

Exploring community challenges in virtual schooling: Insights from elementary schools in the North-East Region of India

Singh, Ayushi

Early Childhood Development, Aga Khan Foundation, New Delhi, India (ayushis200@gmail.com)

Singh, Virendra Pratap ✉

National Council of Educational Research and Training, New Delhi, India (ypsncert@gmail.com;
yps_ncert@nic.in)



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Abstract

The COVID-19 pandemic profoundly disrupted educational systems worldwide, impacting over 276 million children in India alone. This study explores the challenges encountered by elementary school children in aspirational districts of India's North-East region during the shift to virtual learning. Employing a mixed-methods approach, the research engaged 372 participant community members and parents selected through simple random sampling across 20 schools with students in Classes VII and VIII during the 2022-23 academic year. The study identifies critical barriers to effective online education, including digital inequities, limited connectivity, and inadequate access to technology. It highlights the pivotal role of community engagement in mitigating these challenges, particularly through enhanced parent-teacher collaboration and resource mobilization. While virtual learning fostered new avenues for community involvement, it also intensified pre-existing educational disparities. The findings advocate for blended learning models and robust communication strategies to strengthen educational resilience, aligning with the National Education Policy (NEP) 2020. Despite limitations in scope, participant diversity, and reliance on self-reported data, the study offers valuable insights for policymakers aiming to build inclusive and adaptive education systems in post-pandemic India.

Keywords: blended learning, community challenges, digital divide, parental involvement, virtual schooling

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1. Introduction

The COVID-19 pandemic, which began in Wuhan, China, in December 2019, spread rapidly across the globe, affecting nearly every country, including India. To contain the virus, governments worldwide implemented measures such as handwashing, mask-wearing, physical distancing, and restrictions on gatherings. In India, these efforts resulted in multiple lockdowns, leading to the closure of schools, colleges, and universities. This halted traditional in-person education and forced a shift to online learning. While this transition introduced digital education into India's educational system, it also created potential learning gaps. In response, the Government of India (GOI) issued various directives to support the shift to virtual education (GOI, 2020).

Relevance and Justification - The prolonged closure of educational institutions impacted over 276 million children and young people in India, disrupting their learning. It is essential to assess these disruptions to improve future responses to crises and develop innovative, flexible, and hybrid learning models (Cappelle *et al.*, 2021). The pandemic also caused psychological challenges, affecting not only children but also the elderly, the general public, and healthcare workers. In March 2020, India imposed a nationwide lockdown to control the virus (Esposito *et al.*, 2020; Barkur *et al.*, 2020). While necessary, the lockdown disrupted daily life, economic activities, and education. Even after restrictions were eased, uncertainty about the future of education persisted, as there was no definitive treatment or vaccine available. To address academic disruptions, institutions adopted online learning based on guidelines from the Indian Government and University Grants Commission. However, online education lacked the benefits of peer interaction (Ammenwerth and Hackl, 2017), and many teachers reported dissatisfaction with the increased workload, which affected their morale and, in turn, student learning outcomes (Bhat *et al.*, 2020).

Online education also presents challenges due to the geographical and temporal dispersion of students (Endler *et al.*, 2012). These issues need to be addressed, as unresolved challenges can lead to stress, anxiety, and other mental health concerns (Singh, 2020; Majumdar *et al.*, 2020). Given the ongoing need for online education and the possibility of future pandemics, the education system must adapt and integrate advancements in science and technology to better prepare students for such situations (Ali and Alharbi, 2020).

Suggested Literature/ Research Gap - While existing literature/ scholarship in India has long emphasized the importance of community participation in school governance (Kothari Commission, 1966; NPE, 1986; RTE Act, 2009; NEP, 2020), most studies have examined these dynamics in the context of in-person schooling. Empirical evidence on how communities engage with and respond to the challenges of virtual schooling, particularly in tribal-dominated and aspirational districts of the North-East region, remains limited. Moreover, prior research has often focused either on policy frameworks or on general community involvement, with relatively little attention to the lived experiences of parents and community members during the COVID-19 pandemic. This creates a gap in understanding how digital inequities, socio-cultural contexts, and community-school partnerships intersect in shaping children's learning during crises. By employing a mixed-methods approach and drawing on localized data from eight aspirational districts, this study addresses this gap and contributes new insights into strengthening educational resilience through community engagement in virtual schooling.

Purpose of the Research Study - This study aims to explore the challenges faced by elementary school children in virtual schooling through a community-centered survey approach, focusing on the aspirational districts of India's North-East region as identified for targeted development in areas such as - health, education, agriculture, infrastructure, and governance (NITI Aayog, 2018). The study seeks to propose an action plan for building resilience in teaching and learning, addressing these challenges in line with the National Education Policy (NEP) 2020 to ensure the holistic well-being and education of the nation's youth.

Objectives of the Research Study - The study aims to conduct a survey focused on the community and parents to explore the challenges and issues faced by elementary school children due to virtual schooling during the COVID-19 pandemic. Furthermore, it seeks to develop or propose an action plan to reduce the impact of current and future pandemics on the elementary education process.

2. Review of Literature - Community Challenges in North-East India

Historical policy frameworks in India—from the Kothari Commission (1966) to the National Policy on Education (1986)—have consistently underscored the importance of community engagement in school governance. Mechanisms such as Village Education Committees, later formalized into School Management Committees (SMCs) under the Right to Education (RTE) Act of 2009 and New Education Policy – 2020, reflect this emphasis on participatory governance (GOI, 1998; 2009; 2010; 2020). Empirical studies, particularly in tribal-dominated regions like the Bhoirymbong block of Meghalaya, reveal that community awareness and active participation are pivotal in achieving universal elementary education. Research by Singh (2015; 2020) emphasizes that sustainable educational reform hinges not only on policy but also on grassroots ownership and collaborative governance. While community involvement has shown promise in enhancing access to early education, challenges persist. Tyagi et al. (2023) argue that to truly empower SMCs, public policy must move beyond procedural formalities and embrace robust, consistent implementation strategies that reflect the ethos of participatory governance.

Recent evaluations by Singh and Singh (2024; 2025) examined community contributions in tribal-dominated areas of North-East India across various school functions—ranging from infrastructure and sanitation to teacher arrangements and resource monitoring. Their findings indicate strong engagement in certain areas, but limited participation in others, suggesting that awareness initiatives under NEP 2020 could help bridge these gaps. In tribal regions of North-East India, community participation is especially critical due to unique socio-cultural dynamics. Several scholars including Rout (2013) suggested that active community participation in school governance can lead to better educational outcomes by addressing local needs and priorities. The RTE Act's mandate for SMCs is seen as a transformative step, yet studies (Govinda & Bandyopadhyay, 2010; Singh, 2013) point to persistent challenges in tribal areas, including inadequate training and resource constraints. Aspirational districts in the North East India face compounded issues such as poor infrastructure, teacher shortages, and high dropout rates (NITI Aayog, 2018), necessitating culturally responsive pedagogy and stronger community-school linkages.

Quantitative approaches, as suggested by Jick (1979), offer valuable insights into participation dynamics, revealing how socio-economic factors influence engagement. However, there remains a significant gap in localized, data-driven research on tribal community involvement in school governance. In conclusion, the literature underscores the urgent need for focused studies on community participation in virtual schooling within tribal-dominated elementary settings in North-East India. By integrating qualitative narratives with statistical analysis, future research can illuminate localized challenges and inform targeted interventions aligned with the RTE Act and NEP 2020.

3. Research Methodology

The study was conducted across eight aspirational districts in the North-East Region: Namsai (Arunachal Pradesh), Hailakandi (Assam), Chandel (Manipur), Ribhoi (Meghalaya), Mamit (Mizoram), Kiphire (Nagaland), Gyalshing (Sikkim), and Dhalai (Tripura). Initially, 16 schools under administrative control of State Education Authorities were randomly selected, with an additional four randomly selected schools in Mamit and Gyalshing districts used for piloting the research schedules. The final data collection involved 20 randomly sampled schools under administrative control of State Education Authorities through a simple random sampling technique, in coordination with the District/ State Education Authorities, with schools acting primarily as the sampling unit, and 181 community members and 191 parents as secondary sampling units.

Using a mixed-methods approach, the study combined quantitative and qualitative data collection, with

research schedules (tools) designed and developed for community members and parents to align with the study's goals. The community members and parents were invited through simple random sampling technique approach under guidance of district education authorities. These schedules (tools) created to meet the study's objectives, were tested in the actual field conditions and focused on schools with children enrolled in Classes VII and VIII during the 2022-23 academic year. The primary aim was to capture community perceptions and reactions to the challenges faced by children during virtual schooling due to the COVID-19 pandemic. The study also aimed to propose an action plan for addressing the impact of current and future pandemics on elementary school education. Data collection from community members and parents focused on several areas:

- **From SMC/Community Members:** Information from community members was gathered on challenges faced by them on virtual schooling versus educational inequality, opportunities for community members on public support for operative online learning, contribution in making strong parent-school relationships, efforts made to strengthen online teaching learning and suggestions offered by community members for online teaching in future.
- **From Parents:** Data were collected from parents on the challenges faced by them due to COVID-19 pandemic/ closure of schools due to lockdown, perception on distractions faced by children during pandemic at home, perception of the top three most significant challenges faced by children while learning from home, satisfaction rating on the selected statements on teachers, schools and other aspects.

The dataset included responses from 180 SMC/Community members (112 males, 68 females) and 191 parents (55 males, 128 females, and 8 who did not specify their gender). Data collection was conducted through face-to-face interactions supervised by State Nodal Officers appointed by State Authorities. Both closed- and open-ended questions were used, and responses were recorded and analyzed using MS Excel, following methodologies established by Cox (1996), Daniels *et al.* (2002), and Kumar (2019). The study diligently adheres to ethical standards by ensuring informed consent, implementing protective measures for all respondents, and maintaining strict data confidentiality protocols—thereby promoting integrity, respect, and accountability during the collection of data from schools.

4. Data Presentation and Analysis

The COVID-19 pandemic had a profound impact on the education system, especially in India, where around 320 million learners were shifted to virtual schooling. However, this rapid transition highlighted significant regional disparities, particularly in the North-East region, where internet connectivity issues and a digital divide exacerbated educational inequalities. While virtual learning provided opportunities for community involvement, it also revealed the challenges faced by parents and children, including distractions, technical difficulties, and lack of resources. This section explores the challenges, opportunities, and feedback from community members regarding online education, aiming to understand how the system can be improved for future virtual learning environments.

Additionally, section will provide the data presentation and analysis thereof considering novel contributions and insights arising out from the study, challenges faced by community (virtual schooling vs. educational inequality), opportunities for community members (public support for operative online learning), opportunities for community members (contribution in making strong parent-school relationships, suggestions offered by community members for online teaching in future, challenges faced by parents (due to COVID-19 pandemic/ closure of schools due to lockdown), parents' perception on distractions faced by children during pandemic at home, parents' perception of the top three most significant challenges faced by children while learning from home and parents' satisfaction rating on the selected statements in the succeeding sub-sections.

Novel Contributions and Insights from Study - The noteworthy contributions and insights arising out from this study are:

Community-Centred Approach in Tribal Regions

- The study uniquely focuses on aspirational districts in North-East India, a region often underrepresented in educational research.
- It highlights tribal community dynamics and their role in supporting virtual schooling, offering localized insights that go beyond national averages.

Mixed-Methods Data from 372 Participants

- Combines quantitative and qualitative data from 181 community members and 191 parents across 20 schools.
- Offers a ground-level perspective on virtual schooling challenges, especially in remote and underserved areas.

Detailed Parent and Community Feedback

- Presents granular data on:
 - Digital access issues (e.g., lack of devices, poor connectivity)
 - Parental challenges in guiding children during online learning
 - Community efforts like distributing printed materials, organizing off-campus classes, and facilitating teacher-student communication

Actionable Suggestions for Future Online Education

- Community members proposed blended learning models, combining synchronous and asynchronous methods.
- Emphasis on teacher training, parent engagement, and Ed-Tech tool selection tailored to diverse learners.

Integration with NEP 2020 Goals

- Aligns findings with the National Education Policy 2020, especially around School Management Committees (SMCs), inclusive governance, and resource mobilization.

Tables with Specific Ratings and Challenges

- Parent-rated challenges (e.g., gadget management, internet issues)
- Distractions at home (e.g., mobile games, TV, household movement)
- Satisfaction levels with teachers and schools during lockdown

Challenges Faced by Community: Virtual Schooling vs. Educational Inequality - It is estimated that 320 million learners in India were significantly impacted by the COVID-19 pandemic, leading to a shift to virtual learning. This transition exposed considerable regional and household disparities in access to reliable internet, which was particularly challenging for children and teachers in the North-East region. The move to online learning highlighted existing inequalities and the digital divide in this area, which need to be addressed by educational policymakers through digital education strategies at the elementary level. To better understand the impact, feedback was gathered from community members in the North-East region regarding the educational inequality brought about by virtual schooling. Approximately 59 percent of respondents in the region reported a digital divide, believing that online schooling worsened educational inequality and had a disproportionately adverse effect on the most vulnerable children, exacerbated by the extended closure of schools during the COVID-19 lockdown.

Opportunities for Community Members: Public Support for Operative Online Learning - The COVID-19 pandemic has accelerated the future of online learning, thanks to the availability of technology. Simply broadcasting pre-recorded lectures is no longer a viable solution for public authorities. The “online genie” has been unleashed and cannot be put back. Replicating traditional face-to-face teaching by merely standing in front of a camera and delivering lectures is not truly online teaching. Teachers must adapt by exploring a variety of opportunities with the support of the public and community. During the COVID-19 lockdown, community members had the chance to engage in school activities, offering guidance and support to both parents and children. This participation greatly contributed to the success of online learning. The community played a key role in initiating and facilitating virtual schooling for children at the elementary level and beyond. NGOs also had the opportunity to provide financial assistance to schools for online teaching. Additionally, people distributed masks and sanitizers to children, teachers, and others during the pandemic.

Opportunities for Community Members: Contribution in Making Strong Parent-School Relationships - Researchers have identified that the success of the family-community-school relationship relies on viewing it as a partnership of equals, where community members are considered valuable contributors and supporters to the schools. This partnership is founded on shared values and focuses on the strengths that each stakeholder brings. The trust and respect cultivated in this partnership help in creating a sense of belonging within the school community for children and their families, fostering a positive and caring school climate (Henderson & Mapp, 2002). In the context of this study, community members shared that they held meetings and discussions with parents, developing strategies to manage the challenges posed by the COVID-19 lockdown. Through school management committees (SMCs), they also organized parent-teacher meetings to facilitate productive interactions. To strengthen the parent-school relationship, community members remained in constant communication with both parents and teachers, always keeping track of the children’s progress. Additionally, they urged school authorities to arrange parent-teacher meetings to gather feedback on how to improve children’s learning and encouraged parents to stay actively involved in their children's education.

Globally, educationists have long emphasized the critical role of community participation in enhancing both the quality and quantity of education. Community involvement is believed to significantly contribute to children's education and overall quality of life. The National Education Policy (NEP) 2020, released by the Government of India, advocates for community participation through SMCs on various educational matters, including:

- Monitoring children’s attendance and tracking out-of-school children.
- Shaping the school culture to foster excellence, curiosity, empathy, and equity.
- Ongoing sensitization of SMCs on maintaining a caring and inclusive school culture.
- Supporting periodic performance appraisals of teachers.
- Ensuring efficient resource allocation and governance through School Complexes Management Committees (SCMC).
- Involvement in planning both short-term and long-term goals for the school, including resource management, infrastructure improvement, financial planning, and educational outcomes.

The COVID-19 pandemic provided community members with opportunities to strengthen the teaching-learning process in schools across the North-East Region, particularly in the areas outlined above. According to the survey, community members utilized the pandemic phase to make significant efforts in the following areas:

- Encouraged teachers to contact each student via mobile phone.
- Provided mobile phones and sanitizers to underprivileged children and offered printed learning materials.
- Monitored online classes organized by schools.
- Ensured teachers checked students' homework and addressed their doubts.
- Visited students' homes to understand the challenges they faced during the pandemic.
- Organized off-campus classes for children in community halls/centers.
- Guided teachers and parents on how to conduct online classes.
- Encouraged teachers to maintain contact with students through home visits.
- Assisted teachers in distributing printed materials and class notes to students.
- Advised teachers on using available ICT resources through mobile phones to connect with students.

- Collaborated with teachers to address students' confusion regarding certain study topics.
- Instructed cluster school teachers to send learning materials via the Chairman of the School Management and Development Committee (SMDC).
- Suggested teachers reduce the burden of online classes on students and explore alternative methods, such as preparing hard copies of notes and incorporating activity-based learning.
- Developed worksheets and YouTube videos for better understanding of topics.
- Assisted children without digital devices in learning how to take notes using mobile phones.

Suggestions Offered by Community Members for Online Teaching in Future - With the rapid shift from traditional schooling to virtual schooling due to COVID-19, followed by the return to in-person education after the lockdown, it was decided to gather feedback from community members on online teaching and strategies for future online education. In summary, community members provided key suggestions to improve future online teaching effectiveness through:

- Establishing communication between teachers and children's parents/families.
- Teachers should adopt a blended approach, combining both synchronous (real-time) and asynchronous (self-paced) methods. Synchronous teaching via phone calls, video lessons, or live chats enables students to ask questions and engage with teachers and peers. Asynchronous methods, such as discussion boards or pre-recorded lectures, allow students to complete assignments at their own pace and convenience. Both approaches offer unique advantages.
- The school's Learning Management System (LMS) will likely be the main tool for teachers to communicate and share assignments. Teachers should become familiar with it and feel comfortable reaching out to more tech-savvy colleagues for support.

Additionally, community members suggested developing strategies for online teaching in the future, focusing on the following key aspects:

- How to plan lesson plans for different types of learners
- How to set clear expectations with students
- How to build rapport with the community and students
- How to engage with parents
- How to identify the right Ed-Tech tools and curriculum supports

Challenges Faced by Parents: Due to COVID-19 Pandemic/ Closure of Schools Due to Lockdown - The COVID-19 pandemic significantly impacted families across all the States of the North-East Region. During this period, homes became both living spaces and schools, leaving parents in a challenging situation. Although parents had more time to spend with their children, they faced various difficulties during the school closures due to the lockdown, particularly regarding the use of online platforms and applications. These challenges were assessed using a three-point rating scale (most serious, moderate, and less serious) across the following areas:

- Providing gadgets for online learning
- Managing gadgets for online learning
- Electricity issues
- Internet connectivity
- Lack of technical/software knowledge
- Difficulty in monitoring the child's engagement with gadgets
- Challenges in guiding the child on how to use gadgets

Parents' responses to these challenges during the school closures are shown in Table 1. The primary difficulties faced by parents involved managing gadgets for online learning, the lack of technical/software knowledge, providing gadgets for online learning, monitoring their child's use of gadgets, and offering guidance on how to use them during the pandemic lockdown. Additionally, parents rated their perception of teacher communication, with 51% stating it was effective "to a great extent" and 44% saying it was effective "to some extent."

Table 1*Challenges Faced by Parents During COVID-19 Pandemic/ Closure of Schools Due to Lockdown*

S. No.	Application/ Online Platforms	Rating Scale (in Percent)			No-Response (in percent)
		Most Serious	Moderate	Less Serious	
1.	Providing gadgets for online learning	47	33	18	3
2.	Handling gadgets for online learning	40	42	16	2
3.	Problem of electricity	32	42	24	1
4.	Internet connectivity	45	32	21	2
5.	Lack of technical/ software knowledge	44	34	18	5
6.	Difficult to monitor the child's involvement with gadget	39	39	19	3
7.	Difficulty in providing guidance to the child for using the gadgets	48	30	19	3

Parents' Perception on Distractions Faced by Children During Pandemic at Home - Many researchers have noted that children are more easily distracted by digital devices at home. As a result, parents were asked to provide feedback regarding various distractions, including mobile games, TV shows, household movement, internet browsing, sleep, and other factors such as cartoons, household chores, lack of access to smartphones, absence of online classes, gaming, physical play, household tasks, power outages, limited space, social media, sports, or excessive TV watching. The findings highlight that there were multiple distractions for children during their online classes. The results regarding distractions faced by children showed that 65 percent were distracted by mobile games, 35 percent lost focus due to internet browsing, 27 percent spent time watching TV shows, and a similar proportion of children were distracted by the movement of people at home.

Parents' Perception of the Top Three Most Significant Challenges Faced by Children While Learning from Home - Parents' perceptions of the top three major challenges faced by children while learning from home were gathered based on the following factors:

- Maintaining a regular schedule
- Communication with teachers and school management
- Internet connectivity at home
- Collaborating with other children and friends
- Access to all necessary study tools
- Distractions at home
- Eating habits (too frequent/less)
- Social isolation
- Anxiety about the impact of COVID-19 on studies
- Other issues

The responses provided by parents are summarized in Table 2. It was clear that 34 percent of parents identified maintaining a regular schedule as the primary challenge faced by children while learning from home, 21 percent viewed it as the second challenge, and 16 percent considered it the third. 29 percent did not respond to this question.

Table 2*Parents' Perception of the Top Three Most Significant Challenges Faced by Children While Learning from Home*

S. No.	Statements	Challenges Faced by Children (in Percent) in Order as			
		First	Second	Third	No-Response
1.	Maintaining a regular schedule	34	21	16	29
2.	Communicating with the teachers and the school management	23	26	17	35
3.	Internet connectivity at home	35	28	14	24
4.	Collaborating with fellow children and friends	15	19	12	54
5.	Having access to all the prescribed tools needed to study	20	17	16	47
6.	Too many distractions at home	25	19	15	41
7.	Eating frequently/ less	14	17	8	61
8.	Social isolation	21	19	20	40

9.	Anxiety about the impact of COVID-19 on studies	21	19	21	38
10.	Others	3	2	4	90

The second most reported challenge was communication between teachers and school management. 23 percent of parents saw this as the top challenge, 26 percent as the second, and 17 percent as the third challenge. 35 percent did not provide an answer. Internet connectivity at home was noted as the third major challenge. 35 percent of parents reported it as the first challenge, 28 percent as the second, and 14 percent as the third. Around 24 percent chose not to respond. Collaboration with fellow children and friends was the fourth challenge identified, with 15 percent of parents rating it as the first challenge, 19 percent as the second, and 12 percent as the third. 54 percent of parents did not respond. When asked about the necessary tools for online education, 20 percent of parents identified it as the first challenge, 17 percent as the second, and 16 percent as the third. 47 percent of parents did not answer.

Distractions at home were another significant issue, with 25 percent of parents reporting it as the primary challenge, 19 percent as the second, and 15 percent as the third. 41 percent of parents did not provide an answer. Eating habits, whether too frequent or too little, were also noted as a challenge. 14 percent of parents identified it as the first challenge, 17 percent as the second, and 8 percent as the third. 61 percent did not respond. Social isolation was reported as another major issue, with 21 percent of parents ranking it as the first challenge, 19 percent as the second, and 20 percent as the third. 40 percent of parents did not respond. Anxiety about the impact of COVID-19 on studies was also a concern, with 21 percent of parents identifying it as the first challenge, 19 percent as the second, and 21 percent as the third. 38 percent of parents did not answer. Other challenges during online learning were noted by 3 percent of parents as the first challenge, 2 percent as the second, and 4 percent as the third. 90 percent did not respond. A notable observation was that many parents chose not to answer certain questions, which may suggest uncertainty or a lack of awareness on these issues.

Parents' Satisfaction Rating on the Selected Statements - Data on satisfaction ratings regarding teachers, schools, and various aspects of virtual schooling during the COVID-19 lockdown were gathered using a three-point scale (extremely satisfied, satisfied, unsatisfied). The results were analyzed and presented in Table 3. These results are discussed separately for teachers, schools, and other aspects below.

Table 3

Satisfaction Rating on the Statements as Given by the Parents

S. No.	Statements	In Percent			
		Extremely Satisfied	Satisfied	Un-satisfied	No-Response
1. Teachers					
	The teacher's competence to deal online learning session	20	65	10	5
	Management of online teaching learning was joyful for the children	11	60	24	5
	Teachers' punctuality and regularity in taking online session	28	55	13	4
	Use of different devices to make online teaching effective and interesting for the children	15	54	27	4
2. Schools					
	Efforts of schools to continue teaching learning during lockdown period	24	60	12	4
	Timetable and schedule of schools in online mode for your children's online classes	21	63	12	4
	Ways of conducting tests and assignment in online mode	16	58	21	5
	Concept attainment by children through online teaching	8	61	25	6

3. Others				
Specific learning needs of your child	17	55	24	4
Development of basic academic skills in your child	13	62	21	4
Academic progress of your child through online teaching learning	7	62	26	5
Addressing the psycho-social needs of your child	8	55	32	5

i. On Teachers:

Parents were asked to rate their satisfaction with teachers' ability to handle online classes. Twenty percent of parents reported being 'extremely satisfied', 65% were 'satisfied', and 10% were 'unsatisfied'. Five percent of parents did not respond. Regarding teachers' management of online learning, 11% of parents were 'extremely satisfied', 60% were 'satisfied', and 24% were 'unsatisfied'. Five percent of parents chose not to answer. On teachers' punctuality and regularity in conducting online sessions, 28% of parents were 'extremely satisfied', 55% were 'satisfied', and 13% were 'unsatisfied'. Four percent did not provide a response. Parents were also asked about the use of different devices for making online teaching more effective. Fifteen percent of parents were 'extremely satisfied', 54% were 'satisfied', and 27% were 'unsatisfied', while 4% did not answer the question.

ii. On Schools:

Concerning the efforts made by teachers to continue teaching during the lockdown, 24% of parents were 'extremely satisfied', 60% were 'satisfied', and 12% were 'unsatisfied'. Four percent did not respond. Regarding the timetable and schedule of online schooling, 21% of parents were 'extremely satisfied', 63% were 'satisfied', and 12% were 'unsatisfied'. Four percent did not answer the question. Regarding how tests and assignments were conducted by the school, 16% of parents were 'extremely satisfied', 58% were 'satisfied', and 21% were 'unsatisfied'. Five percent did not respond. Parents were asked about the concept attainment by their children through online teaching. Eight percent were 'extremely satisfied', 61% were 'satisfied', and 25% were 'unsatisfied', with 6% not responding.

iii. On Other Aspects:

Parents also provided feedback on the school's ability to meet the specific learning needs of their child. Seventeen percent of parents were 'extremely satisfied', 55% were 'satisfied', and 24% were 'unsatisfied', while 4% did not answer. On the development of their children's basic academic skills, 13% of parents were 'extremely satisfied', 62% were 'satisfied', and 21% were 'unsatisfied', with 4% not responding. Concerning academic progress during online learning, 7% of parents felt their children made progress, 62% were 'satisfied', and 26% were 'unsatisfied'. Five percent did not answer the question. The ability of teachers and the school to address the psycho-social needs of the children was also assessed. Eight percent of parents were 'extremely satisfied', 55% were 'satisfied', and 32% were 'unsatisfied'. Five percent of parents chose not to respond.

5. Findings

This section presents key findings from both community members and parents regarding their roles in supporting education during the pandemic. It outlines the challenges and opportunities they encountered, particularly in virtual schooling, as well as their suggestions for improving future online education. The findings also highlight the specific difficulties parents faced, such as handling technology, internet connectivity, and distractions, while showcasing their overall satisfaction with teachers' efforts and the adaptation of the schooling system.

Community members play a crucial role as key stakeholders in India's school education system. This is evident from the various groups—parents, community members, and NGOs—that have been formed by both State and Central Governments to support children's enrollment and retention in schools. These initiatives aim to boost

primary, elementary, and secondary education in India. Notable efforts include the creation of parents' teacher committees, mother's groups, self-help groups, the All-India Parents Forum for Education, and community partnerships in education (e.g., *Ekalavya Vidyalayas*). The importance of shared responsibility between parents and the need for a safe, inclusive, and nurturing educational environment is well recognized. The slogan "*Sabhka Saath Sabhka Vikas*," introduced by India's current Prime Minister, emphasizes the collective effort of all citizens and community members to achieve developmental goals for Indian society. Several studies have shown a positive correlation between parental involvement and children's learning. The Ministry of Education (MoE) also issued guidelines in line with the *AtmaNirbhar Bharat* principles, encouraging parents' participation in home-based learning during school closures and beyond. In this study, community members were included as a primary source of data to assess their active participation and challenges faced during the pandemic. However, schools were not entirely ready to take on this additional responsibility, as revealed and outlined below:

- **Challenges of Virtual Schooling:** Nearly 59% of community members believed that online schooling during the pandemic intensified educational inequality, especially among children from under-resourced households.
- **Opportunities During the Pandemic:** Community members reported increased involvement in school-related activities such as distributing printed learning materials, supporting digital access, and coordinating with teachers.
- **Suggestions for Future Online Teaching:** The community proposed (a) inviting knowledgeable members to interact with students, (b) enhancing communication between parents and teachers, (c) incorporating blended learning, and (d) improving the use of learning management systems.
- They also suggested specific strategies for effective lesson implementation, such as creating clear academic expectations, developing rapport with the community, and using locally appropriate ICT tools to make teaching more inclusive and engaging.

Although parents are part of the community, the feedback from community members generally reflects broader school-community dynamics, while parents' concerns were documented separately as a primary source of information due to their direct experience with children's learning at home. Thus, the study included parents as a distinct category of respondents. Some major findings from their responses are as follows:

- **Challenges Faced by Parents:** The study identified the top six challenges during school closures: managing gadgets (82%), lack of technical knowledge (78%), providing gadgets (80%), monitoring children's use of devices (78%), internet connectivity (77%), and electricity disruptions (74%).
- **Distractions During Online Learning:** 65% of parents reported that their children were distracted by mobile games, 35% by internet browsing, 27% by TV shows, and many by household movement.
- **Children's Challenges:** The main learning difficulties cited by parents included irregular schedules, limited teacher communication, frequent distractions, and poor internet access.
- **Satisfaction with Teachers and Online Learning:** Over 80% of parents expressed satisfaction with teachers' punctuality, communication, and ability to adapt to online teaching. A significant number were also satisfied with the school's efforts to continue instruction, the use of ICT tools, assessments, and attention to children's academic and emotional well-being.

6. Conclusions

The findings of this study highlight the critical role of community members, including parents and local organizations, in supporting education, particularly during the challenges posed by the pandemic. Community involvement in education has long been recognized as essential for boosting enrollment and retention in schools,

with various initiatives and partnerships reflecting this collective responsibility. However, the sudden shift to online education revealed a lack of digital infrastructure and teacher preparedness in many schools, exposing significant challenges in addressing educational inequality, engaging families, and ensuring the effectiveness of virtual learning, especially in aspirational districts of the North-East region. While the pandemic created certain opportunities for greater community participation, it also underscored the need for systematic improvements in communication and collaboration between schools and parents. Parental concerns, including difficulties with technology, distractions at home, and maintaining children's engagement, were prominent. Nonetheless, over 80% of parents expressed satisfaction with teachers' efforts, acknowledging their punctuality, effective use of ICT tools, and commitment in supporting student learning. This demonstrates a notable level of resilience and adaptability among educators in managing the new educational environment.

Moving forward, it is crucial for schools to be better prepared for any future disruptions and to continue fostering strong partnerships with the community. Strategies such as implementing blended learning models, greater integration of Learning Management Systems, ongoing teacher training in digital pedagogy, and structured parent–teacher feedback mechanisms could help address the challenges identified in this study. These approaches also align with the objectives of the National Education Policy-2020, which advocates for inclusive and technology-enabled education for all learners. In summary, the study emphasizes that active collaboration between schools, parents, and communities is key to building a resilient, equitable, and effective educational system that can sustain learning during future crises and beyond.

Limitations of the Study - While offering insights into immediate educational challenges and support mechanisms during the lockdown, the study's scope was geographically and demographically constrained—private institutions and metropolitan contexts remained outside its purview. Perspectives were primarily drawn from parents and community members, without the inclusion of school administrators, teachers, or students, which may limit the comprehensiveness in assessing learning outcomes. The time-bound nature of data collection further narrows the relevance to the lockdown period, omitting long-term recovery trajectories. Additionally, the reliance on self-reported responses introduces potential bias, and the absence of longitudinal or performance-linked data restricts causal inference. Despite these limitations, the research contributes to educational policy discourse by amplifying voices from underrepresented tribal districts and highlights the need for resilient, inclusive learning frameworks in post-pandemic India.

Practical Implications for Policy and Practice - The study offers several practical implications for strengthening educational resilience in India's North-East region and beyond:

- **Bridging the Digital Divide:** Policymakers must prioritize investment in digital infrastructure, electricity, and affordable devices to reduce inequities in access to online learning.
- **Blended Learning Models:** Schools should adopt hybrid approaches that combine online, offline, and community-based strategies, ensuring continuity of learning during crises.
- **Teacher Capacity Building:** Professional development in digital pedagogy and ICT integration is essential to enhance teachers' confidence and effectiveness in virtual environments.
- **Strengthening Parent–Teacher–Community Partnerships:** School Management Committees (SMCs) and parent–teacher meetings should be leveraged to foster trust, monitor student progress, and mobilize local resources.
- **Localized and Inclusive Strategies:** Aspirational districts require context-sensitive interventions that address socio-cultural realities, ensuring that marginalized groups are not left behind.
- **Crisis Preparedness:** Schools and communities should develop contingency plans, including offline learning kits, community study halls, and psychosocial support systems, to mitigate disruptions in future emergencies.

By addressing above areas, the findings reinforce the vision of the **National Education Policy (NEP) 2020**, which emphasizes equity, inclusivity, and community participation as cornerstones of a resilient education system.

Conflicts of Interest - The authors declare no conflicts of interest.

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