Student Points of View – Pedagogical,
Psychological, Social and Technical Issues

ONLINE TEACHING DURING COVID-19 PANDEMIC – WERE STUDENTS' EXPECTATIONS MET?

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Abstract. The aim of this paper was to investigate whether the expectations of students were met by teaching them online during (COVID-19) pandemic. Respondent samples were 27 students from course Coach in Sports on Year 2 at Faculty of Sports, University "Union – Nikola Tesla", Belgrade. As an instrument, there had been used an anonymous questionnaire made up of 10 questions. Results showed that more than 85% of students attended more than 50% of online lectures. Although most students, over 70% of them haven't had any online classes taught through an e-platform before this pandemic, most of them (80%) didn't find it difficult to follow through Meet Google platform. Almost 90% of them have graded that all lectures were accompanied by appropriate extra material put on the platform. Most of the students consider that online teaching and using online platforms for studying brings them both an easier and faster approach to relevant information, an individual way of teaching, an active way of studying, and more successful acquisition of new knowledge. More than 90% of students are completely satisfied with the quality of lectures, teaching organization, methods of work, availability of extra material, the relation between professors and administration staff with students. The most common reasons which disabled students from following online courses were the fact that the Internet connection and network didn't function at its best during the state of emergency. Summing up the results of this research, we can certainly prove that students' expectations were met by teaching them online through the period of the pandemic.
Keywords: Meet Google platform; e-learning; the state of emergency

Introduction

The review of online education history clearly shows that it has developed rapidly, fueled by Internet connectivity, advanced technology, and a massive market (Sun & Chen, 2016). Online education has evolved from the 19th century correspondence programs to the 21st century's vibrant and well-designed institutional

online offerings. Many authors have agreed that online education will continue to increase its presence and influence on higher education through a vigorous process of reshaping, refining, and restructuring (Kebritchi, Lipschuetz, Santiague, 2017; Sun, Chen, 2016). It is unlikely, however, to replace traditional higher education but merely to be an alternative. But, owing to its flexibility, accessibility and affordability, online education is gaining in popularity, especially for people who are otherwise unable to obtain education because of physical distance, schedule conflicts, and unaffordable costs (Sun & Chen, 2016).

Based on the findings (Keengwe & Kidd, 2010), an effective online instruction is dependent upon 1) well-designed course content, motivated interaction between the instructor and learners, well-prepared and fully-supported instructors; 2) creation of a sense of online learning community; and 3) rapid advancement of technology.

However, the COVID-19 pandemic has changed education forever. According to data, of World Economic Forum, (Li & Lalani, 2020) the COVID-19 has resulted in closure of schools all around the world. Globally, over 1.2 billion children are out of the classrooms. As a result, education has changed dramatically, with the distinctive rise of e-learning, whereby teaching is undertaken remotely and on digital platforms. Research has shown that learning through online platforms increased retention of information for less time in comparison to traditional learning, which means the changes made during pandemic of COVID-19 should be implemented in future education.

Aim of the study

The COVID-19 pandemic imposed a need to implement online teaching within Higher education institutions throughout world, as well as on Faculty of Sport, University „Union – Nikola Tesla" in Belgrade. Due to the state of emergency caused by pandemic and safety procedures which had to be conducted because of the current situation, almost 90% of lectures in winter semester of academic 2019/20 were implemented online on all courses for the first time ever. For all that, the aim of this work is questioning the attitudes of students whether their expectations from online classes were fulfilled during the pandemic.

Methods

Within the research there were questioned 27 students, both genders, from Faculty of Sport. As a tool in this research it had been used a questionnaire made up of 10 questions. The survey was anonymous and made of close-ended questions with multiple choice answers due to obtaining clear results, making sure that the questions were understood by examinees, as well as to facilitate and make trustworthy data processing. Besides this method of survey, a descriptive method

of analysis was used in this work for analyzing data and description of a problem by using expert literature.

Sample of examinees

The sample of examinees were students of Year 2 from course Coach in Sport at Faculty of Sport, University „Union – Nikola Tesla", Belgrade. It this research were followed all students which had been able to attend online lectures from one of the subjects of their course. The complete sample consisted of 27 examinees, 6 of them were females and 21 were males. The average age of examinees was 20.82 ± 1.48 years.

Sample of variables

All participants in this research were directly involved in the process of survey, through which data was obtained, adequately systematized and processed further on.

The following variables were used and data is as follow:

– Number of students participating in online lectures in accordance with different criteria

   – Reasons for not attending lectures

   – Previous experiences about courses held on any e platform

   – Difficulties in following lectures through Meet Google platform

   – Students' satisfaction in comparison with interactivity of online lectures

   – Adequacy of accompanying materials on e-platform (for each subject)

   – Chance of taking pre-exam colloquiums online

   – Benefits of online learning and using an online platform

   – Students' results in exams after learning online

Results and analysis

Results of the research are shown in Tables 1 – 10.

Total number of Year 2 students who participated in online lectures, at one of subjects from course Coach in Sport in comparison with different criteria, was shown in Table 1.

Table 1. Students' attendance at online lectures

	number	percent
Total number of students	27	100.0
Students who attended at least once	25	92.6
Students who attended more than 50%	23	85.2
Students who attended more than 75%	19	70.4
Students who attended in all lectures	11	40.7

The most common reasons for not attending online lectures were shown in Table 2.

Table 2. The most common reasons for not attending online lectures

	number	percent
Not being interested	0	0.0
Didn't have time	0	0.0
Don't have an adequate computer	4	25.0
Don't have adequate Internet connection	10	62.5
Other reasons	2	12.5

Results of research from the aspect of earlier attendance of some course (or a part of course) which was held on e platform were shown in Table 3.

Table 3. Previous attendance of a course

	number	percent
Yes	8	29.6
No	19	70.4

After posing the question whether it was difficult to follow online lectures through online platform, the results were as shown in Table 4.

Table 4. Attending lectures through Meet Google platform

	number	percent
Very difficult	0	0.0
Difficult	2	8.0
Moderately difficult	3	12.0
Not at all difficult	20	80.0

Results of research from the aspect of students' satisfaction in comparison with interactivity of online lectures were shown in Table 5.

Table 5. Interactivity of online lectures

	number	percent
Completely satisfied	21	84.0
Partially satisfied	4	16.0
Not at all satisfied	0	0.0

Students' attitude about the fact how lectures were followed by accompanying materials on e platforms were shown in Table 6.

Table 6. Adequacy of accompanying materials

	number	percent
Yes	22	88.0
Mostly	3	12.0
No	0	0.0

After posting the question whether it had been difficult for students to take online pre-exam colloquiums, the results were shown in Table 7.

Table 7. Taking online pre-exam colloquiums

	number	percent
Very difficult	5	23.8
Difficult	8	38.1
Moderately difficult	5	23.8
Not difficult at all	3	14.3

Students' attitudes about benefits of attending online lectures and using online platforms were shown in Table 8.

Table 8. Benefits of attending online lectures and using online platforms

	YES		NO	
	number	%	number	%
Enables easier and faster access to relevant information	22	100.0	0	0.0
Contributes to the individualization of teaching	15	65.1	8	34.9
Motivates students to become more actively involved in the learning process	14	66.7	7	33.3
Helps students gain new knowledge more successfully	17	73.9	6	26.1
Promotes the development of students' interpersonal skills	12	50.0	12	50.0
Increases students' self-confidence to be more active in lectures	11	45.8	13	54.2

Students' satisfaction about quality of applied online lectures was shown in Table 9.

Table 9. Student's satisfaction about quality of applied online lectures

	Completely satisfied		Partially satisfied		Not satisfied at all	
	number	%	number	%	number	%
Quality of lectures	21	87.5	3	12.5	0	0.0
Lectures organization	21	87.5	3	12.5	0	0.0
Professors' teaching methods	20	83.3	4	16.7	0	0.0
Availability of additional learning materials	22	91.6	2	8.4	0	0.0
Relation between professors and students	23	95.7	1	4.3	0	0.0
Relation between student service staff and students	23	95.7	1	4.3	0	0.0

In Table 10. were shown students' results achieved on exam after online learning.

Table 10. Achieved exam results after online learning

	number	percent
Number of students who took the exam	10	37.1
Number of students who passed the exam	9	90.0
An average grade	8.56	

Discussion

The COVID-19 pandemic has surprised numerous social structures in many countries around the world and at the same time disabled normal functioning of systems in a society. By introducing the state of emergency in the Republic of Serbia and as a recommendation of Ministries and Government itself, all the activities in educational institutions were suspended. Thanks to immediate reaction of Faculty's Management Team, within the very first week of newly formed state and situation, students were enabled and offered online lectures for all courses. In this way, students were able to attend lectures continually. Since this critical situation required prompt reaction and efficiency, management team chose simple and the most affordable solution for both students and professors. Meet Google platform was the choice among most professors. Information flow was as follows: after management team's decision, Faculty's IT team made an instruction for using the platform, which was later distributed to students and professors via e-mail at instance. A benefit to functioning of the whole system was the fact that Faculty of Sport has been using this application on Moodle platform from the very beginning. E-learning application is easily accessible from the Faculty's official web site and contains all programs and materials in an e- form, so each student and professor

have their own personal user parameters for using application. It is primarily intended for students who are top professional athletes and coaches, unable to attend lectures regularly. It turned out to be a great base which has helped a lot in functioning of online lectures. The results in Table 1 showed namely that a great number of students attended online lectures, more than 85% attended more than 50% of lectures. Hence, online lectures during the state of emergency, where most people, even top professional athletes and coaches, were kept from moving freely, made it available to everyone. The most common reason which prevented students from attending online lectures was the fact that the Internet flow, during the state of emergency, wasn't functioning at its best (Table 2). In that period of time there were many users on network so that caused frequent server problems. Many authors think of this as one of the biggest challenges in future online learning. According to OECD data (Li & Lalani, 2020), there were some students without reliable internet access and/or technology struggle to participate in digital learning; this gap is seen across countries and between income brackets within countries. For example, whilst 95% of students in Switzerland, Norway, and Austria have a computer to use for their schoolwork, only 34% in Indonesia do (Li, Lalani, 2020). Although most of students, over 70% of them (Table 3) haven't attended any courses on e-platforms, to most of them (80%) wasn't difficult to adopt to Meet Google application.

Most students, over 80%, declared to be completely satisfied in terms of lectures interactivity (Table 5). That is a very important fact, since one of the primary challenges in online education is to develop a sense of community in the online environment (Sun, Chen, 2016). According to many researches (Cox & Cox, 2008; Kehrwald, 2009; Sher, 2009; Whipp & Loentz, 2009; Yuan & Kim, 2014) authors pointed out the significance of promoting social presence, interaction, and collaboration. Both students and lecturers have to make a joint effort to get more deeply involved in constructing interaction and collaboration between the instructor and students and among students to create an effective online learning community (Sun & Chen, 2016).

In period when the only way to keep in touch with students was electronic, it is very important for lectures to be accompanied by adequate materials. Above mentioned e-learning, enabled professors and lecturers, even before pandemic, to update regularly materials for their subjects as well as to post additional materials which would facilitate students' way of studying.

The results of research have shown that students knew how to recognize that (Table 6). Almost 90% of students have rated that lectures were completely accompanied by adequate materials on e-platform.

Also, during the period of pandemic, e-colloquiums were held, where students had different opinions on how difficult it was to take test that way (Table 7). Pre-exam colloquiums were conceived in accordance with suggestions from available books and work (Williamson, 2018). They were conducted by using a special platform, which Faculty subscribed to as well as with suitable methods for

revealing students' identities and control during colloquiums, and preventing any kind of abuse. Having on mind the fact that those were activities where students obtain some points, and get freed from some parts in exam, it was necessary to prevent cheating of any kind. Most students (38.1%) think that this way of taking a colloquium was much more difficult than a traditional one – either questions were more difficult or the way of taking the test was.

It is also interesting to mention students' attitude in comparison with online lectures and using online platforms for studying (Table 8). Most students think that these ways of studying contribute both easier and faster access to relevant information, individualization of lectures, active involvement in the learning process and more successful acquisition of new knowledge. On the other hand, there were diverse opinions among students that those ways of studying promote development of interpersonal skills and increase in self-confidence to be more active.

In comparison with students' attitude with quality satisfaction of online lectures, over 90% of them are satisfied with aspect of quality of lectures, organization of lectures, method of work, availability of additional materials, relation between professors and staff with students (Table 9). Students want courses that are well designed and can enhance the possibilities for them to complete courses successfully, such as the clarity of the assignments and feedback that is consistent and timely. With instructor - student interactions being the key to successful online education, the more often those connections occur, the more engaged the students are in their courses (Rao & Tanners, 2011). Also, they found that if the instructor's course design presented materials in various formats – using videos, audios, other technologies or software – that can make required text-based materials more interesting and can also allow students to respond in multiple formats as well.

Though, since the suspension of the state of emergency up to now, students had only one exam term, it is surprisingly large number of students who had taken the exam (37.1%), even 90% of students passed the exam with an average mark 8.56 (Table 10).

Conclusion

While some believe that the unplanned and rapid move to online learning – with no training, insufficient bandwidth, and little preparation – will result in a poor user experience that is unconducive to sustained growth, others believe that a new hybrid model of education will emerge, with significant benefits.

According to the results of this research we came to a conclusion that those beliefs are legitimate.

Based on conducted research and obtained results by using a survey among Year 2 students of course Coach in Sport at Faculty of Sport, University „Union – Nikola Tesla", Belgrade, the following can be concluded:

– Extremely large number of students attended online lectures, more than 85% of students attended more than 50% lectures;

– Online learning, during the pandemic, enabled attending lectures even to those who were prevented from coming;

– The most common reasons which disabled students from attending online lectures was the fact that the Internet flow during pandemic was functioning at its best;

– Though most of students, over 70% didn't attend courses implemented on online platforms before pandemic, they (80%) had no difficulties in following through Meet Google application.

– Almost 90% of students have rated that online lectures were fully accompanied with adequate additional materials.

– Most students think that online learning and using online platforms contribute easier and faster approach, relevant information, individualization of lectures, active inclusion in learning process and more successful acquisition of new knowledge;

– Over 90% of them are satisfied with aspect of quality of lectures, organization of lectures, method of work, availability of additional materials, relation between professors and staff with students;

– In just one exam term, there were many students who had taken their exams (37.1%), even 90% students passed with an average mark 8.56.

To sum up, the results of research can truly prove that students' expectations with online lectures were completely met during the pandemic.

In following period of time, it would be desirable to conduct a research among students of all years, within all courses at Faculty. In that way could be completely investigated the effectiveness, efficiency, and improvement of online teaching and learning.

REFERENCES

Cox, B. & Cox, B. (2008). Developing interpersonal and group dynamics through asynchronous threaded discussions: The use of discussion board in collaborative learning. *Education, 128*(4), 553 – 565.

Kebritchi M., Lipschuetz, A. & Santiague, L. (2017). Issues and Challenges for Teaching Successful Online Courses in Higher Education: A Literature Review. *Journal of Educational Technology Systems, 46*(1), 4-29. doi: 10.1177/0047239516661713.

Keengwe, J. & Kidd, T. T. (2010). Towards best practices in online learning and teaching in higher educa-tion. *MERLOT Journal of Online Learning and Teaching, 6*(2), 533 – 541.

Kehrwald, B. (2008). Understanding social presence in text-based online learning environments. *Distance Education, 2*(1), 89 – 106. doi: 10.1080/01587910802004860.

Li, C., & Lalani, F. (2020). *The COVID-19 pandemic has changed education forever. This is how.* Retrieved 06/11, 2020, from www.weforum.org/

agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning.

Rao, K. & Tanners, A. (2011). Curb cuts in cyberspace: Universal instructional design for online courses. *Journal of Postsecondary Education and Disability, 24*(3), 211 – 229.

Sun, A. & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education: Research, 15*, 157 – 190. doi: 10.28945/3502.

Williamson, M. H. (2018). Online Exams: The Need for Best Practices and Overcoming Challenges. *The Journal of Public and Professional Sociology,* 10(1): Article 2. Available at: https://digitalcommons.kennesaw.edu/jpps/vol10/iss1/2.

Whipp, J. L. & Lorentz, E. R. A. (2009). Cognitive and social help giving in online teaching: An explora-tory study. *Educational Technology Research and Development, 57*, 169-192.

Yuan, J. & Kim, C. (2014). Guidelines for facilitating the development of learning communities in online courses. *Journal of Computer Assisted Learning, 30*, 220-232. doi: 10.1111/jcal.12042.

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