

# An Investigation Of Sri Lankan University Undergraduates' Perception About Online Learning During COVID-19: With Superior References To South Eastern University

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**Abstract-** During this COVID 19 pandemic circumstances in all areas, including education, are likewise directing its administrations via online. A large portion of the undergraduate students in Sri Lankan state universities know about face to face learning methods. This change in perspective has caused preferences and impediments in their educational activities. An examination of Sri Lankan state universities Undergraduates' perception of Online Education is essential to quantify their current exhibitions, discover entanglements, and draft online learning arrangements and rules for a fruitful learning platform. This study included an exploratory study plan and both Quantitative and Qualitative methods, where these procedures were used to separate the undergraduate's view of online-based learning in higher educational associations during the COVID-19 pandemic. Around 450 questionnaires were sent to the university students utilizing WhatsApp and got 310 reactions that can be utilized for this research. Singles favored the online technique (92.4%). It is additionally affirmed that Arts stream students exceptionally uphold online mode (73.1%). Further, the majority of the understudies concurred with the Instructors conveyed the swift responses on their tasks (59.8%) and utilized the significant instructional medium (67.8%). Likewise, students stated that the group discussion was useful in online mode. In the interim, they call attention to that they are consistently occupied, and the remaining task at hand is a lot after the presentation of this online framework. Moreover, it is established that online workload does not depend on gender; meanwhile, there is a relationship between stream of study and prompt feedback for their assignment & finding relevant information but not with the year of study.

**Keywords-** Distance learning, Online Education, Perception, Undergraduates, COVID-19

## I. INTRODUCTION

The entire world shut across nation fringes between locales inside the nation and halted human development and coordinated social effort when the World Health Organization (WHO) declared

pandemic as the spread of a specific infection called coronavirus, which was found in Wuhan china in December 2019. (Centers for Disease Control and Prevention, 2020; Kelly, 2011). Moreover, hence, Information and Communication Technology (ICT) went to the phase to draw out an exit plan to all these social removing schedules to bring back human everyday exercises through online stages, for example, E-business, clinical, Engineering, training and wherever in the spots where people live.

Distance learning is not a new idea to this world and online education was presented and led through a web network in the Western Behavioral Sciences Institute's School of Management and Strategic Studies in the 1980s (World Wide Learn, 2014). The quick improvement of ICT carries this chance to all the nations inside a brief timeframe; in that regard, Sri Lanka has begun a new University called the Open University of Sri Lanka to lead separation learning programs, and afterward, bit by bit acquainted with numerous Educational organizations in Sri Lanka. Online education turned out to be so famous due to the COVID-19 pandemic and all the not only state colleges and universities but also private campuses have begun online-based educating with the assistance of specific devices, for example, ZOOM, Google study hall, Virtual Learning Environment (VLE), WebEx and the sky is the limit from there.

South Eastern University of Sri Lanka (SEUSL) is one of the state university in Sri Lanka situated in Ampara district, which is giving both internal and external degree programs where the method of learning is not just up close and personal yet in addition in entirely online mode; that is just through VLE in specific resources for sharing lecture materials, and SEUSL has begun to move to completely online-based instructing and learning process briefly by means of VLE as well as through other training devices dependent on comfort with educators and understudies when the pandemic has started. Despite the fact that there are sure and adverse outcomes in this method of learning, for example, anyplace, whenever, and simple obviously material open and no quick reaction from teachers, less staff and understudies obstruction and challenging to focus on online learning while remaining at home separately.

We as researchers need to discover better answers for beat existing issues by leading an investigation called Undergraduates' view of web-based learning with references to SEUSL; along these lines, in this examination, we are going to direct a factual overview and speculative test to break down the accompanying,

- ✓ Students' perception of online education
- ✓ Students' perception of online education towards learning material
- ✓ Students' perception of learner supportive network by online education
- ✓ Relationship between the demographic variables and perception of online education

## II. LITERATURE REVIEW

Sri Lankan Technological Campus (SLTC) and Sri Lankan Institute of Information Technology (SLIIT) conducted all their academic activities via a virtual platform such as practical through stimulated platforms. In addition to this, the University Grants Commission of Sri Lanka provides free internet access to all E-Learning sources to of State Universities (Sri Lanka Online Education, 2020). SLIIT has conducted all the Lectures and final exams through online and lockdown browsers and some other tools were used to maintain the examination integrity and students have offered hotline assistance to help students' technical issues (Economynext, 2020). Sri Lankan government planned to develop a

neighborhood study center and provide microfinance support to buy laptops for the students (Talking Economics, 2020). Online education can be offered through websites like Edx.org at any time. Furthermore, the government can introduce a dashboard through the ministry website for handling reporting performance measures (Daily FT, 2020). Students' participation & engagement in online education and using education tools such as Virtual Learning Environment (VLE) and ZOOM were high (Sunday Observer, 2020).

Anatomy students feel good to have tutorial classes via ZOOM but expected a short break between classes to avoid sitting in front of the digital display and 3D relations of the structure, which are necessary for the Anatomy education (Srinivasan, 2020). The unified theory of acceptance and Use of Technology 2 (UTAUT2) can help understand students' acceptance in the e-learning system. Furthermore, this study proved that students massively use the E-learning system who have the skill to handle the e-learning system (Sabraz & Rusith, 2019). Students expect to upload the recorded video to the institute's website after the session for a better subject understanding and avoid long-duration live sessions; most of the students are happy with online education because of the flexibility. Apart from these matters, the technical team must find a way to help the students and staff who face technical issues during live sessions (Muthuprasad, Aiswarya, Aditya, & Girish, 2020). Open Distance Learning (ODL) supports students' recruitment, scheduling of study time, place of study, admission requirements, credit transfer, and use of web-based learning with the help of online tutors (Sivalogathan, 2019). The researcher conducted a study to promote Open educational research (OER) blended learning environment by analyzing student examination performance. The majority of the student community supported it as OER supported social interactions through innovative interactions such as peer-facilitated discussion forums, video-based learning materials to deliver course content, group-based assessment activities which lead the learners to apply analytical skills, hands-on practical experience for the learners (especially for IT undergraduates), learning activities to improve the learner's self-learning abilities. Furthermore, OER allowed material revised and remixed (Sandanayake, 2019). The majority of the students were severely anxious about their studies and concerned about online education and mainly due to COVID-19. Furthermore, studies reveal that students need support from educational institutes regarding training on online tools and internet expenses. Also, the government must arrange programs to reduce students' stress levels (Dangi & George, 2020).

Most faculty have negative online learning views and feel that face-to-face options are more appropriate in the curriculum. The study suggested the sports media/communication and introduction to sports management mostly suited for online delivery and sports event/operations management and facility management least applicable for lecturers' online delivery (Willett, Brown, & Danzy-Bussell, 2019).

The study among medical undergraduates revealed that most of the students felt online classes were safe, comfortable and enjoyable and these classes as good utilization of time and reading on those topics decreased their stress about COVID-19. Technologically unfriendly teachers, lack of interaction, easy distraction and technological issues were reported as some issues. Some of the students worried about the internal assessment submission, deficiency in practical and clinical teaching (Anjali, Surender, Pradeep, & Rajesh, 2020).

Most of the faculty, administrator, and students perceived online education to be lower as compared to face-to-face delivery in six different areas that includes issues of quality, rigor, engagement,

retention, discussion component, and critical thinking, as well as acceptance of online education courses, credits compared to the traditional face-to-face academic model. Both acceptance and opposition to online courses were reported (Deborah & Carl, 2014). Students perceived online courses as contributing remarkably towards their enhancements in reading skills and strategies, moderately improving their autonomy and contributing highly towards their motivation (Thang & Bidmeshki, 2010). Although online activities like online education, webinars, online presentations, online tests, and online patient evaluations are highly welcomed, face-to-face theoretical events are immensely appreciated as an essential complement for orthopedic residency education (Figuroa et al., 2020). Online learning was highly accepted as a better choice for learning during this Pandemic period but not agreed upon as an alternative to the traditional learning approach, face-to-face mode of learning. It concludes by highlighting the support from the government, parents, institutions and teachers required to make online learning more accessible and effective (Mohalik & Sahoo, 2020).

The study on the preparedness and practicality of online education in developing countries from Bangladesh's perspective has concluded that the majority of the students marked lack of technological infrastructure, high cost of internet, low speed of internet, the financial crisis of the family, and mental pressure for the students are the prime hindrances for online education in Bangladesh (Ramij & Sultana, 2020). In a research, e-teaching is not a preferred method of teaching for medical and dental students as they gain more knowledge through face-to-face teaching. Lecturers can include all possible improvements to their e teaching methods and facilities to support the students during lockdown (Abbasi, Ayoob, Malik, & Memon, 2020).

The barriers to online learning during lockdown were listed after research carried out in the Philippines, which falls under five categories: technological, individual, domestic, institutional and community barriers. Due to the unfamiliarity, many students are not ready both mentally and physically to study via an online platform (Baticulon et al., 2020). It was concluded in research that Pharmacy education students favor both online and face-to-face learning equally. Also, many of them prefer a blended learning approach based on maximizing students learning outcomes (Lean et al., 2020).

The research conducted among the medical students in Indonesia revealed both advantages and disadvantages of distance learning. Further, the researcher suggests that this research output can be used as an input to improve the medical education delivery system (Daroedono et al., 2020). It was identified in a research that many students prefer online classes due to its flexibility of time. On the other side, lack of co-curricular activities is the inhibitor. Hence it is recommended to continue online mode classes with possible interventions (Shatakshi Lall & Nardev Singh, 2020). A study conducted among undergraduates in a Malaysian university says that many are ready to use mathematics online portals while some are not. The primary reason for the different opinions was found out is their technical skills. Students should also be provided with a good internet connection to avoid any further interruptions (Chiou, Ayub, & Luan, 2010). It is highly recommended to use online learning tools to promote writing skills (Soh, Lim, Yee, Ying, & Yin, 2018).

Research carried out in China revealed that online learning programs were beneficial due to the lockdown the world happened to have during COVID-19 Pandemic. However, many students have suffered because of the poor internet connection who were living in the dormitories of various universities (Demuyakor, 2020). It was identified in a research that students lose peer communication and collaboration during online learning practices. As it is part of the course element for students to

develop their knowledge, instructors are advised to include activities to encourage those elements (Cole, Lennon, & Weber, 2019).

The research carried out in the Philippines among faculty members' reveals that using technology varies between high and low. Further, the study encourages the faculty to adopt the new technologies unavoidable in such circumstances (Moralista & Oducado, 2020).

A study conducted in Peking University concludes with the following principles for online education; high relevance between online instructional design and student learning, effective delivery of online instructional information, adequate support provided by faculty and teaching assistants to students, high-quality participation to improve the breadth and depth of student's learning, and contingency plan to deal with unexpected incidents of online education platforms (Bao, 2020). It was found in a study that a combination of various types of distance learning methods would yield a greater output rather than just following a single way of the process (Chen, Kaczmarek, & Ohyama, 2020). It is mandatory to equip teachers and students with standardized home base teaching/learning equipment, which becomes the first barrier for distance mode learning. It also suggests to support academic research related to online learning and to build a national online education platform (Zhang, Wang, Yang, & Wang, 2020).

A research study about student supports suggests that teachers provide all available and possible supports and give them an easy way of accessing and taking advantage of the support (Lee, Srinivasan, Trail, Lewis, & Lopez, 2011). It was found in a research that distance learning has caused stress between many students, especially females. Online counseling and stress management programs should be conducted to manage this kind of a new system at an unexpected time (AlAteeq, Aljhani, & AlEesa, 2020).

A research conducted in Sri Lanka among law students revealed that they prefer blended learning (both online and face to face) rather than a single-mode alone. It was also identified that external staff faces many challenges in teaching online over internal staff (Selvaras, 2020). It was found in a research study among medical students that an online learning system has served as a critical stress reliever during the period of COVID-19 Pandemic (Dwivedi, Kaur, Shukla, Gandhi, & Tripathi, 2020). A case study done in Indonesia reveals that online learning's success is determined by the availability of technology with support and collaboration from all parties (Rasmitadila et al., 2020).

### III. METHODOLOGY

An exploratory survey design was utilized for this examination study. Further, it includes both qualitative and quantitative methods, where these techniques were utilized to break down the undergraduate's perception of online-based learning in higher educational organizations during the COVID-19 pandemic.

In the wake of evaluating past researches and existing pandemic circumstances around Sri Lanka, analysts arranged organized polls utilizing Google form and shared through Whatsapp media from the Undergraduates of the South Eastern University of Sri Lanka. Data assortment tool was planned into two unique segments, specifically demographic variables, for example, sexual orientation, year of study, and so forth, and another was Likert scale from 5 to 1 to survey the Undergraduates' perception of online-based learning where the scale from strongly agreed from strongly disagreed respectively.

A random sampling technique was utilized to gather information. There were 400 structured questionnaires shared to the participants during the period between a week ago of June and the first seven days of July through WhatsApp and got 310 reactions imported to SPSS and led measurable investigations were finished. In descriptive statistics, frequency and percentage were calculated. In inferential statistics, Chi-square was used to find out the association.

The questionnaire we created for the students to finish this examination work has the accompanying classes to develop theories to check the positive and significant connections between demographic variables and online education perception. Furthermore, the following hypothesizes were formed,

$H_0$ : There is no relationship between the demographic variables and perception of online education

$H_1$ : There is a relationship between the demographic variables and perception of online education

#### IV. RESULTS AND DISCUSSION

In Table 1, the students' demographic profile is shown. The larger part of respondents (70.1%) were females. In any case, it repudiates the 2012 study that found that more male undergraduates favored online education (OE) (Alam, Waqar, Zaman, Shehzadi, & Mehmood, 2012). Mainly singles incline toward the online learning system (OLS) (92.4%). As indicated by Frimpong's study, online education generally empowers the marital undergraduates more than singles (Kwapong, 2007). The findings reveal that most of the students in the Arts stream students favored the OE compared to other streams (73.1%). The respondents were also asked regarding their level of education; the last year (4.3%) and first-year (6.6%) students indicated the least choice in this learning process, while 59.5% of students in the second year favored this.

Table 1. Students' Demographic Profile

| <b>Variables</b> | <b>Frequency</b> | <b>Percentage</b> |
|------------------|------------------|-------------------|
| Gender           |                  |                   |
| Male             | 90               | 29.9              |
| Female           | 211              | 70.1              |
| Marital Status   |                  |                   |
| Single           | 278              | 92.4              |
| Married          | 21               | 7.0               |
| Widow            | 2                | 0.7               |
| Stream of Study  |                  |                   |
| Science          | 39               | 13                |
| Arts             | 220              | 73.1              |
| Management       | 23               | 7.6               |
| Technology       | 19               | 6.3               |
| Year of Study    |                  |                   |
| 1st              | 20               | 6.6               |
| 2nd              | 179              | 59.5              |
| 3rd              | 89               | 29.6              |
| 4th              | 13               | 4.3               |

Furthermore, the students were asked to evaluate online education's perception of learning during this pandemic period. Below, Table 2 reveals that 59.8% of them agreed with the lecturers/ instructors delivering the swift response on their assignments. They also agreed that the lecturer/instructor used the relevant instructional medium (67.8%). 56.5% of them agreed that the content of the sessions met my expectations. However, a significant number of students disagree with that (15.7%).

Table 2: Student perceptions of online education

| Values  | Strongly Agree |      | Agree |      | Neutral |      | Disagree |      | Strongly Disagree |     |
|---|----------------|------|-------|------|---------|------|----------|------|-------------------|-----|
|   | Freq           | %    | Freq  | %    | Freq    | %    | Freq     | %    | Freq              | %   |
| The Lecturer/ Instructor provided prompt feedback on my assignments | 50             | 16.6 | 130   | 43.2 | 86      | 28.6 | 21       | 7.0  | 14                | 4.7 |
| The Lecturer/ Instructor used the relevant instructional medium     | 55             | 18.3 | 149   | 49.5 | 65      | 21.6 | 23       | 7.6  | 9                 | 3.0 |
| The content of the sessions met my expectations                     | 38             | 12.6 | 132   | 43.9 | 84      | 27.9 | 36       | 12.0 | 11                | 3.7 |

Table 3 shows the student perceptions of online education towards learning material. 54.5% of them have mentioned that group discussion was helpful for them, consistent with the earlier study, which found that students prefer group discussion. However, they point out that they are always busy and the workload is too much after introducing this online education for the period of the COVID-19.

Table 3: Student perceptions of online education towards learning material

| Values  | Strongly Agree |      | Agree |      | Neutral |      | Disagree |      | Strongly Disagree |     |
|---|----------------|------|-------|------|---------|------|----------|------|-------------------|-----|
|   | Freq           | %    | Freq  | %    | Freq    | %    | Freq     | %    | Freq              | %   |
| Group discussions were helpful                | 50             | 16.6 | 114   | 37.9 | 70      | 23.3 | 43       | 14.3 | 24                | 8.0 |
| The workload in Online Education was too much | 48             | 15.9 | 88    | 29.2 | 97      | 32.2 | 51       | 16.9 | 17                | 5.6 |

Undergraduates were asked about their perception of a learner supportive network in online education in pandemic time. Their responses are mentioned in Table 4. Most of the students agree that there are adequate learning facilities to support their education (51.8%) (Bao, 2020). However, 19.3% of them disagree with this option. Around half of the students report that they receive the prompt response to their questions, and 67.1% declare that the sessions are well systematized. Furthermore, most of the students mention that it is easy to find educational resources/information online (61.4%) and that it is

a fun and innovative concept (54.4%). Hence, the below table reveals that students are generally satisfied with the learner's supportive network.

Table 4: Student perceptions of learner supportive network by online education

| Values  | Strongly Agree |      | Agree |      | Neutral |      | Disagree |      | Strongly Disagree |     |
|---|----------------|------|-------|------|---------|------|----------|------|-------------------|-----|
|   | Freq           | %    | Freq  | %    | Freq    | %    | Freq     | %    | Freq              | %   |
| There are enough study facilities to help with my program | 25             | 8.3  | 131   | 43.5 | 87      | 28.9 | 43       | 14.3 | 15                | 5.0 |
| I received quick reply to my questions                    | 36             | 12.0 | 114   | 37.9 | 97      | 32.2 | 39       | 13.0 | 15                | 5.0 |
| Sessions are systematized well                            | 51             | 16.9 | 151   | 50.2 | 66      | 21.9 | 25       | 8.3  | 8                 | 2.7 |
| Easy to find resources/ Information in Online Platform    | 41             | 13.6 | 144   | 47.8 | 72      | 23.9 | 25       | 8.3  | 19                | 6.3 |
| Online Education Concept fun and innovative concept       | 51             | 16.9 | 113   | 37.5 | 83      | 27.6 | 30       | 10.0 | 24                | 8.0 |

Below, Table 5 shows the relationship with demographic variables. There are gender-wise and marital status relationships using a suitable instructional medium, their expectations, the workload is too much; the usefulness of group discussion and prompt responses for their questions. However, there is no relationship between gender and online education workload. However, there is a significant relationship between the stream of study and prompt feedback on their assignments and easy to find resources/ information. However, there is no association with the year of study.

Table 5. Relationship with demographic variables

| Variables  | Gender                | Marital Status        | Stream of Study       | Year of Study         |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
|  | $\chi^2$<br>(P-value) | $\chi^2$<br>(P-value) | $\chi^2$<br>(P-value) | $\chi^2$<br>(P-value) |
| <b>Student perceptions of online education</b>                           |                       |                       |                       |                       |
| The Lecturer/ Instructor provided prompt feedback on my assignments      | 9.250<br>(0.055)      | 10.628<br>(0.224)     | 27.174<br>(0.007*)    | 9.333<br>(0.674)      |
| The Lecturer/ Instructor used the relevant instructional medium          | 9.530<br>(0.049*)     | 18.298<br>(0.019*)    | 18.930<br>(0.090)     | 14.971<br>(0.243)     |
| The content of the sessions met my expectations                          | 13.962<br>(0.007*)    | 17.592<br>(0.025*)    | 14.390<br>(0.277)     | 4.075<br>(0.982)      |
| <b>Student perceptions of online education towards learning material</b> |                       |                       |                       |                       |



|   |                    |                    |                    |                   |
|---|--------------------|--------------------|--------------------|-------------------|
| Group discussions were helpful  | 10.151<br>(0.038*) | 14.494<br>(0.070*) | 7.684<br>(0.809)   | 7.613<br>(0.815)  |
| The workload in Online Education was too much                         | 4.624<br>(0.328)   | 17.687<br>(0.024*) | 17.364<br>(0.136)  | 18.568<br>(0.100) |
| Student perceptions of learner supportive network by online education |                    |                    |                    |                   |
| There are enough study facilities to help with my program             | 6.304<br>(0.178)   | 5.752<br>(0.675)   | 7.600<br>(0.816)   | 11.105<br>(0.520) |
| I received quick reply to my questions                                | 10.018<br>(0.040*) | 16.638<br>(0.034*) | 16.953<br>(0.151)  | 15.089<br>(0.237) |
| Sessions are systematized well  | 8.217<br>(0.084)   | 5.600<br>(0.692)   | 19.581<br>(0.075)  | 14.111<br>(0.294) |
| Easy to find resources/ Information in Online Platform                | 8.562<br>(0.073)   | 4.500<br>(0.809)   | 25.606<br>(0.012*) | 17.886<br>(0.119) |
| Online Education Concept fun and innovative concept                   | 1.933<br>(0.748)   | 14.383<br>(0.072)  | 15.527<br>(0.214)  | 10.438<br>(0.578) |

Note: \* fail to accept null hypothesis of there is no relationship at 5% level

## V. CONCLUSION

It is confirmed that undergraduates of the Arts stream prefer online education, which shows that most subjects do not have practical. Furthermore, students are getting enough support from staff; meanwhile, online education allows easy access to subject materials.

Based on the above analysis, we can conclude that online workload does not depend on gender; meanwhile, there is a relationship between stream of study and prompt feedback for their assignment & finding relevant information but not with the year of study.

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