Postgraduate Students' Experiences and Challenges of Online Learning amid COVID-19 Pandemic

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Abstract

The COVID-19 pandemic forced the closure of universities in Sri Lanka in March 2020, and this has resulted in the transition of face-to-face learning to online modes of delivery. The aim of this study was to investigate the experiences and challenges faced by the post graduate students in online learning during the COVID-19 pandemic. The cross-sectional survey design was used in this study with the students who followed the postgraduate diploma in education (PGDE) program. Data were mainly collected by administering a questionnaire. The quantitative data obtained from the questionnaire were analyzed using computer-based data analysis package. It was evident that 87% of the students were using mobile phones to access online lectures. Furthermore, 81% of the students agreed that they had basic knowledge to manage online learning. The mean values of all positive statements were higher than 3.6 and it indicated that the students have positive attitudes toward their online learning experience. The results showed that the majority of students preferred online classes, as online learning experience is comfortable (82%) and flexible (84%) in participating in the delivery of lessons. The majority of students (76%) agreed that motivation and the teacher-student interaction is high. However, a significant number of students (44%) agreed that they lack direct contact with the other students. Further, participants indicated that poor Internet connectivity (39%) and distractions from the family members (38%) as main challenges in online learning. The findings of the study highlighted that the students of the PGDE program are satisfied with the online learning experience they gained in the first semester during the period of COVID-19 pandemic.

Keywords: Online learning, post graduate learning, COVID-19 pandemic

Introduction

The new corona virus, COVID-19 was declared as a pandemic in March 2020 by the World Health Organization. The rapid spread of virus throughout the world created a critical situation and it has profoundly altered all aspects of life including education. The COVID-19 pandemic has caused the largest disruption of education in history, having a near universal impact on learners and teachers around the world (United Nations, 2020). It is further emphasized that by mid April 2020, 94 per cent of learners worldwide were affected by the pandemic, representing 1.58 billion children and youth, from pre-primary to higher education, in 200 countries. This situation resulted crisis-response transition to online learning as the educational platform in universities and other educational institutes. Sri Lanka has not been an exception to these changes and its mode of delivery was transformed from face to face to online learning. Hayashi, et al. (2020) state that, in June 2020, all faculties for both state and non-state higher education institutions in Sri Lanka adopted online education.

According to Ally (2008) online learning is defined in many ways depending on the diversity of practice and associated technologies. He defines online learning as "the use of the Internet to access learning materials; to interact with the content, instructor and other learners; and to obtain support during the learning process, in order to acquire knowledge to construct personal meaning and to grow from the learning experience (p.17). Report on 'Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies published by the U.S. Department of Education (2020, p. 9), defines online learning as "learning that takes place partially or entirely over the Internet". This report further states two types of online learning, namely, synchronous and asynchronous. Synchronous learning is a form of learning with direct interaction between students and teachers while simultaneously using online forms such as conferences and online chats. Meanwhile, asynchronous learning is a form of learning indirectly (not at the same time) using an independent learning approach (Rasmitadila, et al., 2020. P.91).

As shown in the literature, there are a number of advantages in online learning (Long, 2004; Shirley et al., 2007; Suryawanshi & Suryawanshi, 2015; Nguyan, 2015). Shirley et al. (2007) claim that there are institutional advantages as well as personal learner advantages in online learning. As they further highlight international business, speed of development and delivery, flexibility and cost savings are institutional advantages while reducing travel time and cost for learners, self-paced learning, convenience of any time and any place, opportunity for repeated practice, ease of review, self-responsibility and freedom are personal learner advantages. However, they further indicate some potential problem areas in online learning. Literature further reveals that accessibility of the Internet and flexibility of online courses have made online education as an integral part of the higher education (Li & Irby, 2008; Luyt, 2013)

Transition from face to face to online mode of delivery is an unexpected challenge for both teachers and students in Sri Lanka like some other countries in the world. Therefore, it is high time to study how students experienced this crisis-response migration and the challenges faced by them in the online learning environment. It is evident from the literature that quite a large number of research have been conducted in other countries to study the impact of online learning (Kaur et al., 2020; Shahzad et al., 2020; Hayashi et al., 2020; Rasmitadila et al., 2020). However, in the Sri Lankan context only a limited number of research have been conducted in higher education in relation to implementation of online learning (Hayashi et al., 2020; Nafrees et al., 2020).

With the closure of universities in Sri Lanka due to COVID-19, the Department of Education, University of Peradeniya initiated online teaching for students enrolled in the PGDE program on 20th May 2020. The aim of the research was to find out the post graduate students' experience and the challenges faced by them during online learning in the PGDE program for the academic year 2019/2020. It was expected to achieve three objectives: readiness of the students for online learning, to investigate students 'perceptions toward online learning experience and to examine challenges faced by them in online learning.

The PGDE program is offered over two semesters. During the first semester, students learn the theoretical foundations of education through the compulsory modules such as educational psychology, educational administration … etc. The second semester is especially aimed at enhancing teachers' pedagogical knowledge through the subject specific teaching methods and teaching practice. In addition, a number of co-curricular activities are organized to develop the generic skills of teachers. This study focused on the online learning that took place both in synchronous and asynchronous modes through Google classrooms and Google meet during first semester.

Methodology

Cross-sectional survey design was used to study the online learning experience and challenges faced by postgraduate students. Creswell (2012) claims that in conducting a survey, the researcher can collect data using questionnaire and structured or semi-structured interviews. Therefore, in this study questionnaire and semi-structured interviews were used as data collection methods.

Data collection was conducted in two stages. During the first stage a questionnaire was administered and during the second semi-structured interviews were conducted. The questionnaire was divided into three sections with each set comprising a number of questions. The first section contained questions about demographic and general characteristics of the sample such as gender, age and teaching experience, distance from home, mode of accessing the Google classroom, and the availability of the Internet

connection at home. The second section consisted of 21 items prepared according to 5-point Likert scale. The third section was six open-ended questions. The questionnaire was administered to the entire population of 550 PGDE students through Google forms and the link was shared with the students through their WhatsApp group. The questionnaire was administered five weeks after the initiation of online lectures from 18th September to 12th October 2020. From the total number of PGDE students 279 responded to the questionnaire. Data obtained from the questionnaire were analyzed using computer-based data analysis package.

During the second stage of the data collection semi-structured focus group interviews were conducted with 25 post graduate students who responded to the survey questionnaire. All interviews were recorded and interview transcripts were prepared for each interview. Data obtained from interviews were used to triangulate the data in order to enhance the validity of findings of the survey questionnaire.

Results and discussion

Total of 279 post graduate students studying in the PGDE program responded to the survey questionnaire. Out of 279 students, 92% were females and 8% were males. Most of them (91.6%) were in between 25-40 years of age. The majority of students (78%) had 1-5 years of teaching experience. In considering students' experience regarding readiness, out of 279 students, 65.57% had Internet/Wi-Fi connection at their homes. It was also found that 87% of the students use their mobile phones to access Google classroom or Google meet. Use of mobile phones by most of the students to access online learning is consistent with the findings of the research conducted in the field of higher education in Sri Lanka and other countries. (Ngampornchai & Adams, 2016; Nafrees et al., 2020).

Findings from the survey questionnaire related to readiness is presented in Table 1. The table displays the level of confidence, percentages and mean scores.

Table 1

Students' confidence levels for the statements in the questionnaire – Readiness

No	Statement	Confidence Level (%)					Mean value
		SA	**A**	**N**	**D**	**SD**	
1	I have sufficient equipment and facilities (mobile phone, computer/ laptop /Internet / software)	23.65	56.98	14.69	2.50	2.15	3.97
2	I have sufficient computer knowledge and ICT skills to manage online learning	18.34	62.23	16.90	1.43	1.07	3.95
3	I can use online tools easily.	22.38	61.73	12.27	2.19	1.46	4.07
4	I got the help of friends when encountered a problem in online learning	22.30	62.94	12.58	1.43	0.71	4.03

SA – Strongly Agree, A -Agree, N -Neutral, D- Disagree, SD – Strongly Disagree

The results in Table 1 show that nearly 81% of the students have equipment and facilities as well as computer knowledge and ICT skills to manage online learning. The mean score obtained for the two statements (3.97 & 3.95) clearly show that most of the students possess the required facilities and skills to engage in online learning. This was further evident from the higher percentage of students' responses (84%) for the statement, "I can use online tools easily". It was revealed that 85.24% of the students get the help of their friends when they encounter a problem in online learning and get ready for their learning. Furthermore, students' readiness for online learning was clearly evident from the comments given by two post graduate students in the semi-structured interviews.

> *I download the materials uploaded to Google classroom by lecturers prior to the lecture and get ready for the lecture. (Interview transcript)*

> *Actually, if the lecture is at 9.00 a.m. I get ready with the computer and all other materials around 8.30 a.m. (Interview transcript)*

Although 81% of the students agreed that they have computer knowledge to manage online learning, they expressed their views in the semi-structured interviews regarding improving Internet and communicating skills required for online learning when they are getting ready for the online lessons. One of such comments is given below.

> *I feel that we should possess certain basic skills such as downloading and uploading materials, browsing the Internet, use of email and WhatsApp for communicating with the group and the lecturers, are required in getting ready for the online learning. Really this is a very good opportunity for us to be independent learners and get ready for our studies. (Interview transcript)*

Post graduate students' perception toward online learning is given in Table 2.

Table 2

Students' confidence levels for the statements in the questionnaire

No	Statement	Confidence Level (%)					Mean value
		SA	**A**	**N**	**D**	**SD**	
5	I am happy about online learning methods	17.62	56.47	17.62	6.11	2.15	4.11
6	I have gained experience of learning in a new online environment.	38.76	52.17	6.52	0.72	1.79	4.29
7	I am happy about the student teacher interaction during online lectures	17.56	56.63	17.56	6.09	2.15	3.83
8	I can learn the same amount in an online course as in a traditional course.	19.42	44.24	19.06	12.58	4.67	3.62
9	I would feel comfortable taking courses online.	35.12	47.31	12.90	4.30	0.35	4.14
10	Online teaching methods are effective than traditional classroom lectures	18.99	43.72	22.58	11.46	3.58	3.70
11	Online courses saves me time	58.99	35.97	1.79	2.15	1.07	4.51
12	Motivation is high in participating online lectures.	16.84	49.82	21.86	7.16	4.30	3.68
13	I have facilities to ask questions or clear doubts during online lectures	24.01	56.27	15.41	3.94	0.35	4.01
14	Flexible in participating online lectures compared with face-to-face learning	25.99	57.76	13.71	1.44	1.08	4.11
15	I like to participate the online lectures with conventional lectures after COVID-19 pandemic.	31.18	45.51	12.90	8.60	1.79	3.98
16	I would like to have more online courses taught using the online methodology.	21.22	52.87	14.38	9.71	1.79	3.94
17	Difficult than face to face classroom.	3.94	22.58	21.50	41.57	10.39	3.32
18	It is difficult to contribute to class discussions in an online class	2.51	26.25	26.97	34.17	10.07	3.24
19	Lack of direct contact with other students comparing with face-to-face learning.	7.22	36.82	37.18	17.68	1.08	2.70
20	Home environment is suitable for participating online lectures	21.58	47.84	16.18	13.66	0.71	3.79
21	Possibility of distractions from other family members during online lectures.	3.95	34.53	32.37	20.51	9.15	3.01

SA – Strongly Agree, A -Agree, N -Neutral, D- Disagree, SD – Strongly Disagree

According to the responses obtained from statements 5 to 16, mean values are above 3.6 indicating that students have positive attitudes toward online learning. Students' responses for these statements reveal that they were positive about certain aspects of online learning such as teaching and learning methods, online learning environment and the teacher-student interaction during online lectures. Positive attitudes toward these aspects of online learning were further revealed from the views obtained in the semi-structured interviews and one such comment is given below.

> *In online learning when the learning materials are uploaded, we have to read and get ready for the lessons. But in face-to-face learning sometimes we do not open books until the next lecture. In addition we get learning materials for each and every lesson in the online mode of teaching (interview transcript).*

In considering the statements up to 16, the highest percentage (94.96%) of strongly agreed and agreed taken together was recorded in the statement "online courses save me time". This was further emphasized in the interviews as well as responses to the open-ended questions in the questionnaire. The following interview transcript shows a comment made by a post graduate student regarding saving time through online learning.

> *I came from Walapane and I had to leave home from 3.30 a.m. to attend the lectures at 9.00 a.m. But now if I get ready even at 8.25a.m. it is sufficient. Therefore, the whole time I spend for travelling saves now. (Interview transcript)*

Furthermore, nearly eighty percent of students responded saving time as the greatest benefit of online learning. The demographic information obtained from questionnaire revealed that 57% of the students travel a distance which is more than 25 kilometers from the university and they have to spend nearly one hour for travelling to the university. In addition to saving time, more than 75% of the students agreed with the statements 13, 14 and 15 which are based on facilities to ask questions and clearing doubts, flexibility in participating lectures and having online lectures with face to face lectures even after COVID-19 pandemic.

As it is shown in Table 2, the mean values of two negative statements 17 and 18 are slightly higher than 3.0 and a considerable number of respondents agreed (agreed and strongly agreed taken together) with these statements. The mean value of statement 19 is 2.7 and nearly 44% of the students agreed with this negative statement. These results indicate that post graduate students possess negative attitudes toward certain aspects of online learning; contribution to class discussions and student-student interactions in the classrooms. This is evident from the following interview transcript.

> *Teachers from various parts of the country attend PGDE program in the university. Therefore, we communicate with all of them, work collaboratively and listened to others when there is face to face learning. But it does not happen in online classes. (Interview transcript)*

Considering the online learning environment 69.42% agreed that home environment is suitable for participating in online lectures while 38.48% responded that there are distractions from family members.

Participants' responses to open-ended questions indicated that problems due to the Internet connection (39%) and distractions from the family members (38%) as major challenges in online learning. In addition, issues due to power failure, lack of opportunity for developing practical skills and unexpected technical issues were given as some other difficulties in online learning.

Conclusions and suggestions

The study provided evidence that in spite of some challenges, post graduate students could adapt to the transition from face-to-face learning to online mode of learning successfully during the first semester of PGDE program in the academic year 2019/2020. It is evident from the results of the study that most of the students enrolled in the PGDE program have equipment and materials to follow online learning.

The results of the study show that the majority of the postgraduate students have positive attitudes toward the online learning experience. The most prominent reason for their desire for online learning is the reduction of travel time when compared with face-to-face learning in the university where they must physically present themselves. This is a decisive factor for them as they are adults with a number of other personal commitments. In addition, flexibility in participating in online lectures, the ease in taking online courses, student teacher interactions in the online learning environment are some of the other reasons for them to have favorable attitudes toward online learning. According to the results of the study, a considerable number of students were not satisfied with the opportunity of the online learning environment concerning the class discussions and student-teacher interactions. Poor Internet connection was the top challenge faced during online learning and this was a challenge identified in the studies conducted elsewhere in Sri Lanka (Hayashi et al., 2020; Nafrees et al., 2020) as well as other countries in the world (Mahyoob, 2020). Introduction of online learning for the PGDE program as an alternative to the closure of universities provided students with a beneficial learning experience. As the PGDE program consists of theory and practical components, blended learning is a better option considering the nature of the program. In planning future online programs, learning environment should be more interactive in order to ensure healthy teacher-student and student-student interactions in the virtual classrooms.

References

Ally, M. (2008). Foundations for education theory for online learning. In T. Anderson (Ed.), *Theory and practice of online learning* (2nd ed., pp. 15-39). Alberta: AU Press.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating* (4th ed.). Boston: Pearson.

Hayashi, R., Maddawin, A., Garcia, M., & Hewagamage, K. P. (2020). Online learning in Sri Lanka's higher education institutions during the COVID-19 pandemic. *ADB Briefs, 151,* 1-12.

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), 563-567.

Li, C., & Irby, B. (2008). An overview of online education: Attractiveness, benefits, challenges, concerns, and recommendations. *College Student Journal, Part A, 42,* 449-458.

Long, H. B. (2004). E-learning: An introduction. In G. M. Piskurich (Ed.), *Getting the most from online learning: A learner's guide* (pp. 7-24). San Francisco: Pfeiffer.

Luyt, I. (2013). Bridging spaces: Cross-cultural perspectives on promoting positive online learning experiences. *Journal of Educational Technology Systems, 42,* 3–20.

Lyons, J. F. (2004). Teaching U.S. history online: Problems and prospects. *The History Teacher, 37,* 447-456.

Mahyoob, M. (2020). Challenges of e-learning during the COVID-19 pandemic experienced by EFL learners. *Arab World English Journal, 11*(4), 351-362. DOI: https://dx.doi.org/10.24093/awej/vol11no4.23

Nafrees, A. C. M., Roshan, A. M. F., Baanu, A. S. N., Nihma, M. N. F., & Shibly, F. H. A. (2020). Awareness of online learning of undergraduates during COVID-19 with special reference to South Eastern University of Sri Lanka. *Journal of Physics: Conference Series, 1712.* doi:10.1088/1742-6596/1712/1/012010

Ngampornchai, A., & Adams, J. (2016). Students' acceptance and readiness for E-learning in North-eastern Thailand. *International Journal of Educational Technology in Higher Education, 13*(1), 34. https://doi.org/10.1186/s41239-016-0034-x

Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant difference and future horizons. *Journal of Online Learning and Teaching, 11*(2), 309-319.

Rasmitadila, R., Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The perceptions of primary school teaches of online learning during the COVID-19 pandemic period: A case study in Indonesia. *Journal of Ethnic and Cultural Studies*, *7*(2), 90-109.

Shahzad, A., Hassan, R., Aremu, A. Y., Hussain, A., & Lodhi, R. N. (2020). Effects of COVID-19 in E-learning on higher education institution students: the group comparison between male and female. *Quality and Quantity: International Journal of Methodology, Springer, 55*(3), 805-826. Retrieved on 12th November 2020.

Shirley, B., Haynes, P., & Smith, J. L. (2007). *Online learning and teaching in higher education.* Berkshire: Open University Press.

Suryawanshi, V., & Suryawanshi, D. (2015). Fundamentals of E-learning models: A review. *Journal of Computer Engineering,* 107-120.

United Nations. (2020). Policy Brief: Education during COVID-19 and beyond. https://reliefweb.int/report/world/policy-brief-education-during-covid-19-and-beyond-august-2020. Retrieved on 15th November 2020.

U.S. Department of Education, Office of Planning, Evaluation, and Policy Development. (2010). *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies.* Washington, D.C.: Author.