

DIGITAL DIVIDE: CHALLENGES FACED BY THE UNIVERSITY STUDENTS IN THE CONTEXT OF OPEN AND DISTANCE LEARNING (ODL) DURING THE COVID-19 PANDEMIC

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Abstract

The main purpose of the study was to investigate the challenges faced by the university students in the context of Open and Distance Learning (ODL) during the Covid-19 pandemic using the Motivational System Theory (MST). Therefore, the Focus Group Discussions (FGDs) were conducted with students who follow the BA Degree in Social Sciences offered by the Department of Social Studies at the Open University of Sri Lanka. The qualitative data were thematically analysed. The personal interviews were also conducted with the teachers attached to the department. The results showed that the challenges occurred due to personal factors and institutional factors. Moreover, the students mainly face personal issues such as IT literacy and IT infrastructure issues, technical issues, health issues, financial issues, and institutional issues such as inadequate support given by the supportive divisions, unreliable online platforms such as student registration platform and Learning Management System (LMS), and a lack of resources and IT infrastructure facilities available in the university for students. The results show that mostly the students attached to the regional and study centres face these challenges compared to the students in the Colombo regional centre due to the digital divide. In other words, there is a divide between information rich and poor when it comes to the e-learning. Therefore, the responsible parties should facilitate the students by providing the required resources, facilities, services, opportunities, guidance, and training to create a student-friendly learning environment during the pandemic.

Keywords: challenges, university students, open and distance learning, Covid-19 pandemic, e-learning, digital divide

Introduction

The Covid-19 outbreak has made a negative impact on the whole education system from primary education to higher education. Therefore, UNESCO suggested implementing online teaching and learning via new technologies for the higher education sector as well due to the seriousness of the Covid-19 pandemic (UNESCO report on COVID-19 and higher education: Today and tomorrow, 2020). In the context of Sri Lanka, the schools, universities, and other educational institutions have faced some challenges with the traditional mode of education. Therefore, the Ministry of Education has introduced some alternative teaching and learning mechanisms through new technologies. As a result, circular no PS/GPA/33/2020 was issued by the ministry on 29 October 2020 to facilitate the students with alternative learning opportunities through online solutions.

In this context, The Open University of Sri Lanka (OUSL) which promotes ODL has also transferred teaching and learning to the fully online mode during the Covid-19 pandemic. The lectures, oral presentations, supervision, consultations, counselling, examinations, etc. are conducted via zoom and LMS. Therefore, the Department of Social Studies which is under the Faculty of Humanities and Social Sciences at the OUSL has also given the opportunity to all the students including the undergraduate students to attend the day schools (the term used for lectures at the OUSL) via zoom and to submit their Continuous Assessments (CAs) and final assessments, etc. to the e-learning platform and online examination platform.

The Department of Social Studies has facilitated the students with online learning during the Covid-19 pandemic to do the academic activities without postponing. The department has introduced the guidelines for conducting the alternative assessments as well as for conducting

zoom lectures in order to maintain the quality of teaching, learning and assessments (Madhubhashini, 2021:376).

Due to these changes that have taken place in the mode of study, students have communicated to the respective teachers and coordinators about their positive and negative concerns on online education. In this context, the main issue investigated in the study was what are the challenges faced by the students in the context of ODL during the pandemic. The main purpose of the study was to investigate the challenges faced by the students in the context of ODL using the Motivational System Theory (MST). The specific objective was to identify the personal and institutional factors affecting e-learning during the pandemic.

ODL During the Covid-19 Pandemic

The OUSL is the premier ODL university in Sri Lanka which was established in 1980 under Universities Act No.16 of 1978 which also comes under the purview of University Grants Commission (UGC). There are more than 40000 students attached to the six faculties of the university. It also has a strong regional and study centre network which facilitates the heterogeneous student population including the marginalised community throughout the country with ODL mechanisms (Madhubhashini, 2021).

Jayathilleke and Kulasekara (2020) note that the OUSL has implemented several technological adoptions to the ODL through Generations of Distance Education (GDE). In the early stage, there was a lack of direct learner interaction and reaching was done using a single technology. Education Technology (ET) division was established (currently known as CETMe) to facilitate course development and audio-visual productions. Gradually, Interactive Multimedia (IMM) and online courses were introduced to facilitate the ODL at the OUSL. The OUSL has introduced a flexible electronic database and a computerised record system, etc. to facilitate both students and teachers for the registration, exam-related matters, library services, etc.

Therefore, the OUSL provides the ODL benefits to the heterogeneous community throughout the country. But there are still some challenges faced by the students in the ODL system. Vidanapathirana and Gamini (2009) note that the individual factors and institutional factors make a significant impact on the performance of students in the context of ODL. Hill (2009) also notes that individual factors, social factors and institutional factors may limit a learner's ability to succeed. Hill (2009) further states that there are several challenges in the ODL faced by the students. These are psychological factors such as a lack of motivational skills and a lack of understanding of ODL and personal factors such as work-related challenges, financial difficulties, family responsibilities, time-related concerns and institutional factors such as strikes and challenges to schedules, facilities and resources, a lack of communication and contacts, inadequate support services, policies and practices, etc.

Likewise, several research studies have been conducted to find out various issues connected to the ODL system and learners. During the Covid-19 pandemic, the students also face some challenges in the ODL. Madhubhashini (2021) notes that both students and teachers face several challenges during the pandemic in conducting day schools via zoom.

It was found that delivering lectures, etc. via zoom is timesaving, user friendly and convenient during this pandemic. It was also found that the common challenges for both teachers and students were technical issues, ethical issues, unstable coverage, background noises, less face-to-face interactions, high internet charges, etc. Non-availability of laptop or mobile phone and internet connection and less IT knowledge, English language barrier were specific issues to the students in outside Colombo and adult students” (Madhubhashini, 2021:380).

Karunadasa, Liyanahetti and Fernando (2021) note that the students face issues in using the elearn platform (LMS used at the OUSL) such as poor infrastructure, poor access to internet facilities, social disparities and income during the pandemic. This study was done by analysing the student reflections given on elearn platform using Technology Acceptance Model (TAM).

Therefore, there is a gap in doing research considering the major challenges faced by the students due to the personal and institutional factors in the context of ODL during the pandemic. In this context,

this research has been done to fill this gap by investigating the challenges faced by students in the context of ODL during the pandemic using the Motivational System Theory (MST). In other words, it is expected to investigate the challenges faced by the students in the context of ODL by considering the key components of MST like personal factors such as motivation, skills, biological factors and institutional factors such as responsive environment. “MST theory explains that the achievement and competence are the results of a motivated, skilful, and biologically capable person interacting with a responsive environment” (Ford, 1992: 70). A formula is given to explain the MST theory as follows.

$$\text{Achievement/Goal} = \frac{(\text{Motivation} \times \text{Skill})}{\text{Biological}} \times \text{Responsive environment}$$

Therefore, this study expects to investigate the challenges connected with personal factors such as skills, motivation, biological reasons and institutional factors such as working culture, supportive environment, practices and resources, etc. The following figure explains the conceptual framework of this study based on the MST theory.

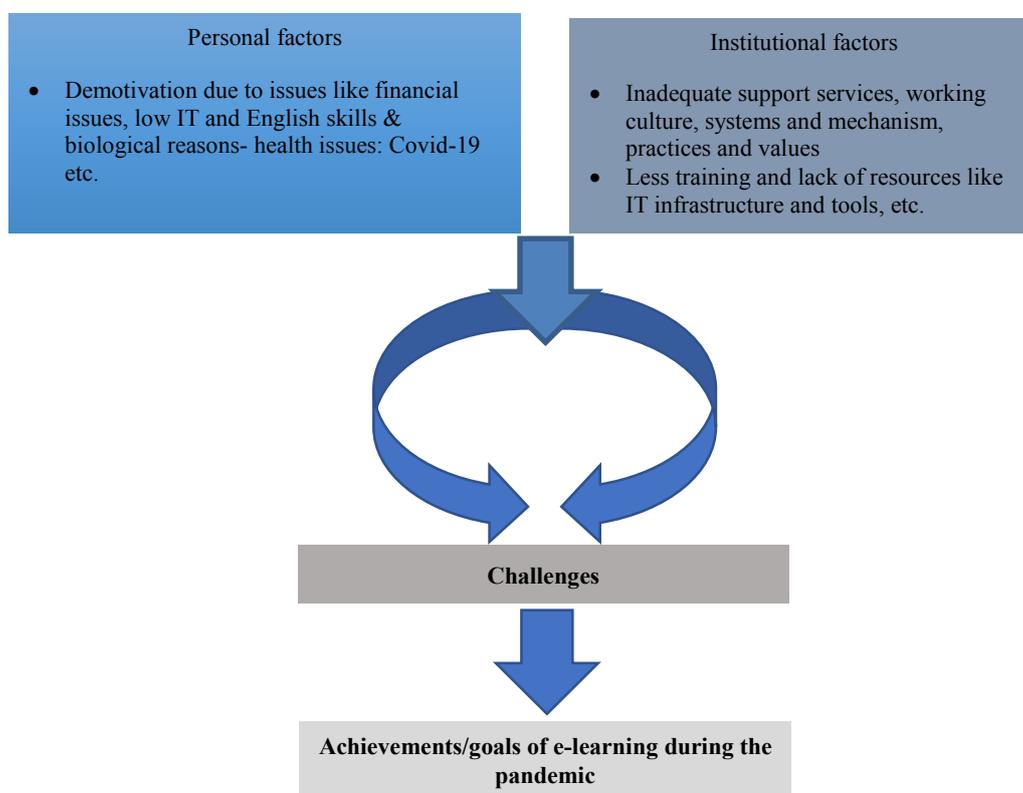


Figure 1: The challenges faced by the students in e-learning at the personal and institutional levels

This figure shows that the personal and institutional factors have an impact on e-learning during the pandemic. In other words, the challenges occurring in achieving the goals of e-learning due to institutional and personal factors are shown in the figure. Therefore, the purpose of the study is to investigate the challenges faced by the students during the pandemic.

Research Methods

The samples were selected from the Department of Social Studies (SSD) of the Open University of Sri Lanka which is one of the state universities that promotes ODL to empower the heterogeneous communities throughout the country. The Department of Social Studies is a multi-disciplinary department integrating disciplines of Economics, Politics and International Relations, Communication studies, Sociology and Youth Studies. Due to the Covid-19 pandemic situation, the Department of Social Studies also has to fully transfer the teaching and learning process from hybrid mode (traditional

face-to-face and online interaction on LMS) to fully online mode (teaching and learning via zoom and assessments via e-learn/learnoul and online examination platform). Based on the comments and feedback given by students, there are some opportunities and challenges in fully online learning.

The samples were selected from the students who follow the Bachelor's Degree in Arts in Social Sciences which is offered by the Department of Social Studies. This programme has the highest number of students compared to the other programmes offered by the department. This is a three-year multi-disciplinary degree programme that has four stream specialisations such as Economics and Development Studies, Society and Culture, Communication studies and Politics and International Studies offered by the department since 1995. This programme is offered in the English medium which currently has more than 3,000 students.

The study used a qualitative approach to obtain data using Focused Group Discussions (FGD) and interview method. FGD is a structured discussion used to obtain in-depth information (qualitative data-insight) from a group of people about a particular topic. It is important to have 8-12 respondents in a discussion (Omar, 2018). Therefore, the Focus Group Discussions were conducted via zoom with thirty-six students covering all the streams: Communication, Society and Culture, Politics and IR and Economics and all three levels (level 3-5) in the BA degree programme (12 students from each level) to investigate the challenges in e-learning. The purposive sampling was used to select the students. There were three separate FGDs for the students (12 for each discussion). One discussion was conducted with the students attached to the Colombo regional center where the majority of students follow the degree programme and the other discussion with the students attached to the other regional centers. Another discussion was conducted for the students in the study centres. Therefore, the students from each study and regional centre were selected for the FGDs since the students have registered for the BA Degree in Social Sciences in 15 different centers throughout the country: Colombo, Kandy, Batticaloa, Matara, Kurunegala, Jaffna, Anuradhapura, Rathnapura, Badulla, Vavuniya, Puttalam, Hatton, Kalutara, Manner and Ampara. The purpose of covering the students in the regional and study centers by conducting three separate FGDs is to investigate the challenges faced by the students in the regional and study centres during the pandemic.

Gill et al. (2008) note that interviews provide a deeper understanding of a social phenomenon. In other words, detailed insights of a particular subject or an area can be collected from individual participants using the interview method. Therefore, the personal interviews were conducted with five lecturers representing all the streams to investigate the challenges in e-learning in the context of ODL during the pandemic. The teachers were selected not only from Colombo regional center, but also from some other regional centers. The data were collected in February 2022. The qualitative data were analysed thematically.

Some limitations were caused in the study due to some geographical and subjective reasons. The students were only selected from the Department of Social Studies at the OUSL. But the population and sample size can be expanded to find more practical findings/results in a future study in a systematic and methodical manner.

Results and Discussion

Motivational System Theory (MST) was used as the main theoretical framework of the study to investigate the challenges faced by the students in the context of ODL during the pandemic. Moreover, the key factors of MST theory such as personal factors like motivation, skills, biological factors and institutional factors like working culture, supportive environment, practices, resources, etc. are used to investigate the challenges faced by the students.

The results show that the students face some challenges in e-learning due to personal factors such as health issues as highlighted in the MST theory. Many students got infected with Covid-19 during the pandemic and it has a negative impact on their studies. The findings show that the students who suffer from eye issues are also going through serious problems due to online learning. Some 20 students out of 36 got infected with Covid-19.

A student in level 4 attached to the Kandy regional center stated that "I was infected with Covid-19. So, I handed over the Continues Assessments for all the courses at the last minute. I am not

sure whether I will get through CA components. Because I could not properly concentrate on my studies due to sickness. I lost my job during the 2nd wave of Covid-19 as the company that I worked for had to cut the staff due to the financial crisis during the pandemic. So, I came to Colombo and started working for Uber as a rider”.

The results also show that the pandemic made the students unhealthy in their financial situation as well. The financial difficulty faced by the students during the pandemic was also one of the major personal issues in achieving benefits of e-learning. Rameez, Fowsar and Lumna (2020) also emphasised that the students in the conventional universities also face financial difficulties in buying a laptop or a smartphone.

The lack of devices such as laptop, desktop, and smartphones during the lockdown of Covid-19 ensured that students could not continue education via online. This might be attributed to financial difficulties on the part of students and their parents. More importantly, with more families and individuals alarmed and panicked over the outbreak of Covid-19, the students were not in a good mood to continue their studies online (Rameez, Fowsar and Lumna, 2020: 347).

When it comes to the OUSL, it was difficult for students attached to the regional and study centers to buy a laptop or a mobile phone for online education compared to the students in the Colombo regional center. The results also show that most of the students in the Colombo regional center at least have a laptop or/and a mobile phone to engage in e-learning. The majority of students connect to online education through the mobile phone according to the findings of the study. The students who are in the remote areas face technical, signal and network issues in joining the day schools conducted via zoom and in submitting the assignments to the LMS or online examination platform. Madhubhashini (2021) also notes that the digital divide is a critical issue in terms of internet usage. The students in remote areas face network issues, technical issues and IT infrastructure issues compared to the students in the urban areas. Therefore, it is the responsibility of the policy makers to bridge the gap between information rich and poor.

A student attached to the Matara regional center stated that “It is good to have online education during the pandemic. Because it is an affordable, safe and flexible learning method. But the problem is that my sister and I only have this small smartphone to do online education since we don’t have money to buy a laptop. Sometimes buying a data card is also difficult for us. The ram capacity of my phone is not adequate to save heavy files or view documents on zoom etc. I usually go to a mountain area to get signals on my phone since the signal coverage is low in my area. So, online learning is quite difficult for us during this pandemic.”

This shows that the students face technical issues, financial issues and internet network issues etc. in e-learning though the e-learning is an affordable, safe and flexible learning method during the pandemic. The findings also show that low internet speed and power failure are also challenges in e-learning during the pandemic.

The findings also show that the below 40-year-old students are quite good in IT literacy compared to the adult students. It was reported that some students are not familiar with the new technological systems, apps, etc. such as zoom, MYOUSL student platform, LMS and online examinations platform and its usage. The students who are having families and children face some difficulties in attending the zoom sessions from their homes with the internal issues/disturbances.

According to the MST theory, skills are also required for achieving goals. As far as this study is concerned, skills such as IT skills, English language skills, motivational skills etc. are essential in achieving the goals and getting benefits of e-learning during the pandemic. The results also show that the students in level 3 have a lack of technical and IT skills compared to level 4 and 5 students. The students attached to the regional and study centers were not good in IT skills compared to the students in the Colombo regional center.

A student in level 3 attached to the Badulla center mentioned that “I do not have IT skills to log in to zoom, LMS and online examination platform to join the day schools and to submit the

assignments. So, it is difficult to do my studies during this pandemic since the onsite day schools and examinations are not conducted. My English language is also not that good in doing assignments through the degree programme offered in the English medium. So, I always get support from my friends in overcoming technical and language issues”.

This shows that the students in study and regional centers face IT literacy issues and language issues compared to the students in Colombo regional center. MST theory also shows that motivation is one of the key personal factors in achieving goals. But the students are demotivated to do e-learning during the pandemic due to the above-mentioned personal factors such as health issues, financial issues, lack of infrastructure facilities, IT and English language skills, environment noises etc. Apart from the personal factors, institutional factors such as working culture, supportive environment, norms and values, resources, infrastructure etc. are important in getting the benefits of e-learning for the students during the pandemic. The results show that the students face some difficulties during the pandemic due to the unsupportive and unsystematic working environment and culture at the university.

A student attached to the Colombo Regional Center stated that “During the Covid-19 pandemic, the university did not provide adequate support for students for registration, examinations etc. Since the department offers the degree programme, at the beginning the students were complaining against the department for the delays in providing service to the students. But gradually the students have understood that the department staff including the head of the department, lecturers and coordinators are quite supportive in providing the required information and trying to sort out matters faced by the students regarding student registration, online examination and day schools. Though the students at level 3 faced issues in registering to the courses via the online platform, the IT division did not provide adequate support to the students to sort out their issues. The academic activities also got delayed due to the unreliable online registration system. The online examination division has not provided prompt replies to the student queries. But conducting examinations through the online examination platform is more reliable than conducting examinations through the e-learn platform. The assignments submitted to the e-learn platform went missing in the last semester. There were also some delays and technical issues in submitting assignments due to the traffic on the e-learn platform. The hard copies of the course materials are not properly distributed to the students through courier services. Giving softcopies of the course material is an alternatives solution, but there are difficulties in downloading and referring to the softcopies of the course materials”.

Therefore, the results show that the students have not received adequate support or services from the supportive divisions in the university during the pandemic though the department has a student friendly approach towards the students. Furthermore, the students face challenges in registering for courses, submitting assignments and receiving course materials. The resources and infrastructure facilities should also be given to the students to facilitate e-learning. The computer labs-NAC centers have been set up to provide students the freely available computer and internet facilities. Therefore, the students who do not have IT tools and internet connection can use the NAC centers. But some students complained that adequate IT infrastructure facilities are not available in the NAC centers situated outside Colombo. Moreover, some students have to wait in queues to use the IT facilities. But a lecturer attached to a regional centre stated that there is a help desk to support the students who are having IT literacy issues and IT infrastructure problems. This shows that the students were benefited by the services, resources and facilities provided by the university during the pandemic.

The findings also show that the university has taken initiatives to establish an online examination platform and registration platform as well as to send the course materials through the courier services and to provide IT facilities and resources at the NAC centers to facilitate the students during the pandemic though the students face some challenges in e-learning. The university also currently faces some challenges in printing course materials and providing IT services and solutions due to the issues connected to the Covid-19 pandemic and infrastructure facilities.

Another challenge of e-learning during the pandemic is less interaction with the lecturers and coordinators. Therefore, the students are not able to properly communicate with the lecturers and coordinators via emails and zoom due to the system and technical issues. Karunadasa, Liyanahetti &

Fernando (2021) also note that less interaction with teachers through the online platforms is another challenge in e-learning.

The findings show that, apart from the challenges faced by the students during the pandemic, some opportunities are also created for the students such as easy and fast communications through the online platforms, time saving, cost worthiness, equal opportunities in dealing with the main module leader/lecturers in the Colombo centre for the students in the other centers, availability of e-course materials and documents, improving technical and IT skills apart from giving the subject knowledge, encouraging more student centred learning environment in the ODL. Karunadasa, Liyanahetti & Fernando (2021) also note that e-learning during the pandemic provides more skill based, flexible and cost-effective learning for students.

Conclusion

The results of the study show that e-learning is the best alternative teaching and learning method during the pandemic, because it is an affordable, safe and flexible learning method during the pandemic. But the results also show that the students face several challenges in e-learning during the pandemic. Therefore, the Motivational System Theory (MST) was used to investigate the challenges faced by the university students and the results show that there are various challenges faced by the university students due to some personal and institutional factors. Personal factors in this case include skills, motivation, biological reasons, and institutional factors include working culture, practices, traditions, supportive mechanisms, and resources according to the MST theory.

The challenges at the personal and institutional levels were investigated using the MST theory in the study. The results show that the students faced the challenges at the personal level such as low IT skills and literacy, IT infrastructure issues, technical issues, health issues, and financial issues. The challenges at the institutional level are inadequate support given by the supportive divisions, unreliable student registration platform and Learning Management System (LMS), and a lack of resources and IT infrastructure facilities available in the university. The results show that the students have demotivated in e-learning due to the challenges occurring at the personal and institutional levels. The results show that mostly the students attached to the regional and study centers face these challenges compared to the students in the Colombo regional center due to the digital divide. In other words, there is a divide between information rich and poor when it comes to the e-learning.

In this context, responsible authorities should develop the social and IT infrastructure facilities in each part of Sri Lanka to avoid technical issues, network coverage issues etc. There should also be a proper mechanism to facilitate students to buy educational supportive tools such as laptops and internet connection. Conducting some training or awareness programmes for students is a way out to help students to be familiar with the online platforms such as online examination platform, MYOUSL, LMS, etc. Another solution is to have a help desk to assist students with the technical issues with the voluntary student participation. The university should take necessary actions to expand the facilities and resources at the NAC centers to facilitate e-learning. The university should also establish a student friendly working environment to facilitate e-learning. In other words, the supportive divisions at the university should have a student friendly approach in sorting out the issues faced by the students to create a better learning environment.

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