Network and Complex Systems
ISSN 2224-610X (Paper) ISSN 2225-0603 (Online)
Vol.15, 2025


# Perceptions of Secondary Students on Online Learning during COVID-19: A Qualitative Study

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**ABSTRACT**

The pandemic has impacted every sector of society, including education. The effects of the pandemic were harsh on the lower socioeconomic class, as they did not have access to private tutors or online learning resources during the lockdown period. While upper-middle-class and lower-middle-class families managed to use online learning resources, the education of children from the lower socioeconomic class suffered. To better understand the impact on these students, a qualitative study was conducted in India, using semi-structured interviews to gather data from 25 students in grades 9-12. The study revealed three themes: the impact of online learning on the mental health and education of students, barriers to online learning, and preferred modes of learning. Due to the limited availability of online learning resources, students were not able to cope with their studies, which adversely impacted their mental health. To ensure that underprivileged children are included in future lockdowns or similar situations, authorities should provide financial assistance and smart devices for their education.

**Keywords**: secondary students, online learning, education, lower socioeconomic class
**DOI:** 10.7176/NCS/15-02
**Publication date:** February 28th 2025

## 1. INTRODUCTION

The outbreak of the coronavirus badly affected every sector of society. This has affected all facets of our economy. The COVID-19 pandemic has significantly impacted our everyday lives, work routines, social gatherings, and traditional funeral practices (Saraff et al., 2021). According to UNESCO, 1.5 billion children and youth were affected by school closures in 195 countries, from pre-primary to higher education (UNESCO, 2020). In India, the government announced a lockdown and closure of all educational institutions to ensure social distancing in view of public safety. As a result, all educational institutions conducted classes online to ensure social distancing. The Ministry of Human Resource Development (MHRD) shared various free digital e-learning platforms such as the National Programme on Technology Enhanced Learning, Study Web for Active Young Aspiring Minds (SWAYAM), ePathshala, Digital Infrastructure for Knowledge Sharing (DIKSHA) portal, and the National Digital Library, etc. for students so that they could continue their learning during lockdown (MHRD, n.d.). COVID-19 changed the traditional teaching model to an online model in which teachers and students interacted virtually.

Several studies have been conducted to determine the experiences of students and teachers regarding online classes. These studies have established that students need help with online classes due to inadequate facilities, limited data packs, and the inability of some students to afford internet facilities. Due to such situations, online classes also become stressful for teachers. Additionally, most students and teachers believe mathematics is the most difficult subject to teach or study online. Students face challenges during online examinations and sometimes indulge in indiscipline during online classes because of a lack of physical interaction. Furthermore, there needs to be more motivation to learn in online classes as the school has a conducive environment for learning, where students and teachers interact physically for a definite period daily. Therefore, students agreed that online learning cannot be a substitute for physical learning (Bishnoi & Suraj,

 

2020; Harefa & Sihombing, 2022; Lalduhawma et al., 2022; Osman et al., 2022; Almahasees, 2021; Beulahbel Bency, 2022; Lembani et al., 2020; Almahasees, 2021; Biccard et al., 2023; Gallani, 2020).

While classes were conducted online, children from the upper class had access to all types of devices and internet facilities. Children from the upper middle class also had considerable access to online learning resources. Children from lower-middle-class families also managed to attend online classes with whatever resources were available to them for attending online classes. However, children from the lower socioeconomic class suffered the most as they lacked any online learning medium. Suppose a group needs more resources to meet basic needs such as housing, food, clothing, education, and healthcare facilities. In that case, they are considered to be poor or disadvantaged. Unfortunately, poverty often leads to poor health, inadequate nutrition, lack of education, and child labour (Misra, 2000). In developing countries, 20 out of 100 million children never attend primary school and an additional 30 million drop out by grade four. Some disadvantaged groups in India have dropout rates as high as 80% by grade five (Mohanty & Misra, 2000). Therefore, it is crucial to investigate the challenges faced by students from disadvantaged sections of society while attending online classes, as they may need more resources or funds to attend them. The research investigates the perceptions of students in 9-12$^{th}$ grades from lower socioeconomic backgrounds in India on online learning during COVID-19.

This study explores how, due to the digital divide, students from the underprivileged section of society remained deprived of online classes, which impacted their studies badly. This caused a feeling of hopelessness in them, affecting their mental health adversely. Therefore, students find themselves trapped in a cycle of deprivation, loss of studies, and grief, which this study strives to explore in detail. The complex relationship between the causes and consequences of poverty often makes poverty challenging to manage (Misra, 2000).

## 2. MATERIALS AND METHODS

Qualitative research aims at uncovering the meaning of a phenomenon for those involved. It explores how people interpret their experiences, construct their worlds, and what meaning they ascribe to their experiences (Merriam & Tisdell, 2016). Therefore, we adopted a qualitative research methodology to explore the perceptions of secondary students on online learning. For diversity, students were selected from four different states- Odisha, Delhi, Uttar Pradesh, and Uttarakhand, using convenience sampling. The sample consisted of 25 students in classes 9 through 12, of which 16 belonged to the lower socioeconomic class, which was the target group for the study (see Table 1). Additionally, four students from the upper-middle class and five from the lower-middle class formed the research reference group. A purposive sampling technique was used to select the sample for this study.

Data for qualitative research can be collected through interviews, observations, or document analysis. Qualitative interviews are less structured and open-ended. Less-structured formats allow individual respondents to define the world in an unrestricted manner. One less structured approach is semi-structured interviews (Merriam & Tisdell, 2016). We collected data for this research through semi-structured interviews of secondary students with parental consent. The Modified Kuppuswamy Scale 2022 (Sood & Bindra, 2022) determined the family's socioeconomic status. Each interview lasted 20-30 minutes and was conducted in Hindi, with verbatim transcripts prepared in English. Due to COVID-19 restrictions and the researchers being based in Rourkela (Odisha), face-to-face interviews were conducted with participants living in Rourkela (n=11). In contrast, telephonic interviews were conducted with the rest of the participants (n=14). The interview process was divided into two stages. The primary stage involved informal questions about the students' favourite subjects, hobbies, daily routines, and goals. The final stage comprised questions about the availability of online learning resources, the difficulties faced during online learning, its impact on their studies, etc.

Qualitative research uses words as data, which is collected and analysed in various ways. We analysed the data using steps suggested by Smith and Osborn (2008) for analysing interview data (Rana, 2021): - Firstly, all verbatim transcripts were carefully read, and meaningful themes were identified that described the perceptions of secondary students on online learning during COVID-19. Secondly, the emerging themes were marked. Thirdly, these emerging themes were recorded separately from the transcript. Fourthly, these themes were analysed for associations, checking for their differences and similarities. Finally, similar themes were grouped, and well-defined terminology was used for all themes.

## 3. FINDINGS AND DISCUSSIONS

This section presents the significant findings which emerged after the detailed analysis of the semi-structured interviews. The findings have been categorised into three major themes: The Impact of Online Learning on the Mental Health and Education of Students, Barriers to Online Learning, and Preferred Mode of Learning. An overview of students' responses on various themes that emerged after the detailed analysis of the semi-structured interviews is presented in Table 2.

 

### 3.1. Impact of Online Learning on the Mental Health and Education of Students

When attending online classes, having access to electronic devices such as laptops, desktops, and smartphones, as well as a reliable internet connection, is essential. However, students from underprivileged sections of society were deprived of such resources; we intend to explore the impact of online learning on such students' mental health and education.

During the lockdown, students from lower socioeconomic classes were wholly deprived of access to electronic devices, which prevented them from attending online classes. The reason behind this was the loss of livelihoods, which made it difficult for parents to afford their children's electronic devices and internet facilities. 62% of the students from the target group reported having no access to online learning resources such as laptops, desktops, and smartphones. As a result, these students could not attend a single online class during the lockdown period. They were forced to stay at home without any studies. 38% of the target group had only partial access to online classes due to the limited availability of resources. Although some of them could attend a few classes, they had to share a phone with their siblings, which caused further limitations. The target group's students (60%) reported feeling tense and anxious as they knew they missed many classes. They were hopeless as they had a feeling that nothing would be normal again. They felt that they would never be able to study again as their parents would never be able to provide them with sufficient resources for online classes as they were struggling with basic needs. The deprivation of studies harmed the mental health of students, and as a result, they did not wish to study using their books either. According to Sahoo and Biswal (2020) also, children are vulnerable to mental health issues due to changing environments and sudden stressors. When basic needs are scarce in most homes, technology-based learning leads to more discrimination. Children without online learning resources developed inferiority complexes compared to those who easily accessed all facilities. The poor and disadvantaged groups also lack dispositions, skills, and motivation. Furthermore, their biases and discrimination make them more vulnerable (Sinha, 2000).

Fortunately, children from upper-middle socioeconomic class families (20%) and lower-middle socioeconomic class (16%) did not face this problem. They were able to attend classes without much difficulty. They attended classes with whatever resources were available, including online learning mediums such as phones and laptops. Deprived groups, in comparison to non-deprived groups, are found to be lower on almost all positive attributes essential for leading a better quality of life. They also exhibit high anxiety, alienation, and helplessness (Pandey, 2000).

However, when children attend school regularly, they can study, play, and eat lunch with their friends. These activities are an integral part of school life, and both groups of students (44%) admitted that they missed their school, friends, canteen, and teachers. Children had less opportunity to be with their friends. They lack their social circle, which is necessary for good mental health (Sahoo & Biswal, 2020). Additionally, the lack of physical activity made them more lethargic, and they were not interested in doing any physical activity.

Both groups of children (60%) admitted they needed to improve in Mathematics, Science, Language, and practical subjects due to needing more practice. Additionally, children from lower-income families (28%) mentioned that they had forgotten basic concepts of many subjects, became weaker in the subjects they were already struggling with, and distorted their handwriting as they could not study during the lockdown. The students admitted that studies have been severely impacted by a lack of practice and limited access to learning resources. Both groups of students (40%) agreed that online classes disrupted their study schedules. As a result, they needed more time to study.

### 3.2. Barriers to Learning during Online Classes

During online classes, students and teachers faced many issues as well. These include technical and network issues and unruly behaviour by some students. All these resulted in disruptions during the classes, resulting in a significant amount of time wasted.

Students from low-income families (20%) faced connectivity challenges during online learning due to a lack of access to Wi-Fi and 4G recharges. Both students (target and reference group) (48%) faced network and technical issues during online classes. Many students have reported experiencing network issues during their online classes. These issues include disconnections and problems with audio and video quality. As a result, a significant amount of time is well-spent, and teachers are sometimes forced to repeat entire sessions for missed students due to these disruptions and not being added to the group.

Students faced a variety of external disturbances, including disruptions caused by their peers, as well as electricity and weather-related issues. Students (24%) reported that some students deliberately created disturbances by muting each other and producing disturbing voices. Online classes present challenges in maintaining discipline, as students tend to misbehave without fear of being caught. Furthermore, students (16%)

 

admitted that disruptions in electricity led to delayed classes. Weather conditions like rain and storms also cause power outages, making it difficult for students to attend classes.

### 3.3. Preferred Mode of Learning

The target and reference groups of children (72%) preferred offline classes over online classes. They believed offline learning provided several benefits, including clarity, convenience, ease of asking questions, a more conducive atmosphere, and a proper schedule.

According to the students, there are several reasons why online classes are difficult: - i) they find it difficult to solve problems and understand the lessons (28%), ii) the lack of in-person interaction with teachers (36%), iii) science, mathematics, and practical subjects are particularly challenging in an online setting (20%), and iv) inability to access online resources (40%). These results align with the study conducted by Chakraborty et al. (2020), which reported that the interaction and activities that occur in a physical classroom are challenging to replicate in an online classroom. Students tend to learn better in offline classes. Finally, offline classes are the best option for those who cannot access online classes because there are no constraints. The transition from traditional classroom learning to entirely online learning is disadvantageous for students from lower socioeconomic backgrounds, as there is inequity regarding the distribution of electronic learning devices and internet connections, and the cost of data packs is high.

## 4. Conclusion

The research highlights the stark digital divide, with a considerable percentage of students facing complete deprivation or partial access to online learning resources. This divide not only affected students' academic performance but also took a toll on their mental health. The students reported feeling tense, anxious, and hopeless. The development of inferiority complexes reveals the emotional distress experienced by students who were unable to access online classes. The psychological effects of poverty can lead to feelings of helplessness, low self-esteem, and mental health issues (Sinha, 2000). Socialising children in community settings is essential to help them connect with the past, present, and future (Pandey, 2000). Moreover, the research underscores the adverse consequences on academic endeavours, with students needing to improve subjects and disrupting study schedules.

The barriers to online learning, including technical issues, disruptions during classes, and connectivity challenges, further exacerbated the challenges faced by secondary students. The preference expressed by students from both groups for offline classes over online classes highlights the limitations and difficulties associated with online learning. The reasons cited, such as the lack of in-person interaction, difficulty in asking doubts, inability to understand certain subjects (especially mathematics and practical subjects), and challenges in accessing online resources, underscore the multifaceted nature of the obstacles encountered in the online learning environment.

In the face of these challenges, the research emphasises the need for a more inclusive and equitable approach to education, acknowledging that the transition to online learning disproportionately affects students from lower socioeconomic backgrounds. As educational institutions continue to adapt to evolving circumstances, understanding and mitigating the disparities revealed in this research should be a priority to ensure all students' mental well-being and success. The findings of this study have practical implications for the authorities and planners of the online education system. Possible solutions include providing economically disadvantaged families with smartphones or laptops, SIM cards, and data plans for online classes. Teachers should also be trained in conducting online classes effectively and meeting the needs of all students. It is essential to consider alternative ways of keeping children connected with schools during challenging times rather than relying on a single method that may only work for some. The use of technology should not be divisive but instead should promote unity.

Apart from having inadequate access to online learning resources, children from low-income families often deal with inadequate school facilities as well as a lack of parental support. As a result, children may struggle academically, drop out of school, withdraw from social situations, and feel hopeless. This only perpetuates the cycle of poverty, as these outcomes make it difficult for individuals to overcome their challenges. Research in psychology suggests that these issues are not the cause of poverty but contribute to enhancing it. Understanding the psychological effects of poverty is crucial in developing effective action programs and policies to improve the conditions of poverty (Sinha, 2000). Providing individual interventions, improving school practices, offering compensatory education, and implementing social policies are essential. However, ensuring that support does not lead to dependency is crucial, as this may only sustain the problem. Instead, support should foster a sense of self-efficacy and responsibility, empowering individuals to take control of their lives. Broader community-level

 

social interventions should also be considered, considering the psychological processes of individuals and groups. By addressing these issues, we can work towards breaking the cycle of poverty and creating a brighter future for all (Mohanty & Misra, 2000).

## 5. LIMITATION AND RECOMMENDATIONS

It is essential to acknowledge the limitations of this study, which include the small sample size. Future research could be conducted on a larger scale to obtain more comprehensive results. In addition, employing other methodologies to study the issues children face in online learning could be helpful. Furthermore, conducting interviews with parents and guardians could provide valuable insights into the impact of online learning on various aspects of children's personalities.

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**Table 1: Demographic characteristics of the samples**

| Variables | Frequency | Percentage |
|---|---|---|
| Gender (n=25) | | |
| Girls | 16 | 64 |
| Boys | 9 | 36 |
| Class (n=25) | | |
| $9^{th}$ | 10 | 40 |
| $10^{th}$ | 7 | 28 |
| $11^{th}$ | 4 | 16 |
| $12^{th}$ | 4 | 16 |
| Socioeconomic Status (n=25) | | |
| Students from Lower Socioeconomic Class | 16 | 64 |
| Students from the Lower Middle Socioeconomic Class | 4 | 16 |
| Students from the Upper Middle Socioeconomic Class | 5 | 20 |

Table 1 provides the details of the sample selected for the study. It includes information on the gender, class, and socioeconomic status of the study sample.

 

**Table 2: Responses of Students on Online Learning during COVID-19**

| Themes | Responses | Respondents | Percentage |
|---|---|---|---|
| **Impact of Online Learning on the Mental Health and Education of Students** | Not attended a single online class | 10 | 40 |
| | Able to attend a few online classes | 6 | 24 |
| | Tensed for studies | 15 | 60 |
| | Missed school, teachers, and friends | 11 | 44 |
| | Massive loss of studies and practical subjects got weak in subjects like mathematics, history, and science | 15 | 60 |
| | Self-study time was reduced, and the whole schedule was disturbed | 10 | 40 |
| | Became weaker in subjects that were already weak (grammar, science, and mathematics), and handwriting got worse | 7 | 28 |
| **Barriers to Learning during Online Classes** | Shortage of resources and recharge issues | 5 | 20 |
| | Technical delays, audio-video quality issues, students were not added to the online class group sometimes | 12 | 48 |
| | Electricity issues, extreme weather conditions | 4 | 16 |
| | Deliberate disturbances (students muting each other, producing voices) | 6 | 24 |
| **Preferred Mode of Learning** | I prefer offline classes over online classes | 18 | 72 |
| | Lack of understanding and asking for doubts | 7 | 28 |
| | Difficulty in understanding mathematics and practical subjects | 5 | 20 |
| | Communication gap | 9 | 36 |
| | No access to online classes | 10 | 40 |

Table 2 provides a summary of several responses on each theme. A detailed description of responses to each theme is discussed in subsequent sections.