should aim for increasing knowledge on the pedagogical and psychological aspects of the ERE among the staff, providing resources relevant for participation in the ERE, support development of effective social network within institution, and challenging rigid and established roles and ways of knowledge construction [6].

In order to mitigate the COVID imposed challenges while also building a more resilient system that can withstand future crises, countries across the Europe have started developing national recovery and resilience plans, which include education as one of the target sectors [14].

In the case of Serbia, the first step would be to take a look back at educational experiences of different stakeholders during the pandemic. Reflection on the ERE experiences could help identifying knowledge gaps, limited resources, rigid structures of the educational systems, and underdeveloped parts of the social network. At the same time, it could help identifying innovative practices emerging from the ERE and potential resources for HE development.

Engagement of wide range of stakeholders, with the particular emphasis on students' engagement, is not important just at the data collection and systematization stage, but throughout the decision-making process related to the future interventions, its' implementation and monitoring. Stakeholder involvement provides an opportunity to deepen mutual understanding about the issues at hand, explore and integrate ideas together, generate new options and solutions that may not have been considered individually and ensure the long-term commitment to achieve mutual goals [15]. All of these issues are becoming increasingly important in the context of emergency, helping to avoid confusion regarding division of responsibilities, ineffective use of scarce resources and adverse outcomes at level of individuals, organizations and systems.

Designing recovery and resilience plan is a step towards (a) developing joint vision of short-term and long-term goals; (b) selecting relevant and effective measures in the light of available resources; (c) mapping roles and responsibilities of HEIs, the Ministry of Education and the

Government of Serbia; (d) monitoring progress in the process of education recovery. Moreover, it could be a step towards the intentional and planned long-term transformation of HE towards more resilient and more innovative HEIs.

ACKNOWLEDGEMENTS

REFERENCES

[1] Bartusevičienė, I., Pazaver, A. & Kitada, M. (2021). Building a resilient university: ensuring academic continuity—transition from face-to-face to online in the COVID-19 pandemic. WMU Journal of Maritime Affairs, 20, 151–172. https://doi.org/10.1007/s13437-021-00239-x

[2] Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., and Bond, M. A. (2020). The Difference Between Emergency Remote Teaching and Online Learning. *Virginia Tech Online*. Available online at: http://hdl.handle.net/10919/104648 (accessed July 2, 2022)

[3] Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., Lambert, S., Al-Freih, M., Pete, J., Olcott Jr., D., Rodes, V., Aranciaga, I., Bali, M., Alvarez Jr., A., Roberts, J., Pazurek, A., Raffaghelli, J., Panagiotou, N., de Coëtlogon, P., … Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 Pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education, 15*(1), 1–126. https://doi.org/10.5281/zenodo.3878572

[4] Pešikan, A., Antić, S., Ivić, I., Stojiljković, I. (2022). *The COVID-19 pandemic and education: Main research findings*. Unpublished project report. Erasmus + Programme of the EU "From digital technology to educational tools – Heal-in-One".

[5] Stančić, M., & Senić Ružić, M. (2021). University Teachers' Perspectives on the Quality of Emergency Remote Teaching — the Case of Serbia During the COVID-19 Pandemic. *Andragoške studije, 11,* 45-63. https://doi.org/10.5937/AndStud2102045S

[6] Shaya, N., Abu Khait, R., Madani, R. et al. (2022). Organizational Resilience of Higher Education Institutions: An Empirical Study during Covid-19 Pandemic. *Higher Education Policy*, 755. https://doi.org/10.1057/s41307-022-00272-2

[7] Versteeg, M., & Kappe, R. (2021). Resilience and Higher Education Support as Protective Factors for Student Academic Stress and Depression During Covid-19 in the Netherlands. Frontiers in Public Health, 21. https://doi.org/10.3389/fpubh.2021.737223

[8] Bento, F., Giglio Bottino, A., Cerchiareto Pereira, F., Forastieri deAlmeida, J., & Gomes Rodrigues, F. (2021). Resilience in Higher Education: A Complex Perspective to Lecturers' Adaptive Processes in Response to the COVID-19 Pandemic. *Education Sciences*, 11, 492. https://doi.org/10.3390/educsci11090492

[9] Duchek, S. (2020). Organizational resilience: a capability-based conceptualization. *Business Research, 13*(1), 215–246.

[10] Dent, A.L., & Koenka, A.C. (2016). The relation between self-regulated learning and academic achievement across childhood and adolescence: a meta-analysis. Educational Psychology Review, 28(3), 425-474.

[11] Donker, A.S., De Boer, H., Kostons, D., Van Ewijk, C.D., & van der Werf, M.P. (2014). Effectiveness of learning strategy instruction on academic performance: a meta-analysis. *Educational Research Review, 11*, 1-26.

[12] Green, J.K., Burrow, M.S. & Carvalho, L. (2020). Designing for Transition: Supporting Teachers and Students Cope with Emergency Remote Education. *Postdigital Science and Education, 2,* 906–922. https://doi.org/10.1007/s42438-020-00185-6

[13] Zembylas, M. (2013). The "crisis of pity" and the radicalization of solidarity: Toward critical pedagogies of compassion. Educational Studies: *Journal of the American Educational Studies Association, 49*(6), 504–521. https://doi.org/10.1080/00131946.2013.844148

[14] Bisciari, P., Gelade, W., & Melyn, W. (2021). Investment and reform in Germany, France, Italy, Spain and Belgium's National Recovery and Resilience Plans. *Economic Review, 3*, 104-142.

[15] Hart, D., Diercks-O'Brien, G., & Powell, A. (2009). Exploring Stakeholder Engagement in Impact Evaluation Planning in Educational Development Work. *Evaluation, 15*(3), 285–306. https://doi.org/10.1177/1356389009105882