

## **Impact of the COVID-19 Pandemic on Higher Education: A Study of Students from Lower Socioeconomic Strata in Assam**

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### **Abstract**

The COVID-19 pandemic has brought about a transformative shift in the global education system, prompting the closure of physical classrooms and the transition to virtual learning. This paper delves into the challenges faced by students from lower socioeconomic backgrounds in Assam who are pursuing higher education during the pandemic. Utilizing the descriptive survey research method, the study examines the impact of these challenges on students' education. Stratified random sampling was employed to collect data from undergraduate college students through an online questionnaire. The analysis, conducted using the percentage technique and thematic analysis method, reveals that students in the lower socioeconomic strata encounter obstacles such as limited access to digital devices, inadequate internet facilities, poor home infrastructure, and an unsupportive online learning environment. These challenges are shown to detrimentally affect the quality and accessibility of education for these students.

**Keywords:** COVID-19 pandemic; Higher education; Online education; Educational challenges; Lower socioeconomic strata

### **Introduction:**

Education is considered the greatest weapon to elevate the lives of an individual. It makes people aware of getting rid of ignorance and improving their thought processes. The emergence of the Corona Virus Disease (COVID-19) pandemic in early 2020 has posed significant challenges to the traditional landscape of higher education in India (World Health Organization, 2019). With the sudden closure of campuses, the implementation of lockdowns, and the imperative to maintain social distancing, institutions were compelled to adapt swiftly to ensure the uninterrupted academic progress of students. As a result, the physical classroom of schools, colleges, and universities has been closed with an ambition to combat the Coronavirus disease from spreading and altered to a new virtual classroom that needs access to quality internet connection and appropriate devices like smartphones, tablets, i-pads, computers, or laptops (Toquero, 2020). This abrupt change has significantly altered the landscape of higher education in India, posing unprecedented challenges to institutions, educators, and students alike.

The utilization of information technology (IT) tools and infrastructure to support higher education can be broadly categorized into two camps: asynchronous and synchronous. Asynchronous learning systems operate on communication platforms that do not necessitate real-time interactions among education stakeholders (Larasati & Santoso, 2017). Learning Management Systems (LMSs) like Moodle and Blackboard exemplify well-established distance learning platforms designed to facilitate interactions using a 'request-response' framework without time constraints. Conversely, synchronous online learning involves real-time information exchange, often facilitated through video conferencing tools such as Zoom

and Skype (Kohnke & Moorhouse, 2020). These tools have played a crucial role in higher education institutions' efforts to recreate classroom environments online. However, achieving a comprehensive replication of all face-to-face instructional activities in a purely online environment often requires a combination of both asynchronous and synchronous modes of engagement.

The observations made by Vardhan (2020) highlight the challenges encountered by both teachers and students in the teaching-learning process during the pandemic. Vardhan notes that the transition from a traditional physical classroom to a virtual one posed significant difficulties for teachers. Kelly's (2020) suggestion underscores the importance of robust support systems for remote learning. He proposes that educational institutions must engage in creative and constructive thinking while reallocating resources and staff to ensure effective student support in the context of remote learning.

### **Context**

India is such a developing country where most students belong to village areas. Most of the villages are not technologically well-reached, for which a large number of students do not have access to good network connections and facilities (Diab & Elgahsh, 2020; Sangster et al., 2020). This sudden change has made a pivotal impact on students belonging to the lower socioeconomic strata. It somehow obstructs their rights to obtain education via the new virtual mode. Kapasia et al. (2020) explore the impact of disadvantaged living conditions on students, highlighting that for those from marginalized groups, homes may not be conducive study environments. This situation can contribute to heightened feelings of anxiety, frustration, and depression among these students. The state of Assam of our country is no exception to this egregious problem. Therefore, the study sought to analyze the challenges students belonging to lower socioeconomic strata in Assam face to receive higher education during the pandemic. It also determined the impact of these challenges on their education.

### **Methodology**

Research methodology serves as the foundational framework for conducting systematic and well-planned studies. In this present study, the investigator adopted a mixed-method approach, giving equal emphasis to both quantitative and qualitative research methodologies. Utilizing the descriptive survey research method, the study aimed to systematically analyze the existing scenario for students in the Under Graduate Program from lower socioeconomic backgrounds in Assam.

For sampling, the stratified random sampling technique was chosen, focusing on students in the undergraduate program encompassing various streams such as arts, science, and commerce whose family's monthly income fell between Rs. 5,000 and Rs. 20,000. A total of 73 samples were collected, including 28 from the arts, 24 from science, and 21 from commerce, with 38 male participants and 35 female participants.

Data collection was facilitated through an online questionnaire, distributed in both Assamese and English languages, offering participants the flexibility to choose their preferred language for responses. The questionnaire comprised a mix of objective-type questions with alternatives and open-ended questions to capture a comprehensive understanding of students' challenges and concerns.

Data analysis involved the use of the percentage technique for analyzing responses to objective-type questions and the thematic analysis technique for evaluating open-ended responses, providing a holistic perspective on the impact of the pandemic on higher education for students in lower socioeconomic strata.

**Results of the quantitative data collected**

**Based on the responses to objective-type questions, the study yielded the subsequent findings:**

***Monthly income of the family***

The pie chart below illustrates the monthly income distribution within the families of the participants.

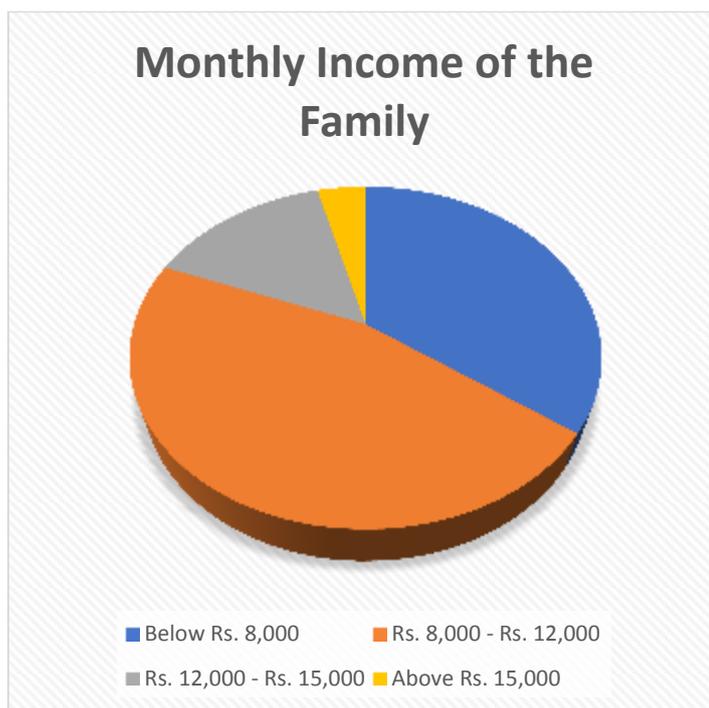


Figure: 1

As illustrated in the aforementioned pie chart, i.e. Figure: 1, 35% of the participants' monthly family income falls below Rs. 8,000, while 46% falls within the range of Rs. 8,000 to Rs. 12,000. Additionally, 15% of the participants' income is within the range of Rs. 12,000 to Rs. 15,000, with the remaining 4% exceeding Rs. 15,000.

***Accessibility to digital gadgets***

The pie chart below delineates the percentage distribution of participants based on their accessibility to various digital gadgets such as smartphones, tablets, and laptops.

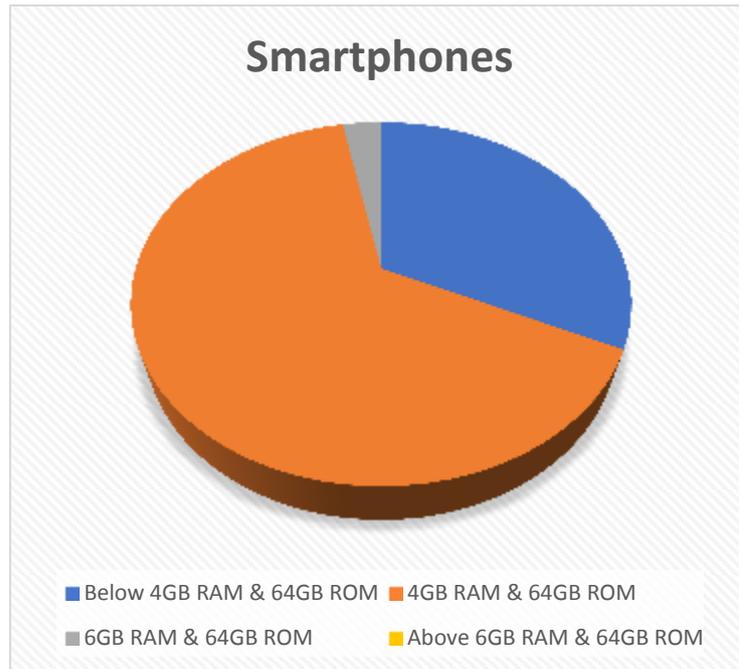


Figure: 2

As illustrated in the aforementioned pie chart, i.e. Figure: 2, 32% of the overall participants utilize smartphones equipped with less than 4GB RAM and 64GB ROM, while 65% possess smartphones featuring 4GB RAM and 64GB ROM. Additionally, 3% of participants utilize smartphones with 6GB RAM and 64GB ROM.

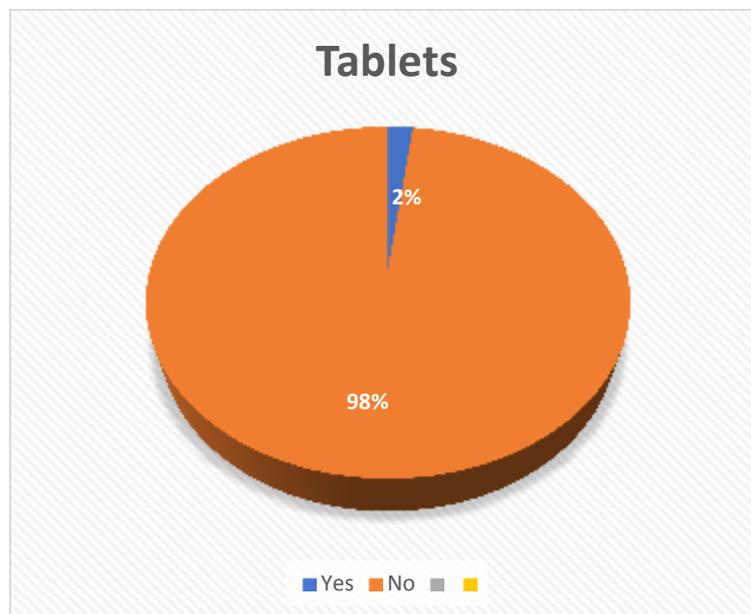


Figure: 3

As illustrated in the aforementioned pie chart, i.e. Figure: 3, 2% of the total participants possess tablets, while the remaining 98% do not.

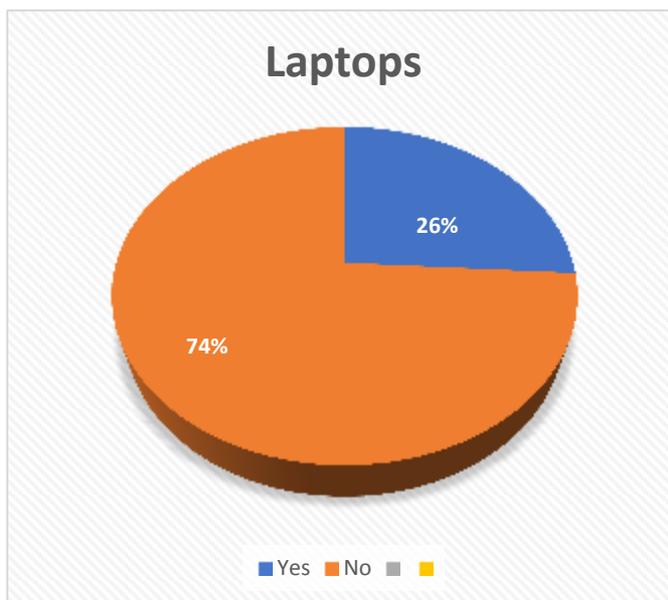


Figure: 4

As illustrated in the aforementioned pie chart, i.e., Figure: 4, 26% of the total participants possess laptops, while the remaining 74% do not have this digital gadget.

**Internet facilities**

The pie chart below illustrates the percentage distribution of participants based on the types of internet facilities they possess.

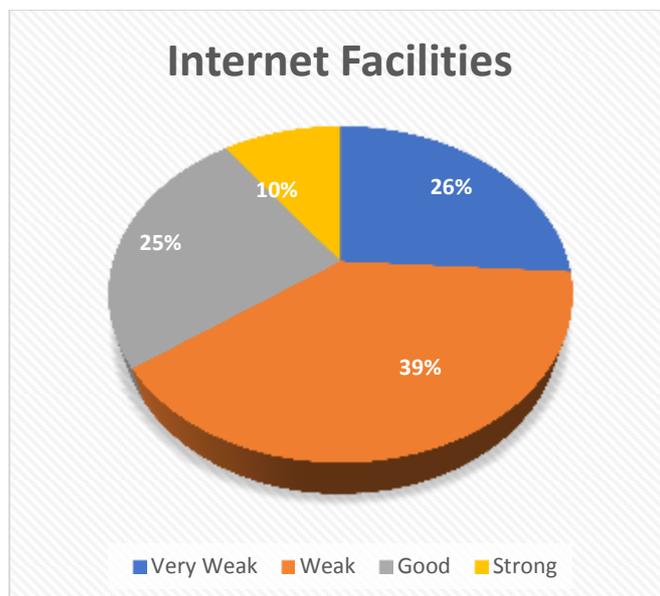


Figure: 5

As illustrated in the above pie chart, i.e. Figure: 5, 26% of the overall participants experience a very weak internet connection, 39% encounter a weak internet connection, followed by 25% with a good connection, and 10% have access to a strong internet connection.

*Adequate infrastructures in home*

The distribution of participants based on the type of infrastructure facilities in their homes is illustrated in the following pie chart.

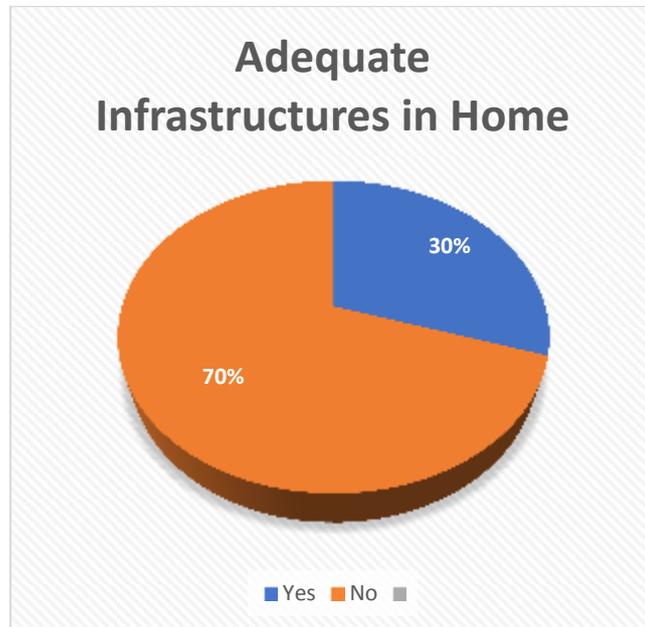


Figure: 6

The pie chart above, Figure: 6, illustrates that 30% of the total participants possess adequate infrastructures in their homes, while the remaining 70% do not.

*Electricity facilities*

The pie chart above delineates the percentage of participants based on the type of electricity facilities in their homes.

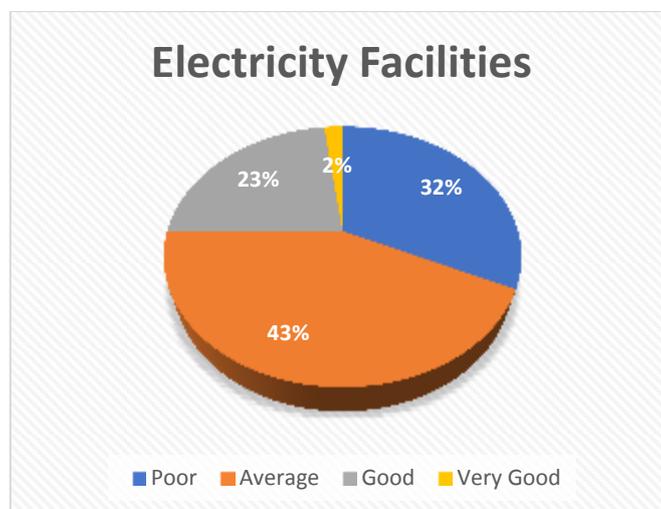


Figure: 7

The pie chart above, i.e. Figure: 7, reveals that 32% of the total participants possess poor electricity facilities, 43% have average electricity facilities, followed by 23% with good facilities, and 2% with very good facilities.

### ***Online learning environment in home***

The pie chart below illustrates the percentage distribution of participants based on the type of online learning environment in their homes.

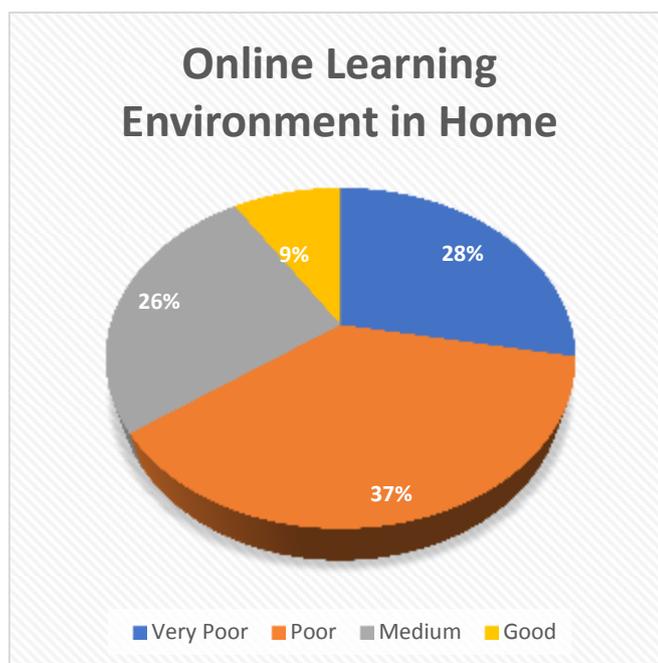


Figure: 8

The depicted pie chart above, i.e. Figure: 8, reveals that 28% of the total participants possess a very poor online learning environment in their homes, 37% have a poor environment, followed by 26% with a medium environment, and 9% with a good online learning environment.

### **Results of the qualitative data collected**

**Based on the responses to open-ended questions, the study yielded the subsequent findings:**

#### ***Sudden transmission to digital learning***

Amid the widespread global outbreak of the novel Coronavirus Disease (COVID-19), the educational sector, in tandem with other working sectors, underwent a notable transformation toward a blended learning model. This shift placed substantial emphasis on digital learning, thrusting students into a situation where they had to contend with sudden and transformative changes in their educational landscape. The adoption of digital platforms for learning became a prominent feature of this new educational paradigm, introducing challenges and adaptations for students worldwide.

***Lack of good internet facilities***

The examination of students from lower socioeconomic backgrounds in the study revealed a prevalent lack of access to dependable internet connections within their households. This deficiency was notably pronounced among individuals residing in remote villages, where securing a stable internet connection is a rare and challenging prospect.

***Inadequate digital gadgets***

A significant revelation from the study is that a majority of the students expressed their lack of access to sufficient digital gadgets within their households. This limitation has posed a considerable obstacle to their ability to engage in online education with the necessary flexibility and feasibility. The absence of adequate technological tools has created challenges for these students in adapting to the demands of virtual learning, thereby impacting the quality and effectiveness of their educational experience.

***A dearth of appropriate infrastructures in home***

Participants in the study articulated that the insufficiency of proper infrastructure in their homes posed a hindrance to their effective engagement in online education. Some participants specifically highlighted the challenges associated with residing in 'Kachcha' houses, constructed from materials such as wood, bamboo, straw, and mud. This type of dwelling made them uncomfortable about turning on their video during classes, contributing to a sense of inferiority among these individuals.

***Poor atmosphere in home***

Participants openly shared that their homes lacked a conducive environment for attending online classes. Residing in remote villages, they described an environment marked by chaos, which, in turn, posed mental disturbances, making it challenging for them to concentrate during classes.

***Inappropriate knowledge on the usage of ICT tools***

Some participants acknowledged a lack of sufficient knowledge in efficiently using information and communication technology tools for online learning. They find it challenging at times to operate these tools effectively.

***Financial issues***

Participants revealed that economic constraints in their homes prevent them from purchasing high-quality digital gadgets for educational purposes. Before the COVID-19 pandemic, they used to provide tuition, earning income that facilitated essential purchases. However, the pandemic has disrupted their tuition opportunities, exacerbating their financial challenges.

***Inadequate in-person interaction***

The onset of the pandemic has ushered in a notable decline in face-to-face interactions among students, teachers, and peer groups, resulting in adverse effects on students' cognitive learning outcomes. The traditional educational landscape, characterized by direct and personal engagement within the classroom setting, has undergone a profound transformation due to safety concerns and the adoption of remote learning measures. The reduction in in-person interactions has disrupted the holistic learning experience, as students are deprived of the rich social and collaborative elements inherent in traditional classrooms. The shift to virtual or remote learning modalities has posed challenges to the vibrant exchange of ideas, discussions, and collaborative activities that contribute significantly to cognitive development. This altered educational dynamic may have repercussions on students' overall academic engagement and the depth of their cognitive learning experiences.

***Feeling of boredom***

The transition from traditional physical classrooms to digital classrooms has brought about a shift in the education system, reverting to a more teacher-centered approach. In this paradigm, the focal point is on teachers delivering lectures and instructing students, as opposed to fostering a student-centered environment. This shift is evident in the observation that students often remain passive during online classes, leading to a sense of dullness. The lack of active student participation contributes to a less engaging classroom atmosphere, and as a consequence, students may develop disinterest in attending online classes. The challenges posed by the digital learning environment have impacted the dynamic interaction between teachers and students, potentially influencing students' overall engagement and cognitive learning outcomes.

**Discussion and Conclusion**

The advent of the Coronavirus Disease (COVID-19) has had a profound impact on the education systems of countries worldwide, and India is no exception. This lethal pandemic has instigated a revolutionary transformation in education, prompting a shift from traditional physical learning to blended learning classrooms. The entire education sector has undergone a paradigm shift, embracing virtual classrooms as a viable mode of learning. The transition posed a formidable challenge for both teachers and students, a sentiment echoed by numerous eminent educational researchers globally (Toquero, 2020). The adoption of virtual learning platforms represents a significant departure from established educational norms, requiring adaptation and innovation to navigate this uncharted territory.

Students hailing from remote village areas and economically disadvantaged backgrounds encounter significant challenges in accessing online education. This study underscores various issues faced by students in the lower socioeconomic strata, including a lack of digital gadgets, poor internet facilities, inadequate home infrastructure, unreliable electricity, and an unfavorable online learning environment (Uzorka & Makeri, 2020). These challenges, compounded by the abrupt transition to digital learning, insufficient ICT knowledge,

financial constraints, limited interactions with teachers and peers, and feelings of boredom, adversely impact students' education, learning outcomes, and achievements. The findings suggest the emergence of educational exclusion for these students, emphasizing the need for enhanced support and guidance from teachers and the community. Implementing strategies to address these challenges can contribute to a more inclusive educational environment, fostering a sense of importance and belonging among students in educational institutions.

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