

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

THE DIFFERENCES IN STUDENTS' ATTITUDES ABOUT ONLINE TEACHING DURING COVID-19 PANDEMIC

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Abstract. This study aims to examine differences in students' attitudes about online teaching, more precisely on the use of the Google classroom platform during a pandemic and their opinions on the quality of such teaching concerning classic teaching. The questionnaire was conducted to the third-grade university students divided into two groups: preschool teachers (n=65) and primary school teachers (n=64). A student attitude survey contained 15 items on a 7-point Likert-type scale with two open-ended questions regarding their problems and difficulties in online learning during the coronavirus pandemic in the Republic of Serbia and their opinion about advantages and disadvantages of distance over the classic learning. Results revealed that there are statistically significant differences among two groups of students (preschool teachers and primary school teachers), at the level of significance at .005 at the total result at the questionnaire. Students reported that one of the advantages of distance learning was that they had additional knowledge and skills on the use of technology and that they can choose the time and place for solving the tasks of the classes. As the disadvantage of distance learning is that human contact is lost and they do not get feedback instantly, comparing to classical education.

Keywords: Google classroom; eLearning; university education

Introduction

The COVID-19 pandemic has disrupted nearly every aspect of life around the globe, including significant impacts on higher education, both in its teaching-learning and research missions (Spurlock, 2020). To stop the spread of the virus, thousands of universities and colleges have been closed to encourage social distancing measures and thus limit the spread of the virus (Naciri, Baba, Achbani & Kharbach, 2020). The pandemic has forced the global academic community to explore new ways of teaching and learning, including distance and online education. This has proven challenging for both students and educators, who have to deal with

the emotional, physical, and economic difficulties posed by the illness while doing their part to help curb the spread of the virus.

Using a qualitative content analysis approach, the study of Sun & Chen (2016) reviewed 47 published studies and research on online teaching and learning since 2008, with focusing on how theories, practices, and assessments applicable to the online learning environment. Based on the findings, the authors argued that effective online instruction is dependent upon well-designed course content, motivating interaction between the instructor and learners, well-prepared and fully-supported instructors; the creation of a sense of online learning community; and rapid advancement of technology (Sun & Chen, 2016). The aim was to stimulate an on-going discussion of effective strategies that can enhance universities' and faculty success in transitioning to teach online. Attitudes towards learning are important factors on the learners' levels of motivation in the process of learning and all the academic performances (Şen, 2013), in traditional or online learning.

Different technology applications are used to support different models of online learning, for example, webcasting, chat rooms, desktop audio/video technology, to deliver lectures and holding meetings with groups of students (Means, Toyama, Murphy, Bakia, & Jones, 2009). More recent applications tend to combine multiple forms of synchronous and asynchronous online interactions as well as occasional face-to-face interactions. The Google Classroom is available as a tool for developing teaching and learning process all over the world (Al-Marroof & Al-Emran, 2018), and can be easily deployed in the URL classroom.google.com. The educators can set up classrooms in minutes and create content for students and the platform also integrated with other Google tools to help educators provide instant feedback and track student progress to improve performance, it has also a mobile application for easy access anytime and anywhere. The study of Al-Marroof et al. (2018) reveals that all the factors are significantly effective in terms of both the behavioral intention and the actual usage of Google classrooms. The emphasis is placed on the familiarity in usefulness and ease of use as crucial features of Google classroom. These two features affect significantly the chosen sample of undergraduates' intention as Google classroom works as a facilitator to develop their learning activities.

Aim and objectives of the study

Earlier studies reported that online or blending learning style of teaching offers many advantages over the traditional classroom teaching style (Al-Marroof & Al-Emran, 2018). Considering that under normal circumstances, the teaching of the Methodology of physical education has both the theoretical and practical part - where students work with children in kindergartens and schools, it is important to ascertain their satisfaction with the course, when they do not have contact with children and have only theoretical knowledge. This study aims to examine differences in students' attitudes about online teaching, more precisely on the application of Google classroom during a pandemic,

and their opinions on the quality of such teaching comparing to classic teaching. The students attended a course on the Methodology of teaching physical education by applying the mentioned application in the second semester in the 2020 year.

Methods

Participants

Students at the Faculty of Pedagogy at the University of Kragujevac took part in the study. Nearly all the third-grade students at the Faculty of Pedagogy participated in the study done in May 2020 after the semester ended. The questionnaire was conducted to the university students divided into two groups: preschool teachers (n=65) and primary school teachers (n=64).

Procedure

The students were asked to complete the questionnaire about their attitude toward online learning after the semester. The questionnaire containing 15 items on a 7-point Likert-type scale with two open-ended questions regarding their problems and difficulties in online learning during the COVID-19 pandemic.

Statistical Analysis

Basic descriptive statistics were calculated (Mean value, standard deviation, Standard Error Mean). Comparisons between groups for all variables were performed using an independent-samples t-test.

Results

The results of descriptive statistics and independent t-test are presented in Table 1. The main score for Question 1 of the first group was 4.02, and almost 46% of the first group of participants answered that they never before used Google Classroom until the pandemic, and 30% of them used it always. Also 72% of the first group didn't have problems, and most of them think that Google Classroom is easy and simple for use, 32% of them didn't felt confidence during using them. Half of them also had a neutral answer (4 and 5) on the question regarding the applicability of knowledge that they get during the pandemic.

The second group of participants – primary teachers, had a mean score of 2.68 on the question regarding using a google classroom before the pandemic. The large number of them, 65% reported that they didn't use the platform before, and 27% of them used the platform before.

Table 1. Descriptive statistics and T-test of small independent samples

| Variable | Group | N | Mean | SD | SEM | Sig (p) |
|------------|-------|----|------|------|-----|---------|
| Question 1 | 1.00 | 65 | 4.02 | 2.52 | .31 | .012 |
| | 2.00 | 64 | 2.86 | 2.65 | .33 | |
| Question 2 | 1.00 | 65 | 2.00 | 1.43 | .17 | .026 |
| | 2.00 | 64 | 1.47 | 1.25 | .15 | |

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|-------------|------|----|-------|-------|------|-------------|
| Question 3 | 1.00 | 65 | 1.78 | 1.15 | .14 | .230 |
| | 2.00 | 64 | 1.55 | 1.08 | .13 | |
| Question 4 | 1.00 | 65 | 2.63 | 1.66 | .20 | .329 |
| | 2.00 | 64 | 2.34 | 1.66 | .20 | |
| Question 5 | 1.00 | 65 | 3.37 | 1.58 | .19 | .521 |
| | 2.00 | 64 | 3.17 | 1.89 | .23 | |
| Question 6 | 1.00 | 65 | 1.63 | 1.39 | .17 | .934 |
| | 2.00 | 64 | 1.61 | 1.54 | .19 | |
| Question 7 | 1.00 | 65 | 1.43 | 1.18 | .14 | .906 |
| | 2.00 | 64 | 1.41 | 1.18 | .14 | |
| Question 8 | 1.00 | 65 | 2.52 | 1.66 | .20 | .207 |
| | 2.00 | 64 | 2.16 | 1.63 | .20 | |
| Question 9 | 1.00 | 65 | 2.22 | 1.47 | .18 | .989 |
| | 2.00 | 64 | 2.22 | 1.39 | .17 | |
| Question 10 | 1.00 | 65 | 1.69 | 1.36 | .16 | .713 |
| | 2.00 | 64 | 1.61 | 1.19 | .14 | |
| Question 11 | 1.00 | 65 | 3.45 | 1.68 | .20 | .690 |
| | 2.00 | 64 | 3.58 | 2.05 | .25 | |
| Question 12 | 1.00 | 65 | 3.55 | 1.34 | .16 | .225 |
| | 2.00 | 64 | 3.89 | 1.77 | .22 | |
| Question 13 | 1.00 | 65 | 2.55 | 1.51 | .18 | .003 |
| | 2.00 | 64 | 1.79 | 1.35 | .16 | |
| Question 14 | 1.00 | 65 | 2.12 | 1.32 | .16 | .028 |
| | 2.00 | 64 | 1.64 | 1.13 | .14 | |
| Question 15 | 1.00 | 65 | 2.85 | 1.57 | .19 | .001 |
| | 2.00 | 64 | 1.92 | 1.53 | .19 | |
| Total | 1.00 | 65 | 37.82 | 11.43 | 1.42 | .029 |
| | 2.00 | 64 | 33.22 | 12.14 | 1.52 | |

Legend: N-number of participants, Mean-mean value, SD-standard deviation, SEM-standard error mean, p-level of significance

The second group had uniform answers, towards positive attitudes, but 35% of them reported that they didn't understand the teaching content. There were statistically significant differences in five questions between groups, and the total score on the questionnaire.

Discussion

This study aimed to determine differences in attitudes about online learning during the pandemic. Also, we didn't expect differences between future pre-school and primary school teachers – students of Faculty of education, the results showed differences among their attitudes. The difference between the groups appeared in the issues related to the understanding of the material, the efficiency of teaching and

the applicability of knowledge. The group of pre-school teachers had a higher mean value on these issues, which indicates a more negative attitude comparing to the group of teachers. Google Classroom increased student participation and learning and improved classroom dynamics in the study of Thomas (2019). Based on the usability evaluation of the platform, the authors concluded that Google Classroom is extremely useful in understanding ability, attractiveness, and operability (Ventayen, Estira, De Guzman, Cabaluna, & Espinosa, 2018). In our study, also a small number of participants used the platform before the pandemic, they had overall positive attitudes regarding online learning. Questions 1 – 4 were directly connected to using the platform, and one of the opened questions was to give examples of what kind of problems did they had. Students who used phones instead of computers reported that they had more frequent technical problems, although they found the use of the platform easy and simple.

Open-ended questions revealed that the students had objection regarding the frequency of the tasks, and professors from different subjects gave too many tasks at the same time, and also deadlines for individual tasks were too short. Many of them shared the opinion that they saved time and materials for teaching and examples in the classroom. One of the advantages of distance learning was that they had additional knowledge and skills on the use of technology and that they can choose the time and place for solving the tasks of the classes. As the disadvantage of distance learning is that human contact is lost and they do not get feedback instantly, comparing to classical education. When using Google Classroom, a small number of students felt nervous, uncomfortable, insecure and some kind of fear, so we assume that these are respondents with no previous experience with such a method of working. Most students felt confident, secure and a small number of them had a neutral attitude. An analysis of the above data leads us to the conclusion that attendance at classes during the state of emergency was more regular than with 'contact teaching,' and students were more active both individually and as a group. Motivation and greater engagement, responsibility, commitment, and timeliness of students when it comes to fulfilling pre-exam obligations were influenced, however, some other factors that should be examined and determined in more detail in some future research.

To compare the result of the study, it is recommended that another study should be conducted to measure the relationship between the academic performance of the students at the exam and their attitudes about online learning.

REFERENCES

- Al-Maroofof, R. A. S. & Al-Emran, M. (2018). Students' acceptance of Google classroom: An exploratory study using PLS-SEM approach. *International Journal of Emerging Technologies in Learning (iJET)*, 13(06), 112 – 123.

- Means, B., Toyama, Y., Murphy, R., Bakia, M. & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*.
- Naciri, A., Baba, M. A., Achbani, A. & Kharbach, A. (2020). Mobile learning in Higher education: Unavoidable alternative during COVID-19. *Aquademia*, 4(1), ep20016.
- Spurlock, D. (2020). Scholarship During a Pandemic: Secondary Data Analysis. *Journal of Nursing Education*, 59(5), 245 – 247.
- Sun, A. & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education*, 15.
- Thomas, C. E. (2019). Teacher and student experiences in learning. *Pacific Journal of Technology Enhanced Learning*. <https://doi.org/10.24135/pj-tel.v2i1.21>
- Ventayen, R. J. M., Estira, K. L. A., De Guzman, M. J., Cabaluna, C. M. & Espinosa, N. N. (2018). Usability evaluation of google classroom: Basis for the adaptation of g-suite e-learning platform. *Asia Pacific Journal of Education, Arts, and Sciences*, 5(1), 47 – 51.

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