Exploring the Challenges of Online Teaching and Learning During the Covid-19 Pandemic

Abhishek Verma & Sanjay Arora

Abstract
The idea for the article originated during the pandemic when teaching and learning went online. The focus of this study is to understand teachers’ and learners’ accounts of experiencing this new phenomenon at the higher education level. For this an online survey of students and teachers from across the country was conducted to learn the reaction of stakeholders to online teaching and learning during the lockdown. On the basis of the data collected, the advantages and disadvantages of teaching and learning online have been discussed. The study also talks about the difficulties encountered by the teachers in shifting to the online teaching mode. The results indicate that most respondents preferred face-to-face classes; they however suggested that blended learning could be a better option in the future. The study ends by highlighting the improvements that can be brought about in the online teaching-learning scenario in the future.

Keywords: Online teaching and learning, stakeholders, alternative measures, blended learning

Introduction
It is an undeniable fact that Covid-19 brought the world to a standstill and education institutes were no exception; the world is still staggering and limping because of repeated waves of the virus. Schools and educational institutions were shut all over the world and it impacted more than 1.2 billion students (72 per cent of the world’s student population) in 186 countries. In India alone 320 million students are suffering because of
this pandemic and it is still uncertain when they may be able to return to their schools and colleges (Li et al., 2020). As a result, educational institutions have temporarily started relying on e-learning and online teaching but this may change the education system permanently.

In response to the increasing demand in India, BYJU’s, a virtual teaching platform, has announced free live classes on its Think and Learn app. This has resulted in 200 per cent growth in the number of students using its facilities. On the same lines, companies are also looking for opportunities to benefit from this situation. Based on the increased online learning and teaching due to the pandemic a random survey of teachers in different universities from different subjects was conducted focusing on the following three questions:

RQ 1. How aware and informed are the students and teachers about online learning and teaching?

RQ 2. What are the difficulties faced by teachers while teaching and testing online?

RQ 3. What is the teacher support provided to students in an online class?

Objectives

The objectives of the article are:

- to understand the condition of education in colleges in different states during the lockdown
- to get an understanding of online methods being adopted by HEIs during the lockdown period
- to gauge the extent of student satisfaction about the methods used by the respective teachers to teach
- to assess the difficulties faced by the students and teachers while learning and teaching online

Literature Review

In response to Covid-19 a sudden and massive shift has been seen by the world from classroom teaching to online learning, which has attracted the interest of researchers in uncovering various aspects of online learning. A study conducted on undergraduate students of English in
a university located in UAE cited that online learning is cost and time effective, safe, and convenient while reduced focus, distraction, internet problem, heavy workload and insufficient support from instructors are recurrent negative aspects of online learning (Hussein & Daoud et.al., 2020). Brandon-Hall is of the view that the rise of e-learning has also increased the retention rate of information among students (Karla, 2016). A recent study (Maqableh & Alia, 2021) has shown that the average number of dissatisfied students learning online has increased with time. The main reason behind this dissatisfaction is distraction and students’ lack of interaction with teachers and classmates. In contrast to this view some studies have supported the opinion that online classes can be as effective as face-to-face classes if these are designed more convincingly (Nguyen, 2015).

Profile of Participants

To get a firsthand account from the stakeholders, the researchers conducted an online survey to understand the challenges of online teaching and learning. The survey focused on the students (undergraduate and postgraduates) and teachers from disciplines like humanities, commerce and science. It was sent to around 150 students and 20 teachers out of which 101 students and 14 teachers responded. After collecting the data, 3 students (2 females and 1 male; Appendix 3- Schedule for students) and 3 teachers (2 males and 1 female; Appendix 4- Schedule for teachers) were interviewed to cross-check and authenticate the responses received through the questionnaire.

Data Collection Method

In order to achieve the objectives mentioned above, primary data was collected through an online survey using Google Forms. The first one was for the students (Appendix 1) who attended online classes during the lockdown and the second one was for the teachers (Appendix 2). The students’ questionnaire had 15 questions about their experiences of online learning like study hours, medium of interaction, participation in presentations and webinars and the one for teachers had 10 questions related to their online teaching experience, assessment methods, communication tools, etc. The survey included students from both public and private universities from eleven different states of India.
Table 1. Participant Description

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Students</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>Graduate</td>
<td>56</td>
<td>55.44%</td>
</tr>
<tr>
<td></td>
<td>Post Graduate</td>
<td>44</td>
<td>43.56%</td>
</tr>
<tr>
<td></td>
<td>MPhil/PhD</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>64</td>
<td>63.36%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>37</td>
<td>36.64%</td>
</tr>
</tbody>
</table>

Demographic variables

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Teachers</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male</td>
<td>05</td>
<td>35.71%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>09</td>
<td>62.29%</td>
</tr>
</tbody>
</table>

The survey data has been analysed as per the respondents’ state of origin and presented in a pie chart below.

Figure 1. State Wise Observation of Participants

Quantitative and Qualitative Data Analysis

The first objective of the survey was to know whether online learning was stressful for the students because of the “number of hours” spent online every week. The result showed that 43 per cent students studied less than five hours a week online which was less compared to offline classroom study. On the other hand, 24.10 per cent students claimed to study 5 to 10 hours a week and 23.20 per cent chose more than 15 hours a week which is still less than the offline classroom study time. Here is a graphic representation of the hours spent per week:
Student Feedback

Figure 2. Weekly Engagement

![Weekly Engagement Chart]

From this data we gather that as the screen time is strenuous, the weekly engagement of the students is less than 5 hours.

The second objective of the survey was to know how convenient online learning was for the students. The results showed that 77.2 per cent of students found the schedule of classes quite convenient as most of them received notes from their teachers, made their presentations through Power Point and attended webinars during the lockdown.

Table 2. The Table Below Shows the Various Responses Received from the Participant Students

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Question</th>
<th>Response (Yes)</th>
<th>Response (No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Notes Received</td>
<td>70.9%</td>
<td>29.1%</td>
</tr>
<tr>
<td>2.</td>
<td>PPT presentation</td>
<td>58.0%</td>
<td>42.0%</td>
</tr>
<tr>
<td>3.</td>
<td>Webinar Attended</td>
<td>68.0%</td>
<td>32.0%</td>
</tr>
<tr>
<td>4.</td>
<td>Performed Assignments</td>
<td>80.5%</td>
<td>19.5%</td>
</tr>
<tr>
<td>5.</td>
<td>Doubts Resolved</td>
<td>76.8%</td>
<td>23.2%</td>
</tr>
</tbody>
</table>

This data suggests that the lockdown did not hinder students’ academic activities as assumed earlier; in fact, the online medium emerged as a boon. About 76.8 per cent were satisfied by the explanation given by the instructor as their doubts were resolved; 70.9 per cent students received notes before or after the class to resolve the problem of lack of study material.
The institutions were quite accommodative and sensitive to the circumstances in which the students were studying and provided the necessary relief as and when required. Other studies have also suggested that most students are prepared to opt for online classes to cover their syllabus on time during this pandemic (Muthuprasad et al., 2021). The respondents who were interviewed also endorsed that the teachers (some of them) made use of PPts, showed videos, assigned reading and split them into breakout rooms for discussion. Some of them even found the chat option quite convenient for raising their doubts and asking questions. One of the respondents also expressed his amazement at the quick adoption of the teachers to the online mode of teaching.

### Table 3. Platform Used by the Institutions

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Platform</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Zoom</td>
<td>92</td>
<td>80.7</td>
</tr>
<tr>
<td>2.</td>
<td>Google Meet</td>
<td>91</td>
<td>79.8</td>
</tr>
<tr>
<td>3.</td>
<td>WhatsApp Messenger</td>
<td>18</td>
<td>15.8</td>
</tr>
<tr>
<td>4.</td>
<td>Others</td>
<td>17</td>
<td>14.9</td>
</tr>
</tbody>
</table>

*Note. Respondents were free to choose more than one option.*

The results show that most of the institutions used video conferencing apps like Google Meet and Zoom Call to communicate live with students who could ask their queries anytime during the lecture and participate in the presentation.

### Figure 3. Experience of Studying at Home

Many students and teachers found the home environment unfavourable (Kapasia et al., 2020, Zhang et al., 2020) because of external noises causing lack of focus. Consistency in studies was also very difficult as
students tended to postpone the work and could not manage their time (Fidalgo et al., 2020). All the respondent students who were interviewed also corroborated the point of lack of concentration due to disturbance at home.

Figure 4. Problem in Accessing Internet

Figure 4 clearly states that most students (74.1 per cent) complained about the poor internet connection and frequent disruptions. Apart from this, digital infrastructure, and absence of advanced devices are other problems pointed out by respondent teachers and students to the open-ended question. The same challenges were also shared by the respondents who were interviewed. One of the respondents felt that finding a quiet “personal, private, space” (Student Respondent Male- SRM2) at home was a major challenge. Another said that the home environment was not congenial for focused study because of noise and disturbance.

Table 4. Students’ and Teachers Feedback About Online Learning

<table>
<thead>
<tr>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of interaction</td>
</tr>
<tr>
<td>Lack of attention</td>
</tr>
<tr>
<td>Practical classes not feasible</td>
</tr>
<tr>
<td>Technical issues / Network problem</td>
</tr>
<tr>
<td>Student-to-student communication is missing</td>
</tr>
<tr>
<td>Health issue / High screen time</td>
</tr>
<tr>
<td>Recordings make revision helpful</td>
</tr>
</tbody>
</table>
Saves travel time Some teachers (57 per cent) complained about the lack of seriousness and attentiveness at the students’ end during online classes. They explained their helplessness in keeping them attentive, especially when their cameras are all turned off. They were not aware whether the students were paying attention.

Teachers’ Feedback
Fifty per cent of the respondent teachers said that they were already familiar with technicalities of online teaching but online teaching posed a challenge for the other 50 per cent teachers. Research has suggested that educators who do not have any prior experience of teaching online often consider this mode of education as inferior (Bozkurt et al., 2020, Hodge et al., 2020).

Figure 5. Online Teaching

The results of the survey highlight the urgent need for teacher training programmes to increase the efficiency of the teachers by making them familiar with the technicalities of online teaching, communicating, and assessment. As many as 74 per cent teachers accepted facing difficulties in teaching. In some studies teachers have reported that additional professional development to support students’ engagement in online classes can be beneficial (Zweig & Stafford, 2016). When the teachers were interviewed, they regretted lack of screen control as a result of which they were uncertain about students’ attention. One of the respondent teachers complained about infrastructural problems.
Figure 6. Assessment Methods Used by Teachers

Most teachers used PPT presentations, time-bound assignments, cross questions and viva as methods of assessment. Apart from these, Google classrooms can also be used for assessment of students.

Figure 7. Classes Taken Per Week

The survey suggests that around 50 per cent teachers were teaching less than 5 hours a week, 23.2 per cent teachers were taking 5-10 hours of classes a week and only 12.5 per cent teachers engaging more than 15 hours because of pressure of upcoming exams and pending syllabus. From this we understand that probably to minimize the screen stress, most of the teachers were engaging the students for a fewer number of hours.
The study shows that 57.1 per cent chose “question answer session” as the medium of interaction with students. Solving doubts just after the class proved very convenient for teachers. But this is possible only when the class size is small. In case of large classes teachers can opt for other methods (chat box, discussion forum, social media, etc). This promotes interaction among the students and the discussion helps in clarifying the concepts.

**Challenges of Online Learning and Teaching**

Online classes provide flexibility to the students to learn in the comfort of their homes, yet there are some emotional, physical and mental problems that they may be confronted with. Long screen time impacts the eyes of the children, further leading to insomnia and headaches. Despite the measures and rising e-learning facilities, many are likely to miss out on distant learning opportunities as only a quarter of households (24 per cent) have access to the internet in India. UNICEF states that there is a large rural-urban and gender divide in terms of access to internet services in India. Only 15 per cent of rural Indian households have the internet as opposed to 42 per cent urban households. Out of this, a mere 13 per cent (aged above fifteen years) in rural areas (females just 8.5 per cent) could use the internet. SRM1 also reported being lethargic in online classes, saying that “when you are at home, generally speaking, you don’t have the mindset to study.” This is true for most of the students. SRM2 confessed that he was not able to manage his time and “it became difficult (for him) to have a boundary between... work and... personal life.”

The online mode also reflects various challenges for teachers who in
order to make their lecture more engaging have to acquire technological competence. Also, online teaching cannot take into account the influence that the personality of the teacher has in a face-to-face classroom. Even though there are many technical advancements that are coming up with time yet these can never match the personal bond that is considered to be the soul of good teaching practice (Robinson & Rusznyak, 2020). Another challenge is making teaching more and more analytical, critical, creative, engaging and flexible. TRF1 (Teacher Respondent Female 1) felt that the “anonymity which online platforms provide, bring out the hideous side of mischievous students” and she shared how she had a tough time handling the students.

**Advantage of Online Learning and Teaching**

Although there are many challenges in effective implementation and success of online learning, while analysing responses it was observed that some students focused on the positive and futuristic aspect of the online mode of education and highlighted that online classes saved their travel time. Also these were beneficial for the students as they could not move out from their homes. Students also shared that recorded lectures give them freedom to revise their lessons. Through this online mode they could also learn from the best teachers around the world. TRM2 said that the “Online mode of education is really helpful in difficult times...” TRF1 gave a more balanced statement by saying that “while in offline teaching the teacher has more control, in online teaching he has more reach.”

While analysing the data collected from teachers, it was found that teaching online developed a different set of skills which encouraged them to learn new pedagogies, communication skills, creative teaching, etc. It also increased their range of audience. Online learning environment made teachers more conscious about the socio-cultural background of students. As stated by a teacher, “I need to know my students’ reality so I can shape my work properly” (Escobar & Morrison, 2020).

**Recommendations**

In order to learn online it is important for students to have a basic level of competence in computer skills, commitment for the course and motivation for learning. It should not be forced learning; students must move towards self-learning. Further developments should continuously be made in this field as it can change the education scenario and provide
quality education. A blended mode of learning needs to be adopted in the times to come. This will ensure consistent, self-paced and uninterrupted learning.

MOOCs can be a viable alternative to classroom education in adverse times, like the Covid-19 pandemic. In such a situation when schools and universities across the globe came to a standstill, short courses offered by Coursera, SWAYAM- NPTEL, EdX, Udemy can be a viable option.

Limitations
The major limitation of the study is that the data corpus is small. This was primarily because of restricted movement of students and teachers. Moreover, it is also not related to any single set of learners and teachers because reaching a particular set of teachers and learners in an online teaching scenario was not possible. As the survey does not focus on a particular discipline, it is difficult to generalize the results. Still the study adds some significant information to the literature available and highlights the improvements.

Conclusion
The results of this study have shown that both the students and teachers are dissatisfied with online learning compared to traditional classroom teaching. The more traditional teachers (TRM1) are of the view that “for all round holistic development of a student, a proper disciplined environment ... is needed which can only be provided through the offline mode.” In terms of the challenges faced, both students and teachers complained about lack of interaction, loss of attention, feasibility of practical classes and technical problems. Still in this crucial situation they find online teaching to be a convenient mode of education. Higher education institutions are working in this direction very enthusiastically and finding multiple ways to increase their reach to students. Through platforms like Swayam, Diksha, Fossee, E-Yantra, etc. the government is doing commendable work to promote online education. But the efforts to widen the internet base are weak. Even when the world is back to normal times, this blended mode could help the learners and teachers immensely. So, there is an urgent need to prepare ourselves for it.

References


**Abhishek Verma** is a research scholar at the Department of English, Central University of Rajasthan working in the field of MOOCs.
av.abhisheaverma94@gmail.com

**Sanjay Arora** is Head, Department of English, Central University of Rajasthan and the National President of ELTAI too.
sanjayarora@curaj.ac.in