Students' Perceptions of Online Learning and Teaching during COVID-19 pandemic: An Empirical Study in Selected University in Sri Lanka

ABSTRACT

The dramatic transition to online pedagogy in education, as a consequence of COVID19 has shown several inequalities and challenges and advantages in education. The epidemic of COVID-19 profoundly changed the global higher education system in 2020, and the crisis has accelerated innovation in the education sector. Anyhow, whatever the situation, high academic standards are required for a university to produce high-quality teaching outputs and graduates, and it should ensure continuously. With this intention, this study conducted to assess the efficacy of online teaching and learning during the COVID-19 pandemic, focusing on the perceptions of undergraduate students from the Selected university.

A validated online questionnaire is used among the 171 students from the selected university. The primary goal of this paper is to analyse how the education system adapts to online teaching and learning, identify the preferred mode of study by the students in between face to face interaction and online learning, and identify the advantages and challenges faced by the students in online learning. The paper also aims to make recommendations for improving online teaching and learning through the use of online. The study's findings show that, even though the students are satisfied with the existing online teaching and learning in selected university, they prefer face to face learning than online learning. The study strongly recommends that improving the quality of the online education system and striving to solve students' issues in terms of online learning is required to maintain the standard in education. The study's findings shed light on government and non-government educational institutions, academics, and policymakers to enhance online education and maintain the education standard.

1. INTRODUCTION

The Coronavirus pandemic has catalysed dramatic change, presenting numerous challenges to global higher education. Universities throughout the world have either cancelled all campus events, such as conferences, seminars, sports, and other activities or have quickly transitioned numerous courses and programmes from a physical to an online delivery method [1]. Meanwhile, this crisis can be an opportunity to rebuild long-standing educational structures and develop better and up-to-date academic practices, appropriate and adequate for today's learning young generation [2]. Due to the COVID-19 number of educators have been emphasised the educational institutions to move towards online mode. Governments, education institutions, and schools have made online learning and teaching available with less training and planning [3][4]. Instead of lecturing to the whole class in the face to face mode, teachers may make videos of their lectures or find videos made by others and share them among their students through the online mode, which is highly fruitful in improving students' competencies. Despite all, the COVID-19 pandemic has affected students at all levels of education. Around the world, there were 1.7 billion students affected due to the closeout of schools and higher education institutions [5]. Many higher education institutions across the world have either rescheduled or cancelled their educational events to mitigate the spread of the virus. On the other hand, these interventions have created more significant economic, medical, and social and psychological consequences for both undergraduate and postgraduate students[6]. Hence, globally, educational institutions have been decided to create and implement the online learning environment as an innovative and more effective method to resume the students' education activities.

Meantime, Sri Lanka has been critically challenging in several standpoints due to the COVID-19 outbreak. The health issues are eminent, but the worst-hit might be the already ailing economy of the country. Almost all the sectors in Sri Lanka severely affected by Covid 19 pandemic situation. Notably, in Sri Lanka, university roles become more vital than the countries in the world since free education is a privilege to the students. In order to respond to the Covid 19 pandemic situation, fourteen state universities in Sri Lanka decided to introduce the online learning mode instead of face to face learning mode. Even if online education may be helpful during Covid-19, it will not exact substitute face-to-face learning for developing countries like Sri Lanka [7]. Due to the fact, online learning is a novel concept for Sri Lankan university students as their first time experiencing it. In Sri Lanka, both lecturers and students, especially students from rural areas, are severely affected by poor internet connectivity and other required online learning facilities. Further, it is possible to argue that, online learning mode highly contributes to various mental health problems, including fear, anxiety, nervousness, boredom, distress, depression, anger compared to face to face mode [8].

When considering the above reasons, there is a necessity to understand the students' perception of online learning mode. Therefore, researchers conducted this study to understand the students' perception of online education in selected universities operating in Sri Lanka. Hopefully, understanding the students' perceptions regarding online learning contributes to accelerating the quality of online education in the Sri Lankan context and other countries.

2. Objectives of Paper

Specifically, this paper attempts to achieve the following four objectives:

1. To analyses how the selected university education system adapts to online teaching and learning.
2. To identify the preferred mode of study by the students in between face to face interaction and online learning.
3. To identify the advantages and challenges faced by the students in online learning.

2. REVIEW OF LITERATURE

In response to the COVID-19 crisis, educational institutions have swiftly converted all academic activities online. As a result, educational institutions use emergency remote teaching and virtual learning platforms to respond to the COVID-19 issues [9]. A study conducted by Sia and Adamu (2020) revealed that COVID-19 also gives higher education institutions the chance to rebuild their educational systems and implement new programmes and assessments. Ratten (2020) revealed that Universities have had to rethink social distancing and develop new learning, teaching, and engagement approaches [10]. Similarly, another revealed that, in teaching methods, online learning should use as an engaged, interactive, and communicative platform for rapid learning [11]. Further, Raja and Kallarakal (2020) suggested that various stakeholders such as the government and higher education institutions must play a critical role in creating human intellectual assets for the nation's development by offering flexible and cost-effective online learning facilities[12]. It also found that students face issues like adapting to the online environment, a lack of contact and motivation, and a lack of internet connections. [13]. Further, the success of the online form of teaching and learning has a substantial and positive interrelationship with technological assistance, infrastructure availability, faculty and students' perceptions [14].

Joosten and Rachel Cusatis (2020) stated that students' satisfaction with online learning influenced by online learning efficacy, online work skills, and socialising [15]. Meantime, another study stated that universities must take more severe steps to make their courses more fascinating and creative for students who do want to complete their education online [16].

Online learning adds significantly to increasing academic workloads due to a lack of training in the use of the LMS and a lack of professional development associated with the pedagogy and practice of online teaching and learning at the tertiary level [17]. Therefore, it is possible to increase online learning success by understanding students' perception and effectively utilising the technology availability.

3. THE SCENARIO OF SELECTED UNIVERSITY

Universities in Sri Lanka instructed to transfer their teaching online. Educators were required to find solutions to continue the teaching using Moodle and other platforms because the government's instructions and guidelines required moving online. Within limited days of receiving the instructions, the selected university began to explore all possible videoconferencing applications and channels such as google classroom, WhatsApp, Skype, emails, Microsoft teams, and Zoom were used, in addition to the university's Moodle site.

COVID19 emerged unexpectedly, with little to no planning in place. Therefore, various challenges faced by the institution include, since there is no internet connection in many villages in the countryside areas where some students live, digital gaps among students and staff were unexpectedly exposed. Furthermore, the particular university also faced many challenges when it moved to the online teaching and delivery mode, including; unavailability of computers, smartphones, and tablets for students to connect to the online mode, inadequate prior training for students and lecturers online teaching and learning. In addition, many students, especially first-year students, struggled with how to work efficiently with new technology, slower internet speed and inconsistent power supply due to occasions of power-cuts during the attending the lectures, affecting both students and lecturers.

Even though the selected university faced many challenges in shifting to the online teaching earning, it is accepted by all the staff and students, as it is a general problem to the whole state university in developing countries. Nevertheless, staff and students at the university were ready to move to the online mode, which resulted in various benefits. First, increase the use of available resources. Moodle and other platforms underutilising before COVID19 but highly and extensively used during this timeframe, which was at the university but had given less importance before COVID19 by both lecturers and students, proved to be precious resources during this period. The university organised numerous training and workshop sessions for lecturers on a different form of digital learning and teaching to familiarise them with online teaching. Later on, the university teaching highly depended on the Zoom platform, as it

received reasonably positive experience from many educators and students. At present, the university has completed more than three semesters, and there is no question that the online mode has proved to be a backbone for completing the semester in tough times. Further, understanding the students' perception of online teaching and learning would help ensure the education stranded.

3. METHODOLOGY

This study depends on primary data and the data collected from the 171 students through an online questionnaire. The questionnaire contained demographic factors (e.g., gender, department and academic year) and online learning and teaching, and the data collection took place between 16th March to 27th May 2021. SPSS version 27.0 used to export and analyse the data. Tables and charts used to summarise the collected data, which analysed through univariate analyses. The time horizon of the study was cross-sectional as data collection was done at one point in time to answer the research questions.

4. RESULTS AND DISCUSSION

The data presentation and analysis are presenting with frequency distribution and descriptive statistics.

4.1 Sample Profile

Descriptive statistical analysis used to analyse the demographic factors of the study. The results are shown in Table1.

Table1 reflects the demographic characteristics of respondents. A total of 173 responses were received, and two of them removed from the study due to incomplete responses. Among the total 171 respondents, most respondents were female, and the majority of the participants belong to the first year.

Table 1: Summary of demographic information

Demographic Profile		Frequencies	Percentages (%)
Gender	Female	139	81.3
	Male	32	18.7
Year	1st Year	62	36.2
	2nd Year	21	12.3
	3rd Year	50	29.2
	4th Year	37	21.6

4.2 Satisfaction of online learning

Figure 1 shows the response regarding whether the respondents satisfied with the existing online teaching delivery platforms?
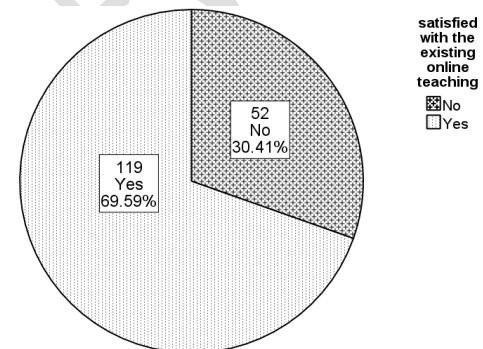

Figure1: Satisfaction of online learning

The given pie chart shows that around 69.59 percentage of the students were satisfied with the existing online teaching mode meantime it shows that around 30.41% of the students are not satisfied with the online teaching. The reason for the dissatisfaction of the students may be the unanticipated and sudden conversion of online teaching mode from face to face teaching mode. [7]

4.3 Preferred teaching and learning method

Figure 2 reflects the students' perceptions of the preferred teaching and learning method. The study's findings show that around 54.97% of the students prefer face to face teaching, and the remaining 45.09% of the students prefer online learning. Hence, the findings clearly show that more than half of the students in selected

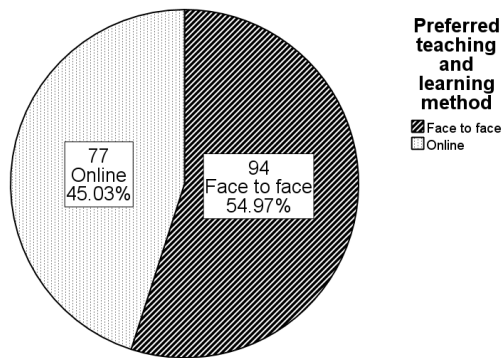university still prefer face-to-face learning rather than online learning.

Figure2: Preferred teaching and learning method

The findings of the study suggest that most of the students prefer face-to-face learning. The reason for that, students may compare their present experiences with prior face-to-face learning experiences. However, universities should consider improving the students' satisfaction with online teaching by analysing the root causes.

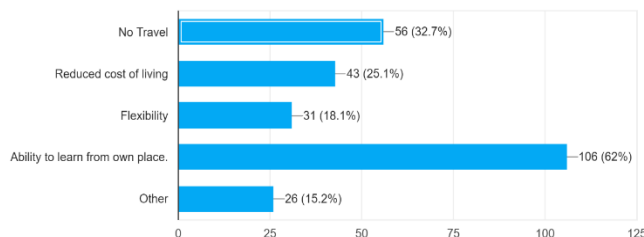### 4.4 Perceived Advantages of online teaching and learning

Figure3: Advantages of online teaching and learning

As per the student perception, online learning provides the opportunity to continue their education by staying in their homes, which contributes to reducing the cost of living and neglect the problem of homesick. Furthermore, it is noted that most of the selected university students are from different parts of the country.

4.5 Challenges of online learning

Despite the advantages, students face several problems due to online learning and teaching, such as poor internet connection, family distractions and lack of devices.
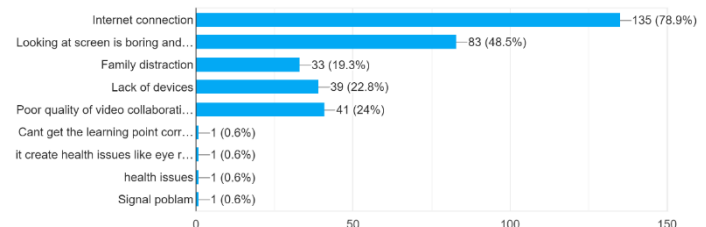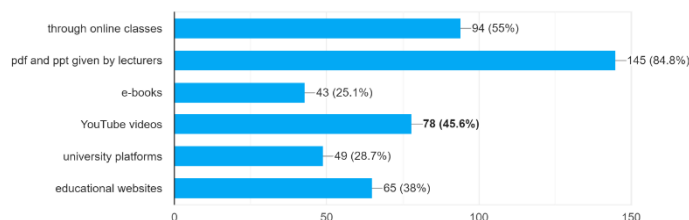

Figure4: Challenges of online teaching and learning

Poor internet connection and feel bore and stress due to continuously looking at device screen treated as significant problems in online learning and teaching for the selected university students. On the other hand, online learning and teaching may create a family distraction for the students, especially for large families [18]. The World Bank study emphasises that most students face significant challenges in obtaining online education due to poor internet connection [19]. The same scenario exists in selected universities, too; poor internet connection is a general problem faced by most students, especially students from rural areas.

4.6 Accessing study material

As per Figure 5, most students depend on study materials uploaded in Portable Document Format (PDF) and PowerPoint Slide (PPTs) by their respective lecturers. In addition to that, students use online classes and YouTube videos to get notes for their study. Further, some students are utilising e-books and educational websites as a reference to improve their knowledge.

Figure 5: Way of getting study material

through online classes — 94 (55%)
pdf and ppt given by lecturers — 145 (84.8%)
e-books — 43 (25.1%)
YouTube videos — **78 (45.6%)**
university platforms — 49 (28.7%)
educational websites — 65 (38%)

Notably, most of the students in selected university rely on PDF and PPT given by the lecturers and online classes rather than e-books and e-books and educational sites. Hence, lecturers have the responsibility to ensure the standard of study materials. Further, lecturers are requested to adapt innovative and interesting teaching methods to improve the quality of online teaching. Providing e-learning training to the lecturers will be contributed to increasing the quality of online learning and teaching.

4.7 Perception of online teaching based on students' experiences.

Table 2: Statements

Statement	Mean	SD
I find it easy to engage in the online lesson	3.09	1.095
I feel able to ask the questions and doubts I had	3.58	1.144
The teachers are well prepared for the teaching sessions	3.23	1.190
I feel online assessment methods are flexible and easy to access	3.16	1.042

Students provided a high score (mean value 3.58) to the statement, "they able to ask the questions and doubts during the lecture hours in online learning. Next to that, students' perception regarding the teachers preparation for the teaching sessions also shows relatively high (mean value 3.23). Thus, the empirical of the study reveal that students in selected university are satisfied with the online lectures conducted by the respective lecturers during Covid 19 pandemic situation.

6. CONCLUSIONS AND RECOMMENDATION

The emergence of the Covid-19 pandemic has placed the world of higher education under tremendous pressure. At the same time, this condition has exposed the number of opportunity to the existing higher education system. The results of this survey, in light of the perception of students' online learning and teaching in students' perspectives. The findings reflect how the selected university education system has reacted to Covid-19 disruptions.

As per the study's findings, the selected university managed the pandemic situation in an exemplary manner. However, based on the findings, to further minimise the challenges faced in online learning, develop and implement innovative and interesting teaching methods to create more interactive online sessions to reduce the screen boring. Similarly, select the more appropriate lecture time as most students face poor internet connection to increase their accessibility to the lectures (e.g., do not conduct lectures at nights).

Further, the findings show that students in selected universities prefer face-to-face learning mode than online. Shifting some of the programmed courses online is the most efficient and suitable short-term solution. However, this method should rethink better methods of assessing and grading to ensure education standards in the long run. Online learning can be effective [20]. The concept of mixed learning or flipped classrooms has been promoted and researched as highly effective teaching models.[10]

Indeed, It cannot ignore that not all students have equal access to technology, both in terms of hardware and digital competency. The digital gap is still a significant problem worldwide, particularly in developing countries like Sri Lanka. However study recommends, Universities need to equip and upgrade their technology infrastructure for online learning as findings of the study show that students are facing issues in accessing the online technological advances.

Similarly, the findings show that the ability to learn from own pace and no travel requirement are significant advantages of this transition. It is recommended that to enhance online education

in general, provide electronic technology to access, free broadband packages, and increase internet speed are few ideal ways to ensure online teaching and learning effectiveness.

Ethical Approval & Consent

As per international standard or university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

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