**Journal of Social Sciences and Humanities** 

Volume 21, Issue 3, DOI: https://doi.org/10.17576/ebangi.2024.2103.21

eISSN: 1823-884x

Article

# Postgraduate Students' Experience with Zoom-Based Learning: Focus on Affordability, Access, **Teaching Quality, and Assessment**

Fareed Mohamed Nawastheen<sup>1</sup>, Kanapathippillai Ketheeswaran<sup>2</sup>, S.A.S. Kausalya Perera<sup>1</sup> & Shajehan Shifaan<sup>3</sup>

<sup>1</sup>Department of Secondary & Tertiary Education, Faculty of Education, The Open University of Sri Lanka, Nawala, Nugegoda, 10250, Sri Lanka

<sup>2</sup>Department of Special Needs Education, Faculty of Education, The Open University of Sri Lanka, Nawala, Nugegoda, 10250, Sri Lanka

<sup>3</sup>Department of Teacher Education, National Institute of Education, Maharagama, 10280, Sri Lanka

Corresponding Author: fmnaw@ou.ac.lk

Received: 18 May 2024 Accepted: 05 August 2024

Abstract: With the COVID-19 pandemic in 2020, Sri Lankan universities turned to video conferencing to maintain academic activities, with Zoom being a popular choice. This study explores postgraduate students' experiences in two Master of Education (M.Ed.) programmes at a Sri Lankan university regarding Zoombased online learning. It investigates student perceptions across four key areas: affordability, access and instructor support, quality of teaching, and effectiveness and fairness of assessments. A survey approach was used, with a researcher-developed questionnaire administered online to 189 students studying Sinhala, Tamil, and English. The questionnaire included close-ended questions, Likert-scale items, and open-ended questions, with data analyzed using descriptive statistics. Findings indicate that students generally found Zoom-based instruction accessible and effective. However, areas for improvement were identified, such as enhanced instructor support, a more interactive learning environment, and comprehensive course coverage. Concerns also emerged about instructor support during assessments, clarity of formats, and time allocation. Qualitative data highlighted issues with session length, technology affordability, and a preference for diverse assessment methods. The study provides insights for enhancing M.Ed. programmes conducted online. Recommendations include faculty capacity development in online teaching, promoting the affordability of Zoom-based learning, and refining assessment practices. Addressing these areas and seeking student feedback can help institutions create high-quality, engaging, accessible, and effective Zoom-based programmes.

Keywords: Online teaching and assessment, Online learning, Sri Lankan universities, Student experience, Zoom-based learning.

# Introduction

The COVID-19 pandemic forced a rapid shift in educational delivery worldwide, leading institutions to adopt remote teaching-learning approaches (Jakoet-Salie & Ramalobe, 2022: Nawastheen et al., 2021; Phiriepa et al.,2023). Zoom emerged as a popular tool for online teaching in various types of educational institutions, including the research site of the current study, which is a Sri Lankan university functioning as an Open and Distance Learning (ODL) institution. The university offers a wide range of programmes from certificates to postgraduate level and houses a prominent Faculty of Education (FoE). The Master of Education (M.Ed.)

programmes conducted by the faculty, available in English, Sinhala, and Tamil, cater to a wide range of aspiring and practicing teachers nationwide.

In response to the outbreak of the pandemic in 2020, FoE at the said university resorted to Zoom-based teaching in place of its face-to-face contact sessions. However, this sudden transition from face-to-face teaching-learning sessions to online ones posed many challenges both to students and lecturers. Notwithstanding, in the aftermath of the pandemic, Sri Lankan state universities often tend to use Zoom as a platform to host teaching-learning sessions. In this backdrop, it is expected that developing an in-depth understanding of student experiences with Zoom-based learning in M.Ed. programmes would be crucial in taking the initial steps to address any issues that students face in the process and to improve the learner experience in these study programmes.

Therefore, in this paper, student perceptions on Zoom based online learning in the two M.Ed. Programmes across four key areas are explored. These four areas are: (i) affordability of the programmes (ii) access and instructor support (iii) quality of teaching delivered through Zoom and (iv) effectiveness and fairness of assessment. By examining student experiences in these areas, it is expected to identify premises for improvement which would provide insights on enhancing the overall quality of M.Ed. programmes in which contact sessions are conducted online.

#### **Literature Review**

Online learning has become increasingly popular, particularly with the onset of the COVID-19 pandemic. Several studies have been conducted—both prior to and following the outbreak of the pandemic—to evaluate the satisfaction of students and instructors with courses delivered online. Guest et al. (2018) conducted a study that analyzed student satisfaction scores in response to online course delivery at a large Australian university. This study analyzed student satisfaction scores from 2653 courses comparing online and face-to-face modes of delivery using a difference-in-difference technique. The findings reveal that instructors of online courses are less popular than their face-to-face counterparts, and converting a course from face-to-face to online reduces student satisfaction. The effect sizes, though significant (around 25-30% of a standard deviation), are not overwhelming. While online teaching is less well-received by students, the difference is moderate. Educational administrators should consider this moderate disadvantage in student satisfaction alongside the advantages of online education.

Qureshi et al. (2020) conducted a study on the satisfaction of mature undergraduate students with online teaching during the COVID-19 pandemic in the United Kingdom. The findings of the study show that most students prefer online or blended teaching and wish to continue it post-COVID-19. Common challenges include weak internet connectivity, old devices, low digital skills, and lack of technical support, making the transition stressful. Therefore, it is recommended that post-COVID-19, higher education institutions should train students, particularly those over 41, in technological proficiency through manuals, videos, and online support. Institutions should provide up-to-date computers at subsidized prices, on affordable installments, or through a borrowing system.

Additionally, research studies point to factors that might affect student satisfaction in online learning. For instance, with their female respondents reporting higher satisfaction with the teaching process in the online environment than male respondents, Areşan and Țîru (2022) found that gender might play a role on the level of student satisfaction. Baloran and Hernan (2021) found high course satisfaction and engagement with online learning delivery during the COVID-19 pandemic, with online course satisfaction significantly correlating with online student engagement. Croxton's (2014) literature review suggested that interactivity is important for satisfaction and persistence in online learning, with student-instructor interaction being a primary variable. Additionally, using the Online Faculty Satisfaction Survey (OFSS) scale developed by Bolliger and Wasilik (2009), Blundell et al. (2020) found that faculty satisfaction with online teaching and learning could be impacted by the key factors of instructor-student interaction, the role of technology, and institutional support.

Research also shed light on the type of challenges that students and lecturers face in conducting study programmes through the online mode and ways in which such challenges could be. For instance, Kéri (2021) investigated student satisfaction with the applied teaching methodologies during online education of marketing related classes at a university in Hungary. Results showed that students were most satisfied with

their teachers' competencies and preparedness, while they were least satisfied with online class quality. Likewise, Elshami et al. (2021) investigated satisfaction of students and faculty with the online learning-learning process during COVID-19. Results of their study showed that the overall satisfaction was lower for students (41.3%) than faculty (74.3%). Technical issues and workload were challenges for both groups. The study suggests the SWEET (Study-load and workload, enhancing engagement, and technical issues) approach to improve satisfaction of students and faculty. At the same time, they suggest that institutional support and organizational policy could enhance faculty satisfaction.

Studies have also attempted to improve student satisfaction with online learning by improving instructional practices, and identified strategies that effectively enhance their level of satisfaction, For example, Faize and Nawaz (2020) conducted a study on supporting university students in Islamabad, Pakistan for online learning through a collaborative approach. The study identified problems faced by students during online learning, sought their suggestions for overcoming them, and modified existing instructional practices based on the feedback. The post-modification data revealed students' greater satisfaction with online learning, providing useful insights on transforming it to a more productive medium for future learning.

On the whole, as the popularity of online learning continues to grow, studies have been conducted to evaluate the satisfaction of students and instructors with online courses. These studies have found that while online teaching may be considered less satisfying by students, the advantages of online education are also of much importance. Challenges such as weak internet connection and low digital competency are issues that need to be addressed to improve online teaching.

Research literature highlights the importance of interactivity as a key factor influencing student satisfaction and persistence in online learning Thus, the above studies suggest that adopting a combination of synchronous and asynchronous approaches, incorporating different applications to engage students, and providing timely feedback could increase student satisfaction. At the same time, institutional support and organizational policy could enhance faculty satisfaction. Finally, it is claimed that modifications in instructional practices which are based on student feedback would effectively improve their satisfaction with online learning.

## Methodology

This study investigated postgraduate students' experiences pertaining to affordability, access, teaching quality and assessment with Zoom-based online teaching in Master of Education (M.Ed.) programmes at a Sri Lankan university.

## 1.Research Design

In conducting this study, the survey research design and the mainly the quantitative research approach were used. According to Rickards et. al. (2012, p. 407), surveys are suitable as a means to collect data "on abstract ideas or concepts that are otherwise difficult to quantify, such as opinions, attitudes and beliefs" and "may provide insight for curriculum improvement." Therefore, survey research design was employed to this study.

### 2. Participants

The survey questionnaire was administered online as a Google Form and the link to the Form was shared with the student WhatsApp groups towards the end of the academic year. A voluntary response sample of 189 students responded to the questionnaire representing the three languages of instruction in which the study programmes were offered: Sinhala (n=77), Tamil (n=77), and English (n=35). The sample comprised of students enrolled in the M.Ed. programme (72.5%) and the Master of Education in Special Needs Education programme (M.Ed. SNE) (27.5%).

Table 1 shows the distribution of the respondents based on gender, age, language of instruction, prior educational qualifications, and Regional Centres where they enrolled in the study programme. Out of the 189 respondents, 69.3% were female and 30.7% were male. More than half of the respondents (53%) possessed a Bachelor of Arts degree, while 23.2% possessed a Bachelor of Education degree, 19.6% had completed a Bachelor of Science degree, and 4.2% had obtained degrees in other disciplines. The majority of respondents (72.5%) were enrolled in the Master of Education programme, while 27.5% were enrolled in the Master of

Education in Special Needs Education program. Most respondents fall within the age range of 30-49, with over half of the respondents between the ages of 30-39 (55.6% of the total sample). The distribution of respondents' age suggests that they are mostly in the middle to late stages of their careers. Thus, it is apparent that most of the students are seasoned professionals in their respective fields.

**Frequency** (%)Category Response 72.5 Programme: M.Ed. 137 M.Ed. 52 27.5 **SNE** Gender Female 131 69.3 Male 58 30.7 Medium Sinhala 77 40.7 Tamil 77 40.7 English 35 18.5 20-29 7.9 14 Age group 30-39 105 55.6 40-49 65 34.4 50-59 5 2.6 Prior Qualification (first degree) 100 53 B.A. B.Ed. 44 23.3 B.Sc 37 19.6 Other 08 4.2 Centres Colombo 138 73.0 Kandy 28 14.8

Table 1. Distribution of the respondents

The respondents were registered across the three Regional Centres, with 73% registered in Colombo, 14.8% registered in Kandy, and 12.2% registered in Jaffna. In terms of the medium of instruction, 18.5% of the respondents were enrolled in English, while 40.7% were enrolled in Sinhala and 40.7% in Tamil programmes. The data suggests a gender imbalance among the respondents, with more females than males participating in the study. Moreover, the data shows that a Bachelor of Arts is the most common prior educational qualification among respondents. More respondents were enrolled in the Master of Education Programme rather than the M.Ed. in SNE, which may be indicative of a high demand for this programme in the region.

Jaffna

23

12.2

# 3. Data Collection Process

In this study, data were collected through a researcher-developed online questionnaire, which was reviewed by subject matter experts to ensure content validity and reliability. It included close-ended questions including Likert-scale items designed to measure student perceptions across the four key areas in question. In addition to the quantitative data collected through close-ended questions, the survey also included open-ended prompts to gather more nuanced perceptions on students' online learning experiences. The questionnaire was shared among the students of the two M.Ed. Programmes as a Google Form towards the end of the academic year, via student WhatsApp groups maintained by the Programme Co-ordinators. Students reading for the two degree programmes in all three languages were given the opportunity to respond to the questionnaire administered in English on a voluntary basis. The data were collected during the month of September 2023 and a voluntary response sample of 189 students responded.

## 4. Analysis Data

The analysis of the data collected through the survey questionnaire involved the use of descriptive statistics and thematic analysis. For the close-ended items, descriptive statistics, including frequencies and percentages, were employed. This statistical approach helped in summarizing the data, providing a clear picture of how often certain responses occurred and the proportion of participants who shared similar views. For instance, the number of students who rated various aspects of Zoom-based learning, such as affordability, access, teaching quality, and assessment, on a Likert scale was counted, and the corresponding percentages were calculated. This method allowed for an easy comparison of different categories and identification of prevailing trends or patterns in the data. In addition, the qualitative data from the open-ended questions were analyzed thematically. This process involved identifying common themes or patterns within the textual responses. Initially, the responses were read thoroughly to gain an overall understanding. Key phrases and concepts were then highlighted and grouped into themes that represented the core ideas expressed by the participants. These themes were further refined and categorized to provide deeper insights into students' experiences and perceptions of Zoom-based learning. The thematic analysis facilitated a richer, more nuanced understanding of the qualitative data, complementing the quantitative findings and offering a comprehensive view of the research topic. By employing these analytical methods, the study effectively captured both the breadth and depth of postgraduate students' experiences with Zoom-based learning.

### **Results**

The results of the study are discussed below in terms of student perceptions on Zoom based online learning across the four key aspects of affordability of the programmes, access and instructor support, quality of teaching delivered through Zoom, and effectiveness and fairness of assessments.

# 1. Affordability of Zoom-based Online Learning

This study investigated postgraduate students' perceptions on the affordability of Zoom-based online learning in the two M.Ed. programmes. Data gathered from a Likert scale ranging from 1 (totally disagree) to 5 (totally agree) were used for this purpose. Shamsudin et al. (2023) report that unstable internet connectivity is a major obstacle, preventing students from accessing online resources and participating in virtual classes. However, analysis of the responses (presented in Table 2) revealed a mixed response, with respondents claiming some aspects to be more affordable than the others.

Statement	Totally Disagree	Disagree	Neutral	Agree	Totally agree
Cost of internet reasonable (home access)	2.10%	6.90%	22.20%	34.90%	33.90%
2. Satisfaction with the overall access cost (home)	4.20%	5.80%	19.00%	36.00%	34.90%
3. Difficulty in affording equipment (home access)	27.50%	17.50%	21.70%	24.90%	8.50%
<ul><li>4. Satisfaction with internet plan availability (affordability)</li><li>5. Faced unexpected costs (home access)</li></ul>	5.80% 31.70%	8.50% 19.60%	20.10% 21.70%	42.30% 20.60%	23.30% 6.30%
6. Satisfaction with internet plan value (home access)	4.80%	9.50%	19.60%	34.90%	31.20%
7. Cost of internet reasonable against the benefits	4.80%	1.80%	18.50%	36.50%	34.40%
8. Satisfaction with financial assistance availability	4.20%	7.90%	23.80%	36.00%	28.00%

Table 2. Summary of responses on affordability of zoom-based online learning

A majority of respondents (70.9%) reported being either satisfied or somewhat satisfied with the overall cost of accessing Zoom-based instruction from home (statement 2). This suggests that for many students, the programme fee, combined with any additional costs associated with accessing Zoom itself, are perceived as reasonable. Similarly, approximately a two-third of the students (66.2%) expressed satisfaction

with the availability of affordable internet plans in their areas (statement 4). This indicates that many students have access to internet plans that meet the needs of online learning without incurring excessive costs. A similar proportion (66.1%) reported satisfaction with the value for money they receive from their internet plans used for Zoom-based instruction (statement 6). Similarly, a significant majority (70.9%) agreed or strongly agreed that the cost of internet access is reasonable compared to the benefits they gain from the M.Ed. programme (statement 7). On the contrary, approximately half of the respondents (51.3%) reported encountering unexpected costs, such as additional data charges when accessing Zoom-based instruction (statement 5).

However, a significant concern emerged regarding the affordability of equipment. Nearly half of the respondents (46.7%) reported difficulty in affording the necessary equipment, such as laptops or tablets, to access Zoom-based instruction (statement 3). This highlights a potential financial barrier that some students may experience, thus creating a digital divide. While a substantial number of students (61.8%) reported being somewhat or highly satisfied with the availability of financial assistance for accessing Zoom-based instruction (statement 8), a significant minority (28%) remained unsatisfied.

2. Access and Instructor Support in Zoom-based Learning: In Relation To Postgraduate Students' Perceptions on access to and instructor support in Zoom-based online learning for the M.Ed. programmes, survey responses (presented in Table 3) reveal a generally positive outlook on access with some room for improvement in the premise of instructor support.

Statement	Totally Disagree	Disagree	Neutral	Agree	Totally
1. I am satisfied with the availability of Zoom-based	5.2	5.3	15.9	44.4	31.7
instruction at home.  2. I find it easy to access Zoom-based instruction from my	2.6	5.8	12.2	39.7	39.7
home.	4.1	2.7	10 5	16.6	27
3. I am satisfied with the quality of Zoom-based instruction I receive at home.	4.1	3.7	18.5	46.6	27
4. I do not experience any difficulties in accessing Zoombased instruction from my home.	7.9	12.2	29.6	28.6	21.7
5. I am satisfied with the support provided by instructors	2.1	4.2	21.7	42.9	29.1
<ul><li>in using Zoom-based instruction at home.</li><li>6. I have encountered technical issues when accessing</li></ul>	9.5	19	30.2	29.6	11.6
Zoom-based instruction from my home.				_,,,	
7. I am satisfied with the level of interaction I have with instructors during Zoom-based instruction at home.	3.2	4.2	26.5	42.3	23.8
8. I feel that I have adequate resources to participate in	2.1	11.6	22.2	36.5	27.5
Zoom-based instruction from my home.  9. I am satisfied with the effectiveness of Zoom-based	2.6	8.5	21.2	40.7	27
instruction at home in achieving my learning goals.					

Table 3. Summary of responses on access and instructor support

Analysis of data related to this aspect shows a positive picture regarding access to Zoom-based instruction. A large majority of respondents (76.1%) reported being highly satisfied or satisfied with the availability of Zoom instruction at home (statement 1). Similarly, a significant proportion (79.4%) found it easy to access Zoom-based instruction from their homes (statement 2). This suggests that for most students, technical barriers to online learning were minimal. Furthermore, nearly half the respondents (46.6%) expressed satisfaction with the quality of instruction they received through Zoom (statement 3). This indicates that the online learning environment did not significantly hinder the quality of teaching and learning experiences. However, a noteworthy finding is that a considerable number of respondents (41.5%) reported experiencing some difficulties in accessing Zoom-based instruction (statement 4).

While access appears to be a manageable aspect for most of the respondents, findings point to the need to improve the quality of instructor support available to students. While a significant portion (67.7%) of students were satisfied with the support provided by instructors in using Zoom as an instructional platform (statement 5), a sizeable minority (25.8%) remained neutral or dissatisfied. This suggests that some students may require more guidance or assistance from instructors to adapt to the online learning environment

effectively. Similarly, while a majority (66.1%) reported satisfaction with the level of interaction with instructors during Zoom sessions (statement 7), 28% of the respondents expressed neutrality.

The analysis revealed positive student perceptions regarding resources and goal achievement. A substantial majority (58.1%) felt they had adequate resources to participate in online learning (statement 8). Additionally, a significant proportion (67.7%) were satisfied with the effectiveness of Zoom-based instruction in helping them achieve their learning goals (statement 9).

# 3. Quality of Teaching Delivered through Zoom-based Online Instruction

In evaluating M.Ed. students' perceptions on the quality of teaching delivered through Zoom-based online instruction, this study addressed eight key dimensions:

- i. Effectiveness in facilitating learning.
- ii. Level of engagement
- iii. Instructor knowledge and ability to answer questions.
- iv. Organization and structure of instruction
- v. Adequacy of course material coverage
- vi. Instructor's ability to use Zoom features effectively.
- vii. Frequency of technical difficulties impacting instruction
- viii. Instructor's ability to communicate effectively

Table 4. Summary of responses on level of satisfaction with zoom-based teaching

Statement	Totally Disagree	Disagree	Neutral	Agree	Totally agree
1. Zoom-based instruction is effective in facilitating my learning.	2.1%	2.1%	18.5%	46.0%	31.2%
2. I am satisfied with the level of engagement during Zoom-based instruction.	3.2%	4.2%	22.2%	40.7%	29.6%
3. The lecturer is knowledgeable and able to answer my questions during Zoom-based instruction.	1.6%	6.3%	11.3%	34.4%	46.6%
4. I am satisfied with the organization and structure of Zoom-based instruction.	3.6%	4.8%	15.9%	41.8%	34.9%
5. Zoom-based instruction adequately covers the course material.	3.2%	6.9%	25.4%	37.0%	27.5%
6. I am satisfied with the instructor's ability to effectively use Zoom features during instruction (e.g screen sharing, breakout rooms, chat).	2.1%	4.2%	12.7%	30.7%	50.3%
7. I have encountered technical difficulties that have always affected	6.3%	22.8%	27.0%	30.2%	13.8%
the quality of Zoom-based instruction.  8. I am satisfied with the instructor's ability to communicate effectively during Zoom-based instruction.	2.1%	5.3%	16.4%	44.4%	31.7%

Results suggest that Zoom-based instruction has been generally well-received by students in the two M.Ed. programmes. Over three-quarters of the respondents (77.2%) either agreed or totally agreed that it facilitated their learning effectively. Similarly, a high level of satisfaction was reported regarding instructor knowledge (81%), organization (76.7%), and use of Zoom features (81%). However, some areas for improvement were also identified. A considerable proportion of the respondents (34.4%) disagreed that the course material was adequately covered. Additionally, a substantial number of respondents (44%) reported encountering technical difficulties that impacted instruction quality. Almost half of the respondents (48.1%) remained neutral regarding the effectiveness of instructor communication.

### 4. Assessment Practices in Zoom-based Instruction

The survey included a Likert scale (ranging from 1 = "strongly disagree" to 5 = "strongly agree") which was used to collect data on student satisfaction with various aspects of assessment practices in the study programmes—especially their effectiveness and fairness. Analysis revealed several positive aspects of the assessment practices. A majority of students (66.7%) strongly agreed or agreed that the assessments accurately measured their learning outcomes. Additionally, most students (63%) expressed satisfaction with the feedback

provided on their assessments. This suggests that instructors adopted effective assessment strategies to gauge student learning and provide constructive feedback to support their development as professionals. Furthermore, 59.8% of the respondents perceived the assessments as challenging yet fair. A considerable number of them (67.2%) reported satisfaction with the grading process. These findings indicate that students view the assessments as appropriately rigorous and believe that grades accurately reflect their performance. The study also identified areas for improvement in assessment practices. While a substantial portion of students (40.7%) were satisfied with instructor support during assessments, a sizeable minority (33.3% and 15.3%) remained neutral or dissatisfied. This suggests that some students may require more support from instructors during assessments, such as clarification on expectations or guidance on approaching specific assessment tasks.

Table 5. Summary of responses on assessment practices in zoom-based instruction (%)

Statement	Totally Disagree	Disagree	Neutral	Agree	Totally agree
1. The assessments used during Zoom-based instruction accurately assess my learning.	2.60	9.00	21.70	3	27.50
2. I am satisfied with the feedback provided on my assessments during Zoom-based instruction.	2.10	9.50	24.30	36.50	27.50
3. The assessments used during Zoom-based instruction are challenging but fair.	2.60	7.40	30.20	43.40	16.40
4. I am satisfied with the format of the assessments used during Zoom-based instruction.	1.60	5.30	27.00	43.00	22.80
5. I have encountered technical difficulties that have affected my ability to complete assessments during Zoombased instruction.	8.50	14.80	33.90	31.20	11.60
6. I am satisfied with the grading process for assessments during Zoom-based instruction.	2.60	6.30	23.80	45.00	22.20
7. Sufficient time is allocated to complete assessments during Zoom-based instruction.	2.00	12.20	14.80	41.30	29.60
8. I am satisfied with the instructors' support during Zoombased instruction assessments.	3.20	7.40	15.30	40.70	33.30

Another area for improvement, as suggested by the survey results, relates to the clarity of assessment format. A substantial group (27%) expressed a neutral opinion on the format of assessments used in Zoombased instruction. Instructors could address this by providing clearer explanations or examples of the expected format for each assessment type. Finally, while a considerable number of respondents (41.3%) felt that sufficient time was allocated to complete assessments, nearly a third (29.6%) were unsure. This raises potential concerns about time pressure during assessments. Instructors may want to re-evaluate the time allotted for each assignment to ensure that students have ample opportunities to demonstrate their knowledge and skills effectively.

Analysis of qualitative data indicated that a significant concern raised by the respondents was the length of online sessions. Many of them indicated that sessions exceeding 2-3 hours became tedious and hindered their ability to focus. This suggests a potential need for instructors to revisit online session structures and incorporate strategies to promote engagement throughout longer sessions. Techniques like incorporating breaks, interactive activities, and varied teaching methods could be explored to address this issue. In addition, the affordability of digital resources and internet access emerged as a prominent barrier for some students. Their responses highlight the importance of considering the financial realities faced by students when conducting online contact sessions. Offering resources and support to help students overcome these financial hurdles could be crucial in ensuring equitable access to online education. Moreover, several respondents expressed the need to adopt online assessment techniques more effectively. Their responses suggest that traditional assessment methods may not translate well to the online learning environment. Incorporating a wider variety of online assessment tools and techniques that align with course learning outcomes have the potential to enhance the learning experience and provide a more accurate evaluation of student progress. These

findings from the open-ended questions provide valuable insights that complement the quantitative data. By addressing the concerns raised by the respondents on session length, accessibility, and assessment practices, institutions can strive to create a more engaging and effective online learning environment for all students.

#### Discussion

In this section, the results of the study mentioned above will be discussed in detail under the four aspects of affordability of Zoom-based online learning, access and instructor support, quality of teaching delivered through Zoom, and effectiveness and fairness of assessments. At the same time, findings from similar studies in empirical literature will be drawn upon.

The findings reveal a generally positive perception among students regarding the affordability of Zoom-based online learning. A majority of respondents found the overall cost of accessing the programme from home to be reasonable. This suggests that, despite the initial challenges in the transition from onsite to online contact sessions, students have got accustomed to the cost implications of online learning. The availability of affordable internet plans also played a significant role in enhancing the affordability of online learning. However, some respondents reported difficulties in affording the necessary equipment for home access, highlighting a barrier that could affect the inclusivity of online education. This aligns with Qureshi et al. (2020), who identified technology affordability and access as critical factors influencing online learning experiences.

Access to online learning platforms and instructor support were generally perceived positively by students. Most respondents found access to Zoom sessions reliable and convenient, which is crucial for maintaining the continuity of learning in an online learning environment. However, the need for enhanced instructor support was a recurring theme. Students expressed a desire for more interactive and engaging sessions, indicating that while access to the platform is sufficient, the quality of interaction within that platform could be improved. This finding supports Croxton's (2014) assertion that interactivity is essential for student satisfaction in online learning environments. Furthermore, the study by Blundell et al. (2020) suggests that increased instructor-student interaction can significantly enhance the online learning experience.

Student responses on the quality of teaching delivered through Zoom reflected both positive and negative perceptions. While many appreciated the convenience and accessibility of online sessions, there were concerns about the depth and engagement of the learning experience. In addition, findings indicate a need for faculty capacity development in online teaching to ensure that the quality of education is maintained at high standards. This aligns with the research by Faize and Nawaz (2020), which found that modifications in instructional practices based on student feedback can significantly improve satisfaction with online learning. Incorporating diverse teaching strategies and interactive elements could address students' concerns and enhance their overall learning experience.

Effectiveness and fairness of assessments conducted via Zoom were areas of concern for many students. While some assessment practices were well-received, issues such as clarity of format, time allocation, and instructor support during assessments were highlighted. These concerns echo the findings of Elshami et al. (2021), who reported that technical issues and workload were significant challenges for both students and faculty in online assessments. Addressing these issues through clear guidelines, adequate support, and diverse assessment methods could improve students' perceptions of assessment fairness and effectiveness.

# Conclusion

This study investigated various aspects of student experiences in two M.Ed. programmes in which a majority of the contact sessions are conducted online using the Zoom video-conferencing application. The findings offer valuable insights for educators and programme administrators who aim to create a more effective and equitable online learning environment. In relation to the aspect of accessibility and support, the respondents generally reported manageable technical barriers for accessing Zoom instruction and pointed to the need for improved instructor support and a more interactive learning environment as a key area for improvement. Evidently, Zoom-based contact sessions offer potential cost benefits but student concerns related to issues in equipment affordability, unexpected internet charges, and limited access to financial aid highlight the need for further exploration of potential solutions to create a more affordable online learning experience. Furthermore,

the study also highlights the importance of ensuring complete course coverage and availability of prompt technical support in Zoom-based instruction. In addition, while some assessment practices were well-received, concerns were raised on issues related to the availability of instructor support during assessments, clarity of format, and time allocation. Duration of online contact sessions, affordability of technology and internet access, and diversity of online assessment practices are some of the other areas in which improvements should be made. These conclusions point to the possibility of creating a more engaging and effective online learning environment by addressing the concerns that emerged from the analysis.

Based on the findings of this study, the following recommendations for practice could be offered:

- i. Faculty Development: Instructors who conduct online contact sessions should be provided with the necessary resources and opportunities to develop their online teaching skills including the choice of appropriate online teaching strategies. This would be helpful in fostering student engagement and communication skills in the online learning environment.
- ii. Accessibility Initiatives: It is advisable to explore and implement strategies to address issues related to equipment affordability and unexpected internet costs incurred on students. Steps should be taken to make learning opportunities and materials available to students in a variety of formats and modalities such as recordings of online contact sessions, transcripts of video content and opportunities for asynchronous interactions via LMS and social media. This would help to bridge the learning gaps that would occur due to unexpected technical issues and high cost incurred on Internet connectivity such as low bandwidth, and sudden loss of internet connectivity due to environmental factors or exceeding the limit of data packages.
- iii. Enhancing Online Assessments: It is mandatory for faculty to develop a clear and consistent framework for online assessments, ensuring adequate instructor support, clear instructions on the format of the final product or outcome of the assessment tasks, and sufficient time allocation for submitting the work for evaluation.
- iv. Instructional Design: Strategies should be adopted to break up longer online contact sessions into smaller steps and incorporate activities to enhance student engagement and interaction.

By implementing these recommendations and continuously seeking improvement based on student feedback, institutions can create high quality Zoom-based M.Ed. programmes that offer an engaging, accessible, and effective learning experience for all students. Further research could explore the specific reasons behind student dissatisfaction with instructor support during assessments. Additionally, interventional studies such as experiments, action research studies and design-based research studies could delve deeper into student experiences with various types of online assessment to identify the most effective and student-friendly approaches for ODL environments.

**Acknowledgement:** Authors would like to thank all the master's degree students who provided valuable information in this study.

*Informed Consent Statement:* Informed consent was obtained from all subjects involved in the study. *Conflicts of Interest:* The authors declare no conflict of interest.

#### References

- Areşan, D., & Ţîru, L. G. (2022). Students' satisfaction with the online teaching process. Academicus: *International Scientific Journal*, *13*(25), 184-193. https://doi.org/10.4300/JGME-D-12-00239.1
- Baloran, E. T., & Hernan, J. T. (2021). Course satisfaction and student engagement in online learning amid COVID-19 pandemic: A structural equation model. *Turkish Online Journal of Distance Education*, 22(4), 1-12.
- Blundell, G. E., Castañeda, D. A., & Lee, J. (2020). A multi-institutional study of factors influencing faculty satisfaction with online teaching and learning. *Online Learning*, 24(4), 229-253. https://doi.org/10.24059/olj.v24i4.2175

- Bolliger, D., & Wasilik, O. (2009). Factors influencing faculty satisfaction with online teaching and learning in higher education. *Distance Education*, 30(1), 103-116. https://doi.org/10.1080 /0158 7910902845949
- Croxton, R. A. (2014). The role of interactivity in student satisfaction and persistence in online learning. *Journal of Online Learning and Teaching*, 10(2), 314.
- Elshami, W., Taha, M. H., Abuzaid, M., Saravanan, C., Al Kawas, S., & Abdalla, M. E. (2021). Satisfactionwith online learning in the new normal: Perspective of students and faculty at medical and health sciences colleges. *Medical Education Online*, 26(1). https://doi.org/10.1080/10872981.2021.1920090
- Faize, F. A., & Nawaz, M. (2020). Evaluation and improvement of students' satisfaction in online learning during COVID-19. *Open Praxis*, 12(4), 495-507. https://doi.org/10.5944/openpraxis.12.4.1153
- Guest, R., Rohde, N., Selvanathan, S., & Soesmanto, T. (2018). Student satisfaction and online teaching. *Assessment & Evaluation in Higher Education*, 43(7), 1084-1093. https://doi.org/10.1080/02602938.2018.1433815
- Jakoet-Salie, A., & Ramalobe, K. (2022). The digitalization of learning and teaching practices in higher education institutions during the Covid-19 pandemic. *Teaching Public Administration*, 41(1). https://doi.org/10.1177/01447394221092275
- Kéri, A. (2021). Online teaching methods and student satisfaction during a pandemic. *International Journal of Educational and Pedagogical Sciences*, 15(4), 369-375.
- Nawastheen, F. M., Shifaan, S., & Bisthamy, M. W. A. (2021). Primary school teachers' perceptions towards the remote teaching and learning activities (RTLA) during lockdown period in Sri Lanka. *Muallim Journal of Social Sciences and Humanities*, 6(1), 1-15. https://doi.org/10.33306/mjssh/173
- Phiriepa, A., Mapaling, C., Matlakala, F., & Tsabedze, W. (2023). COVID-19 and Online Learning: A Scoping Review of the Challenges faced by Students in Higher Institutions during Lockdown. *e-BANGI Journal*, 20(4). https://doi.org/10.17576/ebangi.2023.2004.23.
- Qureshi, F., Khawaja, S., & Zia, T. (2020). Mature undergraduate students' satisfaction with online teaching during the COVID-19. *European Journal of Education Studies*, 7(12). https://doi.org/10.46827/ejes.v7i12.3440
- Rickards, G., Magee, C., & Artino Jr, A. R. (2012). You can't fix by analysis what you've spoiled by design:Developing survey instruments and collecting validity evidence. *Journal of Graduate Medical Education*, *4*(4), 407-410. https://doi.org/10.4300/JGME-D-12-00239.1
- Shamsudin, N. M., Ladisma, M., Anuar, R., Han, C. T., & Kamal, A. A. (2023). Closing The Divide:Insights into Cloud-Based Learning for Students in Rural Areas. *e-BANGI Journal*, 20(4). http://dx.doi.org/10.17576/ebangi.2023.2004.38