

Inside Online Classrooms: Teachers' Online Teaching Experiences during COVID-19 Pandemic

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Abstract

As a preventive measure to control the spread of the novel coronavirus nationwide lockdown was imposed in India in March. Since then schools in Delhi have been closed and online teaching is being done to prevent academic losses. Teachers went through a sudden shift from classroom teaching to online teaching. Online teaching is new to teachers. In the absence of any standard protocol or a structured approach, it is being delivered in varied ways. The current study explores the experiences of teachers and the opportunities and challenges felt during online teaching. This qualitative study was done using an online questionnaire and telephonic interviews with eight teachers working in different private and government schools in Delhi. Teachers mainly relied on WhatsApp to connect with students and found online teaching interesting and interactive. Major challenges highlighted were the non-availability of smartphones and the internet, the speed of the internet, and the lack of student motivation.

Keywords: Online teaching, Teachers, Schools, COVID-19, Pandemic

Introduction

On 31 December 2019, a cluster of cases of pneumonia caused by novel coronavirus was identified in Wuhan City of Hubei province, China and within a few months, there was a 13-fold increase in outside China cases of COVID-19 as a result of which WHO declared COVID-19 a global pandemic on 11 March 2020 (Prasad, 2020). On 30 January, India had its first case in Kerala. 3 new cases came by February 3, 2020 with no significant rise till March (Rawat, 2020). 4 March 2020 became the tipping point when the number

of Corona positive cases rose to 28, including 12 Indian citizens and 16 Italian tourists (Outlook Web Bureau, 2020). As the cases of Coronavirus disease began to rise in India, on 24 March 2020 nationwide lockdown was imposed. Almost all sectors including industries, aviation, banking, retail, education, etc. stopped working with immediate effect. The education of students across the country got adversely affected due to the closure of schools. Disrupted classrooms raised concerns amongst the state authorities and in no time schools switched to online teaching (Asian

News International, 2020; Sharma, 2020). Teachers overnight adapted to a completely new form of teaching. The literature review showed that efforts for online teaching were in progress for quite some time and e-learning was possible via MOOCs (Dhawan, 2020, p.13). India boasts of having the world's largest free online e-learning platform SWAYAM, as illustrated on the AICTE website. India has been prepping up for online education by developing a gamut of e-resources like NPTEL, Virtual labs, A-VIEW, Consortium of Educational Communication (CEC), digital libraries, ePathshala, e-PG Pathshala, DIKSHA, SWAYAM Prabha, Gyandarshan. But, online education did not get much foothold.

The unprecedented circumstances created by COVID-19 pandemic resulted in a switch to online teaching and learning and what the world saw was a mega educational experiment in action. Education in the year 2020 was supported by online platforms that included learning management systems (LMSs) like Google classroom, Microsoft teams, Edmodo, EduPage; video sharing websites like TEDEd, YouTube; instant messaging platforms like WhatsApp, Gmail; video conferencing apps like Zoom, Google meet, Google hangouts, Skype; online assessment tools like Quizizz, Google forms, Kahoot (Addimando et al., 2021; Atmojo & Nugroho, 2020; Basilaia & Kvavadze, 2020; Sharma, 2020). As there were no pre-designed strategies to run online education for a prolonged period, every country came up with dynamic solutions. Various challenges and opportunities surfaced during this

period of online teaching.

Challenges of Online Teaching

Indian e-learning scenario has always been plagued by challenges of equity and access, digital divide, low digital literacy. Ensuring quality education is another major challenge (Dhawan, 2020, p.14). Some basic challenges faced during implementation of online teaching are poor network especially in remote areas, lack of smartphones, distraction, low cyber literacy, the requirement of technical support, need of designing specific online curriculum and creating online teaching content, the requirement of training teachers in skills like online interactions and online assessment, the additional cost of internet and hardware, added responsibility on teacher to provide technical support to students, difficulty in dealing with individual differences and ensuring student engagement (Atmojo & Nugroho, 2020; Hasan & Khan, 2020; Kaup et al., 2020; Slimi, 2020; Wedenoja, 2020; Zhang et al., 2020). Regular teaching material, methods, and assessment techniques cannot be used in online teaching. But, instead of delivering specialized content designed for the online mode of teaching, often teachers use classroom teaching content in online classes (Fedynich, 2014; Wedenoja, 2020; Zhou et al., 2020). Successful delivery of online teaching depends heavily on the technological abilities of both teachers and students. In the case of school students, lesser access and exposure to online learning tools, difficulty in time management, lack of students' motivation, social isolation

are also some barriers (Fedynich, 2014; Tamm, 2019; Windiarti et al., 2019; Wedenoja 2020). Online teaching becomes challenging especially in the case of the young learners as they may not have the basic technical skills like texting and sharing attachments. In online teaching, there is a limited scope of hands-on activities and interaction required to engage young learners (Kim, 2020, p.148). Another limitation is the additional requirement of parental support and supervision for online learning of young learners. Online teaching put a burden on teachers, in a short span they had to understand the use of digital tools, apply them and try different teaching strategies. Alongside, they had to stay in contact and ensure the well-being of students (König et al., 2020). Designing online assessment and ensuring quality is another challenging task for teachers (Kaup et al., 2020; König et al., 2020; Slimi, 2020; Tamm, 2019). Security and privacy concerns of teachers and students, difficulty in teaching practical aspects are added challenges. Online teaching suffers due to the lack of regulation, technology infrastructure, and funding (Slimi, 2020).

Opportunities of Online Teaching

Due to the increase in the access of touch screen smartphones and the internet; online tools are being used by children from a very young age (Kim, 2020, p. 149; Edwards et al., 2018). Leveraging upon this, online teaching was prescribed from primary to higher education level during the COVID-19 crisis in India. Online mode of learning offered features like flexibility, accessibility of content, interaction,

self-paced learning from the comfort of home. These features along with the affordance to teach from anywhere anytime made online teaching a global solution for continuing education (Hasan & Khan, 2020, p. 206; Kim, 2020, p. 148). Online teaching provides an opportunity for synchronous as well as asynchronous communication which increases student participation. Online tools are useful in giving creative activities to students and save time and cost of travel (Fedynich, 2014; Kim, 2020, p. 149). Online teaching helps in reforming the methods of teaching in line with the needs of the digital age (Zhou et al., 2020). Using online platforms teachers could communicate regularly with students and parents, provide learning content, assign work and provide requisite feedback (König et al., 2020, p. 615). Screen sharing during synchronous online classes was appreciated by teachers (Basilaia & Kvavadze, 2020; Kim, 2020, p. 151). Online teaching during pandemic has helped in refining the technical skills of teachers and students. Online learning has developed critical thinking and problem solving in students and improved their information searching skills. It has also highlighted the need for upgrading the technology infrastructure of educational institutions and the need for the preparation and training of students and teachers (Slimi, 2020, p.47). The flexibility of time and space possible through online teaching appeared as its biggest strength in times of crisis and online teaching done in virtual classrooms by qualified teachers served as the best-suited substitute for traditional classroom teaching (Manegre & Sabir, 2020).

Lack of impetus and resistance of stakeholders; had kept online teaching at bay. But, these desperate times have called for desperate measures. Due to the COVID-19 pandemic opening of schools appears perilous. In Delhi at the beginning of September 2020, the total confirmed positive cases soared to 1.7 million and cases have been coming each day (Ministry of health and family welfare website). In the given scenario, online teaching has become the new normal across all schools of Delhi.

Research Question

This study is an attempt to address the following research questions:

1. What types of online teaching practices are being followed by school teachers amid the COVID-19 pandemic?
2. What opportunities and challenges were felt by school teachers during online teaching?

Objectives of the study

1. To study the online teaching practices being followed by the teachers teaching primary, secondary, and senior secondary students amid the COVID-19 pandemic.
2. To identify the perceived opportunities and challenges of online teaching.

Methodology

Sample of study

The present study follows a qualitative design of research. The sample of the study includes 8 teachers. There are 5 PRT (Primary Teacher), 1 TGT (Trained Graduate Teacher), 2 PGT

(Post Graduate Teacher) teaching in 7 different private and government schools of Delhi. Out of 8 respondents, 6 are females and 2 are males. The age of respondents is between 30 to 57 years. The respondents are of varying teaching experience ranging from 3 years to 34 years. Teachers who were conducting online classes during the lockdown and were willing to participate were chosen as respondents for the present study.

Data collection tools

Data collection was done using an online questionnaire and semi-structured telephonic interviews. The questionnaire included 17 questions, with 7 questions related to personal details about gender, classes taught, teaching subject, designation, etc, and 10 questions related to teacher's online teaching experiences with 2 multiple choice questions and 8 open-ended questions.

Data collection and analysis

Data collection was done during June-July 2020 from the respondents who were taking online classes from the first week of April 2020. Thematic analysis of responses of the participants was done and the responses were divided into three broad sections: online teaching practices of teachers, challenges faced and opportunities discovered which are presented in detail in the next section.

Analysis and interpretation

The 8 teacher participants are referred to as T1, T2, T3, T4, T5, T6, T7, and T8 to maintain anonymity. The demographic details and general information provided by the teachers are summarized in table 1.

Table-1: Details of Respondents

Teacher	Gender (Female: F, Male: M)	Class (es) taught	Subject(s) taught	Designation	Experience (years)	Type of school	Students in contact/ Total Strength	Platforms used for online teaching
T1	F	I and II	English, Hindi, EVS	PRT	10	Private	45/45	WhatsApp, email, Microsoft Teams, YouTube
T2	F	III	English, Hindi, Mathematics, Social Science, EVS, Drawing	PRT	5	Govt.	22/40	WhatsApp, YouTube
T3	F	II	English, Hindi, Mathematics, Social Science, EVS, Drawing	PRT	5	Govt.	16/31	WhatsApp, YouTube
T4	M	V	English, Hindi, Mathematics, Social Science, EVS, Drawing	PRT	19	Govt.	10/40	WhatsApp, YouTube
T5	F	I	English, Hindi, Mathematics, Social Science, EVS, Drawing	PRT	14	Govt.	19/41	WhatsApp
T6	F	X	Natural Sciences	TGT	5	Govt.	96/117	WhatsApp, YouTube, Google Forms, Kahoot
T7	F	XII	Political Science	PGT	3	Govt.	50/50	WhatsApp, Zoom, Skype

T8	M	XII	Painting	PGT	34	Govt.	45/50	WhatsApp, Google, YouTube, Google Meet
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1. Online teaching practices of teachers

The first objective was to study the online teaching practices being followed by the teachers teaching primary, secondary, and senior secondary students amid the COVID-19 pandemic. For this, the platform used for online teaching, plan of online teaching, type of teaching session, and online teaching strategies of teachers were studied.

a) Platform used for online teaching

In schools of Delhi, WhatsApp and YouTube are the most used platforms across all levels (column 9, table1). The preferred use of WhatsApp is due to its availability in most households. It emerged as a platform of choice for online learning because it is easy to access as a free mobile app and is a user-friendly platform. It has features like texting, networking, file sharing, audio recording, audio and video calling which makes it suitable for discussion, knowledge sharing, communication, and collaboration.

"Students would submit assignments on WhatsApp and I would check and give them remarks"..(T6)

"I searched teaching content on Google and YouTube and sent it to my students through WhatsApp...explained the theory to the students by audio recording and gave instructions through WhatsApp...The

students submitted their work by sending photos on WhatsApp"..(T8)

A teacher also highlighted the possibility of record-keeping using virtual storage space available through WhatsApp. *"Also through WhatsApp keeping the record of whatever is taught to them is easy and also (students) they can revise it anytime".. (T3)*

YouTube, a video platform with millions of videos, provides easy search and sharing options. It is free to access and does not require having an account. Videos on YouTube are used by teachers as a quick fix teaching aid. *".. interesting videos (shared online) are a nice method and better than methods used in the classroom"..(T4)*

b) Plan of online teaching

The plan of teaching has been flexible at the primary, secondary, and senior secondary levels (column 3,table2).

".. Every day in primary class one subject is enough. In MCD schools, parents are mostly daily wagers...so flexibility be given for students to let them complete homework at any time"..(T2)

"In regular teaching, there were boundaries of periods which is no more"..(T8)

This flexibility is partly due to the very nature of online teaching and partly to accommodate the shift from classroom teaching to online teaching.

c) Type of teaching session

Teachers employ mostly asynchronous sessions at all levels (column 4, table 2). But at the primary level, T1 teaching in a private school uses “live session to clear the concepts” using Microsoft teams. She shares the schedule of classes with parents. Students of private schools have parents who are digitally literate and can provide requisite resources and assistance. T7, a political science teacher in the government school, also

prefers synchronous teaching sessions. Along with the issues of network and lack of resources, she faces difficulty while using the platform and in assisting the students but she finds live teaching more satisfying. She shares, *“First I used the zoom app for conducting online classes as it was most easy to handle but later due to safety concerns I switched to another alternative Skype. It was a bit difficult for me as well as for students”.*

Table-2: Plan of online teaching and type of teaching session

Teacher	Teaching level	Plan of online teaching	Type of teaching session
T1	Primary	Flexible	Mostly synchronous and sometimes asynchronous
T2	Primary	More often flexible sometimes fixed	Asynchronous
T3	Primary	Flexible	Asynchronous
T4	Primary	Flexible	Asynchronous
T5	Primary	Flexible	Asynchronous
T6	Secondary	Flexible	Asynchronous
T7	Senior Secondary	Flexible	Mostly synchronous and sometimes asynchronous
T8	Senior Secondary	Flexible	Asynchronous

d) Online teaching strategies of teachers

The teaching strategy adopted during online teaching appears as a mix of traditional methods with an increased use of multimedia delivered through online platforms. Some efforts are visible where teachers are trying a combination of online tools to make remote teaching more effective. Instructions are given using WhatsApp;

Lecture or explanation of content done through Google meet, Microsoft teams, Zoom, Skype and by audio notes on WhatsApp; Support material includes worksheets, pdf of notes and NCERT ebook; Teaching Aid includes, YouTube videos, e-content from Google; assessment is done using WhatsApp, Google forms and Kahoot,

Teaching strategies for primary students

In government schools, teachers are using multimedia like audio, YouTube video, pictures, presentations, games to engage students. Sharing worksheets is the most preferred way of teaching primary students.

"Colorful worksheets and interesting videos (shared online) are a nice method ...Children are more attentive and attracted to audio-visual aids which can be used in online classes".. (T4)

.."more suitable is giving worksheets. Most students respond to this method. They are eager to know the teacher's responses to their work"..(T5)

Instructions are given by audio message, copies corrected by pictures sent by students, remarks given in audio/text messages on WhatsApp.

"Question and answer session, ppt, video (from the internet), tutorial video (self-made), assignment, live session to clear the concepts" via Microsoft teams are all part of online teaching being done by (T1) a primary teacher of private school. The school has purchased the license and trained teachers to communicate remotely and to conduct synchronous teaching sessions. The teacher would share the schedule and instruct on WhatsApp.

Teaching strategies secondary students There is use of a variety of multimedia resources (text, audio, video, ppt), online platforms (WhatsApp, YouTube, Kahoot), and online resources (e-book, Google form) to teach students. As secondary level students can follow instructions easily, the teacher tried to engage them through various platforms.

"I started by sharing some notes on class WhatsApp groups and made ppts for the students. I would then share the pdf of the chapter from the NCERT book and for a better understanding of students, I would share (self-recorded) audio, ppts, Youtube videos followed by home assignments. I also took tests using Google forms and held quizzes on Kahoot"..(T6)

Teaching strategies for senior secondary students

A political science teacher of a government school used a combination of synchronous and asynchronous sessions using Zoom, Skype, and WhatsApp. She had to initially give technical assistance to her class XII students regarding live online classes. *"all the students were able to see it properly and were able to follow my instructions".. (T7).* Later students could easily join classes. A fine arts teacher with 34 years of classroom teaching experience resorted to YouTube for teaching painting skills and used e-content from Google. *"I searched teaching content on Google and YouTube and sent it to my students through WhatsApp"..(T8)*

2. Challenges faced by the teachers

Online teaching perplexed teachers and brought a bunch of challenging situations. Some of the challenges are due to the digital divide and some are a result of an unplanned switch to online teaching.

a) Lack of devices and internet

In private schools, the teacher can connect with 100percent of students. In contrast, teachers teaching in

government primary schools can connect with only 44.08percent of students. At the secondary level, the teacher can connect with 82.05percent of students and 95percent at the senior secondary level (column 8, table1). The non-availability of devices is the main reason for limited reach.

"The main issue in online teaching is that we are not able to connect with all the students as they are not having any resource with them"..(T3)

"But the only negative part is that many parents still do not have a smartphone or sufficient (internet) data"..(T4)

"all students are not accessible as everyone is not having smartphones and sufficient data" ..(T5)

"Students do not have personal smartphones/laptops. Students often message to inform me that they missed some information as their father took the phone to work"..(T6)

b) Cost of internet

Another challenge in many low-income families is the financial burden of providing internet for their child's learning. *"I feel the cost of the internet might be a burden as well"..(T6)*. As pointed out by T2 *"parents are mostly daily wagers"* and most of them lost their work during the COVID-19 crisis. Providing the internet to sustain the education of their children is difficult. T7 felt that *"more (internet) data consumption"* restricts students from participating in online activities. Many govt. school teachers are restricted to sharing audio messages, text, and pictures to avoid heavy data consumption.

c) Internet speed and network quality

This is a problem faced by teachers who take live classes through video conferencing which is dependent upon the speed and quality of the internet. T1 and T7 find *"poor network"* a challenge while taking live classes. *"Another problem was that the voice clarity was not good where there was a network issue at the residence of a few students"..(T7)*.

d) Lack of Parental support

Due to the sudden implementation of online teaching, students were not prepared to learn online. In such a scenario, parental support is required for smooth online learning. T2, a government primary school teacher said, *"those kids whose parents are illiterate are not able to cope up with online classes"*. In government schools, many students are first-generation learners who cannot take the help of their parents and with little or no digital skills they fail to participate in online classes.

e) Non-responsiveness of students

Teachers teaching primary and secondary students found difficulty in ensuring the active participation of students. While teaching through remote means, teachers could not ensure 100percent participation. T2 shared *"60percent of students responded timely and almost daily"*. T3 also said, *"many of my students are not responding online"*. Another primary teacher T4 said, *"students are not responding despite so many reminders only a few students gave the response"*. *"Keeping students motivated to learn is also difficult while*

teaching online”..(T6). Teachers struggle without any guidance about strategies to ensure the motivation and participation of students in online environments.

f) Disturbance

During online teaching students learn from home. And if the entire family is staying in a small place due to lockdown, it becomes a very inadequate space for learning. T7 during her online classes noted, *“most of the time the sounds from their houses or of other people were coming and were disturbing the class”*.

g) Difficulty in hands-on practice

T8 specifically pointed this out, as he teaches painting which requires demonstration and hands-on practice. His concern was, *“Practical cannot be conducted in online teaching... demonstration to show the skills of painting is difficult online”*. This challenge is often felt by science, vocational, fine arts, and performing arts teachers.

h) Feeling of isolation

A classroom is also a place of social learning. Online teaching misses this aspect as learners participate from different spaces. T8 shared, *“.. in online teaching physically the students cannot be connected”*.

“While conducting the classes I noticed that most of the students were reluctant about showing themselves on the camera...sometimes I felt uncomfortable because I wanted all my students to show themselves on the camera so that I can see their faces”..(T7)

3. Opportunities faced by the teachers

The fact that the entire world resorted to online teaching in times of pandemic, states a lot in itself about the opportunities online teaching and learning provides. In the present study, following opportunities were revealed.

a) Anywhere-Anytime learning

Online teaching ensures anywhere-anytime learning. During the pandemic, this advantage of online teaching has helped in the safe and continuous learning of the student. In the state of crisis, online teaching appeared useful as *“We can reach all students who have smartphones”..(T7)*

“Online teaching brought a lot of opportunities like anytime, anywhere teaching and learning. Remotely I can reach my students while we all stay safe in our homes”.. (T6)

“students can be connected anytime... In regular teaching there were boundaries of periods which is no more”..(T8)

b) Easy sharing of a variety of multimedia

The online platform allows easy access and sharing of multimedia resources. They are user-friendly due to which teachers from varying age groups in the present study have used online file sharing tools to share learning material.

“Through online teaching, I am able to use audio-visual aids very well”.. (T3)

“In classrooms, it's not possible to show videos and give attractive worksheets”..(T5)

"I can now use a variety of engaging ways and various audio-visual resources easily"..(T6)

".. there was one good thing which I noticed was that of screen sharing and of reading out the content"..(T8)

c) Interesting and engaging learning

Online teaching provides the scope of using interactive aids like *"videos and games"* (T4) which appeals to the learner and increases engagement.

"This method of teaching is more interesting for students as well"..(T5)

"Because of the live interaction on the online classes students were able to ask their doubts and their doubts were immediately cleared by me so this was a plus point of live interaction through an online class"..(T7)

d) Flexibility in deciding schedule and content

During online teaching, teachers were not restricted to any set pattern and could customize their teaching based on their judgment. T5 shares, *"We are allowed to share material at our level also". T1 now has her own "choice of teaching hours"* and she finds it more satisfying than the fixed schedule of classroom teaching.

e) Professional development

Online teaching has exposed teachers to a variety of online teaching tools. *"I have learned so many new things that are going to be useful in the future"*(T6). They have got experience in designing online content and online assessment. They have understood the need of learners

in online environments. They have developed skills like problem-solving and critical thinking.

Discussion

From the analysis, it appears that apart from holding the fort in times of crisis, online teaching in the year 2020 gave a fresh perspective to all educators and students. It did serve the purpose of continuing education during tough times and helped in testing the potential of available online resources.

Online teaching practices of teachers

Platform of teaching

The online platform WhatsApp is ubiquitous at all levels and in both gov. and private schools. The ease of use and availability of this platform as a mobile app in almost every smartphone used in India made it more useful than any learning management system. These findings are consistent with the observation and findings of Alubthane & ALYoussef (2021, p.47,48) , Barhoumi (2015, p.236), Dhillon (2020), and Hasan & Khan (2020, p.206), Hulst (2020), Sharma(2020).

Plan of teaching

Teachers are preferably using a flexible plan and asynchronous session as school students do not have enough exposure and access to online tools. As a consequence, they have limited digital skills. Similar findings are seen in the work of Fedynich (2014), Kim (2020) and Wedenoja (2020). Access to the internet and smartphone is also an issue which deters teachers from having more

synchronous sessions.

Teaching strategies

As there were no standardized materials and methods specific for online teaching, teachers ended up replicating traditional teaching on online platforms. Online teaching requires a specific course design and transaction methods. If classroom teaching practices are used while teaching online then students do not perform well (Wedenoja, 2020). Providing worksheets during online teaching was found useful by primary teachers. Worksheets provided content in a structured manner and manageable chunks so that students can practice properly and teachers can easily check the work and provide required feedback (Martin, 2020).

Challenges faced by teachers

The challenge of lack of devices and internet is due to the problems of equity and access and stark digital divide in our country. Online teaching during pandemic has only widened the gap between haves and have-nots. Parental support is seen missing due to the low economic status of the family and no/low digital literacy of parents. Internet speed and network quality is a digital infrastructure issue that can be resolved. Challenges of non-responsiveness of the students and difficulty in hands-on practice are observed as teachers and students were least prepared for this mode of education. One striking observation was the feeling of isolation in online classes. In live video classes, teachers often find it difficult to teach a screen of black boxes and students feel more vulnerable to keep their cameras

on as they do not feel comfortable in showing the surroundings they are sitting in and the idea that everyone can see them makes them uncomfortable (Reed, 2020).

Opportunities discovered by teachers

Online teaching was like a ray of hope in such grim times as it could afford anytime-anywhere learning. This is of great use when social distancing and isolation is required to break the chain during the pandemic. A plethora of online tools is available with advanced features which are helping teachers in making learning interesting and engaging. The ease of use, availability of mobile apps, and quality user interfaces help teachers in sharing media files conveniently. Online teaching allows teachers to decide the schedule and content of teaching which is satisfying for teachers. A similar finding can be seen in the work of Borup & Stevens (2016, p11). Teachers also felt that they developed digital skills, problem-solving, creative and critical thinking, and working under stress which would help them professionally in the future.

Conclusion

The present study found online teaching useful in the times of pandemic. Online teaching has ensured continuous learning. Despite many challenges teachers have worked assiduously. But, it is evident that we are yet not prepared with suitable infrastructure and trained teachers to teach in a fully online mode. There is a need to develop online content and provision of equitable access to digital resources if we have to take advantage of online teaching.

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