EXTENDED ABSTRACT

DISTANCE LEARNING DURING COVID-19 PANDEMIC: PERCEPTIONS OF UNDERGRADUATES IN STATE UNIVERSITIES IN SRI LANKA

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Abstract

In an effort to reduce the spread of COVID-19, most countries decided to temporarily close down educational institutions which caused to transformation conventional learning into online learning platforms. However, the question of how well learners are effectively engaged with distance learning (DL) is still not addressed clearly in the Sri Lankan context. This study, therefore, aims to understand the learners' perception towards DL modes. Perceptions regarding DL were collected based on learner, design, delivery, resource and evaluation dimensions. Data were collected through an online questionnaire from undergraduates in state universities, and they were analysed using descriptive statistics and factor analysis. Results revealed that undergraduates are satisfied with DL and they would be willing to recommend it to peers. Further, it was revealed that the design dimension is the most crucial variable for DL.

Keywords: COVID-19, distance learning, pandemic, perception, undergraduates

1. Introduction

The COVID-19 pandemic is a momentum that has changed every aspect of human life and education is no exception. Many countries, including Sri Lanka, had to close educational institutions in an attempt to control the spread of Coronavirus. According to UNESCO (2020), at least 1,268,164,088 students, or 72.4 percent of students from 177 countries, have been affected. Due to the extreme usage of information and communication technology-based technologies, the whole teaching pedagogy has been transformed into a learner-centered pedagogy. This is characterized by a shift in traditional teaching and learning practices to an online platform (Berliyanto & Santoso, 2018).

The term DL refers to a technique of delivering education using internet technology and resources. DL, like online learning, is dependent on information and communication technology to provide material and engage with students. (Stauffer, 2020). The concept of DL is not a new spectacle in Sri Lanka, as many higher educational institutes have been facilitating DL since the inception of the University of Sri Lanka External Services Department in 1972 and the Sri Lanka Institute of Distance Education in 1976. Though there is a great history of DL in Sri Lanka, it has come into practice in 2003, when the Ministry of Higher Education commenced the DL Modernization Project with a $60 million grant from the Asian Development Bank to develop DL. Since then, there has been a significant increase in the number of online programs offered in Sri Lanka. However, as a developing

country, Sri Lanka's education sector is having issues providing entirely online learning as there only 22.2% of Sri Lankans own laptops, tabs, or PCs from 2017 to 2019 according to the Department of Census and Statistics Sri Lanka, 2019.

The main concern, however, is the quality of learning, which is intimately associated with how well the content is planned and implemented via DL. The efficacy of learning is also determined by how information is chosen for the online environment, as well as by recognizing and resolving the restrictions that students experience. To have a clear cut understating of such an unclear view, it is worthwhile to know how the undergraduates' perception towards DL and their willingness to sustain the DL even after the COVID-19 pandemic is over. This research, therefore, is a stepping stone in exploring the student's perception of DL in Sri Lanka.

2. Literature Review

Distance learning refers to a method of delivering instruction through online technologies and tools such as online learning, and relies on information and communication technologies to deliver the contents and interact with learners (Stauffer, 2020). The relevant literature describes the main dimesions of DL as learner, design, delivery, resource and evaluation. The explanation of these dimensions are presented by the following table.

Table 1. Dimensions of DL

Dimension	Source	Meaning	Indicators
Learner	Lei & Gupta, 2010	These learning gains not only apply to knowledge about course content but also the use of computing technology providing an added benefit post-graduation	▪ Recommendation ▪ Confidence ▪ Attitude
Design	Daukilas et al., 2008	The instructional design of the distance course	▪ time for learning ▪ technology comfortability ▪ programme organization ▪ cost effectiveness
Delivery	Dill, 2010; Filippakou, 2011; Pratasavitskaya & Stensaker, 2010	the conveyance of instructional content, activities, and learning assessments to students	▪ Accessible lecturers ▪ Friendly lecturers ▪ Appropriateness of content
Recourse	Khan & Iqbal, 2011	the set of systems, physical resources, technological resources, personnel, policies, and practices of a college or university	▪ Adequate learning materials ▪ Availability of other services ▪ Peer support
Evaluation	Kirkpatrick, 1998	The extent to which participants change attitudes, improve knowledge, and/or increase skill as a result of attending the program"	▪ tasks and assignments ▪ Ontime Feedback ▪ course assessments

3. Methodology

The study applied the quantitative approach utilizing the questionnaire for data collection. It also aids in the performance of a complete analysis of the problems and provides assistance in the implementation of solutions to address the difficulties, among other things. The study targeted a

population of 20681 undergraduates from management faculties of state universities in Sri Lanka as the management faculties were highly used the technology-based learning environments comparing to the other streams of faculties (Lanka Education and Research Network (LEARN), 2020). A cross-sectional survey, distribution of the questionnaire was conducted and yielded 497 responses from the targeted 600 potential respondents following the stratified random sampling technique which constitute 82% response rate. According to Roth & BeVier (1994), the minimum acceptable level of response rate is 80%. Thereby, the sample obtained within this study was an adequate representation of the total population. The unit of analysis of this study was management undergraduate in state universities in Sri Lanka and a cross-sectional study setting was used.

IBM SPSS was used to analyse the collected data, which included descriptive statistics and factor analysis. The descriptive statistics of the survey responses are presented in tables, with percentages of responses shown. The descriptive statistics include summaries of the sample's responses to each question, as well as measures of variability and central tendency.

4. Findings

As per the demographic characteristics of the respondents', 58% were females while 42% were males. This indicated that the amount of female participants in the study was more than the number of male participants. The majority of the participants were in Level 1 (28%), whereas Level 2 had (26%), Level 3 had 24% and Level 4 had the least number of participants (22%). Out of 497 surveyed students, all of them had at least one device. According to the survey results, the most commonly used technology device by the students was the smartphone. Among the surveyed student's laptop computers were slightly prevalent. 350 students had their laptop, and 120 had their desktop. Whereas, only a smaller number of students used tablet and iPod. Further, statistics showed that sixty students had all of these five technology devices for their usage while only 112 (17%) students had only one device.

In relation to the internal consistency of constructs in the model, all items' Cronbach's alpha values are greater than 0.7 showed strong internal consistency. On the 16 questions, a principal component factor analysis with varimax rotation was carried out to determine the perceived most important variables influencing students' opinions of DL. Based on Pallant's recommendation, the statistical test results (KMO =0.959, Bartlett's Test of Sphericity, Significance 0.000) suggested that the factor analysis technique was suitable (2001).

Table 2. Descriptive Statistical Table for Students perceptions of Distance Education

Factor 1, which was labelled as 'Design Dimension', was composed of four items and accounted for 66 per cent of the variance. This factor was dominated by items such as time, technologies, organization and cost. Factor 2 comprised of three items that related to the 'Resources' and accounted for an additional 10 per cent of the variance. This factor was dominated by items such as course materials and online resources, other services necessary and peer support. Factor 3 was labelled as 'Evaluation' that included three items. It accounted for an additional 8 per cent of the total variance. The three items were tasks and assignments, feedback and course assessments. Factor 4 was 'Delivery' that contain three items namely accessible for interactions, friendliness of lecturer and Methods of presentation and delivery of content. It accounted for the additional 6 per cent of the variance. Factor 5 comprised of three items that related to the 'Learner' and accounted for an additional 4 per cent of the variance. This factor was dominated by items such as recommendation, confidence level and attitude.

Constructs	Mean	Std. Deviation	Factor Loading	Variance
Design Dimension	**3.3873**	**.80409**		
Distance Education offers enough time for learning	3.61	.876	8.088	50.548
We are comfortable with online distance learning technologies	3.21	1.047	.938	5.864
Distance Education Programme organization is good	3.47	.939	.833	5.209
Distance Education programme is cost effective	3.27	1.108	.817	5.109
Resources Dimension	**3.1100**	**.71151**		
The course materials and online resources are adequate for learning	3.22	.918	.574	3.588
Other services necessary for distance learning such as library services and technical support are available	2.94	1.074	.539	3.367
There is enough peer support on the Distance Education programme	3.18	.818	.523	3.267
Evaluation Dimension	**3.0912**	**.69991**		
The tasks and assignments given are easily understood and facilitate learning	2.97	.894	.506	3.160
Feedback on assignments and examinations is timely	3.15	.775	.468	2.924
In Distance Education, course assessments are done well	3.15	.881	.443	2.766
Delivery Dimension	**3.2012**	**.75653**		
Lecturers are accessible for interactions through distance education	3.18	.860	.387	2.419
Lecturers are friendly in distance education	3.16	.976	.359	2.243
Methods of presentation and delivery of content are appropriate for learning	3.27	.906	.316	1.972
Learner Dimension	**3.3313**	**.84574**		
I would recommend the Distance education programme to others	3.42	.958	.290	1.810
Confidence level using a computer and the Internet	3.14	1.141	.212	1.322
Attitudes toward distance education	3.43	.893	.290	1.810

Source: Survey results (2020)

5. Conclusions

According to the data, nearly all management undergraduates use the internet on their mobile devices. Students' interest in and involvement with new technologies may assist to explain the participants' favorable opinion of DL. The survey found that the majority of items important for quality DL education were favorably rated. However, the items that are adversely viewed are also essential for quality DL education. Other services required for remote learning, such as library services and technological support, are provided, and the activities and assignments offered are easily understood and encourage learning. As a result, it is critical that DL administrators stress the elements that were perceived adversely in order to encourage learners and enhance the quality of delivery. This was in contrast to Denis' (2019) research of online degree students' perceptions of support services, which indicated that getting supporting services is strongly reliant on online degree student happiness.

Another significant finding indicated that the majority of respondents agreed they would suggest the DL program to others. This was in contrast to a research study conducted by Lowenthal et al. (2015), which examined student views of online learning course assessments and found that students in the sample rated online courses lower than face-to-face courses. Similar findings were discovered by Wang and Eccles (2013), who believe that assistance from instructors and peers can have a significant impact on students' success, well-being, and overall adjustment in school.

Interactions with instructors and peers are critical in promoting academic motivation, classroom engagement, and a sense of academic motivation among young people (Wentzel, 2012). Further-more, the National Middle School Association [NMSA] contends that by promoting a learning environment that is sensitive to students' specific needs, teachers and peers can enhance students' academic motivation, classroom engagement, and school belonging (NMSA, 2010). Peer support is therefore essential for students who encounter comparable problems since it brings them together as equals to offer and receive aid based on shared experience (Riessman, 1989).

This study was conducted solely to learn about management undergraduates' perspectives about

distance learning. However, it is more complete to include the instructor perspective as well, so that a proper roadmap at the policy level can be established, and a quality DL design can be built to enable both instructors and learners pleasantly cope with any crisis scenario now and in the future.

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