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Problems faced by students during online school

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Abstract
The global education system has been badly impacted by the COVID-19 pandemic, due to the closure of schools, colleges, and institutions since March 2020. The global crisis has pushed the world into a digital world and exposed many digital gaps. It is because online learning relies heavily on the availability and accessibility of proper infrastructure, internet facilities, electricity, availability of computers, and smartphones. The current Covid-19 situation had put a significant influence on the country's digital divide, particularly in terms of schooling with digital access. Against such a backdrop, it is relevant to analyse the challenges of online classes during the ongoing COVID-19 outbreak. With this background, the present study was an attempt to know the problems faced during online learning, in the calendar year 2021-2022 by the school students of the Tinsukia district of Assam. By using a stratified multistage sampling procedure, a sample of 384 students from eight schools of the Tinsukia Urban and Hapjan blocks of the Tinsukia district were drawn randomly from classes 1-10, both from government and private schools. A self-constructed questionnaire was prepared to find out their problems faced during online schooling. It was revealed that the majority of the students found problems like internet connectivity, stress and anxiety, data limit, and backache during an online class. It was also depicted that there exists a significant difference in problems of urban and rural students in technological barriers, accessibility, and in mental health issues.

Keywords: Online school, traditional learning method, problems

Introduction
The impact of the pandemic has been devastating to all aspects of life; however, since education is the most delicate sector, it has been badly affected. This is especially true in developing countries like India, where dealing with the current problem is difficult due to the lack of resources and irrelevant infrastructure. The spread of COVID-19 brought a sudden closure of schools in India, forcing them to take teaching completely online as that was considered the only option to protect the students from the crisis. In the second week of March 2020, the country began temporarily closing its educational institutions as a precaution against the spread of the coronavirus. According to UNESCO research, it affected about 90 percent of the world's student population in mid-April 2020, and then gradually declined to roughly 67 percent by June. So, in such circumstances where social distancing is of paramount importance, online teaching became the only viable option to continue education. To ensure that students do not miss out on their studies, schools moved classes online, forcing students to attend classes online through their devices (Dhawan, 2020) [7]. The Indian government has started the 'Bharat Padhe Online Campaign 'to combat education loss in the face of the Covid-19 pandemic highlighting the growing relevance of online learning. It undoubtedly offers numerous advantages, including accessibility, flexibility, and affordability among current learning pedagogy. For a variety of reasons, students who cannot afford to attend regular classes benefit from switching to online mode.

Adapting to digital media in a short period was not an easy decision. It includes several sensitization measures to instill the delivery of curriculum in the field of education. Multiple internet platforms were explored by academic institutions in an emergency to provide excellent education and were pushed to adopt despite being underprepared. Students, teachers, and parents were experiencing difficulties as a result of the closure. During this time, most schools have shifted to online mode using Whatsapp, Google Classroom, Google Meet, Zoom, or other online platforms. For students, the online transition was sudden and many were continuing to cope with this new mode of teaching. While some students especially, from the urban areas, were comfortable with the online classes because they have access to online learning opportunities, support, and resources in their homes. However, the ones from low socioeconomic backgrounds and rural areas are at a huge disadvantage, as they do not have

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access to proper online resources and adequate infrastructural support. Schools in rural areas lack such infrastructure and equipment, relying on the chalk and board style of learning. According to a survey done by the Indian Telecom Ministry in January 2020, there are 560 million active internet users in India. Despite having the world's second-largest number of active users, India's internet penetration rate is only 50%, meaning that only half of the population has access to internet connections (Bordoloi *et al.,* 2021) [4]. According to NSSO (National Sample Survey Organization, India) 2017-2018, only 9 percent of the households had access to the Internet and computer in India. Around 90 percent of the currently enrolled students have no access to the required materials, which severely affected children's participation in online classes (Khan *et al.*, 2021) [11]. All these facts revealed that the Indian infrastructure has not yet achieved the level of quality required to ensure the delivery of online classes equally to all students.

Against this, backdrop, it is significant to know the challenges they face in online classes. In this regard, this study attempts to examine the school students' problems regarding online learning so that their experiences will help educational developers, institutions, and policymakers to design and develop a better quality curriculum with smooth delivery of online learning for all the students.

Materials and Methods
The study was carried out in the Tinsukia district of Assam. The sampling procedure used in the study was stratified multistage sampling where 384 students (as samples) were selected from eight schools of the Tinsukia Urban and Hapjan blocks of Tinsukia district, that were drawn randomly from classes 1-10, both from government and private schools.

Tools used
A self-constructed questionnaire was prepared to find out the problems faced during online schooling.

Scoring
Frequency and percentages were calculated to find out the problems faced by students during online schooling and to find out the difference between the problems of rural and urban students Chi-square test was performed by using the Statistical Package for the Social Sciences (SPSS) software.

Results and Discussion

Table 1: The distribution of students faced problems during online schooling

Problems faced by students	Total number of respondents (n=384)	
	Frequency	Percentage
Yes	319	83.1
No	65	16.9

The findings from the table revealed that the majority of the students (83.1%) faced difficulty during online schooling. It is because the sudden outbreak of the deadly Corona Virus forced the education system across the world to shift to an online mode which was majorly offline learning. Because online learning is a relatively new concept in our educational system, students were not familiar with the process and faced many challenges during online classes. It can be supported by the findings of Al-Amin *et al.* (2021) [3] that students faced many challenges adopting the new online class and exam

systems.

Table 2: Information on different problems faced during online schooling

Different problems faced by students	Total number of respondents (n = 384)	
	Frequency	Percentage (%)
Technological barriers		
Poor Internet connectivity	177	46.4
Low-speed data	105	27.3
Frequent power cut	43	11
Inadequate technical skills	18	4.6
None	41	10.7
Accessibility to online resources		
Unavailability of devices	120	31.2
Shortage of Data pack	172	44.8
The inadequate learning environment at home	72	18.7
No accessibility issues	20	5.3
Mental health issues		
Feeling less motivated to study	95	24.7
Stress & Anxiety	171	44.6
Fatigue due to virtual learning	53	13.8
No mental health issues	65	16.9
Health issues		
Backache	118	30.7
Eyesight	114	29.7
Weight gain	86	22.4
No health issues	66	17.2

It can be interpreted from table 2. That under technological barriers most of the students (46.4%) went through internet connectivity problems. It may be because many students lack the high bandwidth or stable internet connection required for online classes, and as a result, their learning experience became problematic. Due to Internet fluctuations, many students complained that their audio and video were cut off during synchronous lectures, which hindered their focus and follow-up with their teacher. According to Surtikanti (2020) [19], the internet is regarded as a valuable resource for obtaining the goals of online teaching and learning. Sometimes, even if students have a reasonably good internet connection, because of their teachers' poor connection, the interaction process got hampered and became problematic for the students to follow what is being taught in the class. It was also found that some students (27.3%) found problems related to data speed. Loading a synchronous lecture was another challenge because it took a long time. They found the problem in downloading online learning materials that were sent to them. Nair (2020) [13] pointed out that connectivity and signal issues as the most prevailing problems faced by students while attending online classes. All of this demonstrates that India's infrastructure has not yet reached the level of quality required to deliver online classes to students.

It can be observed that most of the students (44.8%) faced a shortage of data packs for joining online classes. It may be because students have to attend online classes almost every day but due to insufficient data pack, they had to sometimes skip classes, resulting in a major hindrance in attending online classes. It can also be because due to synchronous live classes held on Zoom or Google Meet, which consumes a lot of data, as a result, they run out of data. Agung *et al.* (2020) [2] in their findings also revealed that attending online classes for a longer period requires a significant amount of data usage which impoverished parents find difficult to afford. Some

respondents (31.2%) also found the unavailability of devices as a hindrance to joining online classes. Sharing smartphones between siblings was also a huge issue since many families only had one or two smartphones. Because most of the parents had to carry their smartphones to work and these devices were not available for the children to use at home, therefore students had to rely on their parents to attend online lessons. Dube (2020) [8] found that a shortage of devices such as computers, laptops, and smartphones was a challenge found by learners during online learning.

It can be observed that most (44.6%) of the students went through stress and anxiety under mental health issues. It may be because students are not able to cope with the sudden switch to online classes which has resulted in showing stress and anxiety among students. As they were facing problems with internet connections and a shortage of data packs, they got frustrated which caused stress and anxiety for them. Adapting to this new way of teaching caused worry among students about their grades and their academic future and thus cannot focus on studying. The student faced difficulties to understand the lectures online and worrying about their academic performance. Studies have found that there exists a relationship between fear of failure and anxiety (Choi, 2020) [5]. Another reason for anxiety in students could be because the closure of schools made students feel lonely as they were unable to share their feeling with their friends. (Hiremath *et al*., 2020) [10] stated that isolation and lack of social contact during COVID-19 may lead to anxiety and depression. Some students (24.7%) also felt a lack of motivation to study. It may be because the online learning process is majorly student-centered and requires active learning and not all students may possess these managing skills. Students at times tend to procrastinate and do not take online classes seriously. Online classes may make some students bored as it was majorly done through sharing recorded videos or via video calls which were not as interesting as face-to-face classes. Students missed having in-class discussions, asking questions, and getting instant feedback from their instructors which can directly have an impact on their motivation to study. Fung *et al*. (2020) [9] emphasized that the main factor that affect the decrease in students' learning motivation was minimal interaction between lecturers and students. It can also be because accessing online classes on a smartphone creates distraction due to the desire to open social media sites, screen problems, and check messages which leads to a loss of interest in ongoing classes. These findings can be supported by (Shetty 2020) [17] where students felt that smartphone is not suitable devices for pursuing online classes as they diverted their focus.

It was found that for most of the students, 30.7 percent faced health issues such as backache. It is because of sitting for long hours on computers and smartphones in the same posture for online classes. The postures and practices a person adopts throughout the day while using digital devices can have a significant impact on one's health. During online classes, children do not follow directions and adopt a reclining posture, which can lead to a typical posture-related disorder such as backache. Children who spend 5-7 hours a day with electronic devices frequently adopted a forward head posture. Many schools have emphasized adopting the ideal position during online sessions to reduce posture-related musculoskeletal strain, but adequate instructions by authorities are not successfully conveyed to students. According to an Indian survey, the understanding of ergonomics among parents, children, and teachers is quite poor (Choudhary *et al*., 2020) [6]. It was also found that some students faced issues related to eyesight. Constant exposure to the small blue screen to acquire as much information as possible for long hours can lead to sore eyes and eyesight problems at a very early stage in a student's life. There has been a significant rise in the number of eye patients and the new spectacle wearers in school-going children during this pandemic (Agarwal *et al*., 2021) [1]. Focusing on a digital screen with different letter sizes, and colours and a moving screen might cause ocular muscle strain. Digital Eye Strain (DES) was found to be more common among adolescents who used smartphones daily and had more than 2 hours of screen time per day (Kim *et al*., 2016) [12]. Also, some students' weight gain rate has spiked during the pandemic because of the long months of stay at home and limited activities due to the closure of schools.

Table 3: Differences in problems faced by students

Problems faced by students	Place		df	p-value
Technological barriers	Urban-Rural	57.176	4	.000 *
Accessibility	Urban Rural	40.148	3	.000 *
Mental health issues	Urban Rural	33.848	3	.000 *
Health issues	Urban Rural	7.057	3	.070

* Significance at 5% level of probability

Table 3. Highlights the Chi-square test indicated that there exists a significant difference between technological barriers, accessibility, and mental health issue during online classes between rural and urban areas ($p<0.05$) except for health issues where $p \geq 0.05$.

The finding (Table 3) depicts that a significant difference was found in 'technological barriers between rural and urban students. Although India harbors over 13 billion people, only half of the population has access to the internet. It may be because the digital gap between the rural and urban areas in the region is wide. According to a report by the Telecom Regulatory Authority of India (TRAI), from October–December 2019 data depicted that Assam has 27.47 internet subscribers per 100 population in rural areas against 100.97 internet subscribers per 100 population in urban areas (Sentinel Digital Desk, 4th July 2020). This indicates that the vast majority of the rural population in the state has no access to the internet while some people in urban areas have more than one internet connection. A study by Siddiqui *et al.* (2021) [18] also found that students who belonged to the urban population were facing fewer problems with the internet than rural students.

Results indicated that there is a significant difference between urban and rural students in terms of accessibility to online classes. Accessibility to online education is not only a geographic concern but a socioeconomic concern too. According to National Sample Survey Office (NSSO), more than half of rural households depend on manual labor for livelihood, and 75 percent of the rural population, or 133.5 million families, earn less than Rs.5, 000 per month (Saumya, July 13, 2015. India Today). With such a less income, it becomes difficult for such families to afford and provide all the basic amenities such as proper devices, technical connection, data pack, etc. needed for online education.

The finding also depicts that a significant difference was found in 'mental health issues between rural and urban students. As it has been depicted that rural student lack both technological as well as accessibility to online education, they

fear missing classes and that they may fail the exam. The abrupt lockdown policy had activated enormous mental pressure on the school-going children. Sorrowfully, some students have ended up committing suicide to escape the mental torture inflicted by the insensitive policy.

The findings depicted that there exists no significant difference found in the 'health issues of rural and urban students. It may be because electronic devices if used for long hours affect the health with problems such as eyesight, backache, etc. of students equally in both urban and rural areas.

Conclusion
The outbreak of COVID19 had adverse impact on the education sector. The global crisis has pushed the world into a digital world and exposed many digital gaps. While there are many advantages to digital education, there are also significant obstacles to making education a fully online phenomenon in rural areas. While some students especially, from the urban areas, were comfortable with the online classes, however, the ones from the low socioeconomic background and rural areas faced many problems. Amidst the fact that they did not have access to suitable online materials or adequate infrastructural assistance, they were forced to continue because it was the only way for them to continue their curriculum. The NEP (2020) places a special emphasis on online learning. DIKSHA and SWAYAM (Study Webs) are examples of online tools and platforms that will be updated to enable seamless interactions between teachers and students.

Although this epidemic only lasted three years, it is possible that it may return or that a similar situation may arise in the future too. Therefore, the problems of the students need to be addressed for designing an effective curriculum.

General recommendations
- Internet and technology are urgent requirements in the present situation, therefore digital capabilities and required infrastructure must reach the remotest and poorest communities.
- Creating awareness for digital learning in rural areas is the need of the hour.
- Both teachers and students should be mentally ready for online teaching and the learning process in the future.

Acknowledgment

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