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CHALLENGES OF HIGHER EDUCATION AS A PUBLIC SERVICE DURING THE COVID-19 PANDEMIC: STUDENTS' PERSPECTIVE**

Abstract: In this paper, the authors present the key challenges encountered by the higher education as a public service during the COVID-19 pandemic. The paper aims to examine the opinions of full-time and part-time students on the organization of the educational process during the pandemic. The key hypothesis set in this paper is that the observed higher education institution ensured an efficient educational process and maintained appropriate teacher–student relations during the COVID-19 pandemic. The respondents in the survey were full-time and part-time students of the professional undergraduate administrative study programme at the Faculty of Law, Josip Juraj Strossmayer University of Osijek, and the Administrative Department of the College of Applied Sciences Lavoslav Ružička in Vukovar. The survey results were expected to either prove or disprove the basic hypothesis. The research results were analyzed by applying the descriptive statistics method. The scientific contribution to administrative science is evident in

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the theoretical background for conducting the empirical research at the Faculty of Law in Osijek and the College of Applied Sciences in Vukovar, the analysis of major challenges encountered by teachers and students, the final conclusions and proposals for improving the organization of the educational process in future extraordinary circumstances.

Keywords: higher education, public service, COVID-19 pandemic, students, organization.

1. Introduction

In the course of the COVID-19 pandemic all stakeholders in the higher education system faced numerous challenges. At the outset of the pandemic, over a relatively short period of time, all the participants in the higher education system were forced to use Internet platforms in order to ensure timely distribution of teaching materials to students, to teach classes according to the schedule, to organize exams, seminars, exercises etc. The managing stakeholders made decisions, issued recommendations, guidelines and instructions to facilitate the simplest and easiest adjustment of the teaching process in this extraordinary situation. It was neither an easy nor a simple task, especially for those administrations whose organizational capacities have not been oriented towards adaptive organizational structures. For such administrations, the adjustment itself was even more difficult. In retrospective, it may be said that all these challenges have ultimately contributed to the improvement of the teaching processes, not only in "normal" circumstances but also in extraordinary situations.

This paper presents the results of the empirical research which was conducted among full-time and part-time (1st, 2nd, and 3rd year) students at the Faculty of Law, *Josip Juraj Strossmayer* University of Osijek, and the College of Applied Sciences *Lavoslav Ružička* in Vukovar, Croatia. The starting hypothesis of the research was as follows: the observed higher education institution ensured the efficiency of the teaching process and maintained adequate teacher-student relations during the COVID-19 pandemic. The paper aims to examine the opinions of fill-time and part-time students on the organization of classes during the pandemics. The contribution to administrative science is evident in the theoretical background, the research methodology and research results, and the conclusions relating to content analysis.

2. Theoretical background of research

Higher education (HE) is a part of public administration which is called public services. As stated by Koprić *et al.* (2021), public services are highly complex

since they refer to a segment of public administration diverse in activities. They represent various activities containing more or less economic-commercial elements performed in the public interest under a special legal regime, for which the public authority ensures at least part of the financial, organizational and other types of burdens (Koprić, Marčetić, Musa, Đulabić, Lalić Novak, 2021: 233-234). In addition to the concept of public service, it is very significant to highlight one of the key tendencies in the development of administration, the tendency towards informatization of administration, which has become even more dominant during the COVID-19 pandemic. According to Pusić (2002), the term informatization implies the use of information technology which encourages forming the horizontally coordinated networks of work teams along with vertical coordination through hierarchy (Pusić, 2002: 106).

The organization of the teaching processes during the COVID-19 pandemic was conditioned by organizational specificities of the observed institutions. The Faculty of Law in Osijek (hereinafter: Faculty of Law) is a legal person incorporated in Josip Juraj Strossmayer University (hereinafter: University). Even though the Faculty of Law has a certain degree of autonomy, it should fit the standards prescribed by the General Acts of the University regarding the organizational and working procedures. The internal organization of the Faculty of Law is determined by the Decision of the Faculty Council in accordance with the Decision of the University Senate, whereas all the issues regarding student rights, obligations and status are regulated by the General Acts of the University. In accordance with the Statute¹, the Faculty of Law in Osijek organizes and performs integrated undergraduate, graduate and postgraduate academic study programs, professional graduate study programs, and postgraduate specialist study programs (Article 9, para. 1, items 1, 2 and 3 of the FL Statute). The College of Applied Sciences Lavoslav Ružička in Vukovar (hereinafter: College) is an independent legal person founded by the Regulation of the Government of the Republic of Croatia on establishing the College of Applied Sciences Lavoslav Ružička in Vukovar.² The internal organization and other important issues regarding the functioning of the College are determined pursuant to the Regulation, the Statute and all general acts of the College based on the CAS Statute.³ The College

¹ The Statute of the Faculty of Law in Osijek, *JJ Strossmayer* University of Osijek (2022); https://www.pravos.unios.hr/download/2022-statut-pravos-16-05-2022.pdf (accessed on 12.8.2022)

² The Regulation of the Government of the Republic of Croatia on establishing the College of Applied Sciences *Lavoslav Ružička* in Vukovar, *Official Gazette of the Republic of Croatia*, no. 92/2005, 119/2013.

³ The Statute of the College of Applied Sciences *Lavoslav Ružička* in Vukovar (2021); https:// vevu.hr/wp-content/uploads/2021/08/49StatutVEVUprociscenitekst.pdf, (accessed on 12.8.2022).

is a public college which performs undergraduate and graduate professional study programs (Article 2 of the CAS Statute).

3. Research methodology

With the aim of verifying the set hypothesis, the research was conducted on a sample of 60 full-time and 60 part-time students in 1st, 2nd and 3rd year of professional administrative studies (120 students from all three years of studies in total). The sample is considered representative and relevant for obtaining insight into organization of the teaching process during the COVID-19 pandemic since it includes part of full-time students and all part-time students in professional administrative study program at the Faculty of Law in Osijek and all the full-time and part of part-time students in the professional administrative study program at the College in Vukovar.

A questionnaire comprising 25 questions was composed for research purposes: the first four questions referred to general information about the participants (gender, institution, student status, and year of study); 14 close-ended questions (5 to 18) referred to the organization of classes and the teaching process during the COVID-19 pandemic; 6 close-ended questions (19 to 24) referred to students' perception on successful performance of obligations during online classes; and the open-ended question (25) referred to additional student observations. The Likert 5-point type scale was used to rank the levels of satisfaction (1 - I completely disagree; 2 - I mainly disagree; 3 - I neither agree, nor disagree; 4 - I mainly *agree*; 5 – *I completely agree*). The research was conducted during the first week of classes in the summer semester in the academic year 2021/2022, from February 28th to March 4th 2022. Questionnaires were distributed personally by the research team members who were present during the questionnaire completion in case additional clarifications and instructions were needed. The respondents completed the questionnaires individually, in several groups, depending on the vear of study and student status.

The analysis of the obtained data was performed by using the IBM SPSS Statistics 26 (SPSS Inc., Chicago, Illinois, USA, 2019) statistical software. Descriptive statistics and normality test on the distribution of the dependent variables across all levels of the independent variable was applied on the obtained results by using the Kolmogorov-Smirnov test. In cases where the distribution normality was affected, methods of nonparametric statistics were applied. For determining the differences in answers based on gender, organization, student status and year of study, the General Linear Model Multivariate analysis was used. The significance level was $p \leq 0.05$.

4. Research results

As previously mentioned, the research included the matching number of students attending the Faculty of Law and College (60 participants from each), as well as the matching number of full-time and part-time students from each institution (30 full-time and 30 part-time students). The results show that the student status (as full-time or part-time students) caused no significant differences in the obtained answers (p=0.54). Almost 66% of the respondents were female but the results show that gender had no effect on statistically significant differences in answers (p=0.54). Although the respondents were offered the possibility not to state their gender, no one used this option. *Chart 1* shows the respondents' gender structure. The results of the General Linear Model Multivariate analysis indicated that gender had no influence on the statistically significant differences in answers (p=0.54).



Chart 1. Gender structure of the respondents

Source: Authors` statistical analysis of the collected data (2022)

The research was conducted in March 2022 and it included the following respondents:

a. students who started their first year of study in the academic year 2021/2022. This group of students had only one semester of online classes (the first/winter semester);

b. students who started their second year of study in the academic year 2021/2022. This group of students had three semesters of online classes (first and second semester in the academic year 2020/2021, and third semester in the academic year 2021/2022);

c. students who started their third year of study in the academic year 2021/2022. This group of students had four semesters of online classes, from the outset of the COVID-19 pandemic in March 2020 (the second/summer semester of the academic year 2019/2020, the third and fourth semester in the academic year 2020/2021, and the fifth semester in the academic year 2021/2022).

Taking into consideration the aforesaid facts, the most relevant answers should be those provided by the third year students who spent almost the entire period of study attending online classes. In order to ascertain the validity of this assumption, additional General Linear Model Multivariate analysis was performed on the four chosen questions. The results show the level of statistical significance of $p \le 0.05$. These results will be presented later in the paper when analyzing individual answers. *Chart 2* shows the number of students per year of study.



Chart 2. Participants (respondents) per year of study

Source: Authors' statistical analysis of the collected data (2022)

The overall questionnaire results indicate that the both institutions demonstrated a significant level of organizational preparedness to act in unpredictable extraordinary circumstances caused by the COVID-19 pandemic. In a very short period of time, the institutions had to design new ways of organizing the teaching process and instruction. At the very outset of the COVID-19 pandemic in early March 2020⁴, the classes were not held at all.⁵ In line with the Recommendation of the Ministry of Science and Education.⁶ HE institutions had to opt for a distance learning model. depending on the availability of Information technology (IT) resources to both teachers and students. Thus, teachers initially resorted to using email communication and posting teaching material (chapters to be covered) and assignments on the official institutional websites. After realizing that the situation might be permanent, the institutions began organizing online classes. For the purposes of holding online classes, teachers needed a certain level of IT skills and technical equipment, as well as additional time for preparing online classes. The entire process was fast and spontaneous: teachers used various platforms (Skype, Google Meet, Zoom, Moodle, MS Teams) and other distance learning tools they had already been familiar with, or which were recommended by the institution. As the central infrastructural institution the Republic of Croatia in charge of the entire science and higher education system in Croatia, the University Computing Centre of the University of Zagreb (SRCE)⁷ very promptly prepared the instructions for organizing and holding online classes by using different online platforms and organized webinars for educating the teaching staff. In addition, institutions organized short training sessions for their teaching staff covering the basics of Moodle and Merlin systems. In March 2020, at the outset of the COVID-19 pandemic, the Faculty of Law organized workshops on the available remote learning systems (Merlin-SRCE, Loomen e-classroom, Merlin e-classroom), where interested teachers(using their personal computers) were instructed how to use these remote learning systems. Initially, the College did not organize

⁴ In the Republic of Croatia, the COVID-19 epidemic was officially declared on 11 March 2020 by *the Decision on declaring the epidemic of the COVID-19 desease caused by the SARA-CoV-2 virus*, issued by the Ministry of Health of the Republic of Croatia (RC); See: Ministry of Health RC (2020) https://zdravlje.gov.hr/UserDocsImages//2020%20CORONAVIRUS//ODLUKA%200%20PROGLA%C5%A0ENJU%20EPIDEMIJE%20B0LESTI%20COVID-19.pdf:

⁵ On 13 March 2020, the Government of the Republic of Croatia adopted the Decision on the suspension of teaching activities at universities, secondary and primary schools, preschool education institutions, and the establishment of distance learning ("*Narodne novine*", no. 29/20 and 32/20) (Ministry of Science and Education 2020:5) See also : Ministry of Health (2020): https://mzo.gov.hr/UserDocsImages/dokumenti/Vijesti/2020/Uputa%20-%20 visoka%20ucilista%20-%2019.%203.%202020..pdf

⁶ Ministry of Science and Education RC (2020). Recommendations to higher education institutions regarding the organization of the distance learning process, 11 March 2020,. https://mzo.gov.hr/UserDocsImages/dokumenti/Vijesti/2020/Preporuke%20visokim%20 ucilistima%20vezano%20uz%20organizaciju%20obrazovnog%20procesa%20na%20 daljinu%20te%20dostava%20povratnih%20informacija.pdf

⁷ See: University of Zagreb University Computing Centre (SRCE - *Sveučilišni računski centar, Sveučilište u Zagrebu*); https://www.srce.unizg.hr/en/about-srce (accessed on 20.10.2022)

educational workshops for the teaching staff, who independently explored the instructions on using the Merlin system (which was recommended by the College). The first education for using the MS Teams was held in June 2020. Thus, the instruction during the first (summer) semester at the College was quite versatile and uneven (unstandardized), as it largely depended on the resourcefulness and commitment of every individual teacher. The research results indicate that the teachers responded to the challenge quite well. However, our analysis shows a statistically significant difference (p=0.001) between the answers provided by the students attending the Faculty of Law (PRAVOS) and those attending the College (VEVU). ⁸ *Chart 3* shows the difference in students' responses to the question whether the teachers in the two institutions were properly prepared to teach online classes. It cannot be said that the difference is merely a result of workshops organized by the Faculty of Law; it was most probably influenced by the teachers' previous professional training, preparedness and commitment to face a new challenge.



Chart 3. Teachers' preparedness for online classes

Source: Authors' statistical analysis of the collected data (2022)

Further analysis of students' responses per year of study at the two institutions showed no statistically significant differences regarding this question (Faculty of Law p=0.23; the College p=0.42), nor did the third year students at the Faculty of Law provide any statistically different responses to those provided by the third year students attending the College, as shown in *Chart 4*.

⁸ For the purposes of presenting information in charts, the Faculty of Law in Osijek is referred to as PRAVOS, while the College of Applied Sciences in Vukovar is referred to as VEVU.

Chart 4. Distribution of respondents' answers on teachers' professional education and preparedness to teach online according to the respondents' years of study and institution





To avoid further confusion, the analysis focused on students' attitudes and opinions about online classes without special indication of the academic year. Therefore, the results presented below show the overall impression about online classes at the two institutions.

4.1. Online classes and their quality

When the lock-down was declared in March 2020, the two HE institutions faced a challenge of maintaining a continuous teaching process, regardless of the given circumstances. Therefore, we wanted to investigate whether, in the opinion of the research participants, the continuity of the teaching process was preserved in the given circumstances, and to what extent. Thus, in response to the question whether the online classes enabled a regular (continuous) teaching process during the pandemic, a total of 56,66% of respondents attending the Faculty of Law and 71,66% of respondents attending the College chose the answer 5 - *I completely agree. Chart 5* shows the participants' responses to this question.



Chart 5. The frequency of regular classes during the COVID-19 pandemic

Source: Authors' statistical analysis of the collected data (2022)

Although the classes were not held in-person on the premises of the two HE institutions, there was a fixed schedule for online classes, which was published on the institutional websites and which had to be abided by. At the College, teachers were obligated to send students additional notifications by email about the scheduled lectures, in accordance with the instructions provided by the administration, even though the schedule had already been published on the institution's official website. It is most probably for this reason that the students attending the College provided more positive answers to the question on being timely notified in advance about the scheduled lectures than the students attending the Faculty of Law. *Chart 6* shows that 93,33% of the College students expressed a very high or the highest level of satisfaction, as opposed to 81,67% of students from the Faculty of Law.

Online classes enabled regular teaching process to continue even during the pandemic

Chart 6. Timely notifications regarding the scheduled lectures during online classes



We received information about the schedule of online classes in time

Source: Authors` statistical analysis of the collected data (2022)

Online classes were a challenge for all participants in the teaching process, especially during the lock-down. Professional and private obligations had to be well organized and handled, teachers (and some students) faced additional responsibilities with their own children who were not attending school at that moment, some of them had COVID-related health problems, etc. Despite all the difficulties and challenges, the obtained results show the classes were held quite regularly. *Chart 7* shows that 70% of students attending the Faculty of Law and 68,33% attending the College expressed the highest level of satisfaction regarding the frequency of instruction in line with the planned schedule.

Chart 7. Frequency of holding classes in accordance with the planned schedule



Classes were held in accordance with the prior set schedule

Source: Authors' statistical analysis of the collected data (2022)

Additional analysis was conducted to examine whether there is a difference between the participants' answers to this question depending on the year of study and institution. It showed that there was no statistically significant difference between the first, second and third year students attending the College (p=0.82) and the first, second and third year students attending the Faculty of Law (p=0.60). Regardless of the fact that some students spent only one, three or even five semesters attending online classes, the provided answers show similar values. In addition, no statistically significant difference was noticed between the answers given by the third year students attending the Faculty of Law and the third year students attending the College. *Chart 8* shows the distribution of respondents' answers per year of study and institution regarding the frequency of instruction.

Chart 8. Distribution of respondents' answers according to the year of study and institution regarding the frequency of instruction in accordance with the planned schedule.



Source: Authors' statistical analysis of the collected data (2022)

Regardless of the given circumstances, the teachers were required to observe the planned schedule and teach the required weekly number of hours prescribed in the institutional curricula and syllabi. On the other hand, considering the available technical equipment and personal working and living conditions, students followed their online classes from home, from their offices, while travelling to and from work, while doing chores, or while helping their own children handle their online classes. Many teachers had similar experiences. Thus, students were asked to what extent their teachers observed the planned schedule and

held the specific number of online classes. *Chart 9* presents the respondents' answers, which indicate that teachers at both institutions held online classes most regularly.



Chart 9. Respondents' answers about the number of held online classes

Source: Authors` statistical analysis of the collected data (2022)

The regular holding of online classes was necessary to keep the teaching process active, but it is quite difficult to imagine that this way of teaching may completely substitute the traditional classes held in person. Due to the limited technical possibilities of the virtual environment, it is difficult to develop a constructive debate or establish a working relationship with students. The process of writing and presenting seminar papers aims to develop students' speaking and rhetoric abilities as well as to encourage their critical thinking. Some activities, such as organizing and holding practice hours including problem-solving and analyzing individual tasks, require a high level of teacher and student engagement. Experience showed that it was rather difficult to achieve these goals in online classes. It was also confirmed by participants' answers. Chart 10 shows the respondents' opinions about the quality of instruction (seminars and exercises), indicating that students considered that the quality of instruction was higher in the traditional classroom settings than in online classes. The analysis did not indicate the presence of a statistically significant difference on this issue between the students attending the Faculty of Law and the College.



Chart 10. Student opinions about the quality of in person classes

4.2. Access to literature during online classes

In addition to challenges referring to the organization of online classes in general, there was a special challenge related to attempts to access the necessary literature for preparing seminar papers, doing course assignments and preparing for tests. Literature necessary for administrative study programs is quite extensive and it consists of a large number of textbooks, scientific and professional research papers which are not available in electronic form. Given the fact that students were unable to physically access libraries at their HE institutions, adequate solutions had to be found to enable students' access to such literature. In solving this problem, the teachers played the key role and demonstrated their creativity by allowing access to such learning material in a number of different ways. They prepared PowerPoint presentations, scanned the textbooks, compiled scripts and manuals which were published on the official websites of each institution. Certainly, when sharing materials in such a way, special attention had to be given to copyright issues. Some teachers even sent their students materials by email. Distance learning platforms (such as Merlin and Moodle) proved quite useful for practice hours (exercises) because they have in-built program solutions for this concept of teaching. According to the obtained results, both the Faculty of Law and the College showed rather satisfying levels of organizational resourcefulness and preparedness. Chart 11 shows that students at both institutions were largely satisfied with the provided access to learning material. Only two respondents from the Faculty of Law expressed dissatisfaction, whereas there were no dissatisfied respondents from the College.

Source: Authors` statistical analysis of the collected data (2022)



Chart 11. Access to learning materials

Source: Authors' statistical analysis of the collected data (2022)

The accessibility of learning materials was further analyzed according to the respondent's year of study and institution. The results presented in *Chart 12* show that there was no statistically significant difference between the opinions of students from the two institution (the Faculty of Law p=0.25, the College p= 0.67). It also proved to be the case with responses provided by third year students at both institutions. This even distribution of respondents' answers additionally proves the relevance of the obtained research results.

Chart 12. Distribution of respondents' answers on the accessibility of learning materials according to the year of study and institution



Source: Authors' statistical analysis of the collected data (2022)

In terms of access to literature, library services are also very important at both institutions. The Faculty of Law currently employs five librarians with a university degree who quite promptly and successfully handled both teachers or students' requests for literature by e-mailing the digitalized version of the requested texts in accordance with copyright law prescriptions. The FL library is well-equipped with both compulsory and non-compulsory literature, as well as with referential literature intended for preparing seminar papers. In order to simplify access to relevant literature and facilitate quality online instruction in the extraordinary pandemic circumstances, the librarians digitalized more than 600 units of compulsory literature. Free access to e-books that were made available by foreign publishers was more than welcome. It was necessary for certain courses to be held, and it was coordinated by professors teaching such courses. An additional advantage was the fact that the FL library enabled access to a huge number of databases: 30 multi-disciplinary databases (bibliographic and complete texts), 23 databases (containing over 11,542 titles of electronic magazines and 8,429 e-books) which were available via the subscription paid by the Croatian Ministry of Science and Education, and 9 databases (containing 5,116 different magazine titles) which were available via the subscription provided by the Faculty of Law. The access to all the subscription-based digital content was facilitated via the Faculty proxy server and AAI user name and password. Given the fact that the Faculty of Law had been continuously renewing the subscription for the Legal Legislations Portal (IUS-info) for the past 10 years, students had continuous online access to all the positive legal regulations envisaged in their course assignments. On the other hand, the College library has only one employee, a significantly lower number of books, and does not pay subscription to any of the relevant databases. These objective differences are to some extent visible in the research results; namely, this was the only question where less than 50% of students attending the College completely agreed with the statement that library services were adjusted to students' needs during online classes. However, regardless of these circumstances, statistical analysis presented in *Chart 13* shows that there is no significant statistical difference between the two institutions concerning the extent to which their library services were adjusted to students' needs during online instruction.



Chart 13. Level of adjustment of library services to students' needs

4.3. Teachers' availability

In case of having a dilemma or an issue concerning the teaching/learning process, students commonly address their teachers. In order to clarify dilemmas and resolve issues arising from the highly specific online teaching circumstances, technical difficulties, psychological difficulties caused by physical isolation, illness or other factors, it was of utmost importance for students to receive timely, complete and accurate information. Thus, the survey participants were asked to evaluate the extent to which their teachers were available for consultation and student inquiries. The results presented in *Chart 14* show that 90% of students attending the College and 80% of students attending the Faculty of Law were either very satisfied or completely satisfied with the level of availability of their teachers during online classes.

Source: Authors' statistical analysis of the collected data (2022)





In addition to their teachers, the students could also contact their mentors (if necessary). The Strategy for Education, Science and Technology,⁹ adopted by the Croatian Parliament in 2014, includes recommendations for establishing and improving the mentorship system at all levels of instruction. In the area of higher education, within the context of modernization, internationalization and strengthening the capacities of education, the Strategy envisages a number of measures aimed at improving the study programs and efficiency of education by consistently implementing the concepts of the Bologna Reform Process and redefining the learning outcomes and competences. One of the measures is to design and implement the mentorship system at all HE institutions, to provide education for teachers and assistants in terms of developing mentoring competencies, to ensure regular student counseling with their mentors and students' evaluation of mentors' work (Measure 1.2.3. of the Strategy).

Even before this Strategy was adopted, the College in Vukovar adopted the General Rules on Mentorship in 2013¹⁰ and introduced the mentorship system in

Source: Authors' statistical analysis of the collected data (2022)

⁹ Strategy for Education, Science and Technology, *Official Gazette of the Republic of Cro*atia, no. 124/2014;

https://narodne-novine.nn.hr/clanci/sluzbeni/2014_10_124_2364.html (accessed 12.03.2022)

¹⁰ General Rules on Mentorship, College of Applied Sciences *Lavoslav Ružička* in Vukovar, R. Croatia, 4. December 2013, http://www.vevu.hr/uploads/50Pravilnik%200%20 mentorskom%20radu%20nastavnika.pdf

In 2022, the College in Vukovar adopted new General Rules on Mentors' Work; https://www.vevu.hr/wp-content/uploads/2022/04/Pravilnik-o-mentorskom-radu-nastavnika-2022.pdf (accessed 26 August 2022).

order to improve the quality and efficiency of education (Article 2). The General Rules on Mentorship (2013, 2022) envisage the mentors' tasks and obligations as follows:

- a. to inform students about the College organization, its administrative and professional service, its building and ethical principles of the academic community,
- b. to inform students about teaching activities and current events, as well as about students' rights and obligations during the study period,
- c. to provide counseling and guidelines for students during the study period,
- d. to talk to students about possible difficulties during the study period and advise them how to overcome those difficulties (Article 12 of General Rules).

In addition, mentors are obliged to regularly meet students at least once a month and directly assist them with their work (either collectively or individually), to keep notes (for mentor's report) on students' work and submit the mentor's reports once a month to the Head of the Department and the Vice-Dean of Studies and Students' Affairs, and to submit the final mentorship report (on mentoring sessions) to the Vice-Dean of Studies at the end of each semester (Article 11 of the General Rules). At the end of each semester, Vice-Dean of Studies and Students' Affairs informs the College Council about the mentor's work, number of meetings held, potential issues and possible solutions. It may be concluded that mentors' work at the College is adequately regulated and efficiently organized, and it proved to be quite a useful means of information exchange and problemsolving during the pandemic.

At the Faculty of Law in Osijek, the mentorship system has been primarily used in the Doctoral Study Program, where the Mentors' Council decides on the appointment of mentors who guide, assist and monitor the doctoral students' work of in preparing their disserataions, encourage their scientific research, mobility, and publication of reserach results.¹¹ In September 2021, the Academic Council of the Faculty of Law Osijek decided to name a moderator for full-time and parttime study programs in the academic year 2021/2022.

In the research questionnaire, four questions addressed the quality of mentor's work. In response to the first question about the frequency of meetings held by mentors, the analysis presented in *Chart 15* shows the presence of a statistically significant difference (p=0.04) between the answers provided by the respon-

¹¹ Faculty of law Osijek, J.J. Stossmayer University of Osijek (2022): Council of Mentors, Appointment of mentors; https://www.pravos.unios.hr/doktorski-studij/appointment-of-mentors#; https://www.pravos.unios.hr/doktorski-studij/council-of-mentors; (accessed on 28.10.2022)

dents attending the Faculty of Law and those attending the College. It is obvious that the students attending the College had more experience with mentorship and demonstrated higher levels of satisfaction with their mentors` work than the students from the Faculty of Law.



Chart 15. Frequency of regular monthly meetings with mentors

Monthly meetings were regularly held by mentors assigned to a particular study year

Source: Authors' statistical analysis of the collected data (2022)

Apart from holding regular meetings, mentors were obligated to be available to students for their inquiries. Although the analysis did not show statistically significant difference, *Chart 16* clearly indicates that mentors from the College were frequently more accessible to their students that those form the Faculty of Law.

Chart 16. Availability of mentors at the two institutions



Despite regular meetings, mentors were available for student inquiries

Source: Authors' statistical analysis of the collected data (2022)

Considering the question whether mentors had successfully resolved the emerging issues in a timely manner, the distribution of frequency of statement 5 (*I completely agree*) was quite similar. *Chart 17* shows that the answers provided by the students attending the College resulted in higher marks for their mentors. It also proves to be true in terms of the question about the students' satisfaction with their mentors` work, as shown in *Chart 18*.

Chart 17. Frequency of mentors' successfulness and promptness in problem solving



Mentors dealt with problems successfully and promptly

Source: Authors` statistical analysis of the collected data (2022) Chart 18. Students' satisfaction with their mentors` work



I am satisfied with the work of the mentor assigned to my study group Source: Authors` statistical analysis of the collected data (2022)

Considering the observed difference in the satisfaction levels with mentors' work expressed by the students attending the Faculty of Law and those attending the College, further analysis was performed relating to the duration of study. There was no statistically significant difference (p=0.40) among the answers provided by the first, the second and the third year students attending College with regard to their mentors' work. However, the answers provided by the first, the second and the third year students attending the Faculty of Law showed a statistically significant difference (p=0.05). The first year students average grade of their mentors' work was 4.87±0.35, the second year students' grade was 4.09±1.26, and the third year students' grade was 4.17±0.84. as shown in Chart 19. Further analysis was also conducted addressing the answers provided by the third year students attending College and those attending the Faculty of Law, which indicted the presence of a statistically significant difference (p=0.04). As shown in *Chart 19*, the average grade of the third year students attending the Faculty of Law was 4.17±0.84, in contrast with the average grade 4.68±0.90 provided by the students attending College.

Chart 19. The levels of students' satisfaction with their mentors` work according to the year of study at both institutions



Source: Authors' statistical analysis of the collected data (2022)

Source: Authors' statistical analysis of the collected data (2022)

4.4. The quality of work of other services

In order to obtain a complete picture about the work of the observed institutions during the COVID-19 pandemic, the questionnaire included a set of questions about the work of other services: student administration office, IT services, legal

services, and the Vice Dean of Studies and Student Affairs, which had to adjust their work to the pandemic conditions. Student administration office was the first service to be contacted in case students need any assistance. IT services were especially helpful during online classes, while numerous legal matters, otherwise resolved in person, were handled electronically. Although the respondents attend two different institutions, their answers about the work of other services do not reveal any statistically significant differences. The research results indicate a similar distribution of answers provided by students from the two institutions. *Chart 20* shows the distribution of answers concerning the statement: Student services dealt with student inquiries and requests in due time. *Chart 21* presents the distribution of answers referring to the statement: IT services offered satisfactory support to students. *Chart 22* displays the distribution of answers regarding the statement: inquiries, requests and other official matters addressed to other services were handled in due time.



Chart 20. Level of students' satisfaction with the work of student services

Student services (student administration office) dealt with all student inquiries and requests in due time

Source: Authors' statistical analysis of the collected data (2022)



Chart 21. Level of students' satisfaction with the work of IT services





Inquiries, requests and other official matters addressed to other services are handled in due time

Source: Authors` statistical analysis of the collected data (2022)

Generally, when compared to the teaching process and teachers, the work of other services was rather poorly graded, although the results are still quite satisfactory.

4.5. Successfulness in managing student obligations

In previous questions, the respondents were asked to grade the teaching process and its key elements. The last part of the questionnaire aimed to research the students' perception relating to assessment of their own success during online classes, i.e. the extent to which online classes influenced their success. First, the authors wanted to know whether the length of individual classes corresponded with the students' concentration span. In August 2020, the Croatian Institute for Public Health, in conjunction with the Ministry of Science and Education, issued Recommendations for University Instruction during the COVID-19 pandemic and the application of anti-epidemic measures;¹² among other things, they included a recommendation to shorten classes, which should last 40 minutes (per class) in order to allow for the classrooms to be disinfected. The 40-minute classes were also introduced in online classes. The results shown in *Chart 23* indicate that students did not experience any issues with the lack of concentration, and that there was no statistically significant difference between the responses of students attending the Faculty of Law and the College.

Chart 23. Distribution of students' answers referring to the length of individual classes and its impact on students' concentration span



The length of one period in online classes is (40-45 min) adequate for students to remain concentrated

Source: Authors' statistical analysis of the collected data (2022)

During online classes, one of the most challenging and particularly complex issues was the organization and taking of exams. Frequent network overload caused interruptions which none of the participants in the teaching process

¹² Recommendations for University Instruction during the COVID-19 pandemic and the application of anti-epidemic measures, Croatian Institute for Public Health, 31 August 2020. https://www.srednja.hr/app/uploads/2020/09/PREPORUKE_visoka_ucilista_31_08_2020. pdf, (28.8.2022).

could have controlled, but such disturbances could have influenced the exam results. This last argument was often used as an excuse by students which could not have been verified by teachers. Despite numerous program solutions for distant learning, it was practically impossible to determine who was actually taking the test, whether there was someone helping students during online testing and whether the student was using additional (inadmissible) materials while taking the test. Thus, there was the general perception of students being more successful in online testing. Two statements were aimed at analyzing students' opinions on this matter. The first statement (*Taking exams online resulted in higher passing rates*) referred to better exam results in online testing when compared to traditional testing. The results are presented in *Chart 24*.



Chart 24. Student opinions about online testing and better exam results

Source: Authors' statistical analysis of the collected data (2022)

The second statement related to the students' results in test (*Taking exams online resulted in better student grades*), i.e. whether students thought that they got higher grades in online testing. Chart 25 indicates that statistical analysis of students' responses did not reveal any significant deviations among the respondents with regard to individual variables (gender, student status, year of study, and institution).



Chart 25. Answers referring to achieving better grades in online testing

Source: Authors' statistical analysis of the collected data (2022)

For the purposes of this analysis, it is interesting to observe the numbers of students who opted for response 3 (*I neither agree nor disagree*). As shown in Charts 24, 25 and 26, this type of frequency in students' answers is present only in this part of the questionnaire (relating to success in online testing) and nowhere else. There are several possible explanations for this distribution of answers, such as the fact that students had no other reference for comparison (the first year students attended their classes for only one semester prior to this research), or that students perhaps did not want to be fully honest since the testing was organized and conducted by their teachers, or they simply could not objectively assess this statement on their own. One can only guess what the real reasons are, but students' answers do not support the general perception about online testing being easier.

The respondents' opinion about the way online classes influenced the rate of success when the tests were taken in the traditional classroom settings was used as a control question to learn whether the students obtained the knowledge necessary for achieving successful test results. The results presented in *Chart 26* confirm the previously expressed positive attitudes about the quality of the teaching process. Even though the frequency of response 3 (*I neither agree nor disagree*) is quite high, only a small number of respondents (16.67% from the Faculty of Law, and 25% from the College) claimed they had difficulties with taking tests in the traditional classroom setting as a result of attending online classes.

Chart 26. Students' answers related to the statement: The rate of success in exams taken in the traditional classroom setting was lower as a result of having online classes



After online classes the success rate on exams held in classrooms was lower

Source: Authors' statistical analysis of the collected data (2022)

The last question in the questionnaire was an open-ended question, where the respondents were encouraged to write additional comments about the organization of classes and their success in managing their student obligations. This question was answered by 8 students only, and their comments are presented in *Table 1*.

Institution	Student status	Year of study	Gender	Comment
PRAVOS	Regular	II.	F	I consider online classes are better due to personal safety.
PRAVOS	Part-time	I.	F	In my opinion, live classes are better than online classes. Better concentration, better communication between students and teachers, better understanding of the subject matter.
PRAVOS	Part-time	I.	F	I express criticism regarding the length of some lectures which took more than 2 hours, making it difficult to concentrate.

Table 1. Students' comments provided in the open-ended question

Institution	Student	Year of	Gender	Comment
	status	study		
PRAVOS	Part-time	I.	F	I consider online classes impractical especially because of exams. Teachers are not able to explain the subject matter fully, whereas students are having a hard time to adjust.
PRAVOS	Part-time	II.	F	Organization of classes during the pandemic was much better and easier to follow online for us who travel to university.
VEVU	Part-time	II.	М	Online classes are not good.
VEVU	Part-time	III.	М	Only online.
VEVU	Part-time	II.	F	For those of us who travel, it is much easier to follow online classes. I personally have nothing against taking tests in classrooms.

Source: Authors' statistical analysis of the collected data (2022)

5. Discussion and conclusion

Even though the number of participants is quite small (120 participants in total), it is without any doubt representative for the observed institutions. The research was conducted a in controlled environment where participants could not have influenced each other's answers. The questionnaire covered all the areas relevant for proper work of a higher institution, and it provided an objective overview of online classes.

The author's analysis did not show any statistically significant differences between the answers provided by students attending the Faculty of Law and those attending the College, although they are two significantly different institutions. Statistically significant differences are found in two segments only: teachers' preparedness to teach online classes and mentors' work, which were explained in detail in the results' interpretation.

In general, the observed institutions received very good grades for their work during online classes. Participants from both institutions provided quite positive answers (*I mainly agree*; *I completely agree*) to most of the questions. What is the reason for such responses? The observed institutions are bureaucratic institutions with well-defined relations of power, hierarchy, procedures and outcomes

to be achieved. The precisely defined procedures ensure regular and consistent practice, which is especially evident in mentors' work. Mentor's obligations are clearly and explicitly prescribed; they are observed by mentors and regularly monitored by competent bodies. On the other hand, the observed institutions also proved to be adaptive institutions which quickly react to changeable incentives from their environment. The COVID-19 pandemic could not have been foreseen, and there were no prior established rules of conduct. However, the institutions quickly adapted to the new circumstances by changing the way they function, by educating their employees and thus ensuring a quality level of performance for all the participants. Regardless of the fact that neither of the institutions had been previously accredited for distance learning, according to the obtained results, they applied the distance learning model quite successfully. Online classes could have led to complete alienation between teachers and students, but it was just the opposite. Teachers developed a collaborative relationship with students, they assisted students in finding literature and resolving other issues, and they applied creative teaching methods which were clearly acknowledged in students' responses. Even though the online teaching process was encouraged by the institutions, the achieved results are a direct result of quality work of the most important factor in every institution -human activity.

Based on all the above, we consider the initially set hypothesis confirmed: the observed institutions of higher education ensured efficiency of the teaching process and maintained adequate teacher-student relations during the COVID-19 pandemic. In this context, it is important to note that the National Plan for the Development of Public Administration in the period 2022-2027¹³ focuses on the user-oriented administration. The research results have confirmed the user-friendly approach to public services provided by the two HE institutions by establishing a collaborative relationship between teachers and students. Moreover, the obtained research results provide an insight in the process of teaching online classes from the student point of view and, as such, they can be used as the basis for further research.

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ИЗАЗОВИ ВИСОКОГ ОБРАЗОВАЊА КАО ЈАВНЕ СЛУЖБЕ У ВРИЈЕМЕ ТРАЈАЊА ПАНДЕМИЈЕ КОВИД-19 ИЗ ПЕРСПЕКТИВЕ СТУДЕНАТА

Резиме

Аутори у раду настоје приказати кључне изазове у подручју високог образовања као јавне службе за вријеме трајања пандемије КОВИД-19. Циљ је рада испитивање стајалишта редовитих и изванредних студената везаних уз организацију наставног процеса у вријеме пандемије. Темељна хипотеза постављена у тексту рада гласи: Високообразовна установа осигурава учинковито дјеловање наставног процеса и задржава примјерен однос наставник-студент у вријеме пандемије КОВИД-19. Само истраживање проведено је у оквиру стручних управних студија на двама одабраним институцијама, Правном факултету у Осијеку те у оквиру Управног студија Велеучилишта Lavoslav Ružička у Вуковару, а њиме су обухваћени редовити и изванредни студенти прве, друге и треће године. Налазима истраживања настоји се доћи до потврђивања односно оповргавања темељне хипотезе рада. За потребе рада кориштена је дескриптивна статистика. Допринос изучавању науке о управи огледа се у цјелинама којима аутори пружају теоријску подлогу за проведбу емпиријског истраживања у оквиру Свеучилишта Josipa Jurja Strossmayera у Осијеку те Велеучилишту Lavoslav *Ružička v Вуковару, анализирању кључних изазова стављених пред наставнике* и студенте, доношењу закључака те приједлога за побољшање организације наставног процеса у будућим изванредним ситуацијама.

Кључне речи: високо образовање, јавна служба, КОВИД–19 пандемија, студенти, настава.