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Online Learning, Social Presence and Satisfaction among University Students during the COVID-19 Pandemic

Abstract

The outbreak of the coronavirus disease 2019 (COVID-19) in various countries at the end of last year has transferred traditional face-to-face teaching to online education platforms, which directly affects the quality of education. Also, students' satisfaction is extremely important in the effective implementation of online learning. Thus, the main goal of this research was to investigate the possible relationship between online learning, social presence and satisfaction with online courses among university students. The Distance Education Learning Environments Survey (DELES), the Social Presence Scale (SPRES) and the Satisfaction Scale were administered to a sample of 280 university students. The results indicated that there was a significant positive relationship between online learning, social presence and satisfaction with online courses. Also, we found a significant positive relationship between social presence, satisfaction, instructor support, student autonomy, interaction and collaboration and authentic learning, but negative correlation between social presence, satisfaction, personal relevance and active learning. The study concluded that designing types of assignments that involve collaboration among students, and instituting authentic learning experiences that align with students' interest, will improve students' social presence, online learning and students' satisfaction in online courses.

Keywords: COVID-19 pandemic, online learning, social presence, satisfaction, university students

Introduction

Never before have we witnessed educational disruption on such a large scale.
Audrey Azaulay, Director-General of UNESCO, 2020

The world has a long history of deadly pandemics (Almond & Bhashkar, 2005; Jester et al., 2019; Mansour, Rees & Reeves, 2020). A pandemic is a wide-reaching outbreak of a transmissible infectious disease, which not only increases the morbidity and mortality, but also causes significant economic, social and political disruptions. Evidence suggests that increasing globalization, urbanization and excessive exploitation of natural and environmental resources have increased the likelihood of a pandemic (Gronseth, 2018). One of the deadliest pandemics of the current century, the coronavirus pandemic (COVID-19) is an ongoing disease and it is spreading rapidly across the globe. The first case of COVID-19 was identified in Wuhan, Hubei, China in December 2019, and later on March 11, 2020, the World Health Organization (WHO) declared COVID-19 as a pandemic (World Health Organization, 2020). The consequences of a pandemic can be extremely difficult to control for many industries of the world.

The global academic calendar has been thrown into a state of disarray by the coronavirus outbreak. Most schools, from primary schools to universities, have shut down their doors and students have returned home to their parents and together they self-quarantined (UNESCO, 2020). Convocations and graduations have been cancelled, and classes have been cancelled, some examinations have been cancelled, university research programs have been postponed. Most higher education institutions and universities provide online courses for their students within and off campuses. At the same time, faculty and staff members are learning how to use online learning platforms. Previously, they were using only face-to-face teaching. However, the shift to an online mode has raised many queries in regard to the quality of education – specifically quality of teaching and learning.

Learning shift toward online learning

According to UNESCO (2020), over 1.5 billion learners in 165 countries are affected by school closures due to COVID-19. This translates to 87% of the world's student population. The online system of education is viewed as relatively new, according to research, in the future, it will just be as effective as school-based methods (Murphy, 2020). Also, education industries are adopting the available technologies such as digital video conference platforms like Zoom, Microsoft platform, WebEx Blackboard and Google Classroom. Therefore, this will be enhancing online learning globally.

In response to the outbreak of the epidemic, the online has become a necessary way to maintain a normal teaching order. However, during a period of an epidemic, online education is conducted mainly in the form of class-based teaching by professors of their own universities, which is an extension of the original offline education. So, online learning has become an integral part of higher education worldwide. Many university leaders discuss not only about the usability of online learning, but also about its connectivity, mobility and interactivity (Bao, 2020). Students participate in chat rooms in real time or asynchronously by posting in newsletters or forums. Also, they might offer opportunities to engage fellow students and teachers within a deeper dialogue and insightful questions as a technique. On the other side, online learning has the effect of communication since virtual communication differs from face-to-face communication. Online learning requires new approaches to the organization of classes, individual assignments, and self-education approach.

Social presence in online learning communities

Short, Williams and Christie (1976) identified social presence as the level of salience of one person's communication with other individuals and consequential salience of the interpersonal relationships. Tu and McIsaac (2002) defined social presence as the extent of feeling, perception, and reaction that a learner experiences in an online environment. They found that three dimensions of social presence in distance learning environment are very important: interactivity, social context, and online communication. While interactivity includes distance learners' communication styles and engaged activities in the courses, social context encompassed privacy, task orientation, social relationships, and social processes.

Interactive communication tools such as discussion boards are examples of online communication tools.

Social presence is important in online learning, because many students need to feel a connection with others if they can share ideas, exchange views and work together. So, in this pandemic time, students in an online community can act to create or build social presence for themselves and others.

Satisfaction in online education

The construct interaction plays an important role in both face-to-face and online learning. In fact, many studies have found that both quantity and quality of student interactions are highly correlated with student satisfaction in almost any learning environment (Pei & Wu, 2019).

Satisfaction is defined as a person's attitude or feelings associated with various factors that affect a particular situation. Oliver (1999) defined student satisfaction as the total individual subjective evaluation and experience of a service, and the gap between what was expected and was received from the server providers. Education is not solely about acquiring knowledge and skills, but also about individual advancement through personal growth and social development.

Several factors contribute to students' satisfaction in an online learning environment, which may include: teacher, student, course, system design, technology and environmental aspects. Additionally, satisfaction is greatly influenced by peer interaction, student-faculty interaction and communication with professors.

At this moment we are in the midst of a worldwide pandemic, with cities and even entire countries shutting down. The government of each country decided to restrict personal movements, public events, and business activities of their people. The pandemic led to disruption in teaching and learning activities globally (Kaur et al., 2020). The transformation from traditional learning to complete web-based learning, however presents several challenges to the academic staff as well as the students.

Students' technological possibilities and professors' characteristics along with course design significantly determine the students' satisfaction. Thus, a need emerges to study the relationship between online learning, social presence and satisfaction with online courses among university students during the coronavirus disease (COVID-19).

Research methods

Participants

The research was conducted on a group of 280 university students from 20 to 23 years of age. The median age of the students was 20.62. Of all participants, 214 were female (76.42%) and 66 were male students (23.58%). The study group that was a subject of the research included students who studied medical sciences and psychology at the University of Tetova.

Instruments

With the scope of the study, the following data collection tools were used among students: the Distance Educational Learning Environments Survey (DELES), the Social Presence Scale (SPRES) and the Satisfaction Scale.

Distance Educational Learning Environments Survey (DELES)

The Distance Educational Learning Environments Survey – DELES (Walker & Fraser, 2005) is a self-reporting Likert-type survey of 34 items with five answer options from “strongly disagree=1” to “strongly agree=5”. The constructs in this survey were: instructor support, student interaction and collaboration, personal relevance, authentic learning, active learning, and student autonomy. In this study, Cronbach’s alpha coefficient was used in order to test the internal consistency of the questionnaire data, whose coefficient was between 0 and 1. In this questionnaire, six Cronbach’s alpha coefficients were all higher than .7, indicating that the internal reliability of each first-level indicator of the questionnaire was high.

Social Presence Scale (SPRES)

The Social Presence Scale (SPRES) developed by Cobb (2009) was used in order to measure the general social relationship and interactive communication level among students. The scale was composed of 14 items. It is a five-point Likert-type scale. According to the sums of the scores, the total score ranges from 14 to 70, where higher scores prove higher level of social presence. Cronbach’s alpha coefficient for internal consistence was .772.

Satisfaction Scale

The Satisfaction Scale developed by Richardson and Swan (2003) was a 7-item questionnaire, a Likert-type response format from 1 to 5. The higher scores indicated higher rate of satisfaction. The internal coefficient of consistence (Cronbach’s Alpha) was .816 for this study.

Data procedure and data analysis

A total of 280 students from the Faculty of Medical Sciences and the Department of Psychology within the University of Tetova participated in this study. Students were invited via email, with information on the purpose of the study and the time it would take to complete the questionnaires. They were also told that their data and information would be treated as confidential, that their participation was voluntary, and they could withdraw at any time. It also contained a web link to the online survey form created by using Google Form. The form was made accessible to the students from April 16 to June 15, 2020. The data was exported to Microsoft Excel 2018 and was analyzed by using SPSS (Statistical Package for Social Sciences) version 20 for Windows.

Results

In our study we observed that the median rate of the construct online learning was 124.50, while the median rate of social presence was 36.00 and of satisfaction it was 21.00. There was a positive relationship between the level of online learning, social presence and satisfaction with online courses ($F_{277,1}=46.201$, $\text{sig}=.008$, $p<.01$).

Instructor support (Median=24.25), student autonomy (Median=22.50), and student interaction and collaboration (Median=22.00) received the highest scores for online learning. The constructs authentic learning (Median=20.00), personal relevance (Median=18.50), and active learning (Median=16.50) earned the lowest score from the participants.

Social presence was one construct composed of 14 items. The items that received the highest scores were “Instructor facilitated discussions in the course” (Median=4.50), “I felt comfortable participating in the course discussion” (Median=4.00), and “The instructor created a feeling of an online community” (Median=3.50), while the item that earned the lowest score was “Messages in the online course were impersonal” (Median=2.00).

Also students’ satisfaction in online courses was one construct with seven items. The items that earned the highest score were “I am satisfied with this program” (Median=4.50) and “I enjoy distance learning” (Median=4.00), while the item that earned the lowest score was “I prefer distance education” (Median=2.50).

The results of the Spearman correlation indicated that there was a positive and significant relationship between social presence and instructor support ($r_s=.087$, $p<.001$), student autonomy ($r_s=.032$, $p<.01$), student interaction and collaboration ($r_s=.064$, $p<.001$), and authentic learning ($r_s=.450$, $p<.005$), however negative correlation between social presence and personal relevance ($r_s=-.282$, $p>.001$), and active learning ($r_s=-.346$, $p>.001$). Regarding the relationship between satisfaction with online courses and online learning subscales, the following results are presented: satisfaction and instructor support ($r_s=.045$, $p<.001$), student autonomy ($r_s=.689$, $p<.01$), student interaction and collaboration ($r_s=.789$, $p<.001$), authentic learning ($r_s=.060$, $p<.05$), personal relevance ($r_s=-.542$, $p>.001$), and active learning ($r_s=-.265$, $p>.001$).

Discussion

The current state of alarm due to the COVID-19 pandemic has led to abrupt changes in the education system of university students: a shift from traditional to online learning. The use of information technology in the current situation can be a solution for educational institutions and students to continue and improve the learning process with acquisition of new skills. Based on the results of our study, it is clear that students preferred to develop relationships with their professors and other students and simultaneously maintain their individual identity in online courses. They stated that participating in online learning provides them the opportunity to participate in discussions. The obtained results are similar to the results obtained by other researchers (Killian, 2020; Means & Neisler, 2020). The students also mentioned that the emotional and psychological support they received from their professors made it easier for them to get through this period. During the online classes and online learning, students’ level of contact and cooperation with their professors increased. Majority of the students feel encouraged to participate while taking courses online, their productivity and the sense of autonomy have increased. Hence, professors try their best to keep in touch with their students during online office hours, as well as reach out to each student in their class individually if there is a sudden decrease in performance.

Also, we found that students were satisfied with their online courses during the COVID-19 pandemic. Students do not feel that they are more isolated in the virtual learning environment. Online learning was effective and influential in increasing their level of motivation for lessons and treated it as a good opportunity to help students become more organized (Quacquarelli, 2020).

After COVID-19, it is necessary for higher education institutions to focus on improving online learning to integrate technology into the teaching environment, and to contribute to the ongoing development of academic staff with the larger goal of enhancing the quality of learning, through innovative approaches that aim to motivate and stimulate learning (National Academies of Sciences, Engineering, and Medicine, 2020).

Concluding remarks

Colleges, instructors and students had to change the way they collaborate in spring 2020. There was no time to build online courses using research-based practices for effective learning online. Stakeholders and the management of higher education institutions have no other option, but to make use of internet technology, thus online learning for the continuation of academic activities across all schools worldwide. Therefore, based on the COVID-19 situation, the present study aimed an exploring online learning, social presence and students' satisfaction with online education platforms in the Republic of North Macedonia. COVID-19 has significant impact on university education and pushes transformation of the structure of university education in the Republic of North Macedonia. It becomes necessary to modernize the teaching methods in universities. And it was the pandemic that gave such an impetus for rapid and effective transformation in the higher education system of Macedonia.

The findings from the study suggest that the implementation of online learning programs was a very great idea as the majority of the sampled students supported the initiative. Moreover, we found that the social presence had the largest effect on students' satisfaction with online learning. The high degree of autonomy and interaction among students was considered to be a strong positive component of online learning by respondents. Autonomy and interaction among students can be capitalized by the instructor/professor to provide a richer and more robust educational experience.

This study only examines the satisfaction of online learning courses from the perspective of students. In fact, the opinions of professors and parents are also most important. Therefore, future studies can comprehensively analyze the satisfaction with online education platforms from the perspective of multiple subjects. The university's management should provide constant monitoring of the satisfaction of students and lecturers with the online organization for the accumulation of statistical data in the dynamics.

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References

- Almond, D. & Bhashkar, M. (2005): The 1918 influenza pandemic and subsequent health outcomes: an analysis of SIPP data. *American Economic Review*, 95(2), 258-262.
- Bao, W. (2020): COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113-115.
- Cobb, S. C. (2009): Social presence and online learning: A current view from a research perspective. *Journal of Interactive Online Learning*, 89(4), 141-154.
- Gronseth, A. S. (2018): Migrating rituals: Negotiations of belonging and otherness among Tamils in Norway. *Journal of Ethnic and Migration Studies*, 44(16), 2617-2633.
- Jester, B., Uyeki, M. T., Jernigan, B. D. & Tumpey, M. T. (2019): Historical and clinical aspects of the 1918 H1N1 pandemic in the United States. *Virology*, 527, 32-37.
- Kaur, N., Dwivedi, D., Arora, J. & Gandhi, A. (2020): Study of the effectiveness of e-learning to conventional teaching in medical undergraduates amid COVID-19 pandemic. *National Journal of Physiology, Pharmacy and Pharmacology*, 10(7), 1-7.
- Killian, J. (2020): College students, professors adjust to COVID-19 life. *NC Policy Watch*. <http://www.ncpolicywatch.com/2020/04/01/college-students-professors-adjust-to-covid-19-life/> (Accessed 03 May 2020).
- Mansour, H., Rees, I. D. & Reeves, M. J. (2020): *Voting and Political Participation in the Aftermath of the HIV/AIDS Epidemic*. Cambridge, MA: National Bureau of Economic Research.
- Means, B. & Neisler, J., with Langer Research Associates (2020): *Suddenly Online: A National Survey of Undergraduates during the COVID-19 Pandemic*. San Mateo, CA: Digital Promise.
- Murphy, M. P. A. (2020): COVID-19 and emergency eLearning: Consequences of the securitization of higher education for post-pandemic pedagogy. *Contemporary Security Policy*, 41(3), 492-505.
- National Academies of Sciences, Engineering, and Medicine (2020): *Reopening K-12 Schools During the COVID-19 Pandemic*. www.nationalacademies.org (Accessed 03 August 2020).
- Oliver, R. I. (1999): Whence consumer loyalty? *Journal of Marketing*, 63, 33-44.
- Pei, L. & Wu, H. (2019): Does online learning work better than offline learning in undergraduate medical education? A systematic review and meta-analysis. *Medical Education Online*, 24(1), 1666538.
- Quacquarelli, S. (2020): *The impact of the coronavirus on global education*. <http://info.qs.com/rs/335-VIN-535/images/The-Impact-of-the-Coronavirus-on-Global-Higher-Education.pdf> (Accessed 27 April 2020).
- Richardson, J. C. & Swan, K. (2003): Examining social presence in online courses in relation to students' perceived learning and satisfaction. *Journal of Asynchronous Learning Networks*, 7(1), 68-88.
- Short, J. A., Williams, E. & Christie, B. (1976): *The social psychology of telecommunications*. London: Wiley.
- Tu, C. H. & McIsaac, M. (2002): The relationship of social presence and interaction in online classes. *The American Journal of Distance Education*, 16(3), 131-150.
- UNESCO (2020): COVID-19 educational disruption and response. <https://en.unesco.org/news/covid-19-educational-disruption-and-response> (Accessed 13 March 2020).
- UNESCO (2020): 290 million students out of school due to COVID-19: UNESCO releases first global numbers and mobilizes response. <https://en.unesco.org/news/290-million->

students-out-school-due-covid-19-unesco-releases-first-global-numbers-and-mobilizes
(Accessed 13 March 2020).

Walker, S. L. & Fraser, B. J. (2005): Development and validation of an instrument for assessing distance education learning environments in higher education: The Distance Education Learning Environments Survey (DELES). *Learning Environment Research*, 8, 289-308.

World Health Organization (2020): *Health topic: There is current outbreak of the Coronavirus (COVID-19) disease*. <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19> (Accessed 07 January 2020).

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