# Perception of academic staff of sri lankan universities on challenges in online teaching during covid-19 pandemic.

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*Abstract- The pandemic called (COVID-19) which disrupted all industries of the world has infected billions of people as well as make millions of death all over the world. Additionally, it has had an impact on both physical and mental health, posing a hitherto unheard-of challenge to public health, the food system, and global activities as a whole. As a result of these, all the activities of the world had been digital. Mainly, the education sector moved to online platforms It has been carried out in numerous nations using a variety of online learning models that have been marketed and put into practice. So, the quick shift from traditional teaching to digital teaching and learning presented the biggest challenge for both students and teachers, and it had emerged as a subject worth debating. As a result, this case study was done to determine the difficulties the academic staff at Sri Lanka's state universities encountered. In order to implement this study, a stratified random sample procedure was used. Descriptive statistics were used as well, and SPSS software was used to do the necessary statistical analysis. The results were that Though there is an onerous reasons such as conducting the practical session, low-level internet connection, and the lack of student participants online teaching can be conducted in universities because of having IT knowledge and the easiness of online systems. According to this study, the government and other relevant parties should focus on supplying stable Internet connections and enticing students to pursue online education. Moodle/VLE is a useful technology for higher education and can be utilized in both public and private institutions of higher learning. Future research will concentrate on examining how academic staff members perceive online instruction and how the shift to work from home (WFH) has affected their personal and family lives.*

*Keywords: Academic Staff, Covid-19, Lecturers, Online Teaching*

## I. INTRODUCTION

The fatal virus called Covid-19 which was originating in china has spread all around the world killing millions of people. The World Health Organization (WHO) designated the illness Covid-19 as a global pandemic on January 30, 2020, and declared a public health emergency of international significance (Wu, 2021). As it is, WHO declared that to keep social distance among people to reduce fatal diseases. According to it, numerous nations have put restrictive measures in place to lessen crowd gathering and formation. Several nations have halted all face-to-face activities, including those conducted in businesses, organizations, schools, and colleges, as a result of the respiratory sickness brought on by Covid-19. Everything in the globe moved to the digital realm as a result. Mainly educational systems at all levels had to move online. Over 1.6 billion pupils in 195 nations around the world were unable to attend classes.("Education during COVID-19; moving towards e-learning," 2020). Due to this, there is a noticeable increase in distance learning, where instruction is conducted online and through digital media. (Tam, 2020). And schools and higher education institutions have been looking for alternative access to continuing education.

In Sri Lanka, there are 17 state universities, and even in a university near to 5000 students are pursuing their higher education. Yet, the COVID-19 pandemic that has affected Sri Lanka and other countries around the world over the past two years has had a direct impact on social changes that have already occurred. On March 12, 2020, the Sri Lankan government closed all educational institutions, including schools and universities, because to the COVID-19 epidemic. Yet, because to COVID-19's enduring effects, there is an increasing emphasis on electronic learning (E-Learning) as a way to minimize and lessen the effects of a university education on students.

This study examined the general teaching practices of academic staff at state universities in Sri Lanka following the abrupt conversion from face-to-face to online distance learning brought on by COVID-19. The study assessed the feedback and satisfaction of lecturers. This study provides a

clear insight into the challenges of online teaching due to the pandemic. Accordingly, the purpose of this study is to focus on the challenges faced by the academic staff in online teaching during covid-19. Also, the advice given is supported by the study's findings. It will assist in resolving the issue and serve as guidance for academic administrators, professors, and higher education portal designers as they integrate online distance learning into their institutions' future higher education plans. The research methodology, findings, discussion, conclusion, and recommendations are also included after this.

## II.  LITERATURE REVIEW

A research paper revealed that though online teaching is not that much better than traditional teaching, teachers are satisfied with online teaching. However, technical and network problems and insufficient infrastructure facilities are the biggest challenges as well as is failure to fill emotional attachment between teachers and students. Further, all the students and teachers are trained and improved to use the online platform. (Priyadarshani & Jesuiya, 2021)

Another research has also revealed that though online learning is the best teaching method, lecturers must develop the roles required for online teaching such as pedagogical, managerial, social, and technological (Mcgee, n.d.).

According to the study which was done among the students, parents and teachers revealed that there are several infrastructure challenges in online teaching such as internet availability and quality, lack of suitable material, and institution not having a reliable Learning Management System (LMS)(Abdul Cader Mohamed Nafrees & Rahfath Aara, 2021). In addition, when further research was reviewed many important messages from the research could be identified, such as, the whole world including economically developed countries also has been needed reliable internet access to the transition of the digital world. Further many of the required pedagogies have not been given to the teachers and the student by the relevant institution. (Vijayan, 2021) Moreover, Yogyakarta university lecturers face an obstacle in the teaching process by using online platforms because of their unfamiliarity with E-learning. In addition, time management, lack of it knowledge, devices problem, and student motivation are can be considered further challenges for those lecturers. When considering English subject teachers, English teachers have a positive perception of online teaching and revealed that online teaching increases self-learning. (Wahyudi, Artini, & Padmadewi, 2021) According to the opinion of history teachers, it is very easy to teach history online by providing information to the students on online site addresses which are related to local history. By teaching online, students can see the world comprehensively. (Gunawan & Rachmah, 2021).In addition to that, teachers are satisfied with E-learning with the best LMS platform Edmodo and it is easy to use in technology (Abdul Cader Mohamed Nafrees &

Rizan, 2021), (García-Martín & Cantón-Mayo, 2019). Further, another research indicates that team organization can create the best environment in the teaching and learning process in emergency

Remote teaching (ERT) for the student as well as lecturers in high school.(Rodriguez-Segura et al., 2020). Yet, research indicates that the finest and most facilitated platform for teaching in higher education is Moodle, the Modular Object-Oriented Dynamic Learning Environment. (Chourishi, 2015). In addition to that, YouTube can be used as an E-Learning tool (A C Mohamed Nafrees, 2021). And also, Information systems can be added value to the online teaching and learning process (A. C. M. Nafrees & Kariapper, 2020; A C M Nafrees & Kariapper, 2018).

According to (Vithanapathirana, 2021) Information and communication technologies (ICT) mediate online learning experiences and interactions without requiring learners and instructors to be F2F in the same location, in contrast to traditional face-to-face (F2F) instruction, which involves interactions between instructors and learners who are in the same physical location. On the other hand, traditional online or distance teacher training programs do not offer enough F2F interaction, either with an instructor or with colleagues who participate in the teacher training courses. In contrast, blended learning courses are developed and delivered with a selective combination of F2F human facilitation and online learning using digital technologies. Traditional instruction is described as tutor-centered in another paper and includes large-group lectures, tutorials, controlled laboratory experiences, and periodic achievement tests. Pupils passively absorb information rather than actively acquiring knowledge, according to the authors of the same article.(Nandi et al., 2000).

In traditional instruction, the instructor acts as a wise advisor, directing the flow of information to the students. It is often based on a few learning resources, assessment assignments, and criteria chosen by teachers. The online teaching strategy, in contrast, allows for personalised and self-paced training. It enables pupils to develop their critical thinking, creativity, and problem-solving abilities. (Siew Chin Teoh et al., 2019). Further, When aiming for educational reform rather than merely enhancing existing practices, the adoption of blended approaches is a challenging process. (Davis, 2008) Also, through the induction of practice, active learning involves students and

aids in their development of a thorough comprehension of the course; in other words, inductive teaching yields greater results than productive teaching. (Adler, 1999)

### III. METHODOLOGY

This paper has examined the challenges faced by academic staff in online teaching during COVID-19 among Sri Lankan universities. This paper included both qualitative and quantitative data and a stratified random sampling method was used for the data. The target population for this study is the academic staff who are currently teaching online in state and private universities in Sri Lanka. Also, using Google Forms, a specially designed questionnaire about the difficulties lecturers face when teaching online was produced. So, it was sent among the academic staff by Whatsapp and email over a period of two weeks. 200 questionnaires were distributed randomly to each instructor for the research, and replies were received within two weeks.

### IV. RESULTS AND DISCUSSION

The academics who replied to this study are described in full below (Table 01). Male respondents made up 56% of

TABLE 01: STUDENTS' DEMOGRAPHIC PROFILE

| Variable | Percentage |
|---|---|
| **Gender** | |
| Male | 56 |
| Female | 44 |
| **Field of Teaching** | |
| Physical science stream | 7 |
| Biological science stream | 34 |
| Commerce stream | 14 |
| Arts stream | 25 |
| Technology stream | 10 |
| Engineering stream | 7 |
| Law stream | 4 |

Further, currently, 97% of lecturers engage with online teaching. And the medium which is used by them to conduct online teaching is shown given below (Figure 01). Furthermore, VLE was not used as students expected (Thaila, Rumana, Kaldeen, & Mohamed Nafrees, 2021).

Descriptive statistics were also used, and SPSS software was used to carry out the necessary statistical analysis. Also, literature reviews based on recently published complete research articles about the difficulties of online education in a number of reputable journals and international conferences were completed. In addition to that, our analysis was focused based on the following Research Question (RQ) to conclude:

Q1. Does the academic staff face challenges in online teaching?

Q2. What are the challenges faced by academic staff through teaching online?

Q3. Comparison between traditional teaching and online teaching.

According to the study, conclusions, suggestions, and future works were summarized

those who responded. all of the responses, the highest response received was from the science stream (34%), with the closest response from the Arts stream (25%). among those, law responses were from the law stream (4%).
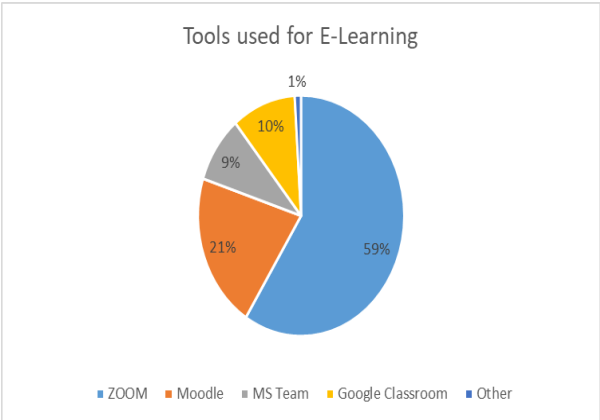


FIGURE 01: TOOLS USED FOR TEACHING

Further, below Table 2 shows that 76% of lecturers never teach online. But 68% of lecturers respond positively that the mediums are easy to use. In addition, Table 2 shows that among the respondents, 65% said that they have been given enough IT knowledge to use the online system as well as the same percentage (65%) mention that they can manage online teaching easily. Those responders who mentioned that they haven't given any IT knowledge (35%) were those who said that they can't manage online teaching (35%).

TABLE 02: PRACTICAL INFORMATION

| Variable | Percentage |
|---|---|
| **Previous teaching** | |
| Yes | 24 |
| No | 76 |
| **Easiness of online teaching** | |
| Yes | 68 |
| No | 32 |

| Enough it knowledge | |
|---|---|
| Yes | 65 |
| No | 35 |
| Given knowledge from working place | |
| Yes | 65 |
| No | 35 |

According to figures 2 and 3, a large number of respondents (50%) have mentioned that there is a low-level interaction between lecturers and students meanwhile 25% of responses were that students have a moderate relationship with lecturers. And when asked about the level of understanding of the lesson, it was found that a large number of respondents (29%) accept that students understand the lesson at a moderate level. However, satisfied and dissatisfied were higher than in the moderate category.
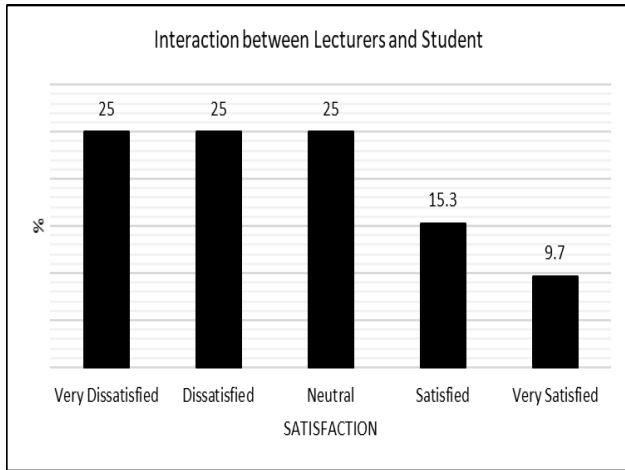


FIGURE 02: INTERACTION BETWEEN LECTURER AND STUDENT

Furthermore, when they were asked about any facing challenges in online teaching, Table 03 shows nearly 10% of them accepted that there are no challenges in online teaching. Though a 10% percentage accepted no challenges, 85% of lecturers never accept online teaching.

TABLE 03: CHALLENGES OF ONLINE TEACHING

| FACING CHALLENGES THROUGH ONLINE TEACHING | PERCENTAGE |
|---|---|
| YES | 90 |
| NO | 10 |
| AGREE WITH ONLINE TEACHING | |
| YES | 15 |
| NO | 85 |

In addition, 90% of lecturers confirmed that there are several challenges in teaching online, mainly, difficulties in conducting practical sessions (73%), low internet connection (70%), and lack of student participants (69%) are the main challenges. In addition, more challenges were indicated and they are categorized. Meanwhile, students express that smart

devices can reduce these issues in online learning (Kariapper, Nafrees, Razeeth, & Pirapuraj, 2020)

TABLE 04: CHALLENGES FACED BY THE TEACHING STAFF IN E-LEARNING

| Challenges | Percentage |
|---|---|
| Difficult in teaching | 43 |
| Time management and teaching hours | 39 |
| Suitable environment | 34 |
| Lack of student participants | 69 |
| Difficult in conducting the practical session | 73 |
| Low internet connection | 70 |
| Data expenses | 37 |
| Conducting assessments/exams, more time needed | 2 |
| No interaction and feedback with students | 2 |
| Difficulty in obtaining student active involvement | 2 |
| The time limit set by the university account | 2 |
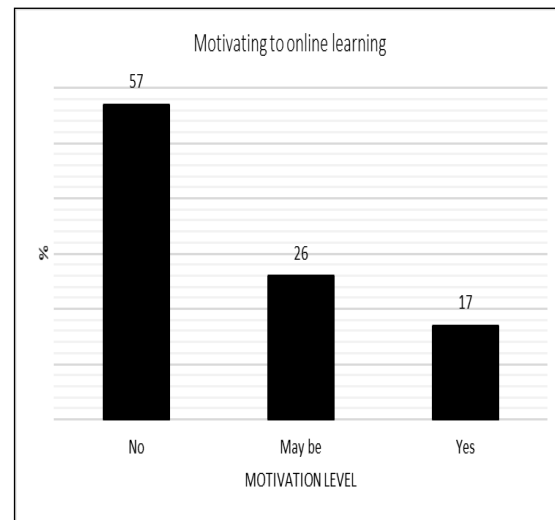


FIGURE 03: LEVEL OF MOTIVATION

Furthermore, Figure 05 shows that a higher percentage (32%) of lecturers are low satisfaction with online teaching as well as according to Figure 04, just 17% percent of respondents preferred to highly motivate the students toward online learning.
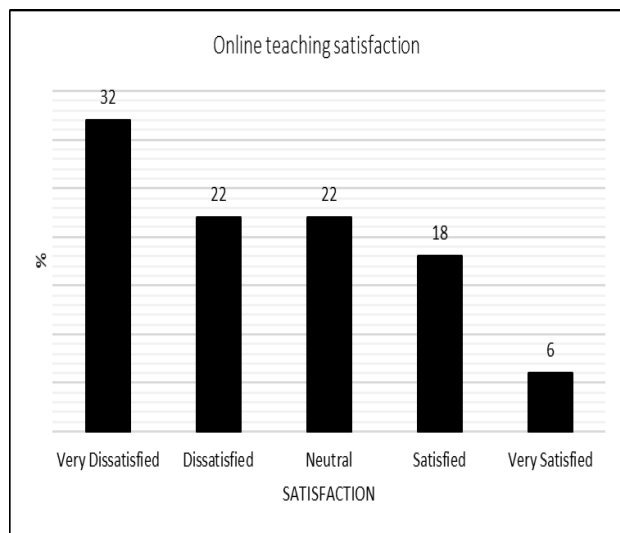
FIGURE 04: SATISFACTION WITH ONLINE TEACHING

Further, we could understand through the responses 65% of lecturers wish for traditional teaching more than online teaching. Table 05 shows the relationship between gender and field. There was an association between difficult in teaching and gender (p=0.001) as well as the field of teaching (p=0.018). Another relationship was found between a suitable environment (p=0.038) and a lack of student participants (p=0.005) with gender. The field of teaching is related to two challenges. They are time management and teaching hours (p=0.030) and difficulty in obtaining student active involvement (p=0.032).
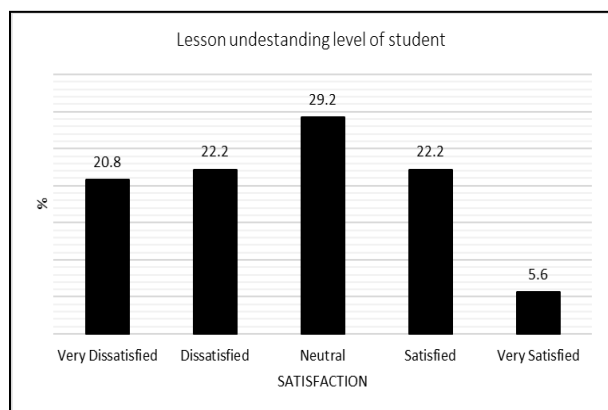


FIGURE 05: UNDERSTANDING LEVEL OF STUDENT

Also, the Zoom tool showed an association with the field of teaching (p=0.032). But Moodle's learning platform had a significant relationship with gender (p=0.014) and teaching field (p=0.002).

There was a significant relationship between the easiness of online teaching and the field of teaching (p=0.034). However, a considerable gender-wise association was found by way of facing challenges through online teaching (p=0.018). Also, satisfaction with online teaching had a relationship with the teaching field (p=0.000). It is also noteworthy that both gender and field of teaching showed no

association with these 3 factors such as enough IT knowledge, agreement with online teaching, and level of motivation.

TABLE 05: GENDER-WISE AND FIELD-WISE RELATIONSHIP

| Variable | Gender | Field |
|---|---|---|
| | $X^2$ | $X^2$ |
| | (P-Value) | (P-Value) |
| Challenges | | |
| Difficult in teaching | 11.155 | 15.307 |
| | (0.001*) | (0.018*) |
| Time management and teaching hours | 1.394 | 13.947 |
| | -0.238 | (0.030*) |
| Suitable environment | 4.297 | 8.266 |
| | (0.038*) | -0.219 |
| Lack of student participants | 7.716 | 8.355 |
| | (0.005*) | -0.213 |
| Difficult in conducting the practical session | 1.029 | 7.346 |
| | -0.31 | -0.29 |
| Low internet connection | 1.749 | 6.861 |
| | -0.186 | -0.334 |
| Data expenses | 0.948 | 9.065 |
| | -0.33 | -0.17 |
| Conducting assessments/exams, more time needed | 0.791 | 1.947 |
| | -0.374 | -0.925 |
| No interaction and feedback with students | 0.791 | 9.56 |
| | -0.374 | -0.144 |
| Difficulty in obtaining student active involvement | 1.299 | 13.789 |
| | -0.254 | (0.032*) |
| Tools Used for Teaching | | |
| Zoom | 0.14 | 13.789 |
| | -0.708 | (0.032*) |
| Moodle | 6.076 | 20.816 |
| | (0.014*) | (0.002*) |
| Microsoft | 0.294 | 6.463 |
| | -0.588 | -0.373 |
| Google | 3.462 | 12.423 |
| | -0.063 | -0.053 |
| other | 0.14 | 6.587 |
| | -0.708 | -0.361 |
| Easiness of online teaching | 2.5 | 13.646 |
| | -0.114 | (0.034*) |
| Enough it knowledge | 1.572 | 8.698 |
| | -0.21 | -0.191 |
| Facing challenges through online teaching | 5.583 | 4.51 |
| | (0.018*) | -0.608 |
| Agree with online teaching | 0.453 | 3.311 |
| | -0.501 | -0.769 |
| Satisfaction with Online Teaching | 4.435 | 74.777 |
| | -0.35 | (0.000*) |
| Level of Motivation | 4.217 | 28.681 |
| | -0.377 | -0.232 |

## V. CONCLUSION

The primary objective of this study is to identify the difficulties that academic staff members had when teaching online in COVID-19. The study was carried out using stratified random sampling, and both qualitative and quantitative methodologies were used to examine the data. when it comes to the major questions of our research, the investigation answered that the academic staff faces various challenges. such as not having experience, a low-level internet connection, and minor interaction between students and teachers. In addition, when we ask about their wishes for traditional and online teaching, most of the lecturers (65%) responded to traditional teaching. Further, this study reveals that in today's society struggling with COVID-19 online teaching can be used to continue distance education at all universities in Sri Lanka. As it's easy of using and having enough IT knowledge to manage online tools. However, this study shows that satisfaction with online teaching is at a low level. Further, the investigation found that difficulty in conducting the practical session, low internet connection, and lack of student participants are the biggest challenges that academic staff face in online teaching.

However, this study shows that in order to achieve the goal, it is especially important for the relevant parties and government institutions to focus on finding a solution that would lessen the difficulties that academic staff must deal with.With such a stable internet connection, teachers and students must periodically be given motivation programs from universities or the government. The study's next focus will be on examining how academic staff members perceive online instruction and how the WFH transfer has affected their personal lives. Apart from these, E-learning with emerging technologies such as augmented reality can productively support the effectiveness of the online teaching and learning process (Abdul Cader Mohamed Nafrees, Sujah, & Mansoor, 2021).

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