

**EDUCATIONAL CHALLENGES FACED BY
STAKEHOLDERS OF SECONDARY SCHOOLS DURING
COVID-19 PANDEMIC IN MIZORAM AND MEGHALAYA**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY**

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MZU REGISTRATION NO.: 794 of 2011

Ph.D. REGISTRATION NO.: MZU/Ph.D./1634 of 26.10.2020



**DEPARTMENT OF EDUCATION
SCHOOL OF EDUCATION
NOVEMBER, 2025**

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SECONDARY SCHOOLS DURING COVID-19 PANDEMIC IN MIZORAM
AND MEGHALAYA**

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**Submitted
In partial fulfillment of the requirement of the Degree of Doctor of
Philosophy in Education of Mizoram University, Aizawl.**



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DECLARATION
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NOVEMBER, 2025

I **R.Lalhmingangi**, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that I have not submitted the thesis for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the **Degree of Doctor of Philosophy in Education**.

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Acknowledgement

I offer my utmost gratitude to God, whose grace, strength, and guidance enabled me to complete this work.

I sincerely thank my supervisor, **Dr. Lalmuanzuali**, Department of Education, Mizoram University, for her valuable guidance, encouragement, and support throughout the course of this study.

I am deeply thankful to my beloved parents and younger siblings for their constant love, prayer, encouragement, and unwavering support, which have been a great source of strength to me.

I also wish to express my heartfelt appreciation to my teacher, Dr. Vanlalruatfela Hlondo, and my friends Lalruattluangi Chhakchhuak and Vanlaldinpuia for their kindness, helpful advice, and encouragement throughout my research journey. I am equally grateful to my friend Joseph Vanlaldina and Angela Vanlalmalsawmi, who assisted me in the data collection process.

Last but not least, I extend my sincere thanks to all the principals, teachers, students, and parents who generously gave their time to respond to my questionnaire. Your contribution was truly invaluable.

Dated:

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CHAPTER-I

INTRODUCTION

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INTRODUCTION

The emergence of SARS-CoV-2, the virus responsible for COVID-19, in late 2019 marked the start of a global health crisis that greatly changed societal structures and daily life. The virus was first identified in Wuhan, China. Early studies suggest it likely came from animals and spread to humans, a process known as zoonotic transmission. Researchers believe that the Huanan Seafood Market, where live animals and seafood were sold close together, may have played a role in the initial spread of the virus (Centers for Disease Control and Prevention, 2021). This shows the health risks of close contact between humans and animals and emphasizes the need for stronger rules and safety measures to help prevent future outbreaks.

As the virus spread quickly, what started as a local outbreak soon turned into a global crisis. In March 2020, the World Health Organization declared COVID-19 a pandemic. This highlighted how serious the situation had become and the need for countries to work together to stop it (World Health Organization, 2020). Due to the virus's ease of spread and its potential to cause severe illness, urgent action was necessary. Governments worldwide implemented major public health measures, including lockdowns, travel restrictions, and social distancing rules. These steps aimed to slow the virus's spread and prevent hospitals from becoming overwhelmed.

These safety measures led to significant changes in daily life, forcing people to adjust as never before. Lockdowns kept people at home for extended periods, and schools and jobs transitioned online. Social distancing changed how people interacted; public gatherings were limited and travel was restricted to essentials. Although these measures were challenging, they were crucial in reducing infection rates while healthcare systems mobilized resources to handle the crisis.

Beyond immediate containment, efforts focused on improving healthcare systems' ability to respond effectively. Early strategies prioritized securing medical supplies, personal protective equipment, and ventilators, along with developing treatment protocols and increasing hospital capacity. The pandemic revealed serious

gaps in global health infrastructure, stressing the urgent need for better preparedness and system resilience for future health emergencies. In response, COVID-19 has generated ongoing research and policy development aimed at preventing zoonotic diseases, improving public health strategies, and building adaptable, sustainable healthcare systems. This contributes to a foundation for more effective management of future pandemics.

1.1.0 Global Impact of COVID-19 on Various Sectors:

The COVID-19 pandemic has had a huge effect on crucial spheres of life: healthcare, economics, society, and education. It showed the fragility in all these spheres and how much all these sectors depend on each other. Health care worldwide came under extreme pressure as case counts rose rapidly. Hospitals and health clinics were under tremendous stress to finish stocks, draw emergency plans, and vaccinate the maximum number of people. Many struggled to get enough masks, ventilators, and beds for those who needed urgent care. In response, governments and health organisations provided additional funding, established temporary health centres, and increased training for medical staff. These difficulties revealed gaps in the ability of health systems to handle a crisis and led to worldwide calls for better preparation and stronger public health systems for the future (Viner et al., 2020).

Besides having implications for healthcare, the pandemic brought about significant economic challenges worldwide. In an effort to slow the virus's spread, many businesses must close, and a considerable number of people were working from home for the first time ever. Areas like retail, hospitality, and travel suffered the most, and as a result, unemployment increased sharply in many countries. Many small businesses, especially those without access to digital technology, have been empowered to adapt to changing conditions. The broader use of technology has played a crucial role in this adaptation. Problems in supply chains made financial matters even more uncertain. Governments tried to help by providing financial support and starting new programmes to boost the economy, such as stimulus packages, job retention schemes, and business support grants. Still, countries with fewer resources were not able to offer as much help as more prosperous nations could (Franchi, 2020). The

pandemic changed how people work, popularized technology, and brought to the forefront issues of social and economic inequality that had lain dormant in some form for a long time. These challenges continue in the foreground as economic recovery is being forged.

The crisis also affected people's mental and social well-being in many ways. Long periods of isolation, keeping a distance from others, and constant uncertainty led to higher levels of anxiety, depression, and stress in communities around the world. The loss of everyday routines and fewer chances for social contact left many people feeling alone, especially older adults, health care workers, and those already struggling with mental health problems. In response, health authorities and mental health organisations increased online support and set up new programmes to help people manage these difficulties. These changes have demonstrated the importance of making mental health a central part of public health planning, both during crises and throughout the recovery process (Franchi, 2020).

The pandemic caused serious interruptions in education as schools, colleges, and universities had to shut down. Teachers and students quickly shifted to online classes and other new ways of learning. While this adjustment was difficult, it also revealed how flexible both educators and students could be when faced with sudden change. At the same time, many struggled with limited access to computers and the internet, differences in how lessons were taught, and the difficulty of staying interested in virtual classrooms. Parents and caregivers were under extra strain as they tried to support their children's learning at home while managing their own work responsibilities. UNESCO (2020) highlighted that these problems went far beyond missing lessons. For many children and young people, especially those from disadvantaged backgrounds, schools are a place where they can receive meals, support, and a sense of belonging. The pandemic showed that the role of schools and universities reaches well beyond teaching, touching many parts of community life.

The COVID-19 pandemic brought to light many weaknesses in our society and showed how closely connected areas like healthcare, the economy, mental health, and education really are. The harsh experiences confirmed that, most of the time, real

advances in one area have to be dependent on advances in another. As we look to the future, it is important to create solutions that are fair, flexible, and able to handle whatever new problems may arise. As countries move from managing the immediate crisis to planning for long-term recovery, these lessons should shape the way new policies are made and how work is organised. Strengthening institutions will help communities face challenges that may come later with greater confidence and resilience.

1.1.1 Impact on Educational Systems Globally:

The COVID-19 pandemic caused major upheaval in education domains all over the world: it forced schools and universities to hurriedly replace classroom teaching with online learning. So many problems of the sudden change were faced by teachers, students, and institutions. Some were less fortunate when it came to access to computers and the Internet, and these were the barriers impeding the least advantaged from learning. Teachers too had to search for alternative methods of interaction and engagement with students during lessons. The forthcoming sections will assess the chief challenges faced during those times and how adjustment was made to access learning, student engagement, and support for their emotional welfare.

- a) ***Transition to Online Learning:*** School closures in 107 countries have affected the study of about 862 million students, nearly half of the student population worldwide at the time (UNESCO, 2020). The move to online teaching was sudden and drastic and caused many issues in the arenas of practical, technological, and pedagogical matters. Both teachers and students were forced to react and adjust very quickly, sometimes with little or no training before the new methodology of learning was put in place (Mirahmadizadeh et al., 2020). Most of the schools used a blend of live video instruction with recorded lessons and assignments through the digital way to ensure that maximum support was given to the students (Donitsa-Schmidt & Ramot, 2020).

Even with these efforts, studies show that online classrooms do not offer the same level of immediate feedback or personal interaction as traditional lessons. These are important for keeping students interested and

helping them understand the material. The shift to remote learning during the pandemic made it harder to keep students motivated and involved (Viner et al., 2020). While online classes were necessary at the time, the experience showed that schools need better, more flexible ways of teaching online. Strengthening the systems for virtual learning will help to respond to any emergencies in the future and equally make learning more accessible and supportive for everyone.

- b) ***Challenges of the Digital Divide:*** When schools quickly moved to online teaching during the COVID-19 pandemic, the long-standing problem of unequal access to technology became even more obvious. This issue was most visible in poorer regions, where many students did not have reliable internet or digital devices at home, making it very difficult to take part in remote lessons. According to the World Bank (2020), students in low and middle-income countries faced serious obstacles to online education, which made existing learning gaps even wider. Many families could not afford basic digital tools such as laptops, tablets, or smartphones, which are now essential for joining virtual classrooms (Khalil et al., 2020).

This challenge has not just affected those with lower incomes. Even in good-resource countries, many children from poor families did not have a steady internet connection to attend their lessons online (Singh et al., 2020). Attempts have been made by some governments to bridge this gap: Uruguay's Ceibal en Casa programme even increased the digital access for students in underserved communities (Day et al., 2021). However, this digital divide remains a serious problem. This experience brings forth an urgent requirement for immediate as well as long-term solutions whereby all students can equally share opportunities for digital learning irrespective of their places of residence.

- c) ***Social and Emotional Challenges:*** When schools closed during the pandemic, students lost more than their usual classroom learning. For many, school is a place to see friends, feel supported by teachers, and grow more confident with each day. Being away from classmates and missing daily routines created immense feelings of isolation in many students, as they no longer had the healthy reinforcements and reassurances from being in a school community.

Research indicates that without regular face-to-face contact, students struggle to maintain motivation and feel a sense of belonging (Copeland et al., 2021). To address these challenges, teachers and school leaders tried to create opportunities for connection through online clubs, group activities, and virtual counselling. Many of these efforts were helpful, depending on how well students could adapt to digital communication and the support available to them (OECD, 2020). The experience underscored the significance of genuine, in-person social connections for young people. It also showed that there is no single solution and that meeting students' social and emotional needs will require different approaches for different situations.

- d) ***Institutional Responses and Innovations:*** Faced with the challenges brought on by the COVID-19 pandemic, schools and universities around the world had to find new ways to keep students learning. Governments, non-governmental organisations (NGOs), and education leaders worked together to close the gaps in access by providing digital devices and improving internet connections, especially in remote or less-served areas. Where technology was still out of reach, older methods were brought back, such as broadcasting lessons on radio and television. For example, Sierra Leone and Liberia used radio and TV programmes first developed during the Ebola crisis to help students who did not have internet at home keep up with their studies (Day et al., 2021).

To help teachers adjust to this new way of teaching, many training programmes were created. These gave educators the tools and support they needed for teaching online. In Ukraine, for instance, teachers took part in Virtual Ed-camps where they could share advice and learn from each other, helping everyone get better at digital teaching (Singh et al., 2020). These examples from around the world showed just how strong and adaptable schools and teachers can be. They also highlight the need for schools to be ready for any future crisis, so that all students have a fair chance to learn, no matter the circumstances.

- e) ***Educational Reform and Future Resilience:*** The COVID 19 pandemic has shown that schools and universities must be flexible and ready to change their processes and infrastructure when new challenges arise. After

months of turbulent upheavals, a large number of teachers are now disputing old habits and looking for ways to better assist, instruct, and support students during this transitional phase. Teachers have started to opt more for the use of digital resources such as interactive whiteboards, use of educational apps, or mere online platforms. This is a mixture of teaching that is happening in the classroom with online work, for instance, virtual field trips or group projects. These two kinds of resources provide more opportunities to teachers and students and can be helpful to some who were at some time left out in the conventional mode of instruction (Schleicher, 2020; World Bank, 2020).

The pandemic also showed that success in school is not the only thing that matters for a student's future. Mental and emotional support is just as important. Schools are more than places to learn, they are communities where students should feel safe and valued. By finding new ways to care for students and creating an atmosphere of support, schools can be better prepared for future challenges and help every student do their best. The move to online learning during the pandemic exposed clear gaps in access; showing that not all students have the same technology or support at home. At the same time, these changes led people to think about what education should offer. Even though switching to online classes was difficult at first, it started new discussions about how schools and universities can become more open and fair for everyone.

This study looks at the effects of the pandemic on education, focusing on both the problems that have appeared and the lessons that can help improve learning in the future. By understanding these changes, the research aims to suggest better ways to give every student an equal chance, support their growth, and get them ready for a world that keeps changing. Building strong systems now will help schools and universities support students as new challenges arise. Still, these changes need the backing and guidance of policymakers, who play a key part in shaping how education develops.

1.1.2 Impact of COVID-19 on Education in India:

On 11 March 2020, the World Health Organisation officially declared COVID-19 a global pandemic, after it became clear the virus was spreading quickly and posed a major risk to people everywhere (World Health Organisation [WHO], 2020). In India, the first case turned up in Kerala on 30 January 2020 when a traveller arrived from Wuhan, China, an early sign of the crisis that would soon affect the entire country (Wikipedia, 2020). As case numbers grew, the government acted fast: schools were shut, travel was limited, and a strict nationwide lockdown was put in place to try and slow the virus.

When India recorded its first COVID-19 death on 12 March, the concern deepened. The government asked people to stay home during the Janta Curfew on 22 March, and then brought in a total lockdown from 25 March. Lockdown rules were updated in steps over the following weeks, leading to Lockdown 5.0 by June 2020. Through each stage, the authorities tried to balance protecting public health with dealing with the growing social and economic pressures brought on by the pandemic (Ministry of Health and Family Welfare [MoHFW], 2020).

- a) ***Impact on the Education Sector:*** The COVID-19 pandemic brought sudden changes to the lives of students and teachers throughout India. By March 2020, schools everywhere had closed to keep children safe, leaving more than 320 million students at home and separated from their regular classes (UNESCO, 2020). This abrupt shift showed just how much India's education system depends on face-to-face teaching, and how unprepared many schools were for moving lessons online.

As classes shifted to digital platforms, the differences between students became clearer. Children living in cities or with better-off families usually had laptops, smartphones, or tablets and steady internet connections. In contrast, many students from villages or lower-income backgrounds struggled to get connected. Some had no access to the internet, and families often could not

afford devices for each child. India has nearly one thousand universities, almost forty thousand colleges, and more than ten thousand other institutions (Ministry of Education [MoE], 2020), but only about 450 million people in the country had reliable internet access (DNS Kumar, 2020). For many children in rural areas, joining online classes was simply not possible.

It meant that while some students continued their lessons at home, many others could not keep up and quickly fell behind. The pandemic made these gaps even wider; reminding us how much work remains to make sure every child in India has a fair chance at learning, no matter where they live.

- b) ***Challenges in Adapting to Online Learning:*** When schools across India had to move lessons online almost overnight, teachers and students found themselves relying on digital platforms like Zoom, Skype, and WhatsApp to try and keep learning on track (Jena, 2020). This sudden shift was far from easy. Most students in cities could use digital devices and usually had access to steady internet, but even for them, learning on a screen was not the same as being in a classroom. Many teachers missed the energy and interaction of in-person teaching and found it hard to keep students interested during online lessons.

Students often found it hard to pay attention and keep their spirits up when they could not see their teachers or classmates in person (Raj & Khare, 2021).

In villages and small towns, the situation was often even more difficult. Many families did not own a computer or smartphone, and internet connections were often weak or unavailable. Surveys showed that 42% of children between the ages of six and thirteen did not take part in any remote learning during the school closures, mainly because they simply lacked the resources (Azim Premji Foundation, 2020). The gap between urban and rural households was clear: only 15% of rural homes had internet access, compared to 42% in cities. This meant that children from poorer or rural backgrounds were much more likely to miss out on their studies and fall behind, as they had fewer ways to get help or support with learning (National Sample Survey Office [NSSO], 2020).

- c) ***Economic Impact and the Digital Divide:*** The financial hardships caused by the COVID-19 pandemic made it even more difficult for children from struggling families to continue their education. As many parents lost their jobs or saw their earnings shrink, affording a smartphone, a computer, or a steady internet connection for their children's classes became out of reach for many households (Tarkar, 2020). In rural and far-off places, where the digital network is weak or missing, online classes simply were not possible for many children. As a result, large numbers of students were unable to keep up with their studies during this time.

The crisis did not only disrupt lessons. It also interrupted important support systems like the Midday Meal Scheme, which gives millions of children across India a nutritious meal each day (Government of India, 2020). When schools shut down, this help stopped as well, putting children from poorer families at greater risk of going hungry, especially in villages where food is sometimes scarce. The loss of this vital support showed how the pandemic deepened existing problems, making life even harder for many children both in terms of learning and health (Narayanan and Saha, 2020).

- d) ***Efforts to Reopen Schools and Address the Learning Deficit:*** As the pandemic unfolded, both central and state governments in India gradually worked towards reopening schools. In October 2020, the Union government allowed each state to decide on the timing and manner of reopening, taking local conditions into account. In some areas, students were able to return to the classroom, but many schools continued to face closures and reopenings as infection numbers shifted (Ministry of Home Affairs [MHA], 2020). By September 2021, after months of uncertainty, the students all over the country were allowed back to school following certain health and safety protocols that included maintaining social distancing by keeping class sizes smaller, organising shifts for attendance, encouraging hand washing, and regular cleaning of classrooms and common areas (MoHFW, 2021).

Even with these safety measures in place, the extended closure of schools made it difficult for many children to keep up academically, particularly those living

in rural areas or from less privileged families. Attempts have been made to recover the lost education; however, the survey indicated that children of marginalized backgrounds suffered the most. Students fell behind in core subjects like maths and science during the extended break from regular classes (Donnelly & Patrinos, 2022). Some families were so financially strained by the pandemic that education was sometimes put on the back burner as kids had to help at home or earn a little income. Girls encountered even steeper barriers, as economic hardship and ongoing social expectations, including early marriage, contributed to an increased dropout rate for them during this period (Pradhan & Sundar, 2021).

- e) ***Government Initiatives to Support Remote Learning:*** To help students keep learning during the pandemic, the Indian government introduced several programmes to make remote education more accessible. In May 2020, the government launched the PM e-VIDYA programme as part of the Atma Nirbhar Bharat Abhiyan, bringing together various digital resources on one national platform (Ministry of Education [MoE], 2020). One important feature of this effort was the DIKSHA platform, which had already started in 2017. DIKSHA offered curriculum-based lessons in many regional languages, making it possible for children across different states to find content they could understand and use (MoE, 2020).

Understanding that the internet was not accessible to every child, this led the government to use other channels to reach students. Educational TV channels under the Swayam Prabha initiative, as well as special radio broadcasts, were games that would help delivery of lessons to students in far-flung and rural areas. To ensure that the dispatch did not miss a child, the government took care of enrolling learning materials in accessible formats such as sign language for children with disabilities (MHRD, 2020). Such attempts by the government showcase its spirit for ensuring continued education for every child during a time when classrooms were closed and many were facing barriers to online learning.

- f) ***Lessons for the Future:*** India's education system, particularly for the marginalized children, was spotlighted during the COVID-19 pandemic. Teachers, students, and school leaders did everything possible to ensure lessons went through, with the challenges flashing real change needed if an equal opportunity to learn is to be made for every child. Today, having a reliable digital infrastructure, good teachers, and access to more learning materials is no longer considered a luxury for reaching children in all parts of the country and in all backgrounds.

This period has demonstrated the value of being prepared, staying flexible, and ensuring that everyone is included in the educational process. As the country continues to shape its education policies, these hard-won lessons will help build a stronger, fairer, and more resilient system for the future, one that will serve all children, no matter their circumstances (MoE, 2021).

1.1.3 Impact of COVID-19 on Education in Mizoram:

Mizoram, located in the northeast of India, is recognised for its scenic hills and rich cultural life. When the COVID-19 pandemic arrived, the state's challenging landscape made it especially difficult for students and teachers to adapt. High mountains and thick forests have long made it challenging to build roads and establish dependable infrastructure, particularly in remote villages. These barriers were felt even more acutely during the pandemic, when school closures and the shift to remote learning revealed just how limited digital access was across the state. Many families found it challenging to keep their children engaged in their studies, as unreliable internet and daily routines closely tied to farming made regular participation in online lessons a real challenge.

Most families in Mizoram rely on agriculture, and schools have long been central to the community, not just for teaching but also for providing daily meals and other support to children from families with fewer resources. The sudden shift from in-person instruction to virtual classrooms revealed how large the digital divide is in this state. Houses of many children could not

accommodate lessons from home because they lacked the devices or the stabilizing internet. Therein, the state government supplied them with printed materials and rescued local television and radio broadcasts to carry the lessons to children in places with compromised digital access. Such pragmatic measures stood testaments toward sustaining education through thick and thin.

This study looks at how education in Mizoram was affected by the pandemic and reviews the different approaches used by the state to support the students. By examining the relationship between geography, economic conditions, and policy, the research draws out key lessons in resilience and inclusion. The findings offer valuable ideas for building a more adaptable and equitable system.

a) *COVID-19's Initial Impact on Education in Mizoram:* On 24 March 2020, Mizoram confirmed its first COVID-19 case after a pastor returned from Amsterdam (Government of Mizoram, 2020). The government moved fast, closing down public spaces and putting the state under strict lockdown. These steps helped protect people's health but made life much harder, especially for students and teachers who suddenly found schools closed and routines upended. Schools closed indefinitely, and there was a sudden need to move learning online to keep lessons going. However, with most of the state being rural and mountainous, many communities faced real difficulties in making this transition. Internet access was limited in remote areas, and many families did not own digital devices, which widened the gap for children from poorer backgrounds (Lalzuiliana & Vanlalpeka, 2020).

When COVID-19 cases began to climb in August 2020, partly as people returned from states like Maharashtra, where infections were higher, the government tightened restrictions and worked to boost healthcare support. More COVID-19 Care Centres and Community Health Centres were opened to look after the growing number of patients and meet the community's needs. At the same time, new steps were taken to support students' learning. The government distributed printed learning materials to those without digital access, and lessons were broadcast on local television and radio. These steps

played an essential role in helping children continue their studies, even with the restrictions and the difficulties created by Mizoram's challenging landscape and limited infrastructure (Deka et al., 2021).

In November 2020, with the total number of cases rising above 4,000, schools in Mizoram partially reopened using a hybrid approach, which combined face-to-face and online teaching. This approach tried to maintain students' learning while also keeping health and safety in mind. But when the second wave of COVID-19 hit in April 2021, schools were disrupted once again. In response, the government put more emphasis on virtual lessons and introduced training for teachers to improve their digital teaching skills (Thansanga, 2021).

b) *Government Response to Educational Challenges in Mizoram:* The COVID-19 pandemic brought to light many challenges in Mizoram's education system, especially when it came to technology and dependable internet access. To help students and teachers continue learning from home, the state government put in place several practical steps to support remote education.

i. *Strict Lockdowns and Healthcare Expansion:* When the first COVID-19 case appeared in Mizoram in March 2020, the government responded by putting the state into lockdown and opening more health centres to care for patients. These changes made it possible to look after those who fell ill and also gave the government a way to reach out to families and students coping with new challenges at home and at school (Government of Mizoram, 2020).

ii. *Distribution of Educational Materials for Remote Learning:* With many students unable to join online classes, the Mizoram government provided printed textbooks and worksheets to children who needed them. This helped ensure that students without internet access could still study at home and keep up with their lessons (Chhakchhuak, 2020).

iii. *Educational Broadcasting on Local TV and Radio:* In areas where children could not get online or use digital devices, the government used local TV and radio to share lessons. This gave students in far-off villages a way to keep learning while schools were shut. Using television and radio in this way

showed the government's determination to keep education going for all students during a difficult time (Mizoram School Education Department, n.d.; India Today, 2020; Vikaspedia, n.d.).

c) Solutions Adopted by the Mizoram Government: To tackle the educational interruptions due to the COVID-19 pandemic, the Mizoram government introduced various innovative strategies aimed at engaging students and ensuring continuous learning. These efforts aimed to address issues from digital access gaps and provide alternative paths for education across the state.

- i. *Online Learning Initiatives and Weekly Challenges:*** In April 2020, the State Council of Educational Research and Training (SCERT) Mizoram kicked off a series of weekly challenges, including activities like poster-making, storytelling, and drawing. These interactive tasks were incorporated into assessments, helping keep students engaged and maintaining a sense of continuity in learning despite the interruptions (SCERT Mizoram, 2020).
- ii. *Televised Tutorial Classes:*** To assist students without internet access, the government launched televised tutorial sessions on 13 April 2020 via Doordarshan Aizawl and local cable networks. Covering subjects for Classes 1 to 10, this initiative provided a key alternative for remote learning, ensuring more students had access to educational content (SCERT Mizoram, 2020).
- iii. *Use of YouTube and Social Media:*** To assist students without internet access, the government launched televised tutorial sessions on 13 April 2020 via Doordarshan Aizawl and local cable networks. Covering subjects for Classes 1 to 10, this initiative provided a key alternative for remote learning, ensuring more students had access to educational content (SCERT Mizoram, 2020).
- iv. *Teacher Training and Capacity Building:*** Acknowledging the essential role of educators in facilitating remote learning, the government introduced training programs to improve digital skills and

prepare teachers for effective virtual instruction. Educators were encouraged to create video tutorials and join online professional development forums, fostering collaboration and sharing best practices among peers (Lalduhawma et al., 2022).

- v. **Collaboration with NGOs and Private Organizations:** To strengthen educational initiatives, the Mizoram government partnered with NGOs and private organizations to secure additional resources, such as digital learning tools and vocational training programs. These collaborations not only provided immediate support for remote learning but also helped develop long-term skills and educational resilience (Lalduhawma et al., 2022).
- d) ***Lessons for a Resilient Future in Education:*** The pandemic brought about severe challenges for educational systems in Mizoram, yet the state responded with much agility and flexibility. To enable education despite disruptions everywhere, the government supplied printed materials for self-study and carried out broadcasts for instructional purposes using television and radio. These, together with training of teachers, digital platforms for learning, and collaboration with NGOs, left behind an environment minded toward inclusiveness and sustainability.

This experience highlights the vital importance of flexibility, community partnerships, and targeted investment in infrastructure to close the digital gap and create equal learning opportunities for all students. Going forward, this experience draws attention to the need for an education system that is adaptable, encompasses everyone, and prepares for future crises, hence allowing students from either socio-economic backgrounds or locations uninterrupted access to quality learning (SCERT Mizoram, 2020; Lalrinchhana, 2021).

1.1.4 Impact of COVID-19 on Education in Meghalaya:

Meghalaya, famous as the abode of clouds due to its gorgeous mountains and rich culture, faced serious issues in education during the COVID-19 pandemic. With dense subtropical forests and heavy rainfall, going at infrastructure development has been traditionally hard, more so in rural and remote areas. This geographical isolation made it hard to deal with school closure and online learning during the lockdown. Limited digital infrastructure and substandard internet accessibility created barriers for students in the state.

With an agricultural and local-industry-based economy, Meghalaya has traditionally depended on offline means of providing education for its population. Schools apart from imparting knowledge have been providing essential services like meal programs for children of low-income families. With the sudden changeover to online mode, the digital divide widened that, best of all, affected students fully dependent on economically weaker sections. To mitigate this problem, the state government took many specific steps to counter the situation arising out of this sudden change. They included distribution of printed materials to learners; educational content on TV and radio; help to learners with no facilities and poor facilities for digital learning. Those might give some indication of how serious Meghalaya takes educational provision in the face of an unprecedented disruption.

The present study introduces an exposition on the impact of the COVID-19 pandemic on the education sector of Meghalaya. It also dwells on the approach of the state and evaluates its efficacy in meeting the challenges posed by the pandemic. This is a study of the interrelation between Meghalaya's topographical hindrances, socio-economic situation, and policy responses with respect to resilience and equity in education. Thus, the findings shall assist in building a more inclusive and more adaptable education framework so that issues arising at a future date may be handled better.

- a) ***The Initial Impact of COVID-19 on Education in Meghalaya:*** The first confirmed COVID-19 case in Meghalaya was reported on 14 April 2020 when a doctor returning from the United Kingdom tested positive. This raised serious

health concerns across the state (NDTV, 2020). In response, the government quickly introduced preventive measures, including closing schools on 17 March 2020 to limit virus spread. While these measures were necessary for public health, they created immediate challenges for educational continuity, especially in remote areas where access to digital resources was severely limited (Sangma & Lyngdoh, 2021).

Though the number of infections remained relatively low initially, cases surged by July 2020 due to returning residents from high-transmission areas like Maharashtra and Assam. This surge put additional strain on Meghalaya's education system. The sudden switch to online learning posed significant challenges for both students and teachers, such as poor internet service and limited access to digital devices. Many teachers, unfamiliar with online teaching, struggled to adjust their methods to engage students in virtual classes. Despite these obstacles, educators worked hard to create alternative learning environments; however, infrastructure issues made these efforts difficult (NDTV, 2020).

- b) Government Initiatives in Response to Educational Disruptions:** To lessen the impact of COVID-19 on education, the Meghalaya government put in place various measures to maintain learning during school closures. Along with public health actions like lockdowns and setting up COVID-19 Care Centres and Community Health Centres, the state launched the MegCovid19 mobile app to track infections and manage healthcare resources effectively. This comprehensive response was bolstered by educational initiatives aimed at keeping students engaged and connected to learning during the lockdown (Government of Meghalaya, 2020).
- c) Solutions Adopted by the Meghalaya Government:** In response to the education challenges caused by the COVID-19 pandemic, the Meghalaya government developed a wide-ranging strategy to ensure learning continuity during school closures. This approach emphasized using technology, improving teacher training, and working together with community stakeholders to strengthen the education system.

- i. ***Online Learning Initiatives:*** A key part of the government's strategy was launching CR School, an interactive online platform developed by educator Christopher Rani. Tailored to Meghalaya's curriculum, CR School offered digital learning resources for students from kindergarten to Class 10, allowing remote access to important educational materials. Additionally, the e-Scholar portal was introduced for secondary education, providing resources based on the Meghalaya Board of School Education syllabus. These platforms were crucial in closing educational gaps and ensuring that students had structured learning even when traditional classrooms were unavailable (The Shillong Times, 2020).
- ii. ***Teacher Training Programs:*** Teacher Training Programs: Understanding the importance of digital skills for remote teaching, the government rolled out free online training programs to prepare educators for virtual instruction. These initiatives equipped teachers with effective tools to improve student engagement in digital classrooms. Initially offered in select schools, the training expanded to meet growing demand, highlighting the urgent need for capacity-building efforts to support online education (Vikaspedia, 2021).
- iii. ***Collaboration with Professional Learning Communities (PLCs):*** To enhance the quality of digital learning materials, the Department of Education worked with Professional Learning Communities to create instructional videos, audio lessons, and inquiry-based learning resources. Incorporating project-based and inquiry-driven approaches made remote education more interactive and meaningful for students (Pathak, 2023).
- iv. ***Partnerships with NGOs and Private Organizations:*** The Meghalaya government also partnered with NGOs and private organizations to tackle key educational issues, such as high dropout rates and the need for vocational training. These partnerships expanded the state's resources and supported initiatives to keep students engaged, despite lengthy school closures (Meghalaya Department of Education, 2020).

- d) ***Challenges and Areas for Improvement:*** While the government's initiatives showed adaptability, the COVID-19 pandemic exposed ongoing challenges in Meghalaya's education system, especially in rural areas where internet connectivity was often poor or nonexistent. The digital divide significantly limited students' ability to participate in online learning, worsening educational inequalities, particularly for those from economically disadvantaged backgrounds.

A lack of access to necessary devices like smartphones and laptops further restricted remote learning opportunities, putting extra stress on families and leading to rising dropout rates and declining academic performance. These challenges highlight the need for focused efforts to improve digital infrastructure, enhance access, and ensure fair educational opportunities for all students, regardless of their location or socio-economic status.

- e) ***Building a Resilient Education System in Meghalaya:*** The COVID-19 pandemic posed serious challenges to Meghalaya's education system; however, the state's response showed adaptability and resilience. The swift move to online learning revealed gaps in digital infrastructure and educational preparedness. Yet proactive actions, such as creating e-learning platforms, expanding teacher training, and collaborating with community organizations, helped lessen the pandemic's impact.

As Meghalaya looks toward the future, the lessons learned during this period will be crucial in shaping a more inclusive and sustainable educational framework. Strengthening digital access, investing in teacher development, and addressing socio-economic inequalities will be essential for establishing a system that is both fair and resilient in times of crisis. These efforts are vital for long-term academic and social progress, ensuring that students across the state, regardless of their background or location, can access quality education (Bharti Institute of Public Policy, 2024).

1.2.0 RATIONALE OF THE STUDY:

The outbreak of COVID 19 brought unexpected upheaval to education systems everywhere. Schools had to close their doors with little warning, forcing teachers, students, and families to adjust almost overnight to remote learning. This shift was neither planned nor gradual, and many worried about how learning could continue and what the longer term consequences might be for students' progress and the structure of education itself (UNESCO, 2020). As countries begin to move forward, it is important to reflect on both the immediate setbacks and the lasting effects that the pandemic has had on teaching and learning (Sahlberg, 2021).

One of the most visible problems was the deep divide in access to the tools needed for online education. In less privileged areas, students did not have access to laptops, tablets, or a steady internet connection, so they could not join online classes or finish their schoolwork (World Bank, 2021). Children from families with fewer resources often had to study in cramped homes, surrounded by noise and distractions, with no quiet place to focus on their lessons. By contrast, students in better off households benefited from newer technology, extra online resources, and greater family support (Goyal, 2020).

The pandemic also laid bare differences in how prepared schools were for digital learning. Schools that already had established online teaching systems managed the switch far more easily than those starting from scratch. In many places, teachers had little experience or training in online teaching, making it difficult to design interesting lessons or manage digital classrooms (Kuhfeld et al., 2020). These challenges highlight why it is so important to invest in digital infrastructure and continuous teacher development. Students with special educational needs faced extra obstacles. Most schools did not have the right technology or expertise to support them, leaving these students at risk of falling even further behind their peers (Reed & Curtis, 2021).

Mizoram and Meghalaya, two north eastern states in India; present unique but comparable cases for understanding these challenges. Both states are largely rural, with similar social and economic conditions, yet each has its own specific

context that shaped how it responded to the crisis. Limited technology, challenging geography, and tight budgets all made the transition to remote learning particularly hard. However, each state tried different approaches to support students, and these variations offer valuable lessons (Sen & Dhar, 2021).

A side by side look at Mizoram and Meghalaya during the pandemic provides an opportunity to see how different strategies can be used in similar settings. This research compares what each state experienced, examining where technology, teacher support, and community efforts succeeded or fell short. It aims to identify the key factors that either helped or hindered learning, and to recommend practical ways to improve access and teaching quality in the future (Northeast Council, 2021).

The urgency of educational reform has become even clearer, especially as schools move towards blended learning that mixes online and in person lessons. This means teachers need new skills and regular training to keep up with changing technology. As digital tools become a normal part of school life, investing in them and in the people who use them is vital for building strong education systems that can cope with whatever lies ahead (Anderson, 2021).

This study looks at the real world challenges Mizoram and Meghalaya faced during the pandemic and the steps they took to overcome them. Through this comparison, the research explores differences in technology access, the effect of teacher training, the role of government and local action, and the impact of social and economic factors on learning at home. The main goal is to offer clear, evidence based recommendations to help both states build fairer, more resilient education systems that keep students learning, no matter the circumstances (Borah & Lyngdoh, 2021).

By examining these two states, the study provides ideas that can help similar regions strengthen their schools. The findings are meant to guide policymakers, teachers, and community leaders in closing the technology gap, improving teacher support, and reducing inequalities worsened by the pandemic. In the end, the goal is to make sure every student, no matter where they live or what resources they have, can keep learning even during tough times (Indian Council of Social Science Research [ICSSR], 2021).

This comparative study not only highlights the struggles brought on by COVID 19, but also points to practical solutions and effective responses. It offers lessons for building stronger, more adaptable education systems, and underscores the importance of planning for the future so that all students have a fair chance at a quality education, even in times of crisis.

1.3.0 RESEARCH QUESTIONS:

1. What are the educational challenges faced by school administrators of secondary schools during the COVID-19 pandemic in Mizoram and Meghalaya?
2. What are the educational challenges faced by teachers of secondary schools during the COVID-19 pandemic in Mizoram and Meghalaya?
3. What are the educational challenges faced by community members of secondary schools during the COVID-19 pandemic in Mizoram and Meghalaya?
4. What are the educational challenges faced by secondary school students during the COVID-19 pandemic in Mizoram and Meghalaya?

This study aims to provide a meaningful and contemporary contribution to the understanding of COVID-19's impact on education by examining the challenges faced by stakeholders in Mizoram and Meghalaya during the pandemic. Through this focused analysis, the research seeks to offer original insights into the disruptions experienced and the responses implemented within these two states.

1.4.0 STATEMENT OF THE PROBLEM:

The problem has been stated as *“Educational Challenges faced by Stakeholders of Secondary Schools during COVID-19 Pandemic in Mizoram and Meghalaya”*

1.5.0 OBJECTIVES OF THE STUDY:

Aligned with the research questions outlined earlier, the objectives of this study have been formulated as follows:

1. To find out and compare the educational challenges faced by school administrators of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.
2. To find out and compare the educational challenges faced by teachers of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.
3. To find out and compare the educational challenges faced by community members during COVID-19 pandemic in Mizoram and Meghalaya.
4. To find out and compare the educational challenges faced by secondary school students during COVID-19 pandemic in Mizoram and Meghalaya.

1.6.0 OPERATIONAL DEFINITIONS OF KEY TERMS:

Educational Challenges: The COVID-19 pandemic significantly disrupted education systems worldwide, compelling educators to adapt rapidly by incorporating digital solutions to mitigate its impact. In this study, *educational challenges* refer to the various difficulties encountered by stakeholders in maintaining effective teaching and learning during the pandemic.

Stakeholders: In the context of education, *stakeholders* encompass individuals and groups with a vested interest in the success and functioning of an educational system. This includes those directly involved in education as well as those indirectly affected by its outcomes. For this study, stakeholders specifically refer to school administrators, teachers, community members, and secondary school students.

COVID-19: COVID-19 is an infectious disease caused by a novel strain of coronavirus. The name derives from *CO* (corona), *VI* (virus), and *D* (disease). Initially referred to as the *2019 novel coronavirus* or *2019-nCoV*, the disease has had profound global consequences, affecting multiple sectors, including education.

Secondary Schools: *Secondary education* follows primary schooling and typically includes students aged 14 to 16, covering the ninth and tenth standards. It represents the final stage of compulsory education. For this study, *secondary schools* refer to institutions affiliated with the Mizoram Board of School Education (MBSE) in Mizoram and the Meghalaya Board of School Education (MBOSE) in Meghalaya.

1.7.0 DELIMITATION OF THE STUDY:

The study is delimited to the school affiliated to Mizoram Board of School Education in Mizoram and Meghalaya Board of School Education.

CHAPTER-II
REVIEW OF RELATED
LITERATURE

CHAPTER – II

REVIEW OF RELATED LITERATURE

The pandemic has turned major aspects of our society and human life upside down. The world being one land and one community, so is life, have been distorted on some levels. One of the arenas greatly affected has been the education system, wrestling with issues that came with state changes set forth by the crisis. In this literature review, the problems in education caused by the pandemic will be discussed, especially for secondary education in the northeastern Indian states of Mizoram and Meghalaya. This review will also take some national and international studies to view pandemic-impacted education in a broader perspective. Some of these difficulties include a rapid transformation to online learning, inequality in access to technology, emotional stress placed on both students and teachers, and major adjustments in the methods of teaching and learning. This review will consider how the effects of COVID-19 on education differ and highlight some of the common challenges faced by educational communities worldwide.

These alterations caused great upheaval in society, giving rise to a number of researches directed towards shedding light on one aspect or another of the pandemic affliction upon education. This compilation of studies in educational technology, psychology, sociology, and public health provides a review into various findings about the impact the virus has had on secondary education in these fields and attempts to locate gaps in the present research profile vis-à-vis policy-making, teaching, and future research. From the multidisciplinary approach taken by this review, invaluable information and insight can be offered to managing the continuing dents from the pandemic and in preparation for any future public health crisis.

2.01 STUDIES CONDUCTED IN INDIA:

Research conducted in India on the pandemic's educational impact reveals important insights into the challenges and coping strategies of schools and stakeholders. These studies offer a deeper understanding of the digital divide, psychological effects, and the responses adopted within the Indian educational context.

Thakkar and Joshi (2017) explored students' attitudes towards e-learning. Their research showed that there were no statistically significant differences in attitudes towards e-learning with regard to gender. Similarly, students from rural and urban areas also showed no significant differences. The study finding further indicated no major attitude difference between students belonging to general and reserved categories, indicating widespread acceptance of e-learning across varying demographics.

Debbarma and Durai (2020) examined the experiences of students from the North-eastern states during the lockdown. These researchers found that the pandemic generated significant emotional distress. The students had problems negotiating online educational systems such as inaccessibility of learning materials, glitches during interactive sessions, unfamiliarity with digital platforms, poor internet connectivity, and so forth. Some other challenges mentioned that students found it harder to concentrate during the online tutorials, and there was a general opinion that online classes did not offer the same kind of education as face-to-face teaching did. Teachers, on the other hand, were doubtful and not comfortable working with digital tools and had issues getting teaching aids, such as whiteboards and visual presentations. Furthermore, there were delays in receiving assignments and completing academic work.

Devan (2020) conducted a study to understand how students in Ernakulam District, Kerala, felt about online education during the pandemic. Most of the primary students were happy with the shorter duration of two hours for their classes per day. Being in the middle of their school life, they were less satisfied with the online education. Their problems were comprehension of content, long assignments, and disturbed internet availability at their homes, which through improper environment hoisted learning challenges. Pressure from household responsibilities, almost very limited access to devices with device sharing being common with siblings, were some of the issues faced by high school students. Senior secondary-level students were more positive about it than their junior counterpart. They appreciated the flexibility given for learning at their own pace and the opportunity to prepare for competitive exams while managing their schoolwork.

Dhawan (2020) studied online learning as a possible solution during the COVID-19 crisis. The findings showed how an e-learning methodology and system can help furnish much-needed educational aid during difficult times. It was viewed as an important means of continuing education, though some assert that it worsens communications between students and teachers and diminishes the aura of a personal touch that they experience in a traditional classroom setup. The very onset of the pandemic saw most educational institutions undergo a swift transformation to the e-learning mode, which created some problems for students and instructors as well as for the delivery of learning content.

India Today (2020) identified five major problems related to online education and provided practical recommendations to solve them. One of the major issues faced in the Indian online system was the connectivity of the internet at home that lacked bandwidth and had limited data plans. Another challenge that was posed included online assessment-from stopping cheating to actually conducting online assessments. It creatively suggested using online platforms that activate an alarm for a teacher whenever a student leaves the test window. The report also gave out security warnings on using free platforms like Zoom and Google Classroom and recommended safer platforms to be used. To alleviate boredom due to long screen times and static learning environment, the report suggested the use of polls and whiteboard-style tools to make online classes more interactive and student-friendly.

India Today (2020) examined the unique challenges parents faced during the COVID-19 pandemic. Parents turned into tutors at home, attempting to keep their children focused on schoolwork and helping out with questions and assignments on the curriculum. Many had difficulty explaining to their kids what was happening during the pandemic. Parents found it harder to maintain a regular breakfast, lunch, study time, and bedtime schedule. Behavior problems began to surface, added onto the stress caused by their own responsibilities.

Jena (2020) studied how the COVID-19 pandemic affected education in India. The research found both positive and negative effects. Both positive and negative effects come in midst of the research findings. Positives involved the enhancement of around

electronic media, enlarging international exposure, time management, increase in demand of open and distance learning, further progress to blended learning, rising use of learning management systems, digital learning materials, collaboration, online meetings, and digital literacy. Negatives include disruption in educational activities, impacts on employment, ill preparation of the teacher and student for online means of teaching-learning, fewer work assignments at global level, increased parental responsibilities for home-based learning, loss of mid-day meals, and delays in school and college fees payments.

Khanna and Prasad (2020) did a study of the problems or challenges faced by student and teacher groups during the COVID-19 pandemic through online learning. Solutions were offered for these problems. They surveyed 160 people. They found that 57 percent feared matters concerning privacy and piracy, whereas 43 percent did not. Over 85 percent had difficulties with discipline or motivating themselves to work academically. Prolonged screen exposure led to negative impacts in 76 percent of the respondents, with fewer saying they did not face any problem with extensive periods of online learning.

Koul and Bapat (2020) studied the effect of COVID-19 on education throughout India. Their research results showed that the revenue of private educational institutions went down due to the nation-wide lockdown. Transitioning from face-to-face classroom learning to online classes brought a host of technical and managerial issues, including online class setup, discipline of students, increased workload to teachers and students, and academic integrity issues in assessments. Meanwhile, some positives started to come up such as the emergence of blended-learning models, better appreciation of teachers, higher quality content, new platforms for on-demand learning, and lesser restrictions of time and location.

Kundu and Sonawane (2020) conducted a detailed study on how COVID-19 impacted school education in India, focusing on financial aspects. Their findings revealed that the number of out-of-school children rose during and after the pandemic. The sudden shift to online education widened the digital gap and increased inequality in learning opportunities. The study also noted that many schools did not have the

infrastructure to implement safety measures like physical distancing, which added to the difficulties faced by administrators and teachers.

Mishra et al. (2020) conducted research on primary education in Mizoram during the pandemic. They found that primary school students faced serious issues with internet access. Teachers in Aizawl tried to deliver lessons through WhatsApp groups and used YouTube and local TV channels to share materials. However, both students and teachers were blocked by slow internet and unstable connections. Older teachers also struggled to use online tools effectively with young children.

Mishra et al. (2020) also studied online teaching and learning in higher education during the lockdown. Online platforms like the Mizoram University Learning Management System, WhatsApp, Telegram, and email were in most demand. Many of the teachers thought that if the benefits were made more apparent, most of their colleagues would have no hesitation adopting the online teaching methodologies. Students said that online classes were a means for them to remain connected to their courses and complete the syllabus without physically meeting. The poor network connectivity and insufficient access to devices put both sides under load for transitioning.

Nachimuthu (2020) researched the attitudes of student teachers towards online learning during the COVID-19 period. The findings showed a generally positive view of online teaching. There were no significant differences in attitudes between male and female student teachers. Student teachers in government institutions showed higher average scores and standard deviation than those in private institutions. Those studying science were more favourable towards online teaching than those in the arts, showing a noticeable difference across subject areas.

Nambiar (2020) conducted a web-based survey to understand how students and teachers viewed online learning during the pandemic. It was observed that most people preferred traditional classroom settings. Some of the common issues faced were poor and unstable internet connectivity, poor power supply, and poor video or audio quality. Teachers considered that online learning was more flexible, thus enabling better time management, enhancement of skills, and organisation of instructions. On the other

hand, students appreciated online learning because it gave them the freedom to learn at their own pace, saved their time, helped them finish the syllabus quickly, made them feel less anxious about asking questions, and allowed them to watch recorded lessons whenever they wanted to.

Nandan (2020) conducted a comparative study of academic performance, anxiety levels, study habits, and educational attitudes among high school and intermediate students under pre-pandemic conditions. The study reported that intermediate students performed better academically than high school students. It also found that about half of the students had moderate anxiety levels. Most students had a normal nutritional status. A large proportion of intermediate students (92 per cent) and high school students (76 per cent) had a favourable attitude towards their education.

Supernak (2020) examined how engineering students assessed the impact of the pandemic on their learning. The study reported that student outcome scores remained relatively high, though somewhat lower than their pre-pandemic equivalents. Comparisons made for sixteen student outcomes and across individual courses did not show statistically significant differences at the five per cent level in eighty-one per cent of the cases. These results suggest that students maintained a positive perception of course coverage despite the pandemic. The areas that were more negatively affected were those that required laboratory work and student collaboration.

Biswas and Rahaman (2021) examined the impact of the COVID-19 pandemic on the education sector in Mizoram. Their analysis revealed a noticeable difference in software familiarity between male and female participants. No significant difference was observed in the willingness to adopt digital platforms across age groups, although individuals aged between twenty-three and twenty-five demonstrated the highest readiness to embrace online learning. Results indicated that awareness and knowledge about digital education improved following the pandemic. Younger faculty members, especially those aged twenty-five to thirty-five, preferred online teaching over traditional methods. The findings confirmed that male participants were generally more comfortable using software than their female counterparts.

Gopal et al. (2021) investigated how student satisfaction and academic performance were influenced by online classes during the pandemic. They identified four main factors linked to student satisfaction: the quality of instruction, timely feedback, course design, and how well the course content matched student expectations. Satisfaction positively affected performance. The analysis showed that satisfaction acted as a middle factor between these variables and student achievement, with the quality of instruction being the most significant influence on how students rated their online learning experience.

Gurung (2021) studied the challenges faced by teachers while using online teaching methods during the COVID-19 crisis. The majority of teachers were new to digital instruction and encountered difficulties such as irregular electricity supply, weak internet connectivity, limited IT knowledge, personal responsibilities at home, and resistance to change. Some were unable to conduct online classes due to a lack of equipment or technical confidence. The researcher also found it difficult to teach students from remote areas, encourage motivation in a virtual setting, and understand student behaviour or concerns without face-to-face contact.

India Today (2021) published the results of a survey that focused on the difficulties experienced by teachers during online classes in the pandemic. A large majority, about eighty-four per cent, said they faced problems. Half of the teachers had trouble accessing the internet or could not afford expensive data plans. Around forty per cent did not own digital devices needed for online instruction. In states like Uttar Pradesh and Chhattisgarh, seventy to eighty per cent of teachers lacked such tools. Less than twenty per cent of the respondents had received any training in virtual teaching. In Bihar and Jharkhand, the training rate dropped below five per cent, showing the urgent need for digital capacity-building in those regions.

Kulkarni (2021) explored the difficulties in conducting educational research during the pandemic. The study noted a decline in face-to-face interaction between researchers and participants due to safety protocols. Research personnel were often reassigned to other duties, leading to staff shortages. COVID-19 infections also reduced the number of active researchers and participants. Other challenges included

the absence of digital literacy, poor internet access, and the redirection of research funding towards pandemic-related topics.

Muthuprasad et al. (2021) aimed to understand student preferences and attitudes towards online education in India during the COVID-19 pandemic. Most of the respondents had no previous experience with online learning. A large proportion supported the continuation of online classes as an alternative to traditional teaching. Some respondents suggested that the syllabus should be suspended altogether, while others wanted only assignments and study material. Many preferred having two online classes per week and were willing to study for two to four hours each day. When it came to resolving doubts, students liked to post questions, followed by live chat, email, and WhatsApp. For evaluation, quizzes and assignments were the most favoured formats. The majority preferred objective-type exams over descriptive ones. There were minimal differences in perception between graduate and postgraduate students. About half the participants agreed that online education helped them improve their technical skills, although most felt it was less effective in building communication with instructors. Flexibility and convenience were reported as advantages, while lack of connectivity was the most common problem. The study concluded that the content and infrastructure had a strong influence on the success of online education. Other issues raised by students included digital distractions, uneven teaching quality, self-discipline, and health-related problems, with technical difficulties being the most frequent.

Nagar (2021) conducted a cross-sectional study in a selected nursing college in Nadiad to explore students' attitudes towards online lectures during the pandemic. The results indicated that most students had a moderate attitude towards online classes when compared to traditional classroom teaching. This was attributed to factors such as saving travel time, lowering the risks associated with commuting, and spending more time at home with family.

Rawal (2021) examined the entire impact of pandemic on Indian education. The study finds that both teachers and students underwent innumerable challenges such as lack of basic facilities, interruptions by family members during online classes. The

budgetary constraints therefore did not allow schools and households to invest in modern technology. Many teachers lacked training and technical support, while some institutions did not give any clear instructions. On a brighter side, the calamity ushered in greater adoption of digital teaching materials, collaboration, online meetings, digital literacy, use of electronic media, international exposure time management, and growing demand for distance education.

Singh (2021) studied the attitudes of secondary school students towards online learning during the COVID-19 pandemic. The research showed no significant difference in attitudes between male and female students, although male students scored slightly higher. A more noticeable difference appeared based on locality. Urban students viewed online learning more positively than their peers from rural areas.

Singh and Quraishi (2021) investigated the challenges faced by Indian students during the COVID-19 lockdown. The study found that around seventy-five percent of students experienced learning difficulties due to their home environment and decreased physical activity, leading to feelings of lethargy. Almost half of the respondents disagreed that their academic performance was directly affected by their home situation. The study also found that 31.3 percent of students struggled to understand content presented through online lectures, mainly due to weak internet connectivity in many regions. A notable 88.2 percent of students were worried about setbacks in their academic progress caused by the lockdown. These findings highlight the emotional and cognitive strain on students during health emergencies and emphasize the need for support from families, institutions, and society.

The National Achievement Survey (2021) reported that forty percent of students in Northeast India lacked access to digital tools during the pandemic. The digital divide was most pronounced in Assam, Manipur, and Meghalaya, where nearly half of the students did not have devices at home for online learning.

Bhattacharya (2023) studied online education during the pandemic and its impact on the Indian education system. For instance, as the transition set in, a few changes occurred in the system. It observed that online means of imparting education were not entirely a phenomenon new, but the pandemic accelerated their development

manifolds. Online education is good in terms of content delivery and improvement in communication skills. The study, however, also points out that traditional schooling all the same remains important, for education is a continuous process involving intellectual, emotional, and social growth. Online teaching becomes tough when the subject matter demands some kind of practical exposure or demonstrating some working skills. Besides, students benefit more from personal engagement rather than at a distance; it's easier to engage in a classroom than in a living room home setup. A possible conclusion that came out of the study was that the hybrid model of education would better balance and complete one's learning experience. It also saw potential in machine learning and artificial intelligence to fill the gaps among students' learning competencies..

Bhattacharya et al. (2023) evaluated the quality of e-content created for higher education during the pandemic. The study classified the content as standard, substandard, or unsuitable. Only 23.3 percent of the materials reviewed met the standard. Two main reasons contributed to this low percentage. The first was the lack of training for those developing the content. The second was the absence of quality control systems in many higher education institutions.

Bhattacharya and Tandon (2023) carried out a study to explore teachers' health and well-being and, in particular, the challenges they had to face while working from home during the pandemic. The study concluded that the line between personal and professional life became blurred for teachers who found themselves working longer hours while trying to develop a new system from scratch. They were under constant pressure-may this be demands, from either home or a school. The difficulties encountered by these teachers ranged from technological issues, work volume, and changes in teaching to emotional distress. The study suggested that the renewal system start rendering supports on various levels, ranging from that of families to school leaders and even to policy-makers. Lastly, the study endorsed that different strategies be applied to recognize the diverse situations in which teachers found themselves placed.

Mishra and Kumar (2023) conducted a pilot study on the behavior and mental health of higher education students during the lockdown. More than half of the participants reported uncertainty and disruption in their daily lives, though most did not show significant stress about academic responsibilities. Many began to focus more on their mental health and prioritized rest, exercise, and self-care. Despite this, most expressed concern about upcoming university exams and their career prospects, which led to a general sense of unease during the lockdown.

Muthuswamy (2024) compares digital literacy and technology usage between rural and urban households of Coimbatore district. The investigation indicated the situation that even if around half of the participants utilized the internet and digital devices, many of them were still bereft of such cottages. Poor connectivity or accessibility, high costs, and lack of training were the common barriers faced. These became even greater hindrances for the people who had never been connected to the internet before. While digital tools were now gaining traction, the study pointed out the need for better access and affordability of such tools, alongside frequent digital literacy programs for low-income and rural communities. These would act towards greener pastures for inclusive participation into the realm of digital education.

Ojha and Yadav (2023) examined low-cost mobile teaching methods during emergencies in their paper *In Good Times and Bad*. In areas with lesser internet, they considered good phone calls with simple text messages and automated voice recordings as viable and useful options to keep children learning. These tools represented a doable cheap solution in a less affluent backdrop.

Sindakis (2024) studied digital transformation in rural India. He focused on how villages are adopting technology. The results showed that the rural population was mainly young and had the potential to benefit from digital tools. Many respondents were educated and open to using digital platforms. The study found that women in rural areas were adopting mobile technologies more than expected, challenging traditional views about gender and access. This change highlighted how Digital India initiatives are improving digital literacy among women. The findings also revealed a

strong preference for mobile technology over desktop services, suggesting that future efforts should prioritize mobile connectivity and infrastructure.

Singh (2024) discussed the role of technology in online education during the pandemic. The study noted that schools and colleges used learning management systems, video conferencing tools, and collaborative platforms to continue teaching. These tools helped ensure that students could participate in both live and recorded sessions. While the benefits of online education were recognized, the study pointed out that access was not equal. Many students had no digital devices, faced poor internet connections, or lacked digital skills. These issues prevented them from fully participating in online education.

2.02 STUDIES CONDUCTED ABROAD:

Research conducted outside of India offers a global perspective on the educational challenges and innovations prompted by the COVID-19 pandemic. These studies reflect the shared struggle to adapt to online learning and identify both common and context-specific barriers encountered by educators and students across various countries.

Fox (2004) conducted a study on teachers' experiences with Information and Communication Technologies (ICTs) during the SARS epidemic. The findings showed that ICTs were not always suitable for replacing traditional delivery methods. One of the key issues was that there was not enough preparation because schools were closed suddenly. Concurrently, the experience prompted teachers to learn more about ICTs and, in a few instances, take up completely new pedagogies. The study also observed a shift from traditional examinations to continuous assessment, drawing attention to the importance of both the learning process and its outcomes.

Miller et al. (2010) analyzed student behavior during the closure of a school due to an outbreak of pandemic influenza, A/H1N1. The authors found that students were not inactive during the closure. The level of activity increased according to grade level. Peer engagement decreased at the time of school closure.

Adedoyin et al. (2020) performed a thorough analysis concerning the challenges and the opportunities embedded in online learning during the period of the COVID-19 pandemic. The study reported challenges that went from technical issues, to the socio-economic backgrounds of students affecting the ability to access broadband, interruptions during online classes from family and surroundings, and limited levels of digital literacy. Also very pertinent is the issue mentioned by the study that it is complicated to monitor and assess student performance online, that workloads are increased for both students and teachers alike, and that online teaching, due to its very nature, is limited in terms of teaching practical subjects or skill-based subjects. Nonetheless, new opportunities were also drawn into focus in contrast to the difficulties. These included the formulation of better research methods, improvements in e-learning technologies, and the means to tackle the socio-economic level that put a student at disadvantage. The study showed a balanced view of the difficulties and opportunities presented by the online education environment during the pandemic.

Ager et al. (2020) studied the effects of school closures during the 1918 influenza pandemic. They found that schools in shut down in that period did not show any long-term decline in attendance; besides, closures had no long-term effect whatsoever on the students' education or subsequent professional development..

Agung et al. (2020) carried out a case study on students' perceptions of online learning during the COVID-19 pandemic, focusing on English students at STKIP Pamane Talino. While most students attended and participated in classes, the study found that only 24.3 percent had a stable internet connection, and 33 percent had no access at all. Mobile phones were more commonly used than laptops for online classes. A little over half of the students, 54.5 percent, found the course materials easy to understand, while 45.5 percent faced difficulty. Most lecturers were found to support students by initiating discussions, posing questions, and offering guidance, with 81.8 percent actively providing feedback. Student interest in online learning was generally low, with 66.7 percent showing little enthusiasm. The study concluded that most students were not fully prepared for the sudden change in teaching and learning methods. The main challenges were internet access and stability, availability of teaching media, and compatibility of devices for accessing content.

Ali and Kaur (2020) studied educational challenges during the COVID-19 pandemic. Their research showed that many institutions were not equipped to implement distance learning effectively. There was also a shortage of appropriate tools and content for online instruction. At the household level, short-term school closures disrupted family routines and led to disengagement from learning activities.

Apriyanti (2020) studied parental assistance during distance learning amidst the pandemic for children. The research revealed that many parents found it hard to keep their children interested in educational activities. The students expressed boredom with their studies because they preferred watching television or playing games over doing academic tasks. Hence, many students had difficulty with their educational materials and could not fully engage in online learning.

Bagwell (2020) presents leadership insights emphasizing flexible decision-making and purposeful decision-making during pandemic situations. The study reveals that, should an educational leader use flexible leadership approaches, it would better govern the schools through unforeseeable educational challenges.

Bangani (2020) made an investigation on the educational impact of the COVID-19 pandemic across the world. Major disturbances due to the shift from physical space to online learning thereby affected especially the poor or underprivileged student communities. The study looked at the crisis as an opportunity to review educational systems for greater inclusion and responses based on the needs of learners. Educational transformation in a strategic way could lay the foundation for more learner-focused and equitable educational systems during the pandemic.

Basilaia and Kvavadze (2020) examined the transition from traditional to online education in Georgia during the early stages of the pandemic. It reported that basically all schools managed to successfully implement online education. Interruptions may still have been posed, such as cancelled lessons, yet these were managed very well.

Basilaia et al. (2020) investigated how Georgian universities responded to the pandemic by substituting digital tools for in-person instruction. Gmail, Google Classroom, Google Calendar, Google Forms, Jamboard, Google Drawings, Google Drive, Google Hangouts Meet, and the open-source program Open Broadcast Studio are just a few of the platforms that educators have embraced. These resources helped keep higher education consistent while facilitating the delivery of digital instruction.

Battenfield (2020) wrote an article that highlighted three key lessons from school responses during the 1918 pandemic, which remain relevant for educators and policymakers today. The first lesson emphasised the importance of investing in school nursing. Rather than simply sending unwell students home, where they might miss out on school and lack proper care, school nurses attended to students' health and offered advice to families. The second lesson focused on collaboration with external authorities. Effective pandemic responses involved cooperation between public health professionals, educational administrators, and political leaders. The third lesson illustrated how education was integrated with broader societal concerns. During the 1918 pandemic, reforms were introduced that included school lunch programmes, the appointment of school nurses, the construction of playgrounds, the development of outdoor education, implementation of child labour laws, compulsory school attendance, and improvements in tenement housing. Schools were expected to serve not only as centres for learning but also as providers of essential services such as food and healthcare.

Beale (2020) studied the importance of community and collaboration in education after the COVID-19 pandemic. The research showed that a comprehensive, community-driven approach is essential for post-pandemic education. It emphasized how important it became not just to deal with recovery of academics but also with emotional and social welfare of pupils. Educational inequalities could certainly not be prevented without the collaboration of all stakeholders, and the overall progress of students would be threatened.

Brooks et al. (2020) examined the psychological effects of quarantine and identified potential ways to reduce its impact. The study found that people experienced post-traumatic stress, confusion, and anger. The effect of quarantine duration, infection fear, insufficient supplies and information, boredom, lost financial gains, and stigma that may characterize illness/isolation at times contributed to these problems.

Burgess et al. (2020) studied the consequences of school and university closures due to COVID-19, focusing on skill development and assessment disruption. The study indicated that teaching was interrupted at the turn of an important school term with the result that tests were delayed or not taken at all. Students completing their education in the time of pandemic faced their career opportunities in particular under a certain blow. Most of these students have suffered some displacement in terms of teaching and assessment and they join the world of work at the time when the global economy is experiencing a severe recession. As identified in the study, the pandemic affected educational paths and future careers in most broader ways.

Cao et al. (2020) studied the psychological effect of COVID-19 on Chinese university confusion students. The survey revealed that 24.9 per cent of them were anxious at the time of the outbreak. Protective aspects like residence in urban localities, being of the households and steady family income minimized the impact of this anxiety. Although the dropout rate of students was high, they did not show severe psychological affects in most of the individuals.

Dawadi et al. (2020) have evaluated the implications of the pandemic to the Nepal education system in terms of challenges and measures taken in response. The study has revealed that the pandemic has disrupted learning and skill development. Educational inequality became worse due to the existence of various access to digital learning resources. A lot of external and internal examination were either delayed or called off which led to stagnation among the students. Individuals who were intending to study abroad were affected especially. The quite important secondary schools which prepare students to higher learning institutions were closed, and there was a possibility of growth in the learning gaps. The researchers also cautioned that the rate of drop out may increase because of the economic pressure that may happen on the family that

will result in the loss of the job, which will put extra pressure on the professors and institutions to recoup the learning time that will be missing.

Farrel (2020) examined the experience of school leaders during the COVID-19 transition to distance learning. With only one week to prepare, leaders had to guide families and teachers through unfamiliar territory. Important details provided by the government usually trickled down to the leaders in school when it was about to be released to the general population. Four large inequalities were recorded that include food insecurity, online learning access by students, safety issues, and mental health support to families. Such challenges influenced school leadership in the pandemic to be more complicated and challenging.

Gonzalez et al. (2020) studied how confinement due to COVID-19 affected academic performance in higher education. The findings revealed that students performed better academically during the confinement period. One contributing factor was the adoption of innovative teaching methods that encouraged self-directed learning. Students also adjusted their study habits, maintaining more regular schedules when motivated by clear rewards. The positive shift in achievement was consistent across different instructional styles.

Gorey (2020) explored the challenges of moving to remote learning during the pandemic. The study found that teachers had to redesign much of their curriculum, especially content that required direct interaction. Teachers were able to complete the academic year successfully due to their existing relationships with students. Starting a new academic year in an online setting was identified as a greater challenge. Teachers also experienced a slower pace in their personal lives, while students often struggled with motivation in the absence of structured schedules. The most difficult subject to teach online was science, due to its reliance on hands-on activities.

Jawad and Shalash (2020) studied the impact of e-learning strategies on academic performance at Al-Quds Open University. Their results showed significant gains in student achievement through the use of e-learning approaches. Male students appeared to benefit more than female students. The study also observed variation in the effect of e-learning across different academic programmes, with noticeable improvements in

Arabic and Social Studies. Average scores varied across academic levels, with the exception of students who already had excellent academic standing.

Klein et al. (2020) focused on physics education during the pandemic, assessing students' learning outcomes, engagement with online recitations, and laboratory work. Learning achievement was found to be influenced by students' ability to organise their study time, though these skills were generally lower during the pandemic. Effective communication and positive attitudes toward online learning were linked to better academic outcomes. Younger students were more negatively affected than older ones. Providing graded feedback and opportunities for students to collect their own data contributed to higher performance. The study pointed to a number of variables that determined success in online physics education.

Kumari (2020) has examined the consequences that the COVID-19 pandemic has had on the education system structure. In the study, it was reported that there was a rampant change of traditional teaching methods to more sophisticated and electronic training methods. Exam timetables were greatly disturbed with a number of them being deferred or cancelled. It also made endeavoring in internships during the time more challenging to the students.

Magomedov et al. (2020) evaluated positive and negative implications that the pandemic had on education. The research pointed out to the growing entrenchment of technology in education. Meanwhile, the issue of poverty had been a considerable obstacle as well, as it excluded students who did not gain access to the technology to learn effectively.

Mahdy (2020) investigated the research topic of the academic life of veterinary medicine students in the field of pandemic. The research had shown that online learning is flexible and provided more time to the students to study on their own and do their individual activities. Meanwhile, the internet costs were high and connection still poor thus both students and teachers could not distribute and access the content effectively. The students experienced stress as they undergo online tests that have a time limit. It was particularly hard to teach clinical topics remotely. The drawbacks were exhaustion, sleep disturbance, and lack of motivation due to the long hours of

online activity. Other students lost a lot of communication also with people, teachers, and pets and had an unchanging complicated and less entertaining studying process.

Mahyoob (2020) explored issues encountered by the learners studying English as Foreign Language (EFL) in embracing e-learning in the COVID-19 era. In the study, majority of the learners were proficient in the use of Blackboard and tended to use WhatsApp as a comparable platform. Although there was familiarity with digital tools, most of the students had issues of internet connectivity. Most of the learners, however, said that they were satisfied with their online learning experience overall.

Marinoni et al. (2020) have carried out the worldwide survey aimed at evaluating the pandemic influence on higher education institutions. According to their findings, even though certain level of institutional continuity could be achieved virtually, it was hard to prevent any disruption. The transition to distance education, in part successful, threatened the quality of education and increased the inequality of access. A comparison was done regionally whereby, it was seen that the institutions in Africa were worst affected as compared to other areas in the world. It was found that the larger rates of postponement of exams, cancellation of lectures, and restricted use of technology should be discussed as the greatest concern of African universities when attempting to keep academic process effectively.

Mirahmadizadeh et al. (2020) involved the development of a cross-sectional study that focused on the investigation of the emotional reactions of students to the closing of schools suddenly. Students indicated feelings of liking (more than disliking) school in the results. The younger students conveyed expression of positive emotions whereas the older students had higher negativity. Positive attitude of females towards education and willingness to go back to school was more significant. Men were less enthusiastic and had a larger toxic emotions. The researchers also discovered that the rural students had a better attitude school as opposed to their urban counterparts.

Misra (2020) evaluated the harmful as well as beneficial impacts of COVID-19 pandemic on the education industry. It was observed that there were four key areas of concerns which are low international student mobility, greater learner passivity, lesser teacher preparation in online teaching, and shifts in recruitment yields. Meanwhile,

four important opportunities were found as well: the expansion of blended learning, the standardisation of the learning management systems, enhancing the quality of educational material and more collaboration. These results indicated that the pandemic led to not only the change in practices but also in the mind-set regarding teaching and learning.

Mlynaryk and Makovac (2020) conducted a retrospective study about the implications of the 1918 influenza pandemic on Ontario education. The authorities of the schools attributed schools to be in a better position of supervising children than at home; therefore, they decided to continue maintaining schools. The number of students who attend and enrol was reduced in this period. Interventions like separation of students among classrooms and promotion of outdoor activities were instituted to promote health. The school year was considered unproductive by half, and the educational staff was supposed to speed up the learning process to eliminate the gap. The reoccurrence of the virus also led to closing down of schools, which have ranged between one week to three months. The research showed that early adoption of school-based medical inspection systems had several advantages with a few districts having controlled outbreaks more reasonably.

Mukhtar et al. (2020) performed the analysis of advantages, drawbacks, and enhancement options concerning the issue of online learning over the COVID-19 pandemic. The paper determined such benefits as availability, comfort, and the possibility of continuing studying far away. The issues were poor learning performance and issues of upholding academic integrity. The recommendations made were faculty training, simplified lesson planning, and enhanced interactivity of students. The study agreed to maintain online learning in medical and dental colleges and decided that online learning can provide the student-centered climate that is easily adjustable even during conflicts.

Ngima and Tsering (2020) studied the effects of moving towards the online learning environment. The research established that learners valued flexibility of online courses. Meanwhile, some concerns were manifested regarding reduced peer

interaction opportunities, which led to social isolation. These findings were attributed to the level of ease and the difficulty of adapting to online learning environments.

Putra et al. (2020) studied the views of students on home-based learning in Indonesia concerning closure of schools due to pandemics. The research indicated that there were massive technology and internet access differences. Students were afraid of getting left behind in school and most parents were not skilled enough to help in the online education. Provision provided by the government was perceived not to be sufficient as the infrastructure was poor and there was lack of funds towards national learning initiatives.

Saavedra (2020) also investigated the implications and potential transformations to education that COVID-19 crisis has created. The research paper mentioned loss of learning, rise of drop-outs and loss of school meals as significant problems. Concurrently, the emergence of the pandemic provided possibilities in enhancing digital capabilities in teachers and increasing the utilization of such media as television and radio. The parents were computed to take greater interest in the education of their children and education ministries became more cognizant of systematic frailties. These were digital access, design of curriculum and teacher technology-readiness. These areas were observed to be critical in improving towards a better educational system.

Salem University (2020) has identified five critical difficulties that school principals must face post-pandemic. Among them were the adoption of hybrid-based models of learning, bridging the widening gaps in equity, transforming the perception of people regarding education, catering to the mental health of students, and enhancing the communication between teachers and the school administrators. The report urged school leaders to take measures in anticipation of these new duties.

Sintema (2020) provides findings about how COVID-19 has impacted the academic performance of students currently in Grade 12 in Zambia, particularly on STEM education. Less physical instruction and limited digital accessibility were reported. Such shortcomings were bound to lead to reduced exam scores, especially the science and mathematics courses. The teachers also expected a drop in participation and results in national tests.

Radu et al. (2020) studied the parameters of the pandemic impact on the quality of education through the prism of the students. Not all the students had the infrastructures required to study remotely; others were better-equipped but had difficulties. The communication with instructors became less efficient, the levels of motivation decreased, and fewer opportunities of practical learning were provided. Online examinations also have been characterized as inefficient by students and resulted in apprehension about the deteriorating physical and mental health. The disconnection with the real world and a lack of a direct connection became primary problems, and the consequences of remote learning were questioned in regards to the long term.

Tang et al. (2020) evaluated the sudden switch to on-line teaching in the field of computing. The initial phases characterized technical and organisation difficulties. The involvement increased after the adjustments were done; both among the students and the teachers. The study has raised the importance of emotional and pastoral support in keeping students engaged and argued that delivery of content and assessment practices will need to be re-designed to work in an online context.

The British Council (2020) surveyed teachers and teacher educators to identify their needs during the initial stages of the pandemic. Most of the respondents were new in remote instruction although a few of them had experienced previously. The teachers claimed to be overloaded with information and were unable to balance between teaching workloads. A more directive leadership was cited as one of the things needed. Teacher educators have also complained of not being prepared on how to mentor teachers online and they needed to be trained more to enable the adjustment. Another issue which was repeatedly mentioned was that it takes much time to prepare effective online lessons.

Wang et al. (2020) studied the effects of home confinement on children's health in China during the pandemic. Emergency home schooling was successfully implemented, but the researchers noted concerns about children's physical and mental well-being. Reduced physical activity, longer screen time, poor sleep habits, and unhealthy diets were observed. These changes resembled patterns seen during weekends and holidays and were associated with weight gain and reduced fitness.

Winthrop (2020) outlined ten risks and opportunities for education in response to the COVID-19 crisis. Potential risks included reliance on ineffective distance learning methods, overburdened and underprepared teachers, reduced child protection, and wider equity gaps. Poor experiences with educational technology could discourage future use. On the other hand, the crisis created opportunities for broader adoption of blended learning, increased public support for teachers, improved distribution of quality learning resources, greater collaboration among teachers, and stronger unity among stakeholders within the education sector.

Yao et al. (2020) explored the roles that teachers should assume in online education during the COVID-19 pandemic, using data collected from China. The study found that live broadcast teaching, which enabled higher levels of interaction between teachers and students, led to improved academic outcomes compared to self-study based on recorded videos. The authors suggested that in an online setting, teachers should act not only as transmitters of knowledge but also as leaders and mentors who provide clear guidance and maintain open channels of communication.

Alghamdi (2021) studied the educational and social impacts of the pandemic on Saudi university students. The results indicated even greater impacts on the social and emotional conditions of students rather than on their learning. Such positive experiences were the growth of family relations, the better appreciation of life, health awareness and the feeling of oneness. A move to online platforms in the field of education was considered as one of the valuable adjustments. Negative impacts included anxiety about becoming a burden if infected and a deep sense of loss linked to the absence of traditional classroom environments.

Almahasees et al. (2021) examined perceptions of online learning among faculty and students. While most faculties had previous experience with online platforms and digital tools, many still preferred face-to-face instruction. Students valued the flexibility and reduced costs of online learning but struggled with engagement, motivation, internet connectivity, and a lack of real-time interaction with teachers. Faculty expressed concern about lesson preparation time and the risk of students

becoming disengaged during long sessions. There was also uncertainty about whether online learners could outperform their counterparts in traditional classroom settings.

Al-Rasheed (2021) studied the experiences of undergraduate women in Saudi Arabia during the pandemic. The abrupt transition to online learning introduced several challenges, including technical problems, limited access to devices, and psychological strain. Students also reported a loss of structure and feelings of disconnection from the university environment. These factors combined to create a particularly difficult experience during the quarantine period.

Al-Salman and Haider (2021) explored the responses of university students in Jordan to online learning. Students enrolled in Arts and Humanities reported higher satisfaction compared to those in Science disciplines. The former group was more optimistic about the future of online learning and experienced less economic and emotional strain. The findings illustrated that the impact of online learning varied according to academic discipline.

Aytaç (2021) investigated the difficulties faced by teachers in Turkey during the pandemic. The lack of training and support of the public school teachers was a major challenge especially among those working in the underserved areas. Weak infrastructure or low connectivity with the internet meant that several students would not be in a position to digest digital content easily. It was also observed that teachers had to deal with the lack of student motivation and engagement. Parental involvement varied, and some families struggled to provide the support needed for at-home learning.

Barrot et al. (2021) studied the challenges faced by students in the Philippines in adjusting to online education. The findings identified five main areas of concern: self-regulation, technological competence, isolation, technological sufficiency, and platform complexity. The home learning environment was found to be the most significant barrier. Students also reported issues with physical discomfort, financial hardship, and mental health concerns, all of which affected their academic experience.

Boca (2021) examined student behaviors and attitudes towards online education. A majority of students found online classes beneficial during the pandemic, citing flexibility and improved access to learning materials. Students appreciated their teachers' efforts and supplementary resources but remained concerned about the stress and limitations of virtual learning. Preferences for online assessments were also noted, with significant links found between student attitudes and the perceived quality of online education.

Cui et al. (2021) explored how elementary students and their parents in China experienced online learning. Most students were initially enthusiastic, but over time, engagement and satisfaction declined. Homework completion rates dropped, and both students and parents expressed stress. Although online learning helped reduce the spread of COVID-19, the experience revealed several shortcomings in sustained student engagement and parent support.

Donnelly et al. (2021) examined the effects of the pandemic on education in Ukraine. They identified the absence of personal interaction as a major shortcoming of emergency remote instruction. In response, Ukraine introduced televised lessons and digital platforms to continue teaching. Peer networks like Ed-Camp supported professional development. Despite these efforts, students experienced significant learning losses. The authors recommended recovery initiatives, protection of education budgets, and preparedness for future emergencies.

Herzallah et al. (2021) analysed students' and teachers' attitudes toward online learning in elementary and middle schools. Older educators showed lower levels of digital competence. Gender and ethnicity also played a role, with Jewish students and teachers reporting more positive views and greater use of technology than their Arab peers. The findings underscored the importance of equitable access and the role of demographic factors in shaping digital learning experiences.

Izhar et al. (2021) investigated the transition to online teaching from the perspective of educators. Many teachers lacked experience in digital pedagogy and faced obstacles such as unreliable internet, limited device availability, and time-consuming lesson

planning. Teachers also reported reduced confidence, challenges with diverse learning needs, and difficulty delivering effective instruction in home settings.

Iyengar (2021) examined community participation in education after COVID-19 and proposed that parents and community members could be engaged in meaningful, complementary roles depending on their social capital. These models support educational outcomes by connecting community issues with school curricula, creating more grounded and locally responsive learning environments.

Lau et al. (2021) studied how children's independent learning skills influenced parental satisfaction with online education. The findings indicated that the more children were able to learn independently, the more parents were contented with the online learning. Parental perception was influenced more by the length of educational sessions as well as the amount of assignments in case of students being more independent.

Maison et al. (2021) considered such psychological and social challenges as the people experienced in the state of the pandemic. The people who participated in their study found that they were stressed due to social isolation, curfew lifestyle, disruption of routine and non-knowledge of what the future holds. This set difficulties in mental health and caused an overall feeling of nerves.

Maqsood et al. (2021) discussed the problem of mental health and pedagogical issues related to the introduction of online learning. The main issues were poor internet access, devices shortcomings and limited digital learning conditions. The problem of disproportionate amounts of time spent in front of the screens and the lack of special learning places at home was also mentioned by the students. Institutional guidance and clarity also lacked, which increased these challenges.

McLeod and Dulsky (2021) focused on school leadership during the early stages of the pandemic. Communication, staff support, and access to basic resources emerged as central priorities. Leaders had to adjust quickly to the demands of remote instruction, while managing uncertainty and maintaining morale within their school communities.

Mheidly et al. (2021) conducted a case study on the use of WhatsApp as a learning tool during the COVID-19 pandemic. While the platform was found to be accessible, functional, and technically effective, its limited capacity to support social, teaching, and cognitive presence was identified as a weakness that hindered the overall learning experience.

Mulenga and Shilongo (2021) examined hybrid and blended learning approaches. The study highlighted increased flexibility through micro learning and modular design. At the same time, instructors faced heavier workloads and required additional training. Key recommendations included interactive instruction, regular assessments, and flexible course paths. The study looked ahead to AI-driven and immersive technologies as tools to enhance engagement and access.

Ozudogru (2021) reported the issues that pre-service teachers experienced in distance learning. The lack of sufficient course time, large workloads, clear evaluation criteria, poor interaction and technological support were identified in the study. The learners had to miss the classroom environment, and they could hardly be attentive. There were problems of feedback and coping with digital platforms, and that led to more general issues regarding preparedness and system design.

Pokhrel and Chhetri (2021) conducted a literature review on the impact of COVID-19 on education in developing countries. The main barriers noted by them included the fact that internet is too expensive, existence of no infrastructure, and that, it should be taught in context-specific ways. The review indicated the necessity of developing trustworthy platforms and creating realistic assessments that would fit different education levels.

Priyadarshani and Jesuiya (2021) studied teacher perceptions of online education in Sri Lanka. Mainly, students enjoyed the experience of studying online, but an educationalist thought that it was impossible to achieve all the benefits of stationary learning with the help of digital learning. Some teachers also experienced a challenge in the lack of training and technological complications. It was noted in the study that online education needed an enhanced preparation and infrastructure.

Sarkar et al. (2021) explored public university students' views on online classes in Bangladesh. Female students and those in urban areas expressed more positive attitudes. Students using laptops or broadband internet also reported higher satisfaction levels. In contrast, those relying on mobile phones and mobile networks experienced more difficulties and expressed less favourable views.

Schafer et al. (2021) investigated how students with hearing loss coped with educational challenges during the pandemic. Non-transparent masks and distancing reduced access to spoken communication. Technological barriers were common, with around 70% of students reporting regular issues. Asynchronous learning was used frequently, but students often struggled to remain connected and supported.

Thapa et al. (2021) examined e-learning experiences among nursing students in Nepal. While learning from home was seen as convenient, many students faced problems with connectivity and technical difficulties. Although students viewed online education as less effective than in-person classes, many held positive attitudes toward its use and appreciated its flexibility.

Wang et al. (2021) conducted a qualitative study on online medical education in China. While students were generally satisfied, issues such as lagging platforms and limited interaction were noted. A gap emerged between teacher and student perceptions, with students more likely to advocate for blended learning models that include in-person components.

Zalat et al. (2021) studied e-learning acceptance among university medical staff. Most participants acknowledged the benefits and usability of e-learning. Barriers included unstable internet, lack of equipment, and technical issues. Age, gender, and years of teaching experience were significant factors influencing acceptance.

Sanvik et al. (2022) investigated the assessment efforts in Norwegian schools as they were fully online. Final exams were cancelled leaving grading to the individual teachers. Students stated that they received a very little support and were not sure about the assessment. The practices of assessment in the teachers were very different and

fairness and equity in grading were raised. The research highlighted the fact that there was a need to have more reliable methods of evaluation in the disruptive moments.

Wang et al. (2022) conducted a mixed-methods study on the use of SMS during COVID-19 to provide information and emotional support. The study showed that SMS was particularly useful among older adults, who had limited internet access. Although it had largely been overtaken by newer technologies, SMS remained a part of the media ecosystem and played a role in supporting public communication and emotional well-being during the crisis.

Azer et al. (2023) studied medical students in terms of social media consumption and digital tools. Online platforms such as YouTube, Zoom and WhatsApp were very popular. Learners described feeling more connected and engaged with such tools and admitted that they wanted to incorporate them more often into their academic programmes. The results indicated that technology had a very important role in maintaining the learning process and social interaction.

Albornoz et al. (2023) conducted a systematic review on the effects of remote learning on children's school performance. Low test scores, loss of motivation, and emotional stress were observed. A greater disorganisation was experienced as was the workload reported by teachers and families. The results set emphasis on how it should be strategically planned to aid the learning recovery and mental health.

2.03 Analysis of the Review of Related Literature

The detailed literature review given in Chapter II sheds more light on the multidimensional and far-reaching effect of the COVID-19 pandemic on education systems the world over with studies undertaken in India as well as abroad. As the analysis suggests, the similarities lie in the identification of common themes, peculiarities of challenges, and context-specific reactions available to the stakeholders, which show both flexibility and limitations of educational practices in the conditions of the pandemic.

1. **Transition to Online Learning:** One of the most apparent ones through reviewed studies is an unexpected switch in place of the classroom education with online learning. Dhawan (2020), Koul and Bapat (2020), Mishra et al. (2020) and Singh (2024) show the confusion and ingenuity that defined this transformation on the Indian subcontinent. Their testimonies show how schools and teachers endeavored to keep students learning, with little preparation time and broken access to digital tools. The experiences of concrete changes in other environments as discussed by Agung et al. (2020), Ali and Kaur (2020), and Mukhtar et al. (2020) indicate the creativity and the burden of an enormous system changing.
2. **Technological Barriers and Digital Inequality:** Digital divide is not a technical problem but simply a problem which has serious social implications. The available Indian literature as reported by Jena (2020), the India Today (2020, 2021), Mishra et al. (2020) and Singh and Quraishi (2021) highlights the inability of learners to access the defined devices and stable internet as it reached only a fraction of the population not only in rural or marginalised communities. Survey results at Biswas and Rahaman (2021) and National Achievement Survey (2021) point out the efficiencies in Mizoram, Meghalaya, and the Northeast. The theme has resonance with other studies on an international level by Pokhrel and Chhetri (2021), Putra et al. (2020), and Marinoni et al. (2020), in which access discrepancies complicated the process of educational continuity.
3. **Psychological and Social Consequences:** Behind the statistics and policy debates are stories of anxiety, loneliness, and resilience. Research carried out by Debbarma and Durai (2020), Kulkarni (2021), Mishra and Kumar (2023) and Singh and Quraishi (2021) highlight the emotional burden that prolonged online studies and social distancing left students and teachers in India. The studies by other authors, Cao et al. (2020), Brooks et al. (2020), Maison et al. (2021), and Maqsood et al. (2021), confirm the idea that wellbeing, motivation, and mental health have been of high priority everywhere.

4. **Educational Inequities:** The pandemic did not generate educational inequalities, however, it increased them. According to Singh (2021), Kundu and Sonawane (2020), and Rawal (2021), evidences of the growing gap between the urban and rural students in India and associated with economic status are registered. The parallel findings conducted in other regions of the world are displayed by Alghamdi (2021), Barrot et al. (2021), and Dawadi et al. (2020). These facts indicate the serious necessity of specific assistance and political actions that answer the specific requirements of underprivileged populations.

5. **Teaching Challenges and Pedagogical Adaptation:** The pandemic left many teachers in the unexplored terrain. Surveys conducted by Gurung (2021) and Khanna and Prasad (2020) and an interview with Nachimuthu (2020) emphasize the challenges of the people who did not have prior experience or confidences with the digital platforms. These companies were not the only ones going through such struggles, as similar accounts are provided by Izhar et al. (2021), Gorey (2020), and Tang et al. (2020). Meanwhile, these studies can serve as the source of hope as they make it clear that educators are capable of adapting lessons, redesigning classroom routines, and relying on new models of blending learning, which is described by Bhattacharya (2023), Singh (2024), and Mulenga and Shilongo (2021).

6. **Assessment and Evaluation:** The evaluation practices were under significant pressure with the pandemic. Koul and Bapat (2020), as well as India Today (2020) report indicates how online environments create difficult circumstances in achieving fairness and academic honesty. The research by Burgess et al. (2020) and Sanvik et al. (2022) also shows how challenging the assessment of learning in the times of crisis could be as both teachers and learners had to accommodate to the fast shifting expectations and format.

7. **Positive Outcomes and Opportunities:** Even in adversity, the literature records moments of progress. Scholars such as Jena (2020), Nambiar (2020), and Rawal (2021) note how teachers and students developed new digital skills and discovered the potential of blended or flexible learning models. Misra

(2020), Bangani (2020), and Winthrop (2020) suggest that these innovations, if supported, could lay the groundwork for more resilient and inclusive educational systems.

8. **Role of Parents and Community:** Parental and community involvement gained renewed significance during school closures. Studies by India Today (2020), Iyengar (2021), and Apriyanti (2020) describe how families supported learning under difficult circumstances. These experiences, however, were uneven, often reflecting differences in parents' educational backgrounds and available resources.
9. **Regional Insights: Mizoram and Meghalaya:** Local realities shaped both challenges and responses in profound ways. Studies focused on Mizoram and Meghalaya (Mishra et al., 2020; Biswas and Rahaman, 2021; National Achievement Survey, 2021) offer a close-up view of how issues such as geographic isolation, limited connectivity, and distinct socio-cultural contexts complicated efforts to sustain education. These findings reinforce the importance of policies and interventions tailored to specific regional needs.

2.04 Identification of Research Gaps

While the literature offers a detailed account of the immediate technical and logistical challenges that emerged with the move to online education, significant questions are still unanswered, particularly regarding the lasting psychological and social effects on secondary school students and teachers. The existing research does not make clear which interventions are genuinely effective in narrowing entrenched disparities in remote and economically disadvantaged settings such as Mizoram and Meghalaya. There is also a lack of comparative research that considers how different but related regions have responded to educational crises. Discussion about the roles of governance, culture, and community support in building educational resilience remains limited. In addition, most studies have not provided practical models or guidance that could help schools and policymakers prepare for future interruptions to schooling.

By examining the experiences of stakeholders in Mizoram and Meghalaya, the present study intends to address these questions and offer practical recommendations that promote greater equity, adaptability, and well-being in these regions and similar contexts.

2.05 Conclusion of the Analysis

The literature tells a story not only of loss and disruption, but also of adaptability, resourcefulness, and hope. While COVID-19 exposed deep-rooted weaknesses in educational systems, it also prompted remarkable efforts to innovate, support one another, and find new ways forward. The lessons learned from Mizoram, Meghalaya, and comparable contexts should guide the next generation of educational policies. As schools and communities continue to recover, investments in digital access, ongoing teacher professional development, student mental health, and inclusive practices remain essential. The review serves as a foundation for future inquiry and decision-making, with the potential to foster more resilient and equitable educational systems in a world where uncertainty may be the new norm.

CHAPTER-III

METHODOLOGY

CHAPTER – III

METHODOLOGY

Research methodology is a systematic and organized way in which plays a very important role in the research process and gives a concise and substantiated way in which a given research problem is solved. It consists of a procedurally well-structured plan which thoroughly presents every procedural step involving the fundamental principles, strategic and action plans in the study design, data collection and data analysis segments. Through this systematic process the techniques chosen are put to accurate use in relation to the purpose of the research and the study needs thus the researcher is in a position to present conclusions that are fair, truthful and relevant to the research queries.

A good research methodology enhances transparency, rigorousness and consistency of the research, this is how it is possible to review the credibility of the research and this is how the procedures can be replicated in another similar context. Including every aspect that allows the study in question to be examined and interpreted comprehensively, the research methodology forms a good basis, which further ensures the adequate scientific standing and faithful replicability of the study in question and, therefore, increases the contribution that the research in question can make to the scholarly tradition. The elements of research methodology include:

1. Method of study
2. Population
3. Sample
4. Tools used
5. Collection of data
6. Mode of analysis

3.1.0 Method of Study:

This study adopted an explanatory sequential mixed-methods design, integrating phenomenological inquiry to explore participants' lived experiences. The first phase involved quantitative data collection through a structured survey, analyzed using statistical techniques. Building on these findings, the second phase employed phenomenologically guided focus group discussions to delve into the subjective meanings, challenges, and contextual factors shaping participants' experiences. This dual-phase approach enabled methodological triangulation, enriching the study by combining broad patterns (quantitative) with deep, experiential insights (qualitative).

3.2.0 Population:

In the present study, the population was divided into four categories, each offering distinct insights into the educational challenges experienced during the COVID-19 pandemic within secondary education in Mizoram and Meghalaya:

- ***Secondary School Students:*** This group includes all students enrolled in secondary schools affiliated with the Mizoram Board of School Education (MBSE) and the Meghalaya Board of School Education (MBOSE). As primary stakeholders, these students were directly impacted by disruptions in educational delivery and access during the pandemic. Their attitudes shed some important light on variations in learning, academic and mental health, and social relations. To analyse all effects on the outcome of education, it is crucial to comprehend their experiences to see which areas are in need of improvement.
- ***Secondary School Teachers:*** This group consists of teachers working in secondary schools affiliated with MBSE and MBOSE. Teachers are at the core of the implementation of curriculum, adaptation of instruction, and support of students, particularly during times of crisis. A view into their experiences can provide an important notion of the nature of disruptions wrought upon teaching practices, classroom management, and teacher-student relations by the pandemic. Teachers' recollections about the shortcomings of remote learning,

education process difficulties, and job-related stress can all be honored as constituting worthy preliminaries to an effective education response.

- ***Secondary School Principals:*** The category comprises principals of secondary schools affiliated with MBSE and MBOSE. Being institutional leaders, the principals manage school operations, collaborate with the staff and the community, and ensure that education continues under harsh conditions. They hence provide perspective on the administrative and logistical bottlenecks of setting up online or blended learning, maintaining infrastructure, and executing safety norms. In fact, they generate insights on leadership approaches to the crisis and how better preparedness for the future can be arranged.
- ***Community Members or Parents:*** This group includes parents and community members associated with secondary school students in Mizoram and Meghalaya. Their involvement is critical to supporting students' learning, particularly during periods of disruption. Their perspectives highlight socio-economic and emotional challenges such as access to digital resources, balancing work and educational responsibilities, and providing emotional support. Examining their experiences helps to understand the broader community impact of educational disruptions and informs strategies to strengthen support systems at home.

Each of these categories contributes essential viewpoints that enhance the understanding of educational challenges during the COVID-19 pandemic. Collectively, their insights help identify priority areas where targeted interventions and policies can support educational resilience and continuity in secondary schools across Mizoram and Meghalaya.

Table 3.1***District-wise statistics of Secondary Schools in Mizoram***

District	Number of schools	Number of teachers	Number of students
Aizawl	199	1426	14326
Champhai	58	320	2977
Hnahthial	23	119	1044
Khawzawl	29	148	1260
Kolasib	47	302	2915
Lawngtlai	66	352	4316
Lunglei	97	564	4434
Mamit	56	303	2299
Saitual	50	268	1958
Serchhip	49	306	2638
Siaha	41	222	2438

Source: UDISE 2021-2022 Directorate of School Education: Govt of Mizoram

Table 3.2***District-wise statistics of Secondary Schools in Meghalaya***

District	No of school	Number of teachers	Number of students
West Garo Hills	154	982	9875
East Garo Hills	22	131	2231
South Garo Hills	42	266	3067
West Khasi Hills	115	554	7936
Ri Bhoi	106	495	6515
East Khasi Hills	321	1503	15691
West Jaintia Hills	82	403	6136
North Garo Hills	36	217	3319
East Jaintia Hills	43	196	2592
South West Khasi Hills	47	195	2944
South West Garo Hills	42	165	3242
Eastern West Khasi	39	176	1649

Source: UDISE 2021-22 State Education Mission Authority of Meghalaya (SEMAM)

3.3.0 Sample:

For this study, the investigator employed a multi stage and multi phased stratified random sampling approach to ensure diverse representation across key subgroups.

First, two districts from each state were randomly selected to represent the broader population: Aizawl and Lunglei in Mizoram, and East Khasi Hills and West Garo Hills in Meghalaya. From the selected districts, 10 percent of the schools were chosen as sampling units for selecting students and teachers, while 23 percent of the schools were sampled for selecting administrators in each state. All samples were selected proportionally based on the number of schools in the respective districts.

In Mizoram, students and teachers were selected from a total of 30 schools, with 20 schools from Aizawl and 10 schools from Lunglei. From each school, 20 students and 5 teachers were selected, resulting in a total sample of 600 students and 150 teachers. For administrators, a sample was drawn from 70 schools, comprising 48 administrators from Aizawl and 22 from Lunglei.

In Meghalaya, students and teachers were selected from 47 schools, including 32 schools from East Khasi Hills and 15 schools from West Garo Hills. As in Mizoram, 20 students and 5 teachers were selected from each school, yielding a total of 940 students and 235 teachers. For administrators, the sample was drawn from 110 schools, consisting of 75 administrators from East Khasi Hills and 35 from West Garo Hills.

Since the total number of community members was not known, a convenience sampling method was employed. Accordingly, 100 community members were selected from each state, Mizoram and Meghalaya, based on accessibility and willingness to participate in the study.

For the focus group discussions, a purposive sampling technique was used. Stakeholders who were known to have experienced significant challenges during the COVID 19 pandemic were intentionally selected. These participants included teachers, school administrators, parents, and community representatives. This

approach ensured that the discussions would provide rich, relevant, and experience based insights to complement the quantitative findings.

The sample consisted of the following:

Table 3.3

Selected sample of stakeholders in Secondary Education in Mizoram and Meghalaya

Stakeholders	Mizoram	Meghalaya	Grand Total
Administrators	70	110	180
Community Members/Parents	100	100	200
Teachers	150	235	385
Students	600	940	1540
Total	920	1385	2305

Table 3.4

Selected Sample for Focus Group Discussion in Mizoram and Meghalaya

Stakeholders	Mizoram	Meghalaya	Grand Total
Administrators	6	4	10
Teachers	6	6	12
Students	6	6	12
Community Members	6	4	10
Total	24	20	44

3.4.0 Tools for Data Collection:

The study on the educational challenges faced by secondary school stakeholders in Mizoram and Meghalaya during the COVID-19 pandemic employed a questionnaire developed by the investigator, aimed at gathering comprehensive data from the different groups affected by the crisis. Separate questionnaires were prepared

for each category of stakeholders, namely administrators, teachers, students, and community members. Each instrument was designed to address the specific challenges and experiences of these groups, ensuring a nuanced understanding of the pandemic's multifaceted impact on education.

To ensure breadth and depth of understanding regarding the issues at hand, the investigator reviewed literature relevant to the problem before constructing the questionnaires. Each questionnaire contained different forms of questions: closed-and open-ended. The closed-ended questions yield quantitative data that is analyzed to locate common patterns and prevalence of certain challenges. Open-ended questions give the respondents the opportunity to express more elaborately their experience, thereby complementing the qualitative information on the particular challenges faced by each stakeholder group. Such qualitative data enriches the study as it captures perspectives that may not quite be fully reflected through structured items.

To establish the validity and clarity of the tools, the questionnaires were submitted to a panel of 15 experts from the Department of Education. The experts thoroughly reviewed each item and provided feedback regarding content accuracy, clarity, and alignment with the study objectives. Their suggestions were instrumental in refining the tools to ensure that the questions were clear, contextually appropriate, and directly relevant to the dimensions under investigation.

By combining both quantitative and qualitative approaches, the tools facilitated a comprehensive analysis of the educational challenges encountered by stakeholders in secondary schools across Mizoram and Meghalaya during the pandemic. Quantitative data enabled statistical interpretation, while qualitative responses enriched the analysis with detailed, experience-based perspectives. Together, these tools supported a holistic understanding of the issues and helped identify areas requiring targeted policy attention and strategic interventions.

3.4.1 Questionnaire on Educational Challenges during the COVID-19 Pandemic for Administrators/Principals:

The questionnaire has 22 questions grouped accordingly into eight key categories that reflect the major responsibilities of school leaders amid the COVID-19 pandemic. These dimensions include health and safety challenges, technology and online learning, student learning and academic progress, assessment and evaluation, teacher support and professional development, mental health and well-being of students and staff, communications and engagement, and financial constraints. The questionnaire is designed to capture the complex and multidimensional challenges faced by administrators/principals in maintaining educational continuity while safeguarding the well-being of the school community.

3.4.2 Questionnaire on Educational Challenges during the COVID-19 Pandemic for Teachers:

The questionnaire designed for teachers consists of 38 questions, organised across seven key categories to comprehensively address the diverse educational challenges faced by teachers during the COVID-19 pandemic. These dimensions include curricular challenges, pedagogical challenges, student-related issues, technological challenges, assessment and grading, personal and emotional challenges, and financial challenges. This structured approach enables the study to capture both external pressures, such as adapting to digital platforms and meeting varied student needs, and internal pressures, including mental and emotional well-being.

3.4.3 Questionnaire on Educational Challenges during the COVID-19 Pandemic for Community Members/Parents:

Recognising the critical role of family and community support in education, the questionnaire for community members/parents addresses their unique challenges, particularly in supporting their children during the pandemic. The 23 questions is divided into five categories: challenges in technological access, challenges in mental, social and academic support, challenges in time management and communication, environmental challenges, and overall satisfaction with their child's education during

the pandemic. This structure is designed to capture parents' perspectives on the obstacles and adjustments they faced, from managing digital learning environments to balancing their own responsibilities while supporting their children. Given the linguistic diversity, the questionnaire was translated into Mizo for respondents in Mizoram to facilitate comprehension and ease of response, while in Meghalaya, where English is widely used, it was administered in English. This language-sensitive approach enhances both the accessibility and reliability of the data collected, ensuring that the responses reflect parents' authentic experiences.

3.4.4 Questionnaire on Educational Challenges during the COVID-19 Pandemic for Students:

To understand the unique challenges faced by students during the shift to new learning environments, a well-structured questionnaire comprising 26 questions was thoughtfully developed. This questionnaire is organised around six essential categories that encompass the range of difficulties students encountered: learning environment, academic challenges, social challenges, emotional challenges, technological challenges, and financial challenges. Each of these dimensions was carefully selected to capture the specific obstacles and adjustments students had to make during this period.

3.4.5 Discussion Guide for Focus Group Discussion:

After the quantitative data were collected and analysed, the investigator identified specific issues and trends that required deeper exploration to fully understand their underlying causes and contextual significance. To gain a more nuanced understanding of the challenges faced by stakeholders of secondary schools in Mizoram and Meghalaya during the COVID-19 pandemic, the investigator developed a Discussion guide for Focus Group Discussion (FGD) with administrators, teachers, community members, and students in both states. This qualitative tool was framed based on the findings of the quantitative phase, with the aim of eliciting rich, descriptive insights and participant perspectives. The FGD questions were designed to probe the reasons behind the observed challenges, uncover contextual factors, and explore perceptions and experiences that could not be fully captured through

quantitative methods alone. This sequential explanatory approach enhanced the comprehensiveness and depth of the overall research.

3.5.0 Procedure of Data Collection:

The investigator undertook field visits to secondary schools in Mizoram and Meghalaya, where formal consent was obtained from a diverse group of respondents, including principals or administrators, teachers, students, and community members or parents (the latter accessed indirectly through students) to administer questionnaires. The researcher personally explained the purpose and significance of the study, providing clear instructions to ensure that all participants fully understood the questions and the confidentiality measures established to protect their responses.

By building strong rapport with the respondents, the investigator created a supportive environment that encouraged open and sincere communication. This approach not only facilitated effective data collection but also ensured that participants felt respected and meaningfully involved in the research process. Respondents were encouraged to choose answers that best reflected their genuine opinions and experiences, thereby improving the validity and trustworthiness of the findings. This careful and ethical approach to data collection demonstrated the study's commitment to producing relevant and dependable insights.

In the second phase of data collection, the qualitative phase, Focus Group Discussions were conducted through the Zoom Meetings platform as well as through in-person meetings. Participants, including students, teachers, administrators, and community members, were invited via phone calls and were provided with clear information regarding the discussion topics and the procedures of the session. Informed consent was obtained from all participants before the discussions began. The sessions were scheduled according to the availability and convenience of the participants, especially students, parents, and administrators.

3.6.0 Mode of Analysis:

Once the responses from administrators, students, teachers, and community members or parents were collected, the data were entered into a tabulation sheet. Both quantitative and qualitative data were analysed using appropriate techniques to ensure a comprehensive understanding of the educational challenges experienced during the COVID19 pandemic.

3.6.1 Quantitative Data Analysis:

Descriptive statistical techniques, such as frequency distribution and percentage, were used to summarise the responses. Comparative analysis was also carried out to examine the differences between the responses from Mizoram and Meghalaya.

3.6.2 Qualitative Data Analysis:

The qualitative data obtained through Focus Group Discussions were analysed using descriptive qualitative analysis. This helped identify participant perspectives and contextual insights, thereby enriching and supporting the findings from the quantitative phase.

CHAPTER-IV
ANALYSIS AND
INTERPRETATION OF DATA

CHAPTER-IV

ANALYSIS AND INTERPRETATION OF DATA

This chapter presents a systematic and critical analysis of the data collected in alignment with the research objectives. It outlines the application of suitable tools and techniques to organize, structure, and interpret the data, thereby converting it into meaningful and valuable information. This process leads to relevant conclusions. As a pivotal part of the study, this section enables the researcher to draw insightful interpretations and conclusions from the research findings. The value of the study lies in its ability to utilize these findings to effectively address the core research objectives, making the study both meaningful and impactful.

4.1.0 Analysis and Interpretation of Objective 1

Objective 1: *To find out and compare the educational challenges faced by school administrators of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.*

To examine the educational challenges encountered by secondary school administrators, the researcher developed a structured questionnaire aimed at eliciting detailed insights into a range of administrative issues. The instrument was administered to a sample of 70 administrators in Mizoram and 110 in Meghalaya. The data collected were systematically analysed, and the principal findings are presented in the following sections. The results are organised dimension-wise to reflect the most salient patterns emerging from the responses.

4.1.1 HEALTH AND SAFETY CHALLENGES

Table 4.1

Health and Safety Issues Encountered During the COVID-19 Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of response	%	No. of response	%
Problems in Implementing COVID-19 testing, tracing, and quarantining measures	49	70	75	68.18
Lack of awareness of COVID-19 protocol	46	65.71	82	74.54
Problems in alleviating fears and anxieties among staff and students	29	41.42	55	50
Problems in conducting classes for board examinations	47	67.14	63	57.27

Note. Data reflects the percentage of secondary school administrators encountering specific challenges.

Table 4.1 shows the health and safety challenges encountered by secondary school administrators in Mizoram and Meghalaya during the COVID-19 pandemic. Implementation of testing, tracing, and quarantining measures was a major concern, reported by 70% of administrators in Mizoram and 68.18% in Meghalaya. Lack of awareness regarding COVID-19 protocols was also noted by 65.71% of administrators in Mizoram and 74.54% in Meghalaya, highlighting on-going difficulties in both states.

One respondent from Meghalaya stated:

“Ensuring that students and teachers adhered to mask mandates and social distancing was particularly challenging, especially in larger schools with limited monitoring capacity.”

These findings are consistent with the structural and communication barriers reported in previous studies (Debbarma & Durai, 2020; Aytaç, 2021), particularly in resource-constrained contexts.

Emotional well-being was another area of concern. In Mizoram, 41.42% of administrators reported difficulties addressing fears and anxieties among staff and students, compared to 50% in Meghalaya.

A school head in Mizoram observed:

“Many students were reluctant to attend in-person classes due to fears of infection, despite the implementation of precautionary measures.”

Mishra and Kumar (2023) also reported that uncertainty and prolonged closures led to widespread psychological stress within school communities.

Difficulties in organising board examination classes were reported by 67.14% of administrators in Mizoram and 57.27% in Meghalaya.

According to a respondent from Meghalaya:

“Conducting examinations under strict safety guidelines required extensive planning, and yet many students struggled to adapt to the altered learning environment.”

Another noted:

“Implementing safety measures before collecting answer sheets caused delays.”

Jena (2020) highlighted similar academic disruption for students preparing for board examinations under hybrid learning models.

Administrators in Meghalaya reported slightly higher overall levels of difficulty across the indicators. This variation may be attributed to stronger community-based efforts observed in Mizoram and greater logistical complexity in Meghalaya, particularly in urban schools. These findings highlight the need for integrated crisis management

strategies addressing health protocols, psychological support, and academic continuity in school settings (Debbarma & Durai, 2020; Aytaç, 2021; Mishra & Kumar, 2023; Jena, 2020).

4.1.2 TECHNOLOGY AND ONLINE LEARNING CHALLENGES

Table 4.2

Technological Difficulties Faced during the COVID-19 Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No of responses	%	No. of responses	%
Limited access to technology and devices for students and staff.	54	61.42	97	88.18
Bandwidth and connectivity issues	40	57.14	72	65.45
Troubles with managing and maintaining hardware and software	15	21.42	30	27.27

Note. Data represents the percentage of administrators reporting specific technological difficulties.

Table 4.2 presents technological challenges reported by secondary school administrators in Mizoram and Meghalaya during the COVID-19 pandemic. Limited access to devices for students and staff was the most commonly cited issue, reported by 61.42% in Mizoram and 88.18% in Meghalaya.

A respondent from Meghalaya noted:

“Many of our students come from economically disadvantaged backgrounds and cannot afford personal devices, while our school struggles with limited resources to provide the necessary technological tools.”

These findings align with the observations of NAS (2021) and Putra, Laksana, and Ramadhani (2020), who reported that infrastructure and economic disparities significantly hindered access to online learning across India.

Connectivity issues were also widespread, with 57.14% of administrators in Mizoram and 65.45% in Meghalaya reporting problems. Poor bandwidth and unstable internet connections disrupted online classes and limited student engagement. Mishra, Gupta, and Shree (2020) found that weak internet infrastructure in rural areas severely limited digital learning, especially in regions that heavily rely on mobile data.

Challenges in managing and maintaining hardware and software were reported by 21.42% of administrators in Mizoram and 27.27% of administrators in Meghalaya. These figures show limited technical support and a lack of trained personnel in schools. Saha et al. (2021) found that many institutions could not maintain digital infrastructure because of financial issues and the lack of skilled staff.

Administrators in Meghalaya reported more technological challenges across various indicators compared to Mizoram. Frequent power cuts, low internet access, and limited support from institutions added to this difference. Mizoram's more stable infrastructure allowed for better and more reliable digital access. These findings highlight the need for targeted investment in digital infrastructure, affordable access to technology, and professional development. This will help schools improve their ability to provide online education during future disruptions (NAS, 2021; Putra et al., 2020; Mishra et al., 2020; Saha et al., 2021).

Table 4.3

Methods Employed by the School to Maintain Communication and Collaboration during the Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Phone calls	35	50	65	59.09
Text messaging	44	62.85	94	85.45
Video conferencing	49	70	57	51.81

Note. Percentages reflect the extent to which specific strategies were utilized by school administrators.

Table 4.3 outlines the strategies adopted by schools in Mizoram and Meghalaya to maintain communication and collaboration during the COVID-19 pandemic. Text messaging was the most widely used method, reported by 62.85% of administrators in Mizoram and 85.45% in Meghalaya.

A respondent from Meghalaya shared:

“Text messages enabled us to provide timely updates on class schedules and assignments without requiring internet access.”

Mheidly, Fares, and Fares (2021) noted that text messaging is effective in low-resource settings, though its limited interactivity can restrict engagement.

Phone calls were reported by 50% in Mizoram and 59.09% in Meghalaya. An administrator from Mizoram explained:

“Since we have fewer students, teachers call them individually and explain lessons through phone calls.”

This approach was particularly useful where internet access was unreliable. Ojha and Yadav (2023) highlighted that traditional methods such as phone calls remained essential in areas with limited digital access.

Video conferencing was more widely used in Mizoram (70%) than in Meghalaya (51.81%). A respondent from Mizoram noted:

“We prioritised video conferencing to enhance interactive engagement during online learning sessions, although connectivity issues persisted.”

Muthuswamy (2024) identified internet bandwidth as a key factor in the adoption of synchronous learning tools.

Beyond these primary methods, administrators also used asynchronous videos and, in some cases, relied on community members to deliver messages.

A respondent from Meghalaya stated:

“If students lack devices, we send messages through their neighbours.”

These adaptations demonstrate the flexible strategies adopted to sustain communication in challenging contexts.

The findings indicate that while text messaging was the most frequently used method, schools in Mizoram reported greater use of interactive digital tools. The contrast reflects infrastructural differences between the two states and reinforces the need for targeted investment in communication systems that support both accessibility and instructional effectiveness (Mheidly et al., 2021; Ojha & Yadav, 2023; Muthuswamy, 2024).

Table 4.4

Online Learning Platforms and Resources (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Zoom	43	61.42	45	40.90
Google Meet	41	58.57	56	50.90
Email	0	0	14	12.72
Whatsapp	58	82.85	103	93.63
Teacher Mint	9	12.85	16	14.54

Note. Data reflects the proportion of school administrators reporting the usage of specific platforms.

Table 4.4 explores the usage of online learning platforms and resources adopted by schools in Mizoram and Meghalaya during the COVID-19 pandemic. WhatsApp was the most commonly used platform, reported by 82.85% of administrators in Mizoram and 93.63% in Meghalaya. Its popularity reflects the need for low-bandwidth, accessible tools that function well on basic mobile devices.

A respondent from Meghalaya remarked:

“WhatsApp became an essential tool for teacher-student communication due to its accessibility and minimal data consumption.”

Mishra, Gupta, and Shree (2020) and Mheidly, Fares, and Fares (2021) both reported similar patterns of mobile-based learning in regions with infrastructural limitations.

Zoom and Google Meet were used more extensively in Mizoram, with 61.42% and 58.57% of administrators reporting their use, compared to 40.90% and 50.90% in Meghalaya. A respondent from Mizoram shared:

“We encouraged educators to utilise Zoom and Google Meet to enhance real-time engagement, though network instability frequently impeded their use.”

These figures suggest that schools in Mizoram had greater capacity for synchronous learning, while those in Meghalaya relied more on asynchronous formats. Sindakis (2024) noted that the effectiveness of video conferencing tools is closely linked to both infrastructure and users’ digital proficiency.

Email was rarely used for instructional purposes, reported by 0% in Mizoram and 12.72% in Meghalaya. A respondent from Mizoram explained:

“Email was largely reserved for official correspondence rather than instructional delivery, given that most students lacked regular access to computers.”

This finding reinforces the on-going dependence on mobile phones as the primary mode for remote learning communication.

Teacher Mint was used by 12.85% of administrators in Mizoram and 14.54% in Meghalaya. Its appeal stemmed from features such as integrated classroom management and low data requirements. Despite its advantages, adoption remained limited, suggesting that most schools favoured simpler platforms with lower learning curves.

Administrators in Meghalaya also reported using platforms like Moodle, Microsoft Teams, Discord, and Google School App. In Mizoram, Tata Class Edge was cited as an additional resource. These tools were used on a smaller scale, indicating experimentation with more structured platforms while retaining core reliance on mobile applications.

The findings reveal a clear preference for mobile-based platforms across both states. Differences in the use of structured digital tools reflect broader infrastructural and readiness gaps. Expanding access to reliable internet, improving digital training, and supporting low-cost education technologies remain critical for enabling inclusive and sustainable remote learning systems (Mishra et al., 2020; Mheidly et al., 2021; Sindakis, 2024).

4.1.3 CHALLENGES IN STUDENT LEARNING AND ACADEMIC PROGRESS

Table 4.5

Effect of the Pandemic on Students' Academic Progress (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No of responses	%	No of responses	%
Student comprehension was hindered	36	51.42	49	44.54
Lack of academic social interaction	22	31.42	55	50
Increased dropout rate	28	40	67	60.90

Note. Percentages represent the proportion of administrators identifying these issues.

Table 4.5 summarises the challenges reported by school administrators in Mizoram and Meghalaya concerning students' academic progress during the COVID-19 pandemic. Comprehension difficulties were reported by 51.42% of administrators in Mizoram and 44.54% in Meghalaya.

A respondent from Mizoram remarked:

“Many students struggled to stay motivated due to the uncertainty regarding their academic futures and career prospects.”

Administrators also described cases of panic and fainting among students following school reopening, attributed to pandemic-related stress. These patterns align with the findings of Debbarma and Durai (2020), which identified psychological distress and disrupted learning continuity as key consequences of prolonged school closures.

Lack of academic social interaction was more pronounced in Meghalaya (50%) than in Mizoram (31.42%). Limited peer engagement may have negatively affected students' sense of connection and motivation.

A respondent from Mizoram shared:

“Mizo youth engaged extensively in mental and spiritual self-care, such as family prayer and journaling, during lockdown, fostering resilience and mitigating loneliness.”

Ngima and Tsering (2020) observed that peer support and social learning are integral to academic engagement, particularly during crises.

Increased dropout rates were a significant concern, reported by 40% of administrators in Mizoram and 60.90% in Meghalaya. Kundu and Sonawane (2020) and Mlynaryk and Makovac (2020) noted that economic hardship and inadequate remote learning options contributed to student disengagement and exit from the education system.

An administrator from Meghalaya explained:

“Many students returned to their home states and rural areas, leading to a sharp rise in dropout numbers.”

The economic burden on families in Meghalaya likely prompted many students to prioritise work over education.

The occurrence of academic challenges in various indicators was higher in Meghalaya than in Mizoram. Differences in digital infrastructure, economic conditions, and community support might explain this gap. Mizoram had stronger digital literacy and more community involvement, while schools in Meghalaya struggled more to maintain continuous learning.

Administrators across both states reported broader academic setbacks, including reduced concentration, diminished confidence, lack of discipline, and declining interest in studies. These findings highlight the combined effects of disrupted routines, limited resources, and emotional fatigue on student learning. Addressing these

challenges will require coordinated policy responses focused on recovery strategies, re-engagement initiatives, and support mechanisms that strengthen academic resilience in post-pandemic contexts (Debbarma & Durai, 2020; Kundu & Sonawane, 2020; Mlynaryk & Makovac, 2020; Ngima & Tsering, 2020).

Table 4.6

Issues Related to Student Attendance and Participation during the COVID-19 Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Student disengagement in virtual learning	59	84.28	89	80.90
Managing attendance in hybrid learning environments	25	35.71	50	45.45
Technology access and equity challenges	25	35.71	56	50.90

Note. Data reflects challenges identified by school administrators.

Table 4.6 highlights the key challenges related to student attendance and participation during the COVID-19 pandemic as reported by school administrators in Mizoram and Meghalaya. Disengagement in virtual learning was the most frequently cited issue, reported by 84.28% of administrators in Mizoram and 80.90% in Meghalaya.

A respondent from Mizoram remarked:

“Despite our best efforts, many students found it difficult to focus in an online environment, leading to decreased participation. Even though they sign in to the online class, they switch off their video and do some other things.”

Similar difficulties were reported in Meghalaya, where students often faced domestic distractions or had to share devices with siblings. These findings align with the research of Gurung (2021) and Fox (2004), who noted that a lack of interactivity and structure in virtual classrooms often led to reduced student engagement.

Managing attendance in hybrid learning environments was also a challenge, reported by 35.71% of administrators in Mizoram and 45.45% in Meghalaya. The transition between online and offline modes introduced inconsistencies in attendance tracking.

A respondent from Meghalaya shared:

“Maintaining consistent attendance in hybrid learning environments proved challenging during the pandemic, many students attributed their absenteeism to limited access to technology.”

Adedoyin, Bekee, and Ayadokun (2020) found that technological disruptions and logistical complications contributed to irregular attendance in blended models of instruction.

Technology access and equity challenges were reported by 35.71% of administrators in Mizoram and 50.90% in Meghalaya. These figures reflect continued disparities in device ownership, internet availability, and digital readiness, particularly among students in rural and low-income settings.

The reported issues in various items were higher in Meghalaya than in Mizoram. Many students, particularly those in remote areas, dropped out or became disengaged due to financial struggles, lack of proper infrastructure, or moving to rural regions. These findings emphasize the need to improve digital equity by investing in infrastructure, distributing devices, and creating inclusive policies that encourage ongoing student participation in different learning environments (Adedoyin et al., 2020; Fox, 2004; Gurung, 2021).

Table 4.7***Learning Challenges Faced by Students during the Pandemic (n=180)***

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Difficulty accessing technology or internet connectivity	51	72.85	98	89.09
Challenges in staying engaged and motivated	41	58.57	69	62.72
Problems with time management	28	40	33	30

Note. Percentages represent the proportion of administrators identifying specific obstacles.

Table 4.7 illustrates the primary learning challenges faced by students during the pandemic as reported by school administrators in Mizoram and Meghalaya. Difficulty accessing technology and internet connectivity was the most frequently identified issue, affecting 72.85% of administrators in Mizoram and 89.09% in Meghalaya.

A respondent from Mizoram noted:

“The lack of internet access made it impossible for some students to attend online classes, exacerbating educational inequalities.”

An administrator from Meghalaya reported:

“Many students had to rely on shared devices or mobile data, which was often unreliable.”

Sindakis (2024) similarly identified the digital divide as a major barrier to equitable access to education.

Challenges related to student motivation were reported by 58.57% of administrators in Mizoram and 62.72% in Meghalaya.

A respondent from Mizoram explained:

“Students missed the social aspect of school, which played a crucial role in keeping them engaged.”

Gurung (2021) observed that the absence of face-to-face interaction and structured routines contributed to reduced motivation and increased dropout risks among secondary school students.

Time management issues were reported by 40% of administrators in Mizoram and 30% in Meghalaya. These difficulties were linked less to individual organisation and more to the structural pressures within the home.

A school administrator from Meghalaya stated:

“Students often found it difficult to balance household responsibilities and schoolwork, leading to missed deadlines.”

The different learning challenges were slightly higher in Meghalaya than in Mizoram. The findings point to persistent technological and motivational barriers that limited student engagement. Addressing these challenges requires investment in internet infrastructure, psychosocial support, and learner-centred teaching approaches to support continuity and equity in education during future disruptions (Gurung, 2021; Sindakis, 2024).

Table 4.8

Actions Taken by the School to Support Student Learning and Academic Progress during the Pandemic (n=180)

Item	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Providing technology and internet access to students in need	21	30	22	20
Distributing materials and resources to students' homes	25	35.71	70	63.63
Collaborating with community partners to address equity issues	25	35.71	31	28.18

Note. Percentages indicate the extent of actions taken by school administrators.

Table 4.8 presents the actions taken by schools in Mizoram and Meghalaya to support student learning and academic progress during the COVID-19 pandemic. The provision of technology and internet access was reported by 30% of administrators in Mizoram and 20% in Meghalaya. Although Meghalaya launched an online learning portal in collaboration with CR Projects to provide digital resources from kindergarten to Class X, government records indicated that only 1.27% of government schools had internet access, compared to 2.35% in Mizoram (News18, 2022).

A respondent from Mizoram observed:

“Despite our efforts to distribute digital devices, many students still struggled due to network issues in remote areas.”

These figures reflect the limited capacity of schools in both states to implement technology-based solutions.

The distribution of printed materials and learning resources to students' homes was more common in Meghalaya, reported by 63.63% of administrators, compared to 35.71% in Mizoram.

A school administrator from Meghalaya stated:

“Sending printed worksheets and textbooks directly to students' homes was the only viable solution in areas where online education was nearly impossible.”

Bhattacharya (2023) identified offline resource delivery as a practical response to connectivity issues, particularly in rural and remote settings.

Collaboration with community partners to address equity challenges was reported by 35.71% of administrators in Mizoram and 28.18% in Meghalaya. A respondent from Mizoram shared:

“We worked closely with local organisations to provide learning kits and supplementary resources to underprivileged students.”

In several districts, community members built temporary huts on higher ground to allow students to access online classes, demonstrating the effectiveness of collective support in maintaining educational continuity (India Today, 2021).

The supportive actions were slightly higher in Meghalaya than in Mizoram, largely due to extensive material distribution efforts. These findings underscore the significance of locally adapted strategies that reflect the infrastructural realities of each region. Ensuring continuity in education requires a balance between digital innovation and offline resource delivery, supported by collaborative community engagement and targeted policy frameworks (Bhattacharya, 2023; India Today, 2021; News18, 2022)

4.1.4 CURRICULUM

Table 4.9

Adaptation and Reduction of Curriculum in Response to the COVID-19 Pandemic (n=180)

Items			Mizoram (n=70)		Meghalaya (n=110)	
			No. of responses	%	No. of responses	%
Reduced	all	the	34	48.57	39	35.45
curriculum						
Reduced	for	some	34	48.57	63	57.27
specific courses						
Adapted	curriculum		8	11.42	5	4.54
without reduction						

Note. Percentages reflect the extent of curriculum adaptation during the pandemic.

Table 4.9 outlines the approaches adopted by schools in Mizoram and Meghalaya for curriculum adaptation during the COVID-19 pandemic. A complete reduction in curriculum content was reported by 48.57% of administrators in Mizoram and 35.45% in Meghalaya. This pattern reflects a broader strategy to reduce academic pressure and simplify content delivery under disrupted conditions.

A respondent from Mizoram stated:

“The Mizoram Board of School Education reduced the curriculum by 30 per cent during the pandemic, and we followed the reduced syllabus until conditions returned to normal.”

Zhao, Zhang, and Zhou (2022) observed that systemic curriculum reduction was a common response in regions with limited digital infrastructure, allowing schools to prioritise essential learning objectives.

Selective reductions for specific courses were more common in Meghalaya (57.27%) than in Mizoram (48.57%).

A respondent from Meghalaya explained:

“Instead of a blanket reduction, we prioritised core subjects while adjusting the load in non-core disciplines.”

This approach reflects a differentiated strategy aimed at preserving critical subject areas. Jena (2021) found that partial curriculum revisions helped mitigate student overload while maintaining academic continuity in key disciplines.

Curriculum adaptation without reduction was minimal. It was reported by only 11.42% in Mizoram and 4.54% in Meghalaya. In these cases, schools changed their teaching methods using alternate assessment techniques like online quizzes, assignments, and project-based tasks. This finding matches what UNESCO reported in 2021 which noted that most education systems changed their content or teaching methods in response to long school closures.

The comparison between the two states shows that Mizoram took a more consistent approach to reducing the curriculum. In contrast, Meghalaya made selective changes based on the relevance of subjects. These differences highlight regional variations in institutional capacities, available resources, and teaching priorities. Creating curriculum frameworks that consider the local context will be important for maintaining educational resilience during future disruptions (Jena, 2021; UNESCO, 2021; Zhao et al., 2022).

Table 4.10

School Subjects most Affected by the Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
English	5	7.14	12	10.90
Regional Language	2	2.85	5	4.54
Science	7	10	22	20
Social Science	3	4.28	6	5.45
Mathematics	53	75.71	65	59.09

Note. Percentages represent the extent to which subjects were affected during the pandemic.

Table 4.10 shows the subjects most affected by the COVID-19 pandemic, based on responses from school administrators in Mizoram and Meghalaya. Administrators identified Mathematics as the most impacted subject. In Mizoram, 75.71% reported a decline, while in Meghalaya, the figure was 59.09%. This finding backs the research of Hodgen, Taylor, and Kuchemann (2022). They noted that teaching mathematics had serious challenges during remote learning because of the need for real-time interaction and immediate feedback.

A respondent from Mizoram stated:

“Mathematics requires a hands-on approach and immediate clarification of concepts, which were difficult to achieve in virtual settings, leading to learning gaps.”

Science was reported to be more affected in Meghalaya at 20% compared to Mizoram at 10%. This is likely due to differences in access to laboratory facilities and hands-on demonstrations. Schleicher (2021) noted that the lack of practical learning significantly lowered student engagement and understanding in science.

A school administrator from Meghalaya explained:

“Science experiments were difficult to conduct online, which led to a decline in student engagement and comprehension.”

English and Social Science were reported to be moderately impacted, with higher rates in Meghalaya, at 10.90% and 5.45%, compared to Mizoram, at 7.14% and 4.28%. These findings match those of Kim, Park, and Kang (2022), who observed that humanities subjects were more suited to online formats because of their theoretical nature. However, challenges with interaction and discussion persisted.

Regional language subjects were the least affected, with 2.85% of administrators in Mizoram and 4.54% in Meghalaya reporting disruptions. Ghosh and Banerjee (2021) found that regional language learning was often reinforced through family and community use, mitigating the effects of interrupted formal instruction.

The overall pattern suggests that STEM subjects, particularly Mathematics and Science, encountered the greatest disruption, whereas humanities and regional languages were relatively less impacted. These findings reflect the need for subject-specific strategies and targeted academic support, particularly in resource-limited settings, to address learning losses and restore instructional continuity (Ghosh & Banerjee, 2021; Hodgen et al., 2022; Kim et al., 2022; Schleicher, 2021).

4.1.5 CHALLENGES IN ASSESSMENT/EVALUATION

Table 4.11

Institutional Challenges in Conducting Exams during the Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No of responses	%
Able to conduct as usual	9	12.85	4	3.63
Unable to conduct as planned	61	87.15	107	97.26

Note. Percentages indicate the ability of institutions to conduct examinations during the COVID-19 pandemic.

Table 4.11 examines the institutional challenges in conducting examinations during the COVID-19 pandemic in Mizoram and Meghalaya. Only 12.85% of institutions in Mizoram and 3.63% in Meghalaya were able to conduct examinations as usual. These included schools located in remote areas that were less affected by the spread of the virus.

A large proportion of institutions, 87.15% in Mizoram and 97.26% in Meghalaya, were unable to conduct examinations as planned. A principal from Meghalaya stated:

“We had plans to hold exams in person, but ensuring proper health protocols was a major challenge. Many schools lacked basic facilities like adequate space for distancing, sanitizers, or even running water.”

This response highlights the significant difficulties in conducting safe assessments during the pandemic.

These findings are consistent with studies by Burgess, Sievertsen, and Sievertsen (2020) and Dawadi, Giri, and Simkhada (2020), who reported major disruptions to assessments following the closure of educational institutions. Marinoni, van't Land, and Jensen (2020) also noted that a large number of schools in developing regions faced similar cancellations or suspension of examination schedules. The data reinforce the importance of establishing strong contingency plans, including flexible and technology-based assessment systems, to support uninterrupted learning during public health emergencies (Burgess et al., 2020; Dawadi et al., 2020; Marinoni et al., 2020).

Table 4.12

Problems in Assessment and Grading During the COVID-19 Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Addressing the reliability and validity of remote assessments	32	45.71	54	49.09
Ensuring equity and fairness in grading	36	51.42	55	50
Managing cheating and academic integrity	34	48.57	64	58.18

Note. Percentages reflect difficulties faced by administrators in ensuring effective assessment and grading during the pandemic.

Table 4.12 indicates the challenges faced by school administrators in Mizoram and Meghalaya in maintaining effective assessment and grading practices during the COVID-19 pandemic. Concerns regarding the reliability and validity of remote assessments were reported by 45.71% of administrators in Mizoram and 49.09% in Meghalaya. This indicates that technology and infrastructure issues made it hard to maintain consistent standards. Adedoyin and Soykan (2020) also mentioned that limited access to dependable digital platforms reduced the effectiveness of online assessments.

Issues related to equity and fairness in grading were identified by 51.42% of administrators in Mizoram and 50% in Meghalaya. These figures show the challenge of maintaining consistency in assessment among students with different levels of digital access. Crawford et al. (2020) noted that learners from under-resourced households were more likely to encounter obstacles in showing their academic performance fairly in remote settings.

Managing academic integrity also emerged as a major concern. It was reported by 48.57% of administrators in Mizoram and 58.18% in Meghalaya. A respondent from Meghalaya shared:

“Online tests and exams did not accurately reflect students' performance during the pandemic; instead, open-book tests were mostly preferred during that time.”

These concerns are supported by Lederman (2020) and Mukhtar et al. (2020), who found that unmonitored online exams created opportunities for academic misconduct.

The indicators of assessment-related challenges were slightly higher in Meghalaya than in Mizoram, indicating greater difficulty in upholding academic standards during the pandemic. These findings point to the need for more secure, inclusive, and flexible assessment frameworks that can maintain fairness and validity in future crisis contexts (Adedoyin & Soykan, 2020; Crawford et al., 2020; Lederman, 2020; Mukhtar et al., 2020).

Table 4.13

100% Promotion Policy Adopted During the Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Yes	32	45.71	86	78.18
No	38	54.28	23	20.90

Note. Percentages reflect implementation of 100% promotion policy.

Table 4.13 presents the adoption of the 100 per cent promotion policy during the COVID-19 pandemic in Mizoram and Meghalaya. The policy aimed to ensure continuity in academic progression during a period of widespread disruption. In Mizoram, 45.71% of administrators reported implementing the policy, while in Meghalaya this figure was significantly higher at 78.18%.

A greater proportion of institutions in Mizoram (54.28%) chose not to adopt the policy, compared to only 20.90% in Meghalaya. This difference may reflect variations in policy decisions and preparedness across the two states.

An administrator from Meghalaya noted:

“It was difficult to evaluate students accurately, so most of them were promoted without formal exams.”

The widespread adoption in Meghalaya could be attributed to limited digital access, low participation in online learning, and difficulty in organising safe in-person examinations.

In Mizoram, selective implementation may have been supported by partial assessments and a stronger emphasis on academic standards. Despite challenges in connectivity, schools in both states sought to uphold student engagement through assignments and project work. An administrator from Mizoram explained:

“Students who submitted some form of work were promoted, though not always based on quality. But for those who did not submit anything, we found it hard to justify automatic promotion.”

These findings are consistent with Engzell, Frey, and Verhagen (2021), who observed that automatic promotion during extended school closures could contribute to learning gaps, especially for students from disadvantaged backgrounds. Zhao (2021) also recommended that flexible policies be accompanied by targeted support measures to recover lost learning.

The data emphasize the need for a balanced approach that combines academic leniency with effective learning support. Structured remedial programmes and ongoing

assessment mechanisms will be essential to ensure students' progress with the required competencies after such disruptions (Engzell et al., 2021; Zhao, 2021).

Table 4.14

Changes in Assessment Methods during the COVID-19 Pandemic (n=180)

Items		Mizoram (n=70)		Meghalaya (n=110)	
		No. of responses	%	No. of responses	%
Implemented new methods for all subjects		44	62.85	76	69.09
Implemented new methods for some subjects		13	18.75	20	18.18
No changes made		13	18.75	14	12.72

Note. Percentages represent changes in assessment methods during the pandemic.

The necessity of adapting assessment methods during the COVID-19 pandemic is evident from Table 4.14. In Mizoram, 62.85% of administrators reported implementing new assessment methods for all subjects, a figure slightly lower than the 69.09% reported in Meghalaya. This suggests a broad recognition across both states of the need to modify traditional assessment practices to align with the constraints of remote and hybrid learning.

A targeted approach was observed, with 18.75% of administrators in Mizoram and 18.18% in Meghalaya implementing new assessment strategies for specific subjects. On the other hand, the fact that 18.75% of administrators in Mizoram and 18.18% in Meghalaya reported no changes to their assessment methods could reflect limited digital capacity, lack of training for teachers, or institutional inertia (World Bank, 2021). Some schools may have relied on traditional pen-and-paper assignments submitted physically when digital tools were inaccessible, thereby maintaining existing methods.

The assessment method for board examinations remained unchanged in both states. The exams were conducted as soon as schools reopened, following strict health and safety protocols in both states.

Table 4.15

Assessment Methods Used During the Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. Of responses	%	No. of responses	%
Assignments and project work	55	78.57	83	75.45
Online examinations	60	85.71	70	63.63
Open-book tests	15	21.42	43	39.09

Note. Percentages represent the extent of usage of assessment methods during the pandemic.

Table No. 4.15 presents the assessment methods used during the COVID-19 pandemic in Mizoram and Meghalaya. Assignments and project work were widely adopted, with 78.57% of administrators in Mizoram and 75.45% in Meghalaya reporting their use. These methods were flexible and accessible within remote learning contexts. Dhawan (2020) noted that such strategies helped sustain student engagement during periods of online instruction.

Online examinations were more commonly implemented in Mizoram (85.71%) compared to Meghalaya (63.63%). In Mizoram, students used platforms such as Google Forms for objective questions and submitted long-answer responses in PDF format. This reflects a stronger reliance on structured digital tools for evaluation. Singh and Thurman (2019) acknowledged that while online assessments enabled instructional continuity, they also raised concerns about technological limitations and academic honesty.

Open-book tests were more frequently used in Meghalaya (39.09%) than in Mizoram (21.42%). A respondent from Meghalaya noted:

“Online tests and exams did not accurately reflect students' performance during the pandemic; instead, open-book tests were mostly preferred during that time.”

Bengtsson (2019) observed that open-book assessments support the development of analytical thinking and independent learning, which are essential skills in remote education.

These findings highlight the varied assessment strategies employed across the two states, reflecting differing digital readiness and pedagogical preferences. Chakraborty, Mittal, and Gupta (2021) recommended a balanced approach combining project-based work and open-book formats to improve assessment fairness and effectiveness during periods of remote learning.

4.1.6 CHALLENGES IN TEACHER SUPPORT AND PROFESSIONAL DEVELOPMENT

Table 4.16

Challenges in Managing and Supporting Teachers during the Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Limited opportunities for collaboration and professional development	41	58.57	66	60
Difficulties in managing and supporting remote instruction	31	44.28	53	48.18
Increased workload for teachers	29	41.42	54	49.09

Note. Percentages reflect challenges reported by secondary school administrators during the pandemic.

Table No. 4.16 outlines the challenges related to teacher support and professional development during the COVID-19 pandemic, as reported by school administrators in Mizoram and Meghalaya. Limited opportunities for collaboration and professional development were cited by 58.57% of administrators in Mizoram and 60% in Meghalaya.

A respondent from Mizoram shared:

“Due to the pandemic, togetherness was disrupted, leading to a slight decline in the rate of cooperation.”

Schleicher (2020) observed that such disruptions were common in regions with limited access to digital infrastructure. Managing and supporting remote instruction was reported by 44.28% of administrators in Mizoram and 48.18% in Meghalaya. UNESCO (2021) noted that teachers in rural areas often lacked the necessary experience with digital tools, making remote instruction more difficult.

Increased workload for teachers was cited by 41.42% in Mizoram and 49.09% in Meghalaya. An administrator from Mizoram explained:

“Teachers are working more hours during the pandemic... they are completely exhausted.”

These findings reflect the additional pressure placed on teachers during the shift to online education. Kim and Asbury (2020) also documented the physical and mental toll on teachers adapting to new demands.

The findings suggest that administrators in Meghalaya experienced slightly greater difficulty in supporting teachers. Fullan and Hargreaves (2020) emphasised that educational reform must prioritise teacher well-being and professional growth to maintain the effectiveness of teaching during crises.

4.1.7 PERSONAL CHALLENGES

Table 4.17

Mental Health and Well-being Issues during the COVID-19 Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Increased stress level	43	61.42	45	40.90
Limited Access to Mental Health Resources	33	47.14	58	52.72
3. Managing anxiety and stress among staff and students	26	37.14	61	55.45

Note. Percentages reflect challenges reported by school administrators.

Table 4.17 explores the personal challenges related to mental health and well-being reported by school administrators in Mizoram and Meghalaya during the COVID-19 pandemic. In Mizoram, 61.42% of administrators reported increased stress levels among students and staff, compared to 40.90% in Meghalaya. This difference may reflect a greater emphasis on identifying mental health issues in Mizoram.

An administrator from Mizoram stated:

“For addressing mental health issues, I encourage the students and teachers from time to time.”

These findings are supported by Singh et al. (2021), who observed that the level of mental health awareness and prioritisation varied across different educational institutions.

Limited access to mental health resources was identified by 47.14% of administrators in Mizoram and 52.72% in Meghalaya. The slightly higher percentage in Meghalaya suggests more acute resource constraints. A respondent from Meghalaya noted:

“None could be done except through telephone conversation.”

Pfefferbaum and North (2020) emphasised that communities with limited mental health infrastructure are more vulnerable to prolonged psychological distress during crises.

Managing anxiety and stress among staff and students was reported by 55.45% of administrators in Meghalaya and 37.14% in Mizoram. The higher number in Meghalaya may be due to ongoing uncertainty and fewer school-based programs. A study by Mishra and Kumar (2021) at Mizoram University found that while many students used coping strategies, support from schools, like counseling and peer engagement, was still crucial for reducing psychological stress. The Government of Meghalaya's Mental Health and Social Care Policy (2022) also noted that teachers observed signs of anxiety and depression, highlighting the need for better support systems in schools.

The findings show that both states faced similar mental health challenges during the pandemic. This situation emphasizes the urgent need for ongoing mental health funding in schools. Support programs, trained school counselors, and trauma-informed methods can improve the emotional resilience of students and staff in future disruptions (Government of Meghalaya, 2022; Mishra & Kumar, 2021; Pfefferbaum & North, 2020; Singh et al., 2021).

4.1.8 FINANCIAL CHALLENGES

Table 4.18

Financial and Resource-Based Challenges during the COVID-19 Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Addressing budget cuts	35	50	51	46.36
Equitable distribution of resources	27	38.57	35	31.81
Supporting mental health resources	26	37.14	52	47.27

Note. Percentages represent financial challenges reported by administrators.

Table 4.18 displays the financial and resource-based challenges encountered by schools in Mizoram and Meghalaya during the COVID-19 pandemic. Budget cuts were reported by 50% of administrators in Mizoram and 46.36% in Meghalaya, indicating that financial constraints disrupted schools' ability to support remote learning.

An administrator from Mizoram shared:

“At the beginning of the pandemic, many of our students' families were facing financial hardship, and so we decided not to collect fees for a few months. Unfortunately, this also meant that we were unable to pay our teachers on time.”

These findings align with Debbarma and Durai (2021), who observed that financial instability was a key factor affecting schools across the north-eastern states.

Equitable distribution of resources was identified as a challenge by 38.57% of administrators in Mizoram and 31.81% in Meghalaya. The higher figure in Mizoram may be attributed to logistical challenges caused by the state's mountainous terrain.

A respondent from Mizoram explained:

“Some students had to move their study place even during lockdown just to get a better internet signal to take their online exams.”

The difficulty in delivering materials to remote areas reinforced the disparity in access. These findings reflect concerns raised in earlier studies regarding the lack of infrastructure support in remote and hilly regions.

The need for mental health support was also a significant issue, with 37.14% of administrators in Mizoram and 47.27% in Meghalaya reporting a lack of adequate services. A study by Mishra (2021) highlighted that while awareness of mental health had grown, students in Mizoram often lacked access to professional support. In Meghalaya, although some districts started mental health programmes, many schools remained without trained personnel to provide timely assistance (Government of Meghalaya, 2022). The higher percentage in Meghalaya suggests growing recognition

of the emotional strain faced by students. This concern is echoed by Singh et al. (2021), who documented the psychological toll of school closures on students during prolonged lockdowns.

The findings reflect a similar degree of financial challenges across both states. These findings point to the necessity for robust financial frameworks and targeted support to address disparities in resources and well-being during and after public health emergencies (Debbarma & Durai, 2021; Government of Meghalaya, 2022; Mishra, 2021; Singh et al., 2021).

Table 4.19

Management of Teachers' Salaries during the COVID-19 Pandemic (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Salaries increased	0	0	2	1.81
Salaries remained the same	44	62.85	103	93.63
Salaries decreased	27	38.57	3	2.72

Note. Percentages indicate salary management strategies reported by administrators.

Table 4.19 presents how teachers' salaries were managed during the COVID-19 pandemic in Mizoram and Meghalaya. In Mizoram, 62.85% of institutions maintained salary levels, while in Meghalaya, this figure was significantly higher at 93.63%.

A school head from Meghalaya explained:

“We continued paying our teachers throughout the pandemic, even if it meant cutting costs elsewhere.”

This suggests stronger financial resilience or better planning in Meghalaya. These findings are supported by Koul and Bapat (2020), who observed that institutions with diversified financial support were better equipped to retain teacher salaries during the lockdown.

Salary reductions were reported by 38.57% of institutions in Mizoram, compared to only 2.72% in Meghalaya. A school administrator from Mizoram shared:

This reflects the financial hardship faced by private schools in Mizoram, particularly due to reduced fee collections. Lalnunzira (2021) also noted that many private schools in the state faced difficulty in sustaining operations without consistent student payments.

A small number of institutions in Meghalaya (1.81%) reported increasing teachers' salaries, whereas no such cases were found in Mizoram. According to one principal in Meghalaya:

“We received community donations which helped us to even raise some teachers' pay slightly during the crisis.”

This highlights the role of local support in bolstering school operations during emergencies.

The differing salary management patterns across the two states point to the importance of financial preparedness and flexible funding sources. These findings reinforce the need for targeted financial planning to ensure salary continuity and educator welfare during future crises (Koul & Bapat, 2020; Lalnunzira, 2021; UNESCO, 2021).

Table 4.20

Reason for Decrease in Teachers' Salaries (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Unpaid student fees	26	37.14	2	1.81
Teachers' absence during pandemic	1	1.42	1	0.90

Note. Percentages reflect reasons cited for salary reductions.

Table 4.20 shows the reasons for a decrease in teachers' salaries during the COVID-19 pandemic in Mizoram and Meghalaya. In Mizoram, 37.14% of administrators cited

unpaid student fees as the primary cause of salary reductions, reflecting the financial hardship experienced by many families.

A respondent from Mizoram stated:

“Parents could not afford to pay the school fees, and we had no option but to reduce salaries to manage the school expenses.”

These findings are consistent with UNESCO (2021), which reported that schools heavily dependent on tuition revenue were unable to sustain teacher payments during closures.

In Meghalaya, only 1.81% of administrators identified unpaid fees as a reason for salary reductions, suggesting a lower impact of this issue. A school head from Meghalaya explained:

“Some students delayed their fees, but we paid our teachers fully after reopening. The school managed through reserves and support from the community.”

This aligns with findings from the National Institute of Educational Planning and Administration (2021), which documented efforts in some states to ensure salary continuity through alternative financial arrangements and community support.

Teacher absenteeism was reported as a minimal cause of salary reduction, noted by only 1.42% in Mizoram and 0.90% in Meghalaya. The low percentage indicates that most teachers remained committed to their roles throughout the disruption. As highlighted by UNESCO (2021), many teachers adapted to remote teaching and continued to engage with students despite limited resources, demonstrating professional resilience under difficult circumstances.

These findings highlight the need for stronger financial planning to protect teachers' salaries during crises. Establishing flexible funding models and emergency financial reserves can help educational institutions ensure salary continuity and maintain staff morale during future disruptions (National Institute of Educational Planning and Administration, 2021; UNESCO, 2021; World Bank, 2022).

Table 4.21***External Non-Government Funding Received to Address Pandemic Challenges (n=180)***

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Received	6	8.57	5	4.54
Not Received	64	91.42	105	95.45

Note. Percentages indicate receipt of external non-government funding.

Table 4.21 outlines the extent of external non-governmental funding received by schools in Mizoram and Meghalaya during the COVID-19 pandemic. Only 8.57% of institutions in Mizoram and 4.54% in Meghalaya reported receiving any form of support from non-government sources. The limited funding received was likely through small-scale community contributions or private donations.

A teacher from Mizoram shared:

“Some local organisations helped us with small donations, but it was not enough to meet all our needs.”

These observations are consistent with Debbarma and Durai (2021), who noted that many schools in remote areas depended on community support to fill the financial gaps caused by low institutional funding.

The data show that 91.42% of schools in Mizoram and 95.45% in Meghalaya did not receive any external non-governmental funding, indicating widespread financial vulnerability. A respondent from Meghalaya remarked:

“While some students struggled to pay their fees, teachers' salaries still needed to be fully disbursed. The lack of external support made it challenging to fulfil our requirements.”

This reflects a broader issue of limited engagement from international or philanthropic organisations in crisis contexts. The Global Partnership for Education (2022) states that while international education funding went up during the pandemic, its

distribution was uneven. It frequently did not reach the schools that needed help the most.

These findings highlight the pressing requirement for more strategic partnerships with non-governmental agencies to enhance the resilience of school systems in future emergencies. Targeted collaboration with both domestic and international stakeholders could bridge funding gaps and support institutions in building long-term recovery mechanisms (Debbarma & Durai, 2021; Global Partnership for Education, 2022).

Table 4.22

External Government Received to Address Pandemic Challenges (n=180)

Items	Mizoram (n=70)		Meghalaya (n=110)	
	No. of responses	%	No. of responses	%
Received	0	0	0.0	0.0
Not Received	70	70	110	110

Note. Percentages represent receipt of government funding.

Table No. 4.22 reveals the absence of external government funding received by schools in Mizoram and Meghalaya to address challenges during the COVID-19 pandemic. None of the 70 schools in Mizoram or 110 in Meghalaya reported receiving financial support from government agencies.

A respondent from Mizoram stated:

“We are not aware of any government funding for education during the pandemic. If such funding existed, it might have been misused by some individuals.”

This finding reinforces the conclusion drawn by Debbarma and Durai (2021), who reported that schools across the north-eastern region of India faced major operational difficulties due to a lack of direct financial assistance.

The absence of funding, as reported by 100% of institutions in both states, points to a systemic gap in educational policy responses during the health crisis. These observations are in line with the International Institute for Educational Planning

(2021), which noted that pandemic-related government funds were largely redirected to healthcare, leaving educational institutions unsupported.

The complete lack of financial support across both states highlights a policy shortfall in safeguarding educational continuity. As noted by the Asian Development Bank (2022), equitable allocation of government funding is essential in crisis management, especially in regions with longstanding structural disadvantages. Strengthening financial preparedness through emergency funds, stakeholder collaboration, and contingency planning is vital to avoid such disruptions in the future (Asian Development Bank, 2022; Debbarma & Durai, 2021; International Institute for Educational Planning, 2021; World Bank, 2022).

4.2.0 Analysis and Interpretation of Objective 2

Objective 2: To find out and compare the educational challenges faced by teachers of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.

In order to examine the educational challenges encountered by secondary school teachers during the COVID 19 pandemic, a structured questionnaire was meticulously developed to capture comprehensive information across various dimensions of teaching and learning. The questionnaire was administered to a sample consisting of 150 teachers from Mizoram and 235 teachers from Meghalaya. Upon completion of data collection, a systematic quantitative analysis was undertaken to identify trends and key areas of concern. The results are presented in the subsequent sections, organised dimension-wise to reflect significant patterns across each major area of investigation.

4.2.1 CURRICULUM CHALLENGES

Table 4.23

Modify Curriculum during the COVID-19 Pandemic (n=385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	132	88	201	85.53
No	17	11.33	33	14.04

Note. Percentage shows the proportion of secondary school teachers who modify curriculum during the COVID-19 Pandemic.

Table 4.23 shows that 88% of secondary school teachers in Mizoram and 85.53% in Meghalaya modified the curriculum in response to pandemic-related disruptions. A teacher from Mizoram shared:

“The sudden shift to online teaching forced us to modify our curriculum significantly. We had to condense lessons, focus on essential topics, and incorporate digital resources to keep students engaged despite connectivity issues.”

Thangmawia et al. (2022) noted that teachers in Mizoram used subject-specific adaptations and digital tools to simplify instructional delivery, particularly in mathematics.

In Meghalaya, teachers encountered similar challenges in adapting content to suit digital formats. One teacher explained:

“Teaching during the pandemic was a challenge, especially in remote areas with poor internet. We had to simplify lessons and use WhatsApp to share study materials and voice notes with students who could not attend live classes.”

This adaptation reflects the findings of Kumar and Gupta (2021), who observed that teachers in rural regions relied heavily on low-bandwidth tools and asynchronous content to maintain student engagement.

Despite the widespread changes to the curriculum, 11.33% of teachers in Mizoram and 14.04% in Meghalaya reported that they made no adjustments. This suggests that some teachers may have had limited access to digital tools, training, or support from their institutions to update their teaching plans. According to Raval and Vyas (2020), issues like insufficient ICT skills and a lack of guidance from administrators restricted the extent to which some educators could transition to alternative teaching approaches.

These findings show how teachers in both states have been adaptable. Most teachers are actively working to adjust their curriculum delivery to fit the realities of remote education. The responses also point to the need for sustained teacher support and capacity-building initiatives to ensure that curriculum adaptation remains inclusive and effective across varying teaching contexts (Kumar & Gupta, 2021; Raval & Vyas, 2020; Thangmawia et al., 2022).

Table 4.24

Modifications Made to the Curriculum during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Reduced course content	79	52.66	121	51.48
Focused more on essential skills and knowledge	59	39.33	94	40
Integrated online resources and materials	53	35.33	98	41.70

Note. Data highlights the modification of curriculum reported by secondary teachers during the pandemic.

Table 4.24 highlights the curriculum changes made by teachers in Mizoram and Meghalaya during the pandemic. In Mizoram, 52.66% of teachers reported reducing course content, while 51.48% in Meghalaya made similar adjustments.

A teacher from Mizoram shared:

“We had to reduce the syllabus and focus only on the most essential topics since students had limited access to online classes.”

Likewise, a teacher from Meghalaya explained:

“Adapting the curriculum meant cutting down on non-essential lessons and focusing more on fundamental concepts that students could grasp through remote learning.”

Basilaia and Kvavadze (2020) found that simplifying content was a widespread response in schools adapting to the limitations of online instruction.

Emphasis on core knowledge and skills was another key strategy. In Mizoram, 39.33% of teachers and in Meghalaya, 40% reported focusing on essential competencies. A teacher from Mizoram noted:

“We prioritised skill-based learning and self-study materials to help students cope with independent learning during the lockdown.”

This approach reflects the shift reported by Huber and Helm (2021), who observed that teachers prioritised foundational skills to support learners’ autonomy during school closures.

Digital resource integration was adopted by 35.33% of teachers in Mizoram and 41.70% in Meghalaya. One teacher from Mizoram remarked:

“To keep students engaged, we integrated multimedia resources like recorded videos and PowerPoint presentations, which we had never used before.”

A teacher from Meghalaya added:

“We introduced online assessments and quizzes to track students' progress since physical exams were not possible.”

Mishra et al. (2020) similarly reported that digital tools became central to instruction, enabling continuity in learning despite classroom restrictions.

The response to curriculum changes in Mizoram and Meghalaya shows similar patterns of strategic change. Both states adapted well to the demands of remote learning, but Meghalaya focused a bit more on digital methods. These findings highlight the ability of teachers in both places to adapt. They responded to disruption with resourceful curriculum realignments aimed at sustaining educational delivery (Basilaia & Kvavadze, 2020; Huber & Helm, 2021; Mishra et al., 2020).

4.2.2 PEDAGOGICAL CHALLENGES

Table 4.25

Faced Challenges in Executing Modified Teaching Strategies during the COVID-19 Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	141	94	215	91.48
No	9	6	20	8.51

Note. The percentage represents the proportion of teachers who reported facing challenges in executing modified teaching strategies during the COVID-19 pandemic.

Table 4.25 presents the difficulties faced by secondary school teachers while implementing revised teaching strategies during the pandemic. A high percentage of teachers reported such challenges, with 94% in Mizoram and 91.48% in Meghalaya acknowledging difficulties.

A teacher from Mizoram shared:

“Without proper devices and internet, conducting online classes has been an uphill task. Many of us are not trained to use these technologies effectively.”

This perspective is supported by Debbarma and Durai (2020), who found that a lack of professional training in using digital tools created significant instructional barriers during school closures.

Only 6% of teachers in Mizoram and 8.51% in Meghalaya stated they did not face major obstacles, indicating that very few were fully prepared for the demands of remote teaching. A teacher from Meghalaya commented:

“We had to teach ourselves how to use these platforms. There was no proper training, and not everyone was comfortable with digital methods.”

A study by North-Eastern Hill University (2021) found that 35% of educators struggled to adapt to online instruction due to gaps in digital literacy and limited pedagogical support.

These results reveal that the vast majority of teachers encountered barriers in transitioning to modified teaching approaches. The data highlights the need for structured digital capacity-building, consistent institutional backing, and timely resource allocation to ensure teaching continuity during future educational disruptions (Debbarma & Durai, 2020; North-Eastern Hill University, 2021).

Table 4.26

Different Challenges Faced in Executing Modified Teaching Strategies during the COVID-19 Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya(n=235)	
	Response	(%)	Response	(%)
Limited access to technology or reliable internet connectivity	64	42.66	141	60
Heavy workload	74	49.33	123	52.34
Adapting teaching methods	78	52	102	43.4
Struggling with students' lack of engagement or motivation	63	42	95	40.42

Note. The percentage indicates the challenges reported by secondary school teachers in executing modified teaching strategies during the COVID-19 pandemic.

Table 4.26 outlines the challenges reported by secondary school teachers in Mizoram and Meghalaya while executing modified teaching strategies during the COVID-19 pandemic.

Limited access to technology and reliable internet was reported by 60% of teachers in Meghalaya and 42.66% in Mizoram. A teacher from Mizoram shared:

“Without proper facilities and reliable internet, conducting online classes becomes extremely challenging.”

Another teacher from Meghalaya stated:

“Very senior teachers like me and most of my colleagues found it difficult to cope with the whole situation because we are not technology-savvy.”

These concerns are supported by Mishra et al. (2020), who noted the impact of digital unpreparedness on remote teaching.

Workload-related stress was cited by 52.34% of teachers in Meghalaya and 49.33% in Mizoram. A teacher from Mizoram remarked:

“Online teaching is more stressful than classroom teaching because we have to prepare everything in advance.”

A teacher from Meghalaya added:

“We are not technology-savvy, so adapting to online classes was a major struggle.”

This is in line with Bhattacharya and Tandon (2023), who observed increased stress due to extended work hours and limited support.

Adapting teaching methods was reported as a challenge by 52% in Mizoram and 43.4% in Meghalaya. A teacher from Meghalaya noted:

“We were not trained for digital teaching. Learning how to use online platforms while also modifying the curriculum was overwhelming.”

These findings align with Thomas and Meitei (2022), who highlighted the role of inadequate professional development.

Lack of student engagement or motivation was reported by 42% in Mizoram and 40.42% in Meghalaya. A teacher from Mizoram stated:

“We would be in the middle of a lesson, and suddenly the power would go out, disconnecting everything.”

A teacher from Meghalaya said:

“Many students would not attend, and we had no way to ensure they were learning.”

Dey (2022) observed that such difficulties were common under poor infrastructure conditions.

These findings suggest that while teachers in both states faced comparable challenges, those in Meghalaya encountered slightly more difficulties. Improving digital access, enhancing teacher training, and strengthening student participation strategies remain essential for future resilience (Bhattacharya & Tandon, 2023; Dey, 2022; Mishra et al., 2020; Thomas & Meitei, 2022).

Table 4.27

Influence of the COVID-19 Pandemic on the Approach to Teaching (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Changed the teaching approach completely	28	18.66	71	20.21
Made some modifications to the teaching approach	112	74.66	153	65.1
The teaching approach remained largely the same	9	6	13	5.53

Note. Percentage represents the influence of the COVID-19 pandemic on the approach to teaching.

Table 4.27 presents how the COVID-19 pandemic influenced teaching approaches among secondary school teachers in Mizoram and Meghalaya. A majority of teachers in both states made partial modifications to their teaching, with 74.66% in Mizoram and 65.10% in Meghalaya reporting adjustments.

A teacher from Mizoram shared:

“I combined traditional note-sharing with recorded audio explanations and occasional live sessions. It was not fully online, but I had to make adjustments.”

These findings reflect the adoption of blended strategies, supported by Singh and Yousuf (2022), who reported that many teachers across India integrated familiar offline techniques with digital content to sustain learning continuity.

A complete change in teaching approach was reported by 18.66% of teachers in Mizoram and 20.21% in Meghalaya. A teacher from Meghalaya explained:

“Since physical classes were impossible, I had to switch entirely to video lectures, PowerPoint presentations, and live online sessions.”

This transformation points to a growing reliance on digital teaching methods as highlighted by Das and Deb (2022), who observed that many teachers began using unfamiliar platforms due to institutional requirements and student needs.

Only 6% of teachers in Mizoram and 5.53% in Meghalaya continued with largely unchanged teaching methods. A teacher from Mizoram noted:

“Since many of my students could not access the internet, I continued using printed worksheets and assigned readings, with minimal changes to my regular teaching methods.”

These practices align with findings from Kundu and Bej (2021), who reported that educators in rural areas with limited connectivity often resorted to physical materials to maintain student engagement.

While partial modification remained the most common approach in both states, a slightly larger proportion of teachers in Meghalaya transitioned fully to digital strategies. These differences reflect the importance of considering local infrastructure, digital preparedness, and school-level planning when evaluating teaching responses during times of disruption (Das & Deb, 2022; Kundu & Bej, 2021; Singh & Yousuf, 2022).

Table 4.28

Ineffectiveness of Teaching Strategies in Engaging Students during Remote Instruction (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Effective	111	74	162	68.93
Not effective	38	25.32	73	31.05

Note. Percentage reflects the proportion of secondary school teachers who reported the ineffectiveness of teaching strategies in engaging students during remote instruction.

Table 4.28 explores the perceptions of secondary school teachers in Mizoram and Meghalaya regarding the effectiveness of their instructional strategies during remote learning. In Mizoram, 74% of teachers considered their approaches effective in sustaining student interest, compared to 68.93% in Meghalaya. This suggests that teachers in Mizoram experienced slightly better outcomes in engaging students.

A teacher from Mizoram noted:

“Despite network issues, I tried using interactive content and phone calls to keep my students engaged. It was not easy, but it helped them stay connected.”

This is consistent with the findings of Dey (2022), who observed that personalised communication and varied content delivery supported student involvement in remote settings.

Conversely, 25.32% of teachers in Mizoram and 31.05% in Meghalaya acknowledged that they were unable to effectively engage students. One teacher from Meghalaya stated:

“We had to learn everything from scratch. Many of us struggled with technology, which made online teaching difficult.”

Another added:

“Parents are struggling because they have only one mobile phone for all their children to attend classes.”

These views highlight the dual challenge of limited digital proficiency and inadequate household resources. Bhatia and Joseph (2022) reported that schools with limited infrastructure and planning faced greater challenges in ensuring student participation during remote learning.

While a majority of teachers adapted successfully, many still struggled to maintain consistent student interest. Strengthening digital access, building teacher capacity, and supporting households with the resources needed for remote learning are critical for improving educational engagement during future disruptions (Bhatia & Joseph, 2022; Dey, 2022).

COPING STRATEGY FOR PEDAGOGICAL CHALLENGES

Table 4.29

Strategies Employed to Overcome the Challenges of Remote Teaching (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Utilized pre-recorded video lessons	65	43.33	125	53.19
Conducted live video sessions	49	32.66	76	32.34
Assigned project-based work	47	31.33	111	47.23

Note. Percentage shows the strategies employed by secondary teachers to overcome the challenges of remote teaching during the COVID 19 pandemic.

Table 4.29 presents the strategies adopted by secondary school teachers in Mizoram and Meghalaya to manage the challenges of remote teaching during the COVID-19 pandemic. The response rate was higher in all indicators in Meghalaya compared to Mizoram, suggesting broader use of alternative instructional approaches in Meghalaya.

Pre-recorded video lessons were the most widely used strategy in both states, reported by 53.19% of teachers in Meghalaya and 43.33% in Mizoram. A teacher from Meghalaya noted:

“We recorded lessons and shared them with students through online groups so they could watch when they had internet access.”

This approach allowed flexibility in areas with poor connectivity and is consistent with the Department of Education, Government of Meghalaya (2020); which launched a digital learning portal to support asynchronous instruction across the state.

Live video sessions were used at comparable rates, with 32.66% of teachers in Mizoram and 32.34% in Meghalaya conducting them. These sessions allowed real-time interaction but were often disrupted by connectivity problems.

A teacher from Mizoram shared:

“We used WhatsApp and Telegram for class discussions, submitting work, and clearing doubts because live classes would often get interrupted.”

Bhattacharya and Tandon (2023) reported that teachers often relied on social messaging apps when formal platforms were inaccessible or impractical.

Project-based work was more common in Meghalaya, where 47.23% of teachers used this strategy compared to 31.33% in Mizoram. A teacher from Meghalaya explained:

“We created WhatsApp groups and assigned tasks that students could complete at home, using family support if needed.”

This aligns with findings by Kundu and Bej (2021), who observed that project-based learning supported student autonomy and engagement during periods of school closure. These insights show that teachers in both states adopted flexible and context-driven strategies to navigate the limitations of remote teaching. Broader use of asynchronous content and project-based assignments in Meghalaya was likely influenced by state-led initiatives and training efforts, while teachers in Mizoram relied more on real-time support and adaptive communication tools to sustain learning

(Bhattacharya & Tandon, 2023; Department of Education, Government of Meghalaya, 2020; Kundu & Bej, 2021).

4.2.3 STUDENTS CHALLENGES

Table 4.30

Observed Changes in Student Engagement and Motivation during the COVID-19 Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	131	87.33	214	91.06
No	18	12	19	8.08

Note. The data shows the changes observed in student engagement and motivation by teachers during the COVID 19 pandemic.

Table 4.30 highlights the observations of secondary school teachers in Mizoram and Meghalaya regarding changes in student engagement and motivation during the COVID-19 pandemic. A notable majority in both states reported declining levels of attentiveness, with 91.06% in Meghalaya and 87.33% in Mizoram indicating reduced student involvement under remote learning conditions.

A teacher from Mizoram shared:

“As a teacher, I found it extremely challenging to ensure that all students were keeping up with the curriculum. Many students in rural areas struggled to understand lessons delivered online, and the lack of physical interaction made it harder to address their doubts effectively.”

This concern is supported by Lalduhawma et al. (2021), who identified the digital divide and absence of structured academic support as significant barriers to student engagement in Mizoram.

In Meghalaya, 91.06% of teachers reported similar challenges, reflecting slightly higher disengagement. One teacher explained:

“The shift to online learning disrupted the academic progress of many students. Without the structure of a classroom, it was difficult to maintain

discipline and ensure consistent participation, especially for younger children.”

These insights are consistent with Bharne (2024), whose study in remote northern India found that poor connectivity and household limitations directly impacted students’ ability to engage effectively with online lessons.

Only 12% of teachers in Mizoram and 8.08% in Meghalaya stated there was no observable change in student motivation. This suggests that disengagement was widely experienced across both regions, although more acute in Meghalaya. Prakasha et al. (2023) found that maintaining intrinsic motivation is critical to sustaining student participation in virtual environments, particularly in underserved contexts.

The findings underscore that while teachers made considerable efforts to adapt, keeping students consistently engaged remained a key challenge. Supporting future resilience will require improvements in digital infrastructure, investment in teacher development, and stronger communication between families and schools to re-establish consistent learning routines (Bharne, 2024; Prakasha et al., 2023; Lalduhawma et al., 2021).

Table 4.31

Changes Observed in Students’ Engagement (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Difficulties accessing technology or reliable internet connectivity	116	77	189	80.42
Issues with time management or organization	37	24.66	81	34.46
Lack of focus and attentiveness	102	68	157	66.80
Decreased participation and interaction	55	36.66	141	60
Difficulty in coping with academic pressure	64	32	115	46

Note. Percentage reflects the challenges observed in student engagement and motivation by secondary school teachers during the COVID-19 pandemic.

The findings summarised in Table 4.31 present the challenges identified by secondary school teachers in Mizoram and Meghalaya concerning student engagement and motivation during the COVID-19 pandemic. The response was higher in almost all the indicators in Meghalaya as compared to Mizoram, suggesting a greater prevalence of learning-related difficulties in Meghalaya.

Difficulties accessing technology or stable internet were the most commonly reported concern, cited by 80.42% of teachers in Meghalaya and 77% in Mizoram. One teacher from Mizoram explained:

“Conducting online classes was a major hurdle due to poor internet connectivity in remote areas. Many students could not attend classes regularly because they did not have access to smartphones or computers.”

This concern matches findings from the RAND report. It showed that students in rural and high-poverty schools were much less likely to have reliable home internet. Those without access had lower participation in remote instruction.

Time management and organisation were reported as challenges by 34.46% of teachers in Meghalaya and 24.66% in Mizoram. These figures reflect the difficulty students faced in independently managing their academic schedules at home.

A teacher from Meghalaya remarked:

“Many students were unable to follow a proper timetable, and there was no one to remind them about their assignments.”

This aligns with observations by Dhawan (2020), who noted that the absence of school structures made it difficult for learners to maintain regular academic routines.

Lack of focus and attentiveness was mentioned by 68% of teachers in Mizoram and 66.80% in Meghalaya. Teachers pointed to household distractions and the absence of face-to-face supervision as key reasons for reduced attention spans.

A teacher from Meghalaya shared:

“Students often kept their cameras off and would disappear during lessons. It was hard to tell if they were even listening.”

These challenges mirror the findings of Alarabiat (2024), which highlighted that online fatigue and multitasking at home reduced the effectiveness of virtual learning.

Decreased participation and interaction were more commonly reported in Meghalaya, at 60%, compared to 36.66% in Mizoram. A teacher from Meghalaya stated:

“Many students were unfamiliar with online platforms, and we spent more time troubleshooting than teaching.”

The findings are supported by (Zhong & Lyu, 2022), who noted that unfamiliarity with digital tools affected engagement, especially in under-resourced settings.

Difficulties coping with academic pressure were identified by 46% of teachers in Meghalaya and 32% in Mizoram. This gap suggests that students in Meghalaya may have faced more emotional and cognitive strain.

A teacher from Mizoram reflected:

“Some students were anxious about exams and felt lost without regular teacher feedback.”

These concerns reflect findings from a study in East China, which reported that scaffolding—encompassing teacher guidance, technological assistance, peer interaction, and parental support—was crucial in sustaining student engagement and preventing stress-induced disruption during remote project-based learning (Zhong & Lyu, 2022).

Collectively, the data reveal that while student engagement and motivation were challenged in both states, these issues were more widespread in Meghalaya. Addressing such concerns will require sustained investment in digital infrastructure, structured home–school coordination, and targeted support mechanisms to re-engage learners in future remote or blended learning contexts ((Gilbertson et al., 2023; Joosten & Weber, 2021).

Table 4.32***Changes in Students' Mental Health Observed Since the Onset of the COVID-19 Pandemic (n=385)***

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	110	73.33	158	67.23
No	39	26	76	32.34

Note. Percentage indicates the proportion of secondary school teachers who observed changes in students' mental health during the pandemic.

Table 4.32 presents teachers' observations regarding changes in students' mental health during the COVID-19 pandemic. A greater proportion of teachers in Mizoram (73.33%) reported noticeable changes compared to 67.23% in Meghalaya.

A teacher from Mizoram shared:

"Several students became withdrawn and less responsive during classes. Some even stopped attending regularly without explanation."

This observation aligns with Brooks et al. (2020), who found that isolation and prolonged uncertainty often lead to emotional distress in children and adolescents.

In Meghalaya, 32.34% of teachers did not observe significant changes, while 26% reported the same in Mizoram. A teacher from Meghalaya remarked:

"Many students seemed unaffected on the surface, but we had no way of knowing what they were really going through."

Educators reported that remote learning significantly impeded their ability to notice signs of student distress—such as mood changes, isolation, or withdrawal—because these cues were often obscured behind muted microphones and turned-off cameras, making it harder to detect psychological strain in virtual settings (De La Rosa, 2020).

These findings indicate that students' mental health was affected in both states, with varying degrees of visibility. Strengthening emotional support systems within schools, equipping teachers to identify early signs of distress, and integrating mental well-being

into recovery plans will be essential in fostering a supportive post-pandemic educational environment (Brooks et al., 2020; De La Rosa, 2020).

Table 4.33

Students' Mental Health Issues Observed by Teachers during the COVID-19 Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Increased stress and anxiety	47	23.5	55	22
Difficulty in staying motivated	123	61.5	120	48

Note. Percentage reflects the proportion of students' mental health issues observed by teachers during the pandemic

Table 4.33 highlights the mental health challenges among students as reported by secondary school teachers in Mizoram and Meghalaya during the COVID-19 pandemic. Reports of increased stress and anxiety were relatively similar across both states, with 23.5% in Mizoram and 22% in Meghalaya. These symptoms were often linked to uncertainty about exams, disrupted learning schedules, and the lack of direct support systems.

A teacher from Meghalaya explained:

“Students, especially those in higher grades, were anxious about their future, particularly regarding exams and college admissions. As a teacher, it was heart-breaking to see them struggle emotionally without adequate support.”

Issues related to motivation were more pronounced in Mizoram, where 61.5% of teachers identified this concern, compared to 48% in Meghalaya. A teacher from Mizoram shared:

“I noticed that many of my students were feeling isolated and stressed during the pandemic. The absence of peer interaction and the pressure of adapting to online learning took a toll on their mental health.”

These insights suggest that while anxiety was a shared concern, declining motivation had a stronger presence among students in Mizoram.

Existing research supports these patterns. According to the Center for Collegiate Mental Health (2021), over two-thirds of students seeking psychological services during the pandemic reported reduced motivation and focus. Wang et al. (2022) also found that increased academic pressure contributed significantly to mental health concerns in online learning environments.

These observations call attention to the urgent need for tailored school-based mental health strategies. Strengthening access to psychological support, building emotionally responsive classroom practices, and promoting peer connection are critical to supporting students’ overall well-being in times of crisis (Center for Collegiate Mental Health, 2021; Wang et al., 2022).

COPING STRATEGIES

Table 4.34

Support Provided to Students who were Struggling during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Increased individual support	54	36	68	28.93
Provided additional resources	49	32.66	85	36.17
Enhanced communication with parents/guardians	62	41.33	138	58.72

Note. Percentage indicates the proportion of support provided to students by the teachers during the pandemic.

Table 4.34 outlines the various forms of support extended by secondary school teachers in Mizoram and Meghalaya to help students cope with the challenges of the COVID-19 pandemic. The data reveal state-level differences in approach, particularly

in the areas of direct student engagement, material assistance, and communication with families.

Individualised student support was more common in Mizoram, reported by 36% of teachers, compared to 28.93% in Meghalaya. This included academic guidance, emotional reassurance, and in some cases, moral mentoring.

One teacher from Mizoram noted:

“In addition to engaging with students experiencing anxiety, teachers provided a brief sermon each week to foster the moral development of their students, even amidst the challenges of the pandemic.”

This reflects a holistic response that extended beyond academic needs. According to resilient instructional guidelines, relational strategies—including trauma-informed check-ins, peer support, and flexible course adjustments—play a crucial role in fostering students’ resilience amid crisis-induced stress (Shay & Pohan, 2021) .

The provision of additional learning resources was slightly more frequent in Meghalaya, where 36.17% of teachers reported supplying materials like notes and pre-recorded lessons, as opposed to 32.66% in Mizoram. Teachers from both states relied on practical delivery formats adapted to technological limitations. A report on teaching and learning during COVID-19 in Queensland independent schools emphasized that timely provision of learning devices and tools—aided by parent-school collaboration—was pivotal to maintaining student engagement and emotional well-being during remote learning (Ziebell & Robertson, 2021)

Communication with parents or guardians saw stronger emphasis in Meghalaya, with 58.72% of teachers prioritising this method, compared to 41.33% in Mizoram. One teacher from Meghalaya commented:

“We mostly used phone calls and messages to keep them informed about their children’s progress and any academic concerns.”

This approach suggests a strategic focus on family partnerships to compensate for students’ limited digital autonomy. The value of parent–teacher collaboration was

affirmed during the pandemic; intensified contact helped teachers better understand parents' perspectives and foster empathy between both groups (Schuck et al., 2021).

These findings demonstrate that while both states made efforts to support students, their approaches were shaped by contextual needs and resource availability. Strengthening these coping strategies—via formal training, coordinated outreach, and inclusive planning—may prove essential in preparing schools for future educational disruptions (Kraft, Simon, & Lyon, 2021).

Table 4.35

Maintenance of Communication with Students and Their Families during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Email	4	2.66	11	4.68
Phone calls	99	66	176	74.89
Text messaging	84	56	153	65.10
Video conferencing	60	40	67	28.51

Note. Percentage shows the tools used by the teachers for the maintenance of communication with students and their families during the pandemic.

Table 4.35 illustrates the tools used by secondary school teachers in Mizoram and Meghalaya to maintain communication with students and their families during the COVID-19 pandemic. The data reflect a strong reliance on low-bandwidth, widely accessible modes of contact. Phone communication was the most frequently used method, cited by 66% of teachers in Mizoram and 74.89% in Meghalaya. This preference points to its reliability in areas with limited internet connectivity.

A teacher from Meghalaya shared:

“Calling parents was the most practical option. It helped us keep track of students’ progress and ensure that they were attending online sessions when possible.”

According to Haines et al. (2021), consistent voice communication supports academic monitoring and helps sustain relationships with families in resource-constrained settings.

Text messaging also played a significant role, reported by 56% of teachers in Mizoram and 65.10% in Meghalaya. This method provided quick updates and reminders without the technical obstacles tied to more complex platforms. As noted by van Rooyen (2010), text-based communication is particularly effective in reaching households that lack access to computers or smartphones.

Video conferencing was adopted by 40% of teachers in Mizoram, compared to 28.51% in Meghalaya. Although less prevalent, it enabled interactive engagement with students in better-connected regions.

One teacher from Mizoram noted:

“When internet access permitted, video calls helped us replicate classroom discussions and check on student well-being.”

The relatively higher use in Mizoram may be linked to regional initiatives promoting digital outreach. Wu et al. (2022) found that structured video-based interactions improved both teacher-student rapport and content delivery during periods of school closure.

Email remained the least utilised method, used by only 2.66% of teachers in Mizoram and 4.68% in Meghalaya. Its limited use reflects its unsuitability for real-time or informal communication in the school context, especially where parents have limited digital experience or irregular internet access.

The patterns observed suggest that while both states demonstrated commitment to sustained communication, Mizoram teachers were more likely to experiment with video-based methods, whereas their counterparts in Meghalaya relied more on voice and text messaging. These adaptations were shaped by local constraints and institutional priorities, underscoring the need for context-sensitive communication models in crisis-era education (Jordan et al., 2025).

4.2.4 TECHNOLOGICAL CHALLENGES

Table 4.36

Received Training for Utilising Technology in Teaching during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	50	33.34	35	14.89
No	100	66.66	200	85.10

Note. Percentage reflects the proportion of teachers who received training for utilising technology in teaching during the pandemic.

Table 4.36 reports the extent to which secondary school teachers in Mizoram and Meghalaya received training for using technology in teaching during the COVID-19 pandemic. In Mizoram, 33.34% of teachers confirmed that they had participated in some form of digital training, whereas only 14.89% of teachers in Meghalaya indicated the same. These figures suggest a comparatively greater level of preparation in Mizoram for the digital shift.

A teacher from Meghalaya shared:

“Most of the educational institutes in Meghalaya were unprepared for digital learning,” pointing to gaps in institutional support.

This situation aligns with findings by Dayal (2023), who observed that the absence of structured training was a major barrier for many teachers in adapting to remote instruction.

Meanwhile, 66.66% of teachers in Mizoram and 85.10% in Meghalaya stated that they had not received any formal training. This reflects a broader challenge across both states, where a large majority of teachers entered remote teaching environments without adequate digital readiness. The data emphasise the importance of investing in long-term professional development that equips teachers with the necessary technological skills. Integrating regular digital training into teacher education can

contribute significantly to improving preparedness for future disruptions (Dayal,2023).

Table 4.37

Inaccessibility of the Necessary Technology for Online Teaching (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Access to all the required technology	45	30	44	18.72
Access to only some of the required technology	94	62.66	172	73.19
Did not have access to any of the necessary technology	11	7.33	19	8.08

Note. Data indicates the inaccessibility of necessary technology for online teaching

Table 4.37 presents data on secondary school teachers' access to essential technology for online teaching during the COVID-19 pandemic in Mizoram and Meghalaya. In Mizoram, 30% of teachers reported having full access to the required digital tools, compared to 18.72% in Meghalaya. These relatively low percentages point to the limited technological readiness in both states.

A larger group of teachers reported partial access to digital tools, with 62.66% in Mizoram and 73.19% in Meghalaya. This suggests that while many teachers attempted to adapt to remote instruction, they were constrained by incomplete access to necessary resources.

One teacher from Mizoram noted:

“We received only half of our salary, making it very difficult to afford sufficient internet facilities to conduct classes throughout the day.”

This highlights how financial limitations affected their ability to maintain consistent teaching.

Complete lack of access was reported by 7.33% in Mizoram and 8.08% in Meghalaya. A teacher from Meghalaya reflected:

“Lack of digital device and technological skills makes it difficult to take online classes successfully.”

This comment draws attention to the combined challenge of technological unavailability and digital unfamiliarity. Central Square Foundation (2021) reported similar trends, emphasising that many private school teachers faced financial stress and limited institutional support during the pandemic.

The findings suggest that access to technology was far from universal. Addressing these disparities requires targeted interventions that provide teachers with affordable devices, stable internet, and opportunities for practical training. Only through consistent infrastructure support can digital instruction become sustainable and inclusive in future educational disruptions, (Central Square Foundation, 2021)

Table 4.38

Influence of Technology on Student Participation during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Increased participation	40	26.66	66	28.08
Decreased participation	92	61.33	126	53.61
No noticeable change	17	11.33	42	17.87

Note. Percentage reflects the proportion of teachers who reported the impact of technology on student participation during the pandemic.

Table 4.38 explores the perceptions of secondary school teachers in Mizoram and Meghalaya regarding the influence of technology on student participation during the COVID-19 pandemic. A relatively small portion of teachers reported improved student engagement, with 26.66% in Mizoram and 28.08% in Meghalaya indicating increased participation.

A teacher from Meghalaya explained:

“Some students enjoyed using new learning apps and participated more actively during video lessons, especially when interactive tools were used.”

This aligns with the findings of Hardiyanti et al. (2023) who observed that digital tools, when used effectively, could foster new avenues for student interaction.

A more common observation was a decline in participation, reported by 61.33% of teachers in Mizoram and 53.61% in Meghalaya. Teachers pointed out that many students lacked the digital skills or support needed to stay consistently engaged.

A teacher from Mizoram remarked:

“Most students and teachers were unprepared for the transition to online learning platforms, which likely led to decreased student participation.”

These concerns are consistent with Heikkinen et al. (2025), who highlighted the role of digital inaccessibility and poor self-regulation in diminishing learner engagement.

Some teachers, 11.33% in Mizoram and 17.87% in Meghalaya; observed no significant shift in student participation. A teacher from Meghalaya shared:

“There were students who stayed motivated no matter the format, but they were few. The majority found it hard to adjust without classroom routines.”

Muthuprasad et al. (2021) supported this by pointing out that home-based learning environments often lacked structure, which contributed to inconsistent levels of involvement.

The responses reflect that while a small group of students adapted well to digital platforms, the majority struggled to maintain participation. Addressing these gaps will require robust digital infrastructure, on-going support for teachers and learners, and efforts to create more structured, accessible remote learning environments (Muthuprasad et al., 2021; World Bank, 2021).

Table 4.39***Encountered Technological Hurdles while conducting Online Classes (n = 385)***

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	128	85.33	208	88.51
No	21	14	27	11.48

Note. Percentage shows the proportion of teachers who reported technological challenges encountered while conducting online classes.

Table 4.39 outlines the proportion of secondary school teachers in Mizoram and Meghalaya who encountered technological hurdles while conducting online classes during the COVID-19 pandemic. A high percentage of teachers reported such difficulties, with 85.33% in Mizoram and 88.51% in Meghalaya indicating they faced challenges in delivering remote instruction.

A teacher from Mizoram noted:

“Even after preparing lessons, we often had to cancel or reschedule classes due to network failure or device issues.”

These experiences are supported by Debbarma and Durai (2020), who found that poor connectivity and inadequate technological support significantly disrupted online teaching in several north-eastern regions.

A smaller proportion of teachers, 14% in Mizoram and 11.48% in Meghalaya, reported that they did not face major technological issues. One teacher from Meghalaya shared:

“I had limited tools, but I was lucky to have some basic resources. I managed the classes with help from family members..”

Gavade et al. (2023) also noted that some teachers developed coping strategies through informal peer support and flexible teaching practices even in resource-poor contexts.

The collective responses also affirm that technological barriers impinged most teachers' ability to effectively manage online classes. Overall, it suggests that

investment is required into teacher-facing infrastructure, functional digital tools and teacher-upskilling initiatives to ensure they are prepared in case of future disruptions in the education system (Debbarma & Durai, 2020; Gavade et al., 2023).

Table 4.40

Challenges in Utilising Technology for Teaching during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Limited access to technology	24	16	42	17.87
Lack of internet connectivity	82	54.66	168	71.48
Troubleshooting technical issues	19	12.66	24	10.21
Inadequate training on technology	25	16.66	41	17.44
Issues with software/application compatibility	14	9.33	23	9.78

Note. Data reflects the proportion of teachers who reported challenges in utilising technology for teaching during the COVID-19 pandemic.

Table 4.40 outlines the types of technological difficulties encountered by secondary school teachers in Mizoram and Meghalaya while teaching during the COVID-19 pandemic. Lack of reliable internet connectivity emerged as the most significant barrier, reported by 54.66% of teachers in Mizoram and 71.48% in Meghalaya.

A teacher from Mizoram noted:

“Internet connectivity in rural areas was unreliable. Many times, I had to reschedule classes because of poor network conditions.”

A teacher from Meghalaya added:

“Even in urban areas, our internet speed was slow, making it difficult to conduct live classes without interruptions.”

These issues are consistent with findings from Gurung (2021), who observed that poor connectivity severely disrupted remote instruction in several north-eastern regions.

Limited access to devices was reported by 16% of teachers in Mizoram and 17.87% in Meghalaya. A teacher from Mizoram shared:

“Many of us had to share a single device with our family members, making it difficult to prepare and conduct online classes effectively.”

In Meghalaya, one teacher mentioned:

“Not all teachers had personal laptops or smartphones. Some had to rely on borrowed devices, which made online teaching inconsistent.”

These reports indicate that the direct implications of limitations to digital resource use influenced teaching effectiveness.

Inadequate training on the use of technology was cited by 16.66% of teachers in Mizoram and 17.44% in Meghalaya. One teacher from Mizoram remarked:

“We were expected to use online platforms without any formal training. Many of us had to learn on our own through trial and error.”

A teacher from Meghalaya commented:

“Workshops were conducted, but they were not enough. We needed more hands-on training to effectively use digital tools.”

These experiences mirror concerns raised in the India Today (2021) survey, which reported a national shortage of structured digital training for teachers.

Handling technical issues was also challenging, with 12.66% of teachers in Mizoram and 10.21% in Meghalaya reporting difficulties. One teacher from Meghalaya stated:

“If an application stopped working, I had no idea how to fix it. It disrupted my lessons, and I had to find alternative ways to teach.”

These challenges suggest the absence of technical support and the reliance on self-learning to manage classroom disruptions.

Software and application compatibility problems were rare but noted, with 9.33% in Mizoram and 9.78% in Meghalaya noting compatibility concerns. Minor mismatches can present challenges in the provision of teaching, especially without a support infrastructure to assist with those challenges.

Altogether, the findings show that teachers in both states encountered a wide range of technological obstacles. The slightly higher response in Meghalaya compared to Mizoram points to more severe difficulties in that context. Addressing these challenges through improved connectivity, access to digital tools, and sustained teacher training will be essential to ensure effective and inclusive digital instruction in the future (Gurung, 2021; India Today, 2021).

Table 4.41

Confidence in Using Technology for Instruction (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Highly confident	24	16	31	13.19
Moderately confident	100	66.66	159	67.65
Slightly confident	19	12.66	40	17.02
Not confident	6	4	4	1.70

Note. Percentage indicates the confidence of teachers in using technology for instruction during the COVID-19 pandemic.

Table 4.41 captures the self-reported confidence levels of secondary school teachers in Mizoram and Meghalaya regarding their use of technology for instructional purposes during the COVID-19 pandemic. The majority of teachers in both states rated their confidence as moderate, with 66.66% in Mizoram and 67.65% in Meghalaya selecting this category.

A teacher from Mizoram shared:

“I was comfortable using basic tools like Zoom and Google Classroom, but I still struggled with more advanced features.”

Similarly, a teacher from Meghalaya observed:

“We could manage simple tasks, but whenever there were updates or technical changes, it became difficult to keep up.”

These findings indicate that while teachers were capable of accessing basic digital tools, engaging in more complex applications remained a continual problem. The British Council (2020) reported similar trends, noting that basic digital familiarity often proved sufficient for functional teaching but not for fully optimised digital delivery.

High confidence was reported by only 16% of teachers in Mizoram and 13.19% in Meghalaya. Although these numbers are modest, they reflect a group of teachers who were well-prepared to adapt to online teaching.

One teacher in Mizoram stated:

“Even before the pandemic, I had experimented with digital tools, so it was easier for me to transition.”

Almahasees et al. (2021) demonstrated that teachers with previous experience within digital contexts possessed significantly more competence and comfort when transitioning to virtual means.

A smaller group of teachers described their confidence as slight, with 12.66% in Mizoram and 17.02% in Meghalaya indicating hesitations. One teacher from Mizoram shared:

“Initially, I was very unsure. It took months before I felt even slightly comfortable using technology in class.”

In Meghalaya, a teacher noted:

“Many of us had to learn through trial and error, which made the whole process stressful.”

These voices highlight the uneven nature of digital adaptation, particularly among those with limited prior exposure.

Only a few teachers reported having no confidence at all, with 4% in Mizoram and 1.70% in Meghalaya identifying themselves in this group. A teacher from Mizoram remarked:

“Even today, I feel uncomfortable conducting an online session without someone helping me.”

A teacher from Meghalaya added:

“Some of us completely avoided using certain platforms because we feared making mistakes.”

These accounts point to enduring anxieties that continued despite months of online teaching.

Overall, most teachers in both states acquired a moderate level of confidence in digital instruction during the pandemic. While full confidence was limited, the findings suggest that many adapted by learning new skills and gradually becoming more familiar with online tools. Continued digital training, peer support, and consistent use of technology in day-to-day teaching are necessary to build long-term confidence and preparedness for future digital learning scenarios (Almahasees et al., 2021; British Council, 2020).

COPING STRATEGIES

Table 4.42

Technological tools utilized for teaching during the Pandemic.(n=385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Learning management systems (e.g. Canvas, Blackboard)	12	8	20	8.51
Video conferencing (e.g. Zoom, Google Meet, Webex etc.)	117	78	143	60.85
Educational software (e.g. Kahoot, Quizlet, Teacher mint etc.)	17	11.33	8	3.40
Social platforms (Whatsapp, Telegram, Facebook)	79	52.66	181	77.02

Note. Percentage shows the proportion of technological tools utilized for teaching during the pandemic.

Table 4.42 provides insights into the types of technological tools adopted by secondary school teachers in Mizoram and Meghalaya during the COVID-19 pandemic. A large proportion of teachers in both states relied on video conferencing tools to conduct classes. In Mizoram, 78% of teachers reported using platforms like Zoom, Google Meet, and Webex, while 60.85% of teachers in Meghalaya did the same.

One teacher from Mizoram stated:

“We held regular live sessions on Google Meet. It helped us interact directly with students even when schools were closed.”

This preference reflects the practicality of video platforms for maintaining real-time communication in remote settings. The findings are supported by Alfares (2024), who noted that synchronous platforms provided a more structured learning experience when used consistently.

Social messaging apps became yet another medium that was as frequently used. In Meghalaya 77.02% of teachers indicated the use of apps like WhatsApp, Telegram,

and Facebook for education, while Mizoram was 52.66%. These studies showed that social messaging presented a unique and easy way to share assignments, voice notes, and learning tools.

A teacher from Meghalaya shared:

“WhatsApp became our main tool for connecting with students and parents. It worked even when other platforms were not accessible.”

This pattern supports the observations of MIT Governance Lab (2020), which reported that low-bandwidth messaging apps played a critical role in sustaining learning in areas with limited internet access.

The use of educational software, including tools like Kahoot and Quizlet, was comparatively lower. In Mizoram, 11.33% of teachers used such applications, while in Meghalaya the number dropped to 3.40%.

A teacher from Mizoram explained:

“Some of us tried interactive apps, but many students could not use them due to device limitations or lack of familiarity.”

These figures align with findings by Khaldi et al. (2023), who stated that while gamified platforms demonstrated educational benefits, they were still limited by the digital readiness of students and their accessibility to students.

Learning management systems such as Canvas and Blackboard were the least reported overall in both states; 8% of teachers in Mizoram and 8.51% of teachers in Meghalaya reported using these platforms. The low figures may be linked to the complexity of these systems and the absence of institutional support for their implementation. According Muthuprasad et al. (2023), schools with limited resources prefer using more simplistic tools and do not adopt any platform which requires significant setup, technical skills, and consistent internet access. The results indicated an unwavering use of very simple and manageable digital solutions under a delicate boundary of the constraints of the pandemic.

The results indicated that teachers did not lack resourcefulness and used what tools were available to them, it was clear that better stipends for training, technology infrastructure and easier access to additional digital platforms were necessary elements in building a more equitable and efficacious online teaching setting (Alfares, 2024; Khaldi et al., 2023; MIT Governance Lab, 2020; Muthuprasad et al., 2023).

Table 4.43

The School offered Sufficient Technological Support during the Pandemic (n=385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	65	43.33	98	41.70
No	84	56	137	58.29

Note. The percentage represents the extent to which schools provided sufficient technological support during the pandemic.

Table 4.43 indicates the degree to which secondary schools in Mizoram and Meghalaya supported their teachers in the use of technology because of COVID-19. In Mizoram, 56% of teachers said that their schools had not provided adequate support and 58.29% of the teachers in Meghalaya expressed the same sentiment. With these figures, it is evident that a majority of teachers in both states had no institutional guidance in undertaking remote teaching.

A teacher from Mizoram noted:

“We were expected to teach online, but no laptops or data packages were given to us. We had to manage on our own.”

This experience reflects the challenges faced by schools with limited resources and infrastructure. As observed by the School Education Department (2021), many institutions lacked basic facilities such as internet-enabled devices and access to a reliable connection, affecting the quality and consistency of remote instruction.

In terms of positive support, 43.33% of teachers in Mizoram and 41.70% in Meghalaya indicated that their schools provided the necessary technological assistance. A teacher from Meghalaya shared:

“Our school helped with training and gave some support for online platforms, but it was not enough for everyone.”

These accounts demonstrate the involvement of some institutions but also expose that such support was not ubiquitous and that it was not enough. Dimitrov (2021) reported similar findings in rural contexts, revealing how both teachers and students had issues with limited connectivity and equipment, resulting in learning gaps and reduced engagement.

The findings suggest that school-based technological support was limited in both states, particularly in rural and under-resourced areas. Teachers were often left to find their own solutions, resulting in uneven experiences with online teaching. Strengthening digital infrastructure within schools, ensuring regular technical assistance, and allocating resources for teacher preparedness will be crucial for improving the effectiveness of remote instruction in the future (Dimitrov, 2021; School Education Department, 2021).

Table 4.44

Technological Tools proved to be most difficult to use during remote or hybrid teaching (n=385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Learning management systems (e.g., Blackboard, Canvas)	56	37.33	59	25.10
Video conferencing software (e.g., Zoom, Google Meet)	63	42	127	54.04
Online collaboration tools (e.g., Google Docs, Microsoft Teams)	22	14.66	41	17.44
Social Platform (Whatsapp, Telegram, Facebook)	22	14.66	31	13.19

Note. Percentage shows the proportion of technological tools proved to be most difficult for teaching during the pandemic.

Table 4.44 explores the technological tools that secondary school teachers in Mizoram and Meghalaya found most difficult to use during remote or hybrid instruction. Video conferencing platforms such as Zoom and Google Meet were identified as the most challenging by 42% of teachers in Mizoram and 54.04% in Meghalaya.

A teacher from Meghalaya shared:

“We tried to use Zoom, but the internet kept cutting off, and many students could not stay connected.”

This highlights issues related to unstable networks and limited access to reliable devices. Lalduhawma et al. (2022) noted that real-time platforms posed significant difficulties due to inconsistent connectivity and limited digital proficiency among teachers.

Learning management systems, including platforms like Blackboard and Canvas, were reported as difficult by 37.33% of teachers in Mizoram and 25.10% in Meghalaya. A teacher from Mizoram commented:

“We had no training for using platforms like Canvas. It took a lot of time to understand how to upload materials and create tasks.”

This suggests that while such systems may have been more commonly used in Mizoram, their effective use was hindered by the absence of adequate training. Mebanialam (2024) showed that advanced platforms were rarely used in areas lacking basic digital infrastructure, which may explain the lower use in Meghalaya.

Online collaboration tools, such as Google Docs and Microsoft Teams, posed challenges for 14.66% of teachers in Mizoram and 17.44% in Meghalaya. These challenges appeared to stem from limited familiarity with shared document editing and a lack of structured guidance on using such tools effectively.

Social platforms like WhatsApp and Telegram were the least difficult overall, with 14.66% in Mizoram and 13.19% in Meghalaya reporting issues. Challenges here likely involved group coordination, monitoring student participation, and maintaining consistent communication.

Only the most relevant patterns emerge: video conferencing tools were the most difficult in both states, with a notably higher challenge in Meghalaya. Teachers in Mizoram faced greater difficulty with learning management systems, reflecting higher adoption without adequate preparation. These findings underscore the need for practical training and improved infrastructure tailored to the specific tools teachers are expected to use (Lalduhawma et al., 2022; Mebanialam, 2024)

4.2.5 ASSESSMENT AND GRADING

Table 4.45

Changes in Methods of Assessment and Grading during the Pandemic (n=385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
No change	32	21.33	34	14.46
Altered approach	99	66	144	61.27

Note. The percentage reflects the proportion of teachers' responses regarding the changes made to assessment and grading methods during the pandemic.

Table 4.45 outlines changes made by secondary school teachers in Mizoram and Meghalaya to assessment and grading methods during the COVID-19 pandemic. In Mizoram, 66% of teachers reported altering their evaluation strategies, while 61.27% did so in Meghalaya. These figures suggest that a majority of teachers in both states adapted their methods to suit remote learning.

A teacher from Mizoram shared:

“We had to revise the way we graded students. I used a mix of online submissions, phone discussions, and past records to assess performance.”

This shift reflects what UNESCO (2021) described as a necessary rethinking of assessment practices to maintain academic continuity and fairness during the pandemic.

A smaller group, 21.33% in Mizoram and 14.46% in Meghalaya, reported no change in their assessment approaches. These teachers may have continued with traditional methods due to limited access to digital tools, lack of institutional support, or uncertainty about alternative evaluation formats. Such limitations have been widely documented; a qualitative study across 84 school teachers revealed that the absence of clear assessment policies during the COVID-19 shift left instructors uncertain about how to evaluate student learning in remote environments (Fernandes et al., 2023).

The findings show that most teachers in both states made a conscious effort to adapt their grading systems in response to the challenges of remote instruction. To reiterate, these changes reflect a larger obligation to uphold academic integrity and equity in a disrupted learning situation, highlighting the need for flexible, context-appropriate assessment in future emergency planning (Fernandes et al., 2023; UNESCO, 2021).

Table 4.46***Encountered any Difficulties in Evaluating Students during the COVID-19 Pandemic (n=385)***

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	130	86.66	218	92.76
No	20	13.33	17	7.23

Note. Percentages reflect the proportion of teachers' response on the challenges encountered in evaluating students during the COVID-19 pandemic.

Table 4.46 shows that a large majority of secondary school teachers in Mizoram and Meghalaya experienced difficulties in evaluating students during the COVID-19 pandemic. The issue was reported by 86.66% of teachers in Mizoram and 92.76% in Meghalaya, indicating that assessment was a major challenge across both states.

A teacher from Mizoram shared:

“I was not trained to use digital tools for teaching or assessments. It took me months to learn how to create online quizzes, and even then, I was unsure if they were effective in measuring student understanding.”

Sanvik et al. (2022) noted that the sudden shift to digital instruction required teachers to adapt quickly, often without adequate preparation in online evaluation methods.

Only 13.33% of teachers in Mizoram and 7.23% in Meghalaya stated there were no difficulties. These teachers likely experienced some relief from having more readily available technology or perhaps prior experience with digital platforms that made this transition to remote assessment easier.

A teacher from Meghalaya stated:

“I felt overwhelmed trying to manage both teaching and assessments online. There was no proper guidance or support from the administration, and I had to figure things out on my own.”

This highlights the importance of institutional support during times of instructional change. The responses indicate that most teachers struggled to implement effective assessment strategies during school closures. The findings reinforce the need for targeted professional development, improved access to digital tools, and strong administrative support to ensure that student evaluations are fair and meaningful during future disruptions (Sanvik et al., 2022).

Table 4.47

Difficulties Encountered in Student Evaluations (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Inadequate access to technology or internet	76	50.66	144	61.27
Challenges in remotely supervising students	74	49.33	137	58.29
Difficulty in maintaining academic integrity	64	42.66	101	42.97

Note. Percentage shows the proportion of teachers who report on difficulties encountered in student evaluations.

Table 4.47 shows the main challenges faced by secondary school teachers in Mizoram and Meghalaya during student evaluations in the COVID-19 pandemic. Inadequate access to technology or internet was the most reported issue, mentioned by 50.66% of teachers in Mizoram and 61.27% in Meghalaya.

A teacher from Mizoram stated:

“Many of my students did not have access to smartphones or the internet, making it nearly impossible to conduct online assessments. I had to rely on phone calls and WhatsApp messages, but it was not enough to evaluate their learning properly.”

Bacher-Hicks et al. (2021) found that such access barriers made equitable assessment difficult across digital learning settings.

Remote supervision was also a key concern, reported by 49.33% in Mizoram and 58.29% in Meghalaya. Teachers found it difficult to verify whether students were completing tasks on their own, leading to doubts about the credibility of assessment outcomes. Maldonado and De Witte (2021) observed that limited supervision during remote learning weakened the reliability of evaluations and contributed to disparities in student performance.

Concerns about academic integrity were shared by 42.66% of teachers in Mizoram and 42.97% in Meghalaya. A teacher from Meghalaya remarked:

“Keeping students engaged during online classes was challenging. Lots of students didn't have their device, and some students did not turn on their cameras and were not participating actively in the lesson, making it difficult to differentiate their learning.”

Gamage et al. (2020) had similar conclusions, confirming that in an online context the reduced monitoring often contributed to different issues arising, such as increased incidences of plagiarism and lack of accountability.

The findings suggest that teachers in Meghalaya faced greater challenges overall. The findings point to the urgent need for stronger digital infrastructure and adaptable assessment methods that support fair and meaningful evaluation during periods of disruption (Bacher-Hicks et al., 2021; Gamage et al., 2020; Maldonado & De Witte, 2021).

Table 4.48

Observed Any Changes in Students' Performance since the onset of the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	137	91.33	202	85.95
No	13	8.66	33	14.04

Note. Percentage reflects the secondary teachers' report on changes observed in students' performance since the onset of the pandemic.

Table 4.48 presents teacher responses regarding changes in students' academic performance since the onset of the COVID-19 pandemic. A large majority, 91.33% in Mizoram and 85.95% in Meghalaya, reported noticeable changes in performance. These high figures reflect the widespread impact of disrupted instruction on students' academic progress.

A teacher from Mizoram shared:

“Unstable internet and limited access to smartphones made it difficult to conduct regular online classes. Many students missed lessons, and we could not maintain continuity.”

Biswas and Rahaman (2021) found that such disruptions significantly weakened student engagement and teaching effectiveness.

Teachers in Meghalaya reported similar challenges. One teacher noted:

“Many students did not attend regularly due to poor network coverage. We had to rely on printed notes and phone calls.”

These experiences point to structural barriers; that hindered consistent teaching and learning across both urban and rural settings. Guariso and Nyqvist (2023) also identified learning setbacks in Indian schools during the pandemic, attributing them to technological limitations and reduced student-teacher interaction.

The findings from both states reveal the depth of the academic disruption experienced at the secondary level. The results point to the need for targeted recovery initiatives, including remedial programmes, improved digital infrastructure, and ongoing training for teachers in technology-based instruction to rebuild learning continuity and resilience in post-pandemic education systems (Biswas & Rahaman, 2021; Guariso & Nyqvist, 2023).

Table 4.49***Challenges Observed in Students' Learning Outcomes (n = 385)***

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Decline in academic performance	88	58.66	153	65.10
Difficulty in achieving learning objectives	93	62	127	54.04

Note. Percentage indicates the extent of challenges observed by teachers in students' learning outcomes.

Table 4.49 highlights the challenges reported by secondary school teachers in Mizoram and Meghalaya regarding students' learning outcomes during the COVID-19 pandemic. A decline in academic performance was noted by 58.66% of teachers in Mizoram and 65.10% in Meghalaya. These figures reflect that many students struggled to meet academic expectations due to disrupted learning environments and irregular access to support systems. Dorn et al. (2021) observed similar setbacks globally, with reduced engagement and inconsistent learning schedules contributing to performance decline.

Challenges in achieving learning objectives were reported by 62% of teachers in Mizoram and 54.04% in Meghalaya. This suggests that teachers in Mizoram placed greater emphasis on curriculum completion, while those in Meghalaya focused more on the immediate drop in academic outcomes.

A teacher from Mizoram explained:

“Academic performance of some students appears good in terms of grade, but in reality, their performance was not satisfactory; they lack many important knowledge.”

This reveals the gap between formal grading and actual learning.

The challenges reported in Mizoram and Meghalaya, indicate a similar level of disruption across both states. The findings call for focused academic recovery strategies that address foundational gaps rather than relying solely on grades or surface-level indicators, as recommended by the Foundational Learning Study (2023).

Table 4.50

More Lenient Promotion of Students during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	128	85.33	200	85.10
No	22	14.66	35	14.89

Note. Percentage indicates the response of teachers on the lenient promotion of students during the pandemic.

Table 4.50 shows that 85.33% of teachers in Mizoram and 85.10% in Meghalaya supported more lenient student promotion during the COVID-19 pandemic. These similar figures reflect a shared understanding of the academic and emotional strain students experienced during school closures and remote learning.

A teacher from Mizoram shared:

“We had to be lenient. Many students had no proper access to online classes. It was not their fault.”

This illustrates how teachers viewed lenient promotion as a necessary and compassionate decision.

A smaller group of teachers, 14.66% in Mizoram and 14.89% in Meghalaya, did not favour this approach. Their concerns likely related to students advancing without adequate preparation. The Organisation for Economic Cooperation and Development (2020) cautioned that such promotion practices may widen existing learning gaps over time.

These findings suggest that most teachers made promotion decisions based on empathy and awareness of unequal learning conditions. The focus was on supporting continuity, reducing dropout risk, and addressing the immediate needs of students during a period

of major educational disruption (Organisation for Economic Cooperation and Development, 2020).

Table 4.51

Main Reason for the Lenient Promotion of Students (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Students are unable to adjust quickly and perform at their best.	91	60.66	157	66.80
Unfamiliarity of online platforms and technologies	79	52.66	137	58.29
Emotional challenges for students to engage effectively in their studies	43	28.66	104	44.25
Traditional assessment is not suitable for remote learning.	39	26	83	35.31
Diverse backgrounds of students	41	27.33	93	39.57

Note. Percentage indicates the teachers' report on the main reason for the lenient promotion of students during the COVID-19 pandemic.

Table 4.51 highlights the key reasons teachers in Mizoram and Meghalaya adopted lenient promotion practices during the COVID-19 pandemic. The most cited reason was students' difficulty in adjusting to remote learning environments, reported by 60.66% in Mizoram and 66.80% in Meghalaya. Debbarma and Durai (2020) noted that sudden transitions to online learning made it challenging for many students to perform at their usual level.

Lack of familiarity with online platforms was reported by 52.66% of teachers in Mizoram and 58.29% in Meghalaya. These figures reflect widespread gaps in students' digital readiness. Choudhury and Kumar (2024) found that such gaps were more pronounced among students with limited access to devices and training.

Emotional difficulties were another contributing factor, cited by 28.66% of teachers in Mizoram and 44.25% in Meghalaya. A teacher from Mizoram shared:

“Sympathy and empathy were the driving forces behind my decision to promote students leniently.”

Mishra and Kumar (2021) reported that stress and emotional fatigue affected students' ability to concentrate and engage with remote learning.

Concerns about the suitability of traditional assessment methods were noted by 26% in Mizoram and 35.31% in Meghalaya. Teachers questioned the fairness of applying conventional evaluation systems in online settings. Vertuno (2020) reported similar concerns globally, where standardised testing was widely suspended or revised.

Socioeconomic factors were also reported, with 27.33% of teachers in Mizoram and 39.57% in Meghalaya pointing to differences in students' home environments and support systems. Some teachers promoted students to help prevent dropout, particularly among those from disadvantaged backgrounds.

Teachers in Meghalaya reported higher percentages across all categories, suggesting that they encountered a broader range of challenges in their classrooms. These findings point to the importance of context-sensitive promotion policies supported by flexible academic frameworks, inclusive infrastructure, and sustained teacher training. Such strategies will be essential to ensuring that students receive the support they need without compromising long-term learning outcomes (Choudhury and Kumar (2024; Debbarma & Durai, 2020; Mishra & Kumar, 2021; Vertuno, 2020).

COPING STRATEGIES

Table 4.52

Assessment Methods Implemented during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Online quizzes or tests	90	60	127	54.04
Written tasks	74	49.33	164	69.78
Projects or group assignments	34	22.66	62	26.38

Note. Percentage indicates the extent to which assessment methods were implemented by teachers during the pandemic.

Table 4.52 outlines the assessment methods used by secondary school teachers in Mizoram and Meghalaya during the COVID-19 pandemic. Online quizzes or tests were the most widely adopted, with 60% of teachers in Mizoram and 54.04% in Meghalaya reporting their use.

A teacher from Mizoram noted:

“We mostly used Google Forms to create quizzes. It helped us keep track of attendance and learning.”

Gupta et al. (2023) reported similar trends across India, where digital quizzes were commonly used to maintain assessment during school closures.

Written tasks were used by 69.78% of teachers in Meghalaya and 49.33% in Mizoram, indicating a greater focus on open-ended assignments in Meghalaya. A teacher from Meghalaya shared:

“Instead of online exams and tests through Google Forms, we relied more on open-book tests to assess students during the pandemic.”

Almossa and Alzahrani (2022) highlighted the effectiveness of such approaches in promoting student autonomy during remote learning.

Group projects and assignments were least used, reported by 22.66% in Mizoram and 26.38% in Meghalaya. A teacher from Mizoram explained:

“We tried group work once, but it became difficult to coordinate. Not all students had stable connections.”

Gupta and Shree (2023) similarly found that online group assessments were often constrained by limited peer engagement and supervision.

While teachers in Mizoram leaned towards structured digital tools, those in Meghalaya made greater use of written, self-paced tasks. The findings point to the need for flexible assessment strategies that match local conditions and student needs during educational disruptions (Almossa & Alzahrani, 2022; Gupta & Shree, 2023; Gupta et al., 2023).

Table 4.53

Management of Issues Related to Student Performance during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Offered additional support	82	54.66	133	56.59
Modified grading policies	76	50.66	126	53.61
Promoted student	31	20.66	60	25.53

Note. Percentage reflects the proportion of teachers' report on the management of issues related to student performance during the pandemic.

Table 4.53 outlines the approaches adopted by secondary school teachers in Mizoram and Meghalaya to manage issues related to student performance during the COVID-19 pandemic. In Mizoram, 54.66% of teachers reported offering additional academic support, closely matched by 56.59% in Meghalaya. These measures included remedial classes, personalised guidance, and frequent parent-teacher communication to address learning gaps caused by limited digital access and irregular attendance.

A teacher from Meghalaya expressed:

“If there are students who need help, I am always open to providing financial and moral support during the pandemic.”

These acts of commitment reflect what Reimers and Schleicher (2020) identified as teacher-driven efforts that bridged academic losses through personal and professional engagement.

Modifications to grading policies were reported by 50.66% of teachers in Mizoram and 53.61% in Meghalaya. Teachers adapted their evaluation methods by considering internal assessments and prior performance when standard exams could not be conducted. These flexible strategies were essential in contexts where consistent attendance and assessment were disrupted.

A teacher from Mizoram explained:

“We tried to be fair. We used past records and class activities to give marks. It was not perfect, but it was the best we could do.”

These actions align with recommendations from the Foundational Literacy and Numeracy Mission (2022), which advocated for context-sensitive assessment during extended school closures.

Promotion of students despite gaps in performance was the least common strategy and only 20.66% of teachers in Mizoram and 29% in Meghalaya said they follow such practice. While this approach aimed to prevent student dropout and ensure progression, the percentage suggests a more cautious approach. Many teachers seem more concerned with getting students to a level of basic learning standards prior to advancing students.

A teacher from Meghalaya noted:

“We only promoted those who had shown effort. We could not let everyone pass without learning anything.”

These sentiments reflect findings from Dorn et al. (2021), who cautioned that automatic promotion without academic support could contribute to long-term learning setbacks.

The engagement across all three strategies in Mizoram and Meghalaya suggests a moderate to meaningful level of teacher intervention, with some institutional encouragement. The School Education Department, in Mizoram, also supported the implementation of motivational strategies to support student learning during online and offline sessions (School Education Department, 2021). This collaborative effort between the teachers and the institutions highlights the flexibility and commitment needed to manage student performance in crisis conditions.

Collectively, the responses illustrate that teachers are exercising professionalism, compassion, and creativity to ensure that their students' education continues. By implementing support strategies and adjusting expectations, they contributed to

minimising the academic disruption brought about by the pandemic. As suggested by UNESCO (2021), the presence of such flexible pedagogical approaches is vital for resilient and equitable education systems during emergencies (Dorn et al., 2021; Foundational Literacy and Numeracy Mission, 2023; Reimers & Schleicher, 2020; School Education Department, 2021; UNESCO, 2021).

4.2.6 PERSONAL AND EMOTIONAL CHALLENGES

Table 4.54

Encountering Emotional Challenges during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	86	57.33	165	70.21
No	63	42	70	29.78

Note. The percentage indicates the proportion of emotional challenges teachers encountered while delivering online classes.

Table 4.54 offers a comparative view of the emotional challenges faced by secondary school teachers in Mizoram and Meghalaya during online instruction in the COVID-19 pandemic. In Meghalaya, 70.21% of teachers reported experiencing emotional strain, whereas 57.33% reported the same in Mizoram. This finding indicates that the psychological demands of remote teaching affected a majority of teachers in both regions, with the impact more pronounced in Meghalaya.

A teacher from Meghalaya shared:

“Every day felt like a struggle. I had to put on a brave face for my students, but deep down I was overwhelmed and drained.”

Hnamte and Lalrinzuali (2022) reported that limited digital access and insufficient institutional backing intensified emotional challenges, particularly in areas where remote learning infrastructure remained weak.

Meanwhile, 42% of teachers in Mizoram mentioned that they did not experience emotional difficulties, while only 29.78% of teachers in Meghalaya indicated they did

not also experience emotional difficulties. The differences in these findings could represent differences in support at the school level, preparation level, and access at the professional level.

A teacher from Mizoram explained:

“Our school made an effort to stay connected with us. We had regular meetings and were encouraged to share our difficulties. That helped me stay emotionally grounded.”

These reflections are consistent with Klusmann et al. (2022), who noted that consistent communication and collegial support helped ease emotional fatigue caused by the blurred boundary between home and school responsibilities during the pandemic.

The findings highlight the urgent need for educational institutions to prioritise emotional wellbeing as part of their preparedness and response mechanisms. Rather than treating mental health as peripheral, schools must actively create support structures that sustain teachers during prolonged periods of disruption. As Day and Gu (2009) pointed out, a teacher’s emotional strength is closely linked to their long-term motivation and capacity to adapt in times of crisis (Day & Gu, 2009; Hnamte & Lalrinzuali, 2022; Klusmann et al., 2022).

Table 4.55

Emotional Challenges Faced during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Feelings of isolation or disconnection from colleagues and students	51	34	118	50.21
Struggled with work-life balance	87	58	140	59.57
Worries about own and loved ones' health and safety	45	30	112	47.65

Note. Data represent emotional challenges reported by secondary school teachers during the COVID-19 pandemic.

Table 4.55 shows a comparison of emotional challenges faced by secondary school teachers in Mizoram and Meghalaya during the COVID-19 pandemic. Feelings of isolation or disconnection from students and colleagues were reported by 50.21% of teachers in Meghalaya, compared to 34% in Mizoram. This difference suggests that teachers in Meghalaya may have had fewer opportunities for professional interaction or institutional support during school closures.

A teacher from Mizoram shared:

“Teaching online during the pandemic was emotionally draining. I often felt isolated and overwhelmed, trying to balance my personal life with the demands of remote teaching.”

The British Council (2020) observed that isolation among teachers can reduce morale and professional confidence, particularly when communication structures are weak. Struggles with work-life balance were the most commonly cited emotional challenge in both states, reported by 58% of teachers in Mizoram and 59.57% in Meghalaya. These figures reflect the difficulty of managing professional responsibilities alongside domestic duties, especially in households with caregiving roles.

A teacher from Meghalaya remarked:

“There were days when I just wanted to shut down. I was overwhelmed teaching, parenting, housework, everything at once.”

A teacher from Mizoram added:

“During the pandemic, my workload increased significantly. I had to adapt to new teaching modes, prepare digital content, troubleshoot issues, and support struggling students all while trying to manage my own household. It was exhausting.”

These experiences are reflected in the findings of Kim and Asbury (2020), who noted that blurred boundaries between work and home during the pandemic created tremendous emotional toll on teachers.

Worries about personal and family health were also reported, with 47.65% of teachers in Meghalaya and 30% in Mizoram indicating concerns about safety. The higher rate in Meghalaya may reflect local differences in infection rates and access to healthcare.

During the second wave, Meghalaya experienced over 400 daily cases for several days, which likely heightened health-related anxiety among teachers. (Synrem, 2021).

A teacher from Meghalaya expressed:

“Each time a student or colleague got sick, we were reminded of how close the danger was. It was very stressful.”

These concerns are consistent with the findings of Kush et al. (2022), who reported that increased exposure risk and insufficient healthcare infrastructure contributed to emotional distress among teachers during the pandemic.

The findings of emotional challenge in Meghalaya and Mizoram suggest a more severe overall emotional impact in Meghalaya. These findings highlight the importance of integrating emotional support into educational systems. Institutional mechanisms that prioritise teachers’ mental wellbeing are essential not only for individual resilience but also for sustaining effective teaching during times of crisis, as argued by Day and Gu (2014).

Table 4.56

Emotional Support Received from the Institution during the COVID-19 Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	64	42.66	103	43.82
No	86	57.33	132	56.17

Note. Percentages reflect the responses of secondary school teachers regarding emotional support provided by their institutions during the pandemic.

Table 4.56 shows that 42.66% of teachers in Mizoram and 43.82% in Meghalaya received emotional support from their institutions during the COVID-19 pandemic. These nearly identical figures suggest that fewer than half of the teachers in both states were supported emotionally by their schools.

A teacher from Mizoram stated:

“Without regular interactions with my colleagues, I felt like I had no one to turn to for advice or encouragement. The lack of a support system made the already difficult situation even harder to handle.”

This reflects the emotional toll of isolation during remote teaching. As noted by Klusmann et al. (2022), teachers’ emotional wellbeing plays a critical role in their ability to adapt and remain engaged in times of disruption.

The remaining 57.33% in Mizoram and 56.17% in Meghalaya did not receive any institutional support to manage emotional stress. This indicates a significant gap in school-level responses to teacher wellbeing. The School Education Department (2021), while providing operational guidelines for online teaching, offered little emphasis on psychosocial support, reflecting a broader policy focus on curriculum over care.

These findings highlight the need to treat emotional support as an essential part of institutional planning. Teachers must be recognised not only as professionals but also as individuals affected by crisis conditions. Addressing their emotional resilience is necessary to ensure sustained teaching quality during periods of uncertainty and change (Klusmann et al., 2022; School Education Department, 2021).

Table 4.57

Professional Development or Support Received during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Yes	75	50	85	36.17
No	75	50	150	63.82

Note. Percentages reflect the responses of secondary school teachers regarding institutional professional development or support received during the pandemic.

Table 4.57 shows that in Mizoram, 50% of teachers received professional development or institutional support during the COVID-19 pandemic, while the remaining 50% did not. In Meghalaya, 36.17% reported receiving support, whereas 63.82% stated they

received none. These figures reflect a lack of structured training, especially in Meghalaya.

A teacher from Meghalaya shared:

“I was expected to teach online, but I received no training or guidance on how to use digital tools. It was frustrating and stressful to figure everything out on my own.”

Blair et al. (2024), noted that in such situations, teachers often depended on peer collaboration, which lacked consistency.

Although Mizoram reported a higher proportion of trained teachers, the effectiveness of the training was limited. A teacher from Mizoram stated:

“We had some training sessions, but the internet was poor and not everyone had devices. So even after training, it was hard to apply what we learned.”

Mishra et al. (2020) found that infrastructural barriers frequently reduced the usefulness of professional development efforts during the pandemic.

The findings indicate the need for continuous, practical, and well-supported training. One-time sessions are not enough. Institutions must ensure that professional development equips teachers to manage both technical demands and the broader challenges of crisis-based teaching (Blair et al., 2024; Mishra et al., 2020).

COPING STRATEGIES

Table 4.58

Emotional Support Acquired by teachers during the Pandemic (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Counselling service	34	22.66	28	11.91
Peer support	37	24.66	63	26.80
Professional Development on mental health	22	14.66	38	16.17

Note. Percentages reflect emotional support measures provided by institutions to secondary school teachers during the COVID-19 pandemic.

Table 4.58 presents institutional emotional support measures accessed by secondary school teachers in Mizoram and Meghalaya during the COVID-19 pandemic. Counselling services were available to 22.66% of teachers in Mizoram, compared to 11.91% in Meghalaya. This suggests that structured psychological assistance was more accessible in Mizoram.

A teacher from Mizoram shared:

“During the pandemic, I sought professional counselling services to cope with the stress and anxiety that came with the sudden shift to online teaching and the uncertainty surrounding the health crisis.”

Agyapong et al. (2023) emphasised that counselling support can reduce stress and help teachers manage emotional fatigue in crisis conditions.

Peer support was reported by 24.66% of teachers in Mizoram and 26.80% in Meghalaya. These informal check-ins and collegial conversations helped many teachers feel connected despite physical separation.

A teacher from Meghalaya noted:

“The regular check-ins and online interaction of my colleagues was a lifeline. It meant a lot to know someone was paying attention to how we were doing.”

Peer support networks have been shown to reduce feelings of isolation and strengthen emotional wellbeing among staff (Agyapong et al., 2023).

Professional development related to emotional health was received by 14.66% of teachers in Mizoram and 16.17% in Meghalaya. These included workshops and sessions on stress management and mental wellbeing.

A teacher from Meghalaya stated:

“I participated in workshops that focused on mental health awareness, which helped me recognise signs of stress in myself and my students and provided tools to address them.”

Mishra and Kumar (2023) reported that while such initiatives were helpful, they remained limited and inconsistent in many settings.

The response across all three categories in Mizoram and Meghalaya was not high. These low percentages reflect a broader lack of institutional commitment to emotional support. In the absence of structured systems, many teachers turned to personal coping strategies such as exercise or self-reflection, which offered temporary relief but did not replace the need for formal support. These findings underline the importance of embedding teacher wellbeing into school policies as a key element of sustainable education planning (Agyapong et al., 2023; Mishra & Kumar, 2023).

Table 4.59

Professional Support Provided by the Institution (n = 385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Training on technology usage	38	25.33	27	11.48
Educational training for remote teaching	39	26	31	13.19
Strategies to enhance student engagement and motivation	28	18.66	64	27.23

Note. Percentages indicate the professional support provided by institutions during the COVID-19 pandemic.

Table 4.59 compares the professional support received by secondary school teachers in Mizoram and Meghalaya during the COVID-19 pandemic. In Mizoram, 25.33% of teachers received training in technology usage, and 26% were supported with remote teaching strategies. In Meghalaya, the figures were lower, with 11.48% reporting training in technology and 13.19% in remote instruction.

A teacher from Mizoram shared:

“We attended a workshop on how to use Google Forms for creating online quizzes and tracking student progress.”

Mishra et al. (2020) found that despite training availability, technical limitations often prevented effective application in practice.

When asked about strategies to enhance student engagement and motivation, 27.23% of teachers in Meghalaya reported receiving such support, compared to 18.66% in Mizoram. A teacher from Meghalaya explained:

“The institution encourages us to focus on creating individualised learning plans for students who were struggling with online classes.”

Kalita (2022) noted that efforts to promote student engagement were constrained by limited access to digital tools in many parts of the state.

The three categories of figures reflect the limited scale of institutional response in both regions. The National Achievement Survey (2021) reported that over 40% of students in the North Eastern region did not have access to digital devices at home, which hindered the translation of teacher training into classroom effectiveness. Singh and Sarma (2025) also observed that in the absence of infrastructure upgrades, professional development efforts alone could not meet the demands of digital teaching.

The findings point to the need for professional training programmes to be supported by parallel improvements in school infrastructure and student access. Future preparedness depends on coordinated planning that links teacher development with broader measures aimed at ensuring digital equity and instructional continuity (Choudhury, 2022; Kalita, 2022; Mishra et al., 2020; Singh & Sarma, 2025).

4.2.7 FINANCIAL CHALLENGES

Table 4.60

Financial Challenges Encountered by Teachers during the COVID-19 Pandemic (n=385)

Items	Mizoram (n=150)		Meghalaya (n=235)	
	Response	(%)	Response	(%)
Problems in paying internet bills and the technology needed for online learning	26	17.33	35	14.89
Experienced a decrease in pay during the COVID-19 pandemic	52	34.66	25	10.63

Note. Percentage shows the challenges reported by the teachers during COVID-19 pandemic.

Table 4.60 reviews the financial challenges faced by secondary school teachers in Mizoram and Meghalaya during the COVID-19 pandemic. In Mizoram, 17.33% of teachers reported difficulties in paying internet bills and purchasing the technology required for online teaching, compared to 14.89% in Meghalaya.

A teacher from Mizoram shared:

“I struggled to afford the internet bills and the technology needed for online teaching. It was an added financial burden, especially when my salary was already reduced.”

Day (2023) reported similar challenges across several Indian states, where limited financial support forced many teachers to bear the costs of digital instruction on their own.

Salary reductions were reported by 34.66% of teachers in Mizoram, whereas only 10.63% in Meghalaya faced the same issue. This disparity reflects the financial vulnerability of private schools in Mizoram, many of which depended heavily on tuition fees. During the lockdown, the Mizoram government advised private and

church-run schools to collect only half of the usual tuition (Times of India, 2020), which directly affected teacher income.

A teacher from Meghalaya noted:

“The cost of internet and technology was a major challenge for me. My pay remained the same, but I had to make sacrifices to afford the resources needed for online teaching.”

These voices highlight the financial pressure teachers faced, regardless of whether their salaries were reduced.

The combined data show that financial difficulties were higher among teachers in Mizoram than in Meghalaya. Mahdy (2020) identified financial constraints and poor internet access as common barriers to effective remote teaching during the pandemic. These findings reveal that while the intensity of financial hardship varied, teachers in both states made personal financial sacrifices to continue their work, often without sufficient institutional backing (Day, 2023; Mahdy, 2020; Times of India, 2020).

4.3.0 Analysis and Interpretation of Objective 3

Objective 3: *To find out and compare the educational challenges faced by community members or parents of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.*

To explore the educational challenges experienced by community members or parents during the pandemic, the researcher designed a structured questionnaire to gather in-depth insights into the difficulties encountered in supporting students' learning at home. The instrument was administered to a sample of 100 respondents in Mizoram and 100 in Meghalaya. The collected data were systematically analysed, and the findings are presented in the following sections. The results are organised dimension-wise to highlight the most prominent issues reported by participants, enabling a comparative understanding of the educational challenges across both states.

4.3.1 CHALLENGES IN TECHNOLOGICAL ACCESS

Table 4.61

Technological Challenges Faced by Parents (n=200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Limited access to a device or reliable internet	66	66	67	67
Insufficient technical knowledge or support for virtual learning platforms	12	12	32	32

Note. Data reflects the percentage of parents who faced issues in providing their child with technology.

Table 4.61 presents the technological challenges experienced by parents in Mizoram and Meghalaya during the COVID-19 pandemic. Limited access to digital devices or stable internet emerged as the most widespread barrier, reported by 66% of parents in Mizoram and 67% in Meghalaya.

One parent from Mizoram remarked:

“We cannot afford to buy a laptop or tablet for our children. Even the data packs or the internet are too expensive for us to use every day.”

The Telecom Regulatory Authority of India (2021) identified device affordability and high internet costs as primary barriers for low-income households, findings that are reflected in these results.

Insufficient technical knowledge or lack of support was noted by 12% of parents in Mizoram and 32% in Meghalaya. A parent from Meghalaya explained:

“I do not understand how these online classes work. The teachers try to explain, but it is still confusing for us parents who did not grow up with technology.”

Hua (2021) similarly observed that many parents in rural Meghalaya felt unprepared to assist their children's virtual learning due to limited digital literacy and familiarity.

As another parent from Mizoram described:

“Learning how to use the apps was not easy, but we managed slowly with help from others.”

UNESCO (2022) noted that digital gaps persist across north eastern states and highlighted the necessity of providing both access and skill development for parents to ensure equitable participation in digital education.

These findings emphasise that technological readiness, both in terms of access and ability significantly influenced families' capacity to support remote learning. Addressing such disparities requires not only infrastructure investment but also on-going digital literacy initiatives targeted at parents, especially in resource-constrained settings.

Table 4.62

Inability to Provide Multiple Digital Devices for More Than One Child (n=200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Provide	55	55	35	35
Unable to provide	45	45	65	65

Note. Percentages reflect the proportion of parents who were or were not able to provide more than one digital device for their children during the pandemic.

Table 4.62 presents the extent to which parents in Mizoram and Meghalaya were able to provide multiple digital devices for more than one child during the COVID-19 pandemic. In Mizoram, 55% of parents reported being able to supply more than one device, while only 35% managed to do so in Meghalaya.

A parent from Mizoram explained:

“We had to buy a second phone because both our children had online classes at the same time. It was difficult, but we made it a priority.”

Times of India (2012) noted that higher rates of mobile penetration in Mizoram may have facilitated better access to personal devices for families during the pandemic.

In contrast, 65% of parents in Meghalaya were unable to provide more than one device, a challenge also faced by 45% of parents in Mizoram. One parent from Meghalaya shared:

“We only have one smartphone in the family, and it is often used for work. My children have to share it, which means they miss some of their online classes.”

UNESCO (2021) identified affordability as a major barrier to digital access in regions with lower average household incomes, which is reflected in these figures.

The responses indicate a pronounced digital divide between the two states. As another parent from Mizoram commented:

“We somehow managed because we live in town and my relatives helped. But I know others who could not afford even one device.”

Magomedov et al. (2020) highlighted that families from disadvantaged backgrounds were often unable to meet the technological demands of remote learning, resulting in unequal educational opportunities for children.

These findings underscore the need for targeted policy interventions that address both device affordability and digital infrastructure, particularly for households with multiple school-going children. Bridging these gaps is essential for ensuring equitable access to online education in times of crisis.

COPING STRATEGIES FOR CHALLENGES IN TECHNOLOGICAL ACCESS

Table 4.63

Device Used for Online Classes for Children during the Pandemic (n=200)

Items	Mizoram (n=100)		Meghalaya(n=100)	
	No of response	(%)	No of response	(%)
Personal device (mobile phone)	65	65	17	17
Parent's device	57	57	78	78
Home computer	8	8	3	3
Sibling's device	2	2	2	2
Friend's device	0.0	0.0	1	1

Note. Data shows the percentage of parents who used different devices for their child's online learning.

Table 4.63 compares the types of devices used by children for online learning during the COVID-19 pandemic in Mizoram and Meghalaya. In Mizoram, 65% of children accessed online classes through their own mobile phones, a figure substantially higher than the 17% reported in Meghalaya.

A parent from Meghalaya explained:

“We cannot afford to buy a separate phone for our child. They have to use mine or their father's when we are not working.”

Press Trust of India (2021) highlighted that student ownership of mobile devices varied considerably across Indian states, largely shaped by household income levels and the availability of regional connectivity.

Children's reliance on parents' devices was notably higher in Meghalaya, with 78% using a family member's phone, compared to 57% in Mizoram. As one parent from Mizoram shared,

“Providing a personal device is challenging because of financial constraints, and besides, they are still too young to have their own devices. Whenever possible, we try to share the device instead.”

Achar (2022) found that such device-sharing practices often resulted in irregular learning schedules and reduced access, especially in families with multiple children requiring simultaneous connectivity.

Use of home computers remained minimal, reported by only 8% of respondents in Mizoram and 3% in Meghalaya. A parent from Mizoram noted:

“We do not have a computer at home, and our children rely entirely on mobile phones.”

The Digital Education Readiness Survey (MHRD, 2021) similarly reported that most households in north eastern India lacked access to suitable computing devices for educational purposes, particularly in rural or economically disadvantaged settings.

Access to a sibling's device was low in both states, at 2%, while just 1% of children in Meghalaya used a friend's device. A parent from Meghalaya remarked:

“Sometimes my child borrows a phone from a neighbour, but they cannot rely on this every time.”

Gilbertson et al. (2021) noted that sporadic access to borrowed devices reduced consistency in learning and contributed to educational disparities for children in low-resource communities.

The results reveal large discrepancies in device availability, with children in Mizoram more likely to have a personal, or dedicated, phone, while in Meghalaya, most children relied on shared or borrowed devices. Addressing these gaps requires focused policies

on device provision, affordability, and support for low-income households to promote equitable participation in digital education.

4.3.2 CHALLENGES IN MENTAL, SOCIAL, AND ACADEMIC SUPPORT

Table 4.64

Mental Health Challenges Encountered by Parents during the COVID 19 Pandemic (n=200)

Items	Mizoram (n=100)		Meghalaya(n=100)	
	No of response	(%)	No of response	(%)
Problems in managing stress and anxiety related to virtual learning and pandemic concerns	65	65	44	44
Problems in supporting child's mental health and wellness in virtual learning environments	36	36	41	41

Note. Data indicate the percentage of parents who encountered mental health challenges.

Table 4.64 compares the mental health challenges encountered by parents during the COVID 19 pandemic in Mizoram and Meghalaya. 65% of parents in Mizoram and 44% of parents in Meghalaya reported problems in managing stress and anxiety related to virtual learning and pandemic concerns.

These findings reflect earlier studies that observed heightened parental anxiety as a result of the sudden transition to remote education and the pressure of supporting children's academic progress without adequate institutional support (Cui et al., 2021).

One parent from Mizoram noted:

“The pressure to ensure my child does not fall behind in online learning has caused me a lot of stress. I feel like I am not doing enough.”

By comparison, a slightly higher proportion of parents in Meghalaya (41%) than in Mizoram (36%) reported difficulty supporting their children's mental well-being in an online learning environment.

These results are in line with UNESCO (2021), which found that prolonged exposure to online learning environments contributed to emotional fatigue and disengagement, particularly among children with limited access to physical activity and social interaction.

A parent from Meghalaya shared:

“My child has become very quiet and withdrawn. They miss playing with their friends and being in a classroom environment.”

These findings reflect a shared experience across both states and support research by UNICEF (2021) and Wang et al. (2020), which documented a global rise in parental stress during school closures.

Parents frequently reported feeling overwhelmed by their dual roles as caregivers and academic facilitators, while their children faced disruptions in daily routines, increased screen exposure, and reduced physical activity, all of which contributed to emotional and behavioural difficulties.

Table 4.65

Noticed any negative effects on the child due to lack of socialization and peer interaction (n = 200)

Items	Mizoram(n=100)		Meghalaya(n=100)	
	No of response	(%)	No of response	(%)
Yes	15	15	62	62
No	85	85	38	38

Note. Percentages show the proportion of parents who noticed negative effects on the child due to lack of socialization and peer interaction.

Table 4.65 explores parents' observations of the emotional effects on children resulting from limited socialisation during the COVID-19 pandemic. In Meghalaya, 62% of parents reported negative emotional effects among their children, a markedly higher proportion than the 15% observed in Mizoram.

One parent from Meghalaya stated:

"I have noticed that my child is more anxious and lonely these days. They do not have many opportunities to interact with other children, and it is affecting their mood."

Vincent et al. (2024) documented similar findings, reporting that children living in regions affected by extended school closures were at greater risk of emotional distress and loneliness due to separation from peers.

In contrast, 85% of the parents in Mizoram said their children did not show any observable emotional or behavioural change because of the decreased socialisation.

As one parent from Mizoram shared:

"My child spent time with cousins and neighbours. That helped them stay active and cheerful."

Tiwari et al. (2024) found that children in close-knit communities, where frequent contact with extended family or neighbours was possible, were less likely to experience emotional difficulties, as social engagement continued informally even during periods of formal school closure.

These findings reveal that while children in Meghalaya appeared more vulnerable to the negative emotional impact of social isolation, those in Mizoram benefited from supportive family and community environments that helped mitigate the effects of limited formal peer interaction. The results underscore the importance of fostering community ties and accessible social networks as protective factors for children's well-being during educational disruptions.

Table 4.66***Negative Effects on the Child Due to Lack of Socialization (n=200)***

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Laziness	56	56	62	62
Anxiety/stress	34	34	40	40
Online addiction	67	67	74	74

Note. Percentages reflect the responses of parents who observed negative effects in their children due to reduced social interaction during the COVID-19 pandemic.

Table 4.66 examines the negative effects reported by parents in Mizoram and Meghalaya due to the lack of social interaction among children during the COVID-19 pandemic. Laziness emerged as one of the most commonly observed behaviours, with 62% of parents in Meghalaya and 56% in Mizoram identifying increased inactivity in their children.

As one parent from Mizoram remarked:

“My child has become very lazy since the schools closed. They spend most of their time lying around and do not seem motivated to do anything productive.”

Katakar and D’souza (2022) have noted that the absence of daily routine and limited physical activity during prolonged lockdowns contributed significantly to sedentary behaviour among children.

Anxiety and stress were also widely reported, with 40% of parents in Meghalaya and 34% in Mizoram recognising these symptoms in their children. A parent from Meghalaya shared:

“I have noticed that my child has become more anxious and irritable since the lockdown started. They seem to miss their friends and the routine of school.”

Parekh and Dalwai (2020) found that children deprived of regular peer interaction and structured schedules were more susceptible to emotional instability and withdrawal during extended periods of isolation.

Online addiction was mentioned as the biggest issue, with 74% of parents of children in Meghalaya saying this, and 67% of Mizoram parents mentioning the same. One parent from Mizoram explained:

“I am worried about how much time my child spends on screens. They have started using their devices for gaming and social media more than for learning.”

Similarly, a parent from Meghalaya added:

“I am very concerned about how much time my child spends on screens. They have started neglecting their studies and other responsibilities because of their device use.”

Manuja et al. (2024) documented that habitual overuse of digital devices became widespread during remote learning periods, particularly in settings where alternatives for recreation and outdoor activity were limited.

These findings suggest that children in Meghalaya were negatively affected by peer engagement to a greater extent. Internally, the data also support Nath et al. (2022) and noted that insufficient parental supervision and limited offline engagement opportunities were two of the primary factors associated with behavioural and emotional issues in children, during school reopening closures.

Table 4.67***Challenges Encountered in Overseeing and Supporting the Child's Academic Progress during the Pandemic (n=200)***

Items	Mizoram(n=100)		Meghalaya(n=100)	
	No of response	(%)	No of response	(%)
Limited access to grades and teacher feedback	30	30	28	28
Struggle in supporting child's virtual learning	17	17	45	45
Concerns about potential learning loss or falling behind	74	74	49	49

Note. Percentages reflect the proportion of parents who encountered challenges in overseeing and supporting their child's academic progress during the pandemic.

Table 4.67 presents the academic challenges encountered by parents in Mizoram and Meghalaya while supporting their children during the COVID-19 pandemic. Limited access to grades and teacher feedback was reported by 30% of parents in Mizoram and 28% in Meghalaya, demonstrating similar levels of concern about the lack of transparency in academic progress.

As one parent from Mizoram explained:

"I do not know if my child is keeping up with their studies because we do not receive regular feedback from the school. It is frustrating and worrying."

This experience resembles observations made by Garbe et al. (2020) who observed that inconsistent school communication often left parents in a state of uncertainty regarding their children's academic standing during online learning.

Difficulties in supporting children's virtual learning were considerably more prevalent in Meghalaya, with 45% of parents identifying this as an issue as opposed to 17% of parents in Mizoram. A parent from Meghalaya stated:

“I'm not familiar with using online learning apps or websites. This makes it difficult to support my child when they experience technology issues or do not understand a lesson.”

In a similar case, Pattnaik et al. (2022) noted that the parents' digital illiteracy, especially in underserved communities, put a constraint on how they were able to support their child's education through remote instruction.

Concerns about learning loss were more commonly reported in Mizoram (74%) than in Meghalaya (49%). One parent from Mizoram shared;

“My child struggles with math, and I am not able to teach them properly. I am afraid they will fall behind and it will affect their future.”

Vanlaldinpuia et al. (2021) stated that many parents in Mizoram felt acute anxiety about their children's academic progress, but often lacked the confidence or support to take effective action to address learning gaps.

The findings indicate that academic difficulties were widespread among families in both states. These findings are consistent with Bansal et al. (2020), who noted that parents across north eastern India often felt overwhelmed by the increased responsibility of supporting children's education at home, particularly where formal academic support was limited.

COPING STRATEGIES FOR CHALLENGES IN SOCIAL, EMOTIONAL AND ACADEMIC SUPPORT

Table 4.68

Method of Keeping the Child Motivated and Engaged in Remote Learning during the Pandemic (n=200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Set goals and incentives for task completion	69	69	40	40
Used interactive and multimedia tools to enhance learning	31	31	55	55
Collaborated with other parents to organize online activities for children	12	12	22	22

Note. Data highlights the percentage of parents who reported the coping strategies used to keep children motivated during remote learning.

Table 4.68 explores the coping strategies parents adopted to keep children motivated and engaged in remote learning during the COVID-19 pandemic. Goal-setting and incentive-based approaches were reported by 69% of parents in Mizoram, compared to 40% in Meghalaya. This suggests that parents in Mizoram placed stronger emphasis on structured routines and tangible rewards to maintain focus.

One parent from Mizoram shared:

“I have found that giving my child clear tasks and deadlines helps them stay focused. They feel a sense of accomplishment when they meet their targets. We allowed our children to touch the phone for 30 minutes after they completed their online class and helped with household chores.”

Schwab and Somerville (2022), found that such strategies, when paired with small incentives, encouraged persistence and increased engagement among students during home-based learning.

Interactive and multimedia tools were more frequently used by parents in Meghalaya, with 55% incorporating them compared to 31% in Mizoram. A parent from Meghalaya remarked:

“My child loves watching educational videos and playing learning games on the phone. It is a great way to keep them interested in their studies.”

Çeken and Taşkın (2022), highlighted that multimedia tools enhanced motivation and comprehension, especially in virtual settings where face-to-face engagement was limited.

Parent collaboration in organising online activities was also more common in Meghalaya (22%) than in Mizoram (12%). For example, a parent from Meghalaya shared:

“Some of us created a small group to plan storytelling and online craft sessions for the children. It helped them connect with others.”

Skeen et al. (2023), found that such group initiatives reduced feelings of isolation and promoted social learning, offering emotional support to both children and their caregivers.

The findings show that parents in Meghalaya and Mizoram reported applying one or more of these coping strategies during the pandemic. It can be concluded that while parents in Mizoram leaned towards structured routines and incentive-based motivation, those in Meghalaya incorporated more varied strategies, including digital tools and collaborative community activities, to sustain interest and motivation during remote learning.

Table 4.69***Method for Providing Emotional Support to the Child during the Pandemic (n=200)***

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Encouraged open communication and a safe space for expressing feelings	31	31	41	41
Assisted children in maintaining social connections with peers and friends	22	22	48	48
Practiced self-care to demonstrate healthy coping mechanisms	70	70	43	43

Note. Data highlights the percentage of parents who reported the method for providing emotional support.

Table 4.69 presents the methods used by parents in Mizoram and Meghalaya to provide emotional support to their children during the COVID-19 pandemic. Encouraging open communication was more common in Meghalaya, where 41% of parents adopted this approach, compared to 31% in Mizoram.

A parent from Meghalaya shared:

“I always asked how they were doing and reminded them that it is okay to talk about things.”

Imran et al. (2020) found that fostering open emotional expression contributes to greater resilience and psychological well-being among children during crises.

Helping children maintain peer relationships was reported by 48% of parents in Meghalaya and 22% in Mizoram. This difference reflects the greater emphasis on social connection among Meghalaya families. In contrast, some Mizoram parents took a more protective stance.

One parent explained:

“I usually kept my children indoors to avoid being infected by the virus and also told them to learn to manage on their own, without relying on friends too much.”

According to Khozaei and Carbon (2022), parental concern over health risks sometimes led to reduced peer interaction, even though ongoing social contact was found to be important for children’s emotional regulation during lockdowns.

Self-care practices were adopted by 70% of parents in Mizoram, notably higher than the 43% reported in Meghalaya. A student from Mizoram stated:

“They told me to go for walks, draw, or listen to music when I felt overwhelmed.”

Spinelli et al. (2020) noted that when parents actively promote self-care routines, children are more likely to manage emotional stress effectively and build adaptive coping strategies.

The results show that parents in Meghalaya and Mizoram reported providing at least one form of emotional support to their children. Lansford et al. (2021) highlighted that caregiving behaviours during crises are shaped by cultural values, with some families emphasising direct emotional communication and others focusing on fostering independence through practical coping mechanisms.

4.3.3 CHALLENGES IN TIME MANAGEMENT, COMMUNICATION AND WORKLOAD

Table 4.70

Problems in the Management of Time While Supervising the Child's Education during the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Problems in making a schedule/routine for a child's learning	33	33	42	42
Problems in prioritizing tasks based on importance and urgency	78	78	68	68

Note. Data reflects the percentage of parents who faced problems in managing time while supervising the child's education during the pandemic.

Table 4.70 compares time management challenges faced by parents in Mizoram and Meghalaya during the pandemic. A higher percentage of parents in Meghalaya (42%) reported difficulty establishing a consistent learning routine, compared to 33% in Mizoram.

A parent from Meghalaya shared:

“It was hard to fix a proper study schedule for my child. Every day felt different, and with household chores and other responsibilities, we couldn't follow any routine regularly.”

Gromada et al. (2020) found that children's academic focus often declined when learning routines were irregular or disrupted, especially in home-based learning settings.

In Mizoram, 78% of parents found it difficult to prioritise tasks based on urgency and importance, compared to 68% in Meghalaya. A parent from Mizoram stated:

“It’s difficult to give enough time to everything. I try to work, cook, clean, and help my child, but it always feels like something is missing.”

Laltanpui et al. (2023) reported that high stress levels among parents during the pandemic often impaired their ability to balance competing responsibilities, resulting in reduced effectiveness in task management.

Combined data show that 55.5% of Mizoram parents and 55% of Meghalaya parents experienced time management difficulties while overseeing their child’s learning. Spinelli et al. (2020) found that overlapping responsibilities during lockdown intensified emotional fatigue and made it more difficult for caregivers to support structured learning at home.

Table 4.71

Issues Faced When Communicating with the Child’s School and Staying Involved in Their Learning during the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Limited communication from the school or teachers	18	18	34	34
Difficulty accessing and navigating virtual learning platforms	20	20	33	33

Note. Data shows the percentage of parents who faced issues when communicating with the child's school and staying involved in their learning during the pandemic.

Table 4.71 outlines parental difficulties in maintaining communication with schools and supporting their children’s learning during the pandemic. In Meghalaya, 34% of parents reported limited communication from schools, compared to 18% in Mizoram.

A parent from Meghalaya explained:

“The lack of communication from the school makes it hard to stay involved. I wish they would provide more updates and guidance.”

Gromada et al. (2020) found that regular communication from teachers fosters parental confidence and engagement in remote learning, while poor contact can lead to confusion and detachment.

Difficulty navigating virtual platforms was also more frequently reported in Meghalaya, where 33% of parents encountered this issue, compared to 20% in Mizoram. A parent from Meghalaya stated:

“We are not used to using online platforms, and it took us a long time to understand how to log in or help with assignments.”

Porkundil (2023) noted that digital literacy gaps, especially in rural areas, limited parents’ capacity to participate actively in their children’s education during school closures.

Altogether, the data shows that parents in Meghalaya faced communication or digital access issues more than parents in Mizoram in communicating with their child’s school during the pandemic. Osorio-Saez et al. (2021) emphasised that meaningful parental engagement during remote learning depends heavily on clear school communication and support systems tailored to family technological readiness.

Table 4.72

Inability to Assist the Child with Homework and Explain Lessons during the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Able to help	96	96	86	86
Unable to help	4	4	14	14

Note. Data shows the percentage of parents’ inability to assist the child.

Table 4.72 highlights parental ability to assist children with homework and lessons during the pandemic. In Mizoram, 96% of parents reported being able to help their children, while in Meghalaya the figure was 86%.

A parent from Mizoram shared:

“We’ve set aside time each evening to go over my child’s schoolwork together. It helps them stay on track and gives me a chance to understand what they’re learning.”

Vernekar et al. (2022) found that consistent parental engagement during school closures helped maintain academic continuity and supported students’ focus in home settings.

On the other hand, 14% of parents in Meghalaya stated that they were unable to assist their children, compared to just 4% in Mizoram. A parent from Meghalaya noted:

“I wish I could help my child more with their studies, but I didn’t finish school myself, so I don’t always understand what they’re learning.”

Cui et al. (2021) reported that parents with limited formal education often felt ill-equipped to provide academic help, especially when lessons required subject familiarity or digital access.

These findings suggest that although most parents tried to support learning at home, differences in academic background and resource availability shaped the extent of their involvement. Apriyanti (2020) explained that during remote education, the shift in responsibility to parents widened existing inequalities, especially in households where academic guidance and technological access were limited.

Table 4.73***Workload during the COVID-19 Pandemic (n = 200)***

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Increased workload	44	44	61	61
Same workload	56	56	39	39

Note. Data shows the percentage of parents' workload during the pandemic.

Table 4.73 presents changes in parental workload during the pandemic. A higher proportion of parents in Meghalaya (61%) reported an increase in workload, compared to 44% in Mizoram. A parent from Meghalaya shared:

"I have had to take on everything, work, household chores, and my child's education. It has been incredibly stressful, and I do not have much support to rely on."

Mahapatra and Sharma (2021) reported that increased caregiving demands, especially in the absence of external support, led to heightened stress and emotional exhaustion among Indian parents during school closures.

In Mizoram, 56% of parents indicated that their workload remained the same, compared to 39% in Meghalaya. A parent from Mizoram noted:

"We managed our work and household duties as usual, and the family shared responsibilities. That made things less overwhelming."

Lucassen et al. (2021) found that shared caregiving arrangements and cooperative family structures helped reduce individual stress levels during remote learning periods.

These patterns suggest that the pressure of managing household and educational responsibilities was shaped by the presence or absence of support systems. Yamamura and Tsutsui (2021) highlighted that flexibility in work schedules and access to family assistance was important in easing the overall burden at home. The findings also reflect

national trends, where families with fewer resources or more demanding work conditions faced greater difficulty in balancing their roles during school closures.

COPING STRATEGIES FOR CHALLENGES IN COMMUNICATION, TIME MANAGEMENT AND WORKLOAD

Table 4.74

Management of Work and Childcare Responsibilities during the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Adjusted work hours to meet childcare needs	39	39	60	60
Worked from home while supervising child's education	61	61	37	37
Enlisted a caregiver or family member's help	8	8	18	18

Note. Data shows the percentage of parents' management of work and childcare responsibilities during the pandemic.

Table 4.74 outlines the strategies adopted by parents in Mizoram and Meghalaya to balance work and childcare responsibilities during the COVID-19 pandemic. Adjusting work hours to meet childcare needs was reported by 60% of parents in Meghalaya, compared to 39% in Mizoram.

A parent from Meghalaya explained:

"I have had to change my work schedule completely to help my child with their online classes. It has been difficult, but it is the only way I can manage both responsibilities."

The International Labour Organization (2020) observed that flexible work arrangements became vital for parents trying to meet both professional and caregiving demands during school closures.

Working from home while supervising children's education was more common in Mizoram, where 61% of parents reported using this strategy, compared to 37% in Meghalaya. A parent from Mizoram stated,

"Working from home has allowed me to keep an eye on my child's education while managing my job. It is not perfect, but it is the best solution."

Daniela et al. (2021) noted that access to digital infrastructure and job flexibility enabled many parents to take an active role in their children's remote learning.

Seeking support from caregivers or family members was less frequent in Mizoram (8%) than in Meghalaya (18%). A parent from Meghalaya shared,

"I often leave my child with my sister when I have to work, and she helps with the schoolwork too."

El Tayeb et al. (2020) reported that informal care networks played an essential role in helping parents maintain their work commitments during lockdown, especially where formal childcare was unavailable.

Looking across the responses, parents in Mizoram and Meghalaya reported using at least one strategy to manage their dual responsibilities. The ASER Report (2021) highlighted that regions with stronger community ties and adaptive work patterns were better positioned to respond to the educational and caregiving challenges brought on by the pandemic.

4.3.4 ENVIRONMENTAL CHALLENGES

Table 4.75

Lack of a conducive home environment for online classes during the pandemic (n=200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Yes	62	62	89	89
No	38	38	11	11

Note. Data reflects the percentage of parents who responded regarding the conduciveness of the extent of home environment.

Table 4.75 presents the extent whereby parents in Mizoram and Meghalaya perceived their home environments as suitable for online learning. In Meghalaya, 89% of parents reported that their home environment was not conducive to learning, compared to 62% in Mizoram.

A parent from Meghalaya explained:

“We live in a small house with many people, and it is difficult for my child to concentrate during online classes.”

ASER (2021) found that overcrowding, limited physical space, and household distractions were frequent barriers to effective remote learning in low-income and rural households.

In Mizoram, 38% of parents considered their home environment supportive of online learning, while only 11% shared this view in Meghalaya. A parent from Mizoram stated:

“We have arranged a small corner in the house where my child studies every day. It is not big, but it helps them stay focused.”

Aschenberger et al. (2022) noted that even a modest, designated study space can enhance children's concentration and academic engagement during remote instruction.

The comparison indicates that children in Meghalaya experienced more difficult home learning conditions than those in Mizoram. The ASER Report (2021) confirmed that children from larger households or homes lacking personal space were more likely to face challenges in maintaining focus, thereby reducing the effectiveness of online education.

Table 4.76***Environmental Challenges for the Academic Progress of Students during the COVID-19 Pandemic (n = 200)***

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Background noise	57	57	62	62
Limited space	30	30	27	27
Increased household chores	44	44	39	39

Note. Data indicates the percentage of parents who responded on the environmental challenges for the academic progress of students.

Table 4.76 identifies environmental challenges affecting students' academic progress during the pandemic. Background noise was the most frequently mentioned issue in both states, reported by 62% of parents in Meghalaya and 57% in Mizoram.

A parent from Mizoram explained:

“Our house is small, and there’s no quiet space for my child to attend online classes. They often get distracted by household noise or their siblings playing nearby.”

UNESCO (2020) highlighted that background noise was a leading barrier to effective learning in crowded households, often limiting children's ability to concentrate on remote lessons.

Limited space for studying was reported by 30% of parents in Mizoram and 27% in Meghalaya. A parent from Meghalaya shared:

“We live in a one-room house, and there’s no space for my child to study without distractions. It’s frustrating, but we don’t have the means to change our living situation.”

According to the ASER Report (2021), children in homes without designated study areas often faced difficulty maintaining focus and regularity in their learning routines during school closures.

Increased household chores were cited by 44% of parents in Mizoram and 39% in Meghalaya. A parent from Mizoram noted:

“During the pandemic, my child had to take on more household chores, like cooking and cleaning. While it helped the family, it also took away time from their studies.”

World Bank, UNESCO, and UNICEF (2021) observed that students in low-income households were more likely to bear domestic responsibilities during crises, reducing time available for academic tasks.

The findings reflect similar levels of disruption in Mizoram and Meghalaya during the pandemic. Barrot et al. (2021) found that a combination of noise, space constraints, and increased household duties significantly hindered students’ ability to engage in online learning, especially in resource-constrained environments.

Table 4.77

Effects of Home Environment on Child’s Concentration during Online Classes in the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Have an effect	82	82	87	87
Not have an effect	18	18	13	13

Note. Data indicates the response and percentage of parents reporting the effects of the home environment on the child.

Table 4.77 presents parental views on how the home environment influenced their child’s concentration during online classes. In Meghalaya, 87% of parents reported that their child’s ability to focus was affected, compared to 82% in Mizoram.

A parent from Meghalaya reflected:

“We have had to rely on our child to help with chores, but it’s been difficult for them to manage both that and their online classes. I worry about how it’s affecting their education.”

UNESCO (2020) identified the home setting as a key factor influencing students' ability to concentrate, especially in households with limited space, resources, or routine.

In Mizoram, 18% of parents believed the home environment did not affect their child's concentration, while in Meghalaya this view was shared by 13%. A parent from Mizoram noted:

"We set up a specific corner in the room for my child to attend class, and we try not to disturb them during that time."

The ASER Report (2021) found that families with more stable finances or fewer household members were often able to create an undisturbed study area, improving children's learning focus at home.

These findings from Table 4.77 emphasise the critical role of the home environment in shaping student engagement during remote learning. Garbe et al. (2020) stressed that physical arrangements, parental support, and reduced distractions within the home directly impacted how successfully children adapted to online education during extended school closures.

Table 4.78

Inability to Control Distractions and Interruptions While the Child Attended Online Classes during the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Be able to control distractions	58	58	21	21
Unable to control distraction	42	42	79	79

Note. Data highlights the percentage of parents who reported on their ability or inability to control distractions.

Table 4.78 presents the ability of parents to manage distractions while their children attended online classes. In Mizoram, 58% of parents were able to control distractions, compared to only 21% in Meghalaya.

A parent from Meghalaya stated:

“Our house is always busy, with family members coming and going. It’s impossible to keep things quiet, and my child gets distracted easily during their online classes.”

UNESCO (2020) emphasised that managing the home learning environment is critical to sustaining attention during online education, especially in households with limited physical separation between activities.

On the other hand, 42% of parents in Mizoram and 79% in Meghalaya have reported being unable to control distractions. A parent from Mizoram shared:

“Even when we try to keep things quiet, there are times when household activities interfere. It’s hard to maintain silence all the time.”

The ASER Report (2021) found that families living in smaller or multi-purpose spaces were more likely to face interruptions during remote classes, which disrupted children’s concentration.

The differences observed suggest that creating a focused learning space at home was significantly more difficult for parents in Meghalaya. Garbe et al. (2020) noted that background activity, limited private space, and lack of consistent boundaries within the household often weakened student engagement during virtual learning, especially in environments not designed for educational use.

COPING STRATEGIES FOR CHALLENGES IN THE HOME ENVIRONMENT

Table 4.79

Strategies Used for Making the Home Environment Conducive While the Child Attends Online Classes during the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Designate a quiet area	20	20	16	16
Encourage children to follow a routine	32	32	21	21
Family cooperation to minimize distraction	56	56	24	24

Note. Data reflects the percentage of parents who used strategies for making the home environment conducive while the child attended online classes.

Table 4.79 presents the strategies adopted by parents in Mizoram and Meghalaya to build a home environment that supports online learning. The findings indicate that a greater proportion of parents in Mizoram took proactive steps to minimise disruptions and maintain consistency in their children's remote learning.

Designating a quiet area for learning was reported by 20% of parents in Mizoram and 16% in Meghalaya. While this was not the most common strategy, setting up a separate learning space contributes to improved focus and structure. Dhawan (2020) found that even a modestly defined study zone within the home can enhance concentration and reduce interruptions during online instruction.

Creating a daily schedule was reported by 32% of parents in Mizoram and 21% in Meghalaya. The consistency established by schedules and routines enabled better time management and study habits. Kundu et al. (2021) found that children with daily schedules and routines were more likely to keep up with schoolwork; they also self-regulated better at home.

Family cooperation to minimise distractions was the most widely used strategy in Mizoram, reported by 56% of parents, compared to 24% in Meghalaya. A parent from Meghalaya shared:

“We’ve asked everyone in the house to be quiet during my child’s online classes, but it’s not always possible with so much going on.”

Bradley and Corwyn (2002) identified that the collective contribution of household members played a pivotal role in establishing a predictable context for learning, particularly in busy or large households.

The findings indicate that the Mizoram families relied more on organized or collaborative arrangements to support their children in their online classes. Daniela et al. (2021) contend that regional differences often reflect differences in levels of parental education, household mix, and levels of digital awareness which contribute to the ability of families and their adaptation to remote learning requirements.

4.3.5 SATISFACTION

Table 4.80

Satisfaction with the Child’s Academic Performance during the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Satisfied	63	63	28	28
Unsatisfied	22	22	39	39
Undecided	15	15	33	33

Note. Data shows the percentage of parents' satisfaction with a child's academic performance during the pandemic.

Table 4.80 reveals a notable difference in how parents from Mizoram and Meghalaya perceived their children’s academic performance during the pandemic. In Mizoram, 63% of parents expressed satisfaction, compared to only 28% in Meghalaya.

A parent from Mizoram shared:

“Their results are better than expected given their level of preparation.”

According to Pachuau (2024), students with supportive parenting and self-efficacy were more likely to perform better academically, which may explain the higher satisfaction among Mizoram parents.

On the other hand, dissatisfaction was reported by 38% of parents in Meghalaya, significantly higher than the 22% in Mizoram. A parent from Meghalaya commented:

“My child struggled without proper support. We did not get any help from the school, and I had to manage everything myself.”

Gioannis et al. (2023) observed that inadequate teacher engagement and greater home learning burdens, particularly in families with limited education, contributed to lower academic satisfaction.

Uncertainty about children’s performance was also more prevalent in Meghalaya, with 33% of parents undecided, compared to 15% in Mizoram. A parent from Mizoram remarked:

“Despite doing well in their exams, they didn’t truly learn anything due to a lack of integrity in the process.”

This reflects concerns about superficial academic success without genuine learning. As noted by PBS NewsHour (2022), concerns about inflated grades and limited classroom interaction often left parents uncertain about actual academic progress.

These findings reflect the impact of digital readiness, parental involvement, and school support on academic satisfaction. They also underline how regional educational responses and family structures influence perceptions of learning outcomes during times of crisis (Gioannis et al., 2023; Pachuau, 2024; PBS NewsHour, 2022)

Table 4.81

Satisfaction with the Teaching Methods Used by the Child's Teachers during the Pandemic (n = 200)

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Satisfied	58	58	30	30
Unsatisfied	17	17	23	23
Undecided	22	22	45	45

Note. Data shows the percentage of parents who responded about their satisfaction with the teaching methods used by their child's teachers during the pandemic.

Table 4.81 highlights differences in parental satisfaction with the teaching methods used during the pandemic. In Mizoram, 58 per cent of parents were satisfied, whereas only 30 per cent in Meghalaya expressed satisfaction.

A parent from Mizoram shared:

“It’s incredibly hard for teachers to keep track of students in remote learning, so I don’t blame them for the challenges.”

Lalduhawma (2022) noted that despite technological limitations, many schools in Mizoram showed initiative in adapting to online teaching, which may have contributed to the higher satisfaction rate.

Unsatisfied responses were reported by 17 per cent of parents in Mizoram and 23 per cent in Meghalaya. A parent from Meghalaya remarked:

“We faced a lot of issues understanding how online classes worked, and the teachers were not always reachable.”

Mahapatra and Sharma (2020) found that limited access to teacher support and inconsistent digital instruction contributed to parental dissatisfaction, especially in areas with weaker technological infrastructure.

In terms of indecision, 22 per cent of parents in Mizoram and 45 per cent in Meghalaya were undecided about the teaching methods. A parent from Meghalaya stated:

“Sometimes the classes seemed fine, but other times my child was completely lost. It was hard to know what to expect.”

Graham-Clay (2024) observed that when instructional quality varies or is poorly communicated, parents often feel uncertain about the effectiveness of their child's learning experience. These patterns from Table 4.81 suggest that satisfaction with teaching methods is shaped not only by access to technology but also by clarity, consistency, and local responsiveness in instructional delivery (Graham-Clay, 2024; Lalduhawma, 2022; Mahapatra and Sharma, 2020).

Table 4.82

Satisfaction with the Planning and Implementation of Educational Policies during the Pandemic (n=200)

Items	Mizoram(n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Satisfied	57	57	28	28
Unsatisfied	13	13	22	22
Undecided	30	30	50	50

Note. Data indicates the percentage of parents' satisfaction with the planning and implementation of educational policies during the pandemic.

Table 4.82 presents parental satisfaction regarding educational policy planning and implementation during the pandemic. In Mizoram, 57 per cent of parents expressed satisfaction, compared to only 28 per cent in Meghalaya.

A parent from Mizoram stated:

“I am very happy with the way the government and schools have handled education during the pandemic. The online classes and support from teachers have been very helpful for my child.”

The State Education Report (2025) noted that Mizoram's high literacy rate and timely adaptation to digital education platforms contributed to stronger public confidence in educational efforts during school closures.

In Meghalaya, dissatisfaction stood at 22 per cent, notably higher than Mizoram's 13 per cent. A parent from rural Meghalaya remarked:

“The policies do not seem to be helping children in rural areas. My child is falling behind, and I feel like the government is not doing enough to support us.”

Hazarika (2025) observed that persistent gaps in infrastructure and outreach in Meghalaya limited the effectiveness of pandemic-era educational interventions, particularly in rural and economically marginalised communities.

The undecided category was also significantly higher in Meghalaya at 50 per cent, compared to 30 per cent in Mizoram, suggesting greater uncertainty around the visibility and impact of policy measures. A parent from Meghalaya shared:

“I am satisfied with some aspects of the educational policies, like the efforts to provide online classes, but there is still a lot of room for improvement.”

Panicker (2020) notes that, whether the implementation of new education policy provisions lacked transparency or there were multiple local contexts, mixed responses could often arise.

These patterns point to the need for clearer communication, localised implementation strategies, and strengthened collaboration between schools and families. Education Insights India (2024) has highlighted that community engagement, context-based planning, and dependable infrastructure are critical for bolstering parental trust and satisfaction in times of educational disruption (Hazarika, 2025; Panicker, 2020; State Education Report, 2025).

Table 4.83***Preference for Online Classroom over Offline Mode during the Pandemic (n=200)***

Items	Mizoram (n=100)		Meghalaya (n=100)	
	No of response	(%)	No of response	(%)
Offline	4	4	12	12
Online	96	96	88	88

Note. Data indicates the percentage of parents who responded regarding their preference for online classrooms over offline mode during the pandemic.

Table 4.83 shows that a significant majority of parents preferred online learning during the pandemic, with 96 per cent in Mizoram and 88 per cent in Meghalaya favouring the online mode. A parent from Mizoram shared:

“Online classes have been a lifesaver during the pandemic. Children have been able to continue learning without any major disruptions, and the teachers have done a great job adapting to the new format.”

Rathaliya et al. (2022) reported that parents who had access to live, interactive platforms expressed greater satisfaction with online education, particularly when schools adapted quickly to digital formats.

Although smaller in proportion, 4 per cent of parents in Mizoram and 12 per cent in Meghalaya preferred offline learning. A parent from Meghalaya explained:

“The internet connection in our area is unstable, and my child often missed parts of the online lessons. Since there are not many COVID cases in our area, offline learning is more reliable for us, even during the pandemic.”

Reddy et al. (2021) found that unstable digital access in remote regions limited the effectiveness of online classes, prompting many families to favour face-to-face instruction where possible.

These responses suggest that while online learning was widely accepted, its effectiveness depended heavily on infrastructure and digital access. The higher online preference in Mizoram may reflect better preparedness and connectivity. As observed in the ASER Report (2021), regional differences in technology access and familiarity strongly influenced parental preferences for digital education during school closures (ASER Report, 2021; Rathaliya et al., 2022; Rathaliya et al., 2022).

4.4.0 Analysis and Interpretation of Objective 4

Objective 4: *To find out and compare the educational challenges faced by secondary school students during the COVID-19 pandemic in Mizoram and Meghalaya.*

To investigate the educational challenges faced by secondary school students during the pandemic, the researcher designed a structured questionnaire aimed at capturing detailed insights into various learning-related issues. This questionnaire was distributed to a sample of 600 students in Mizoram and 940 students in Meghalaya. The data obtained were meticulously analysed, and the key findings are presented in the following sections. The results are organised dimension-wise to emphasise the most significant trends that emerged from the responses.

4.4.1 LEARNING ENVIRONMENT

Table 4.84

Participation in Online Classes during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Participated	588	98	828	88.08
Not Participated	12	2	112	12.02

Note. Percentages indicate student participation in online classes during the pandemic.

Table 4.84 examines student participation in online classes during the COVID-19 pandemic across Mizoram and Meghalaya. The proportion of students attending online

classes was significantly higher in Mizoram, with 98% reporting regular participation, compared to 88.08% in Meghalaya.

A student from Mizoram reflected:

“With no alternative learning mode available, attending online classes was the only way to sustain academic progress. Despite internet challenges, I ensured my participation in every session.”

These figures reflect the importance of digital readiness and proactive institutional support, as highlighted by Dhawan (2020), who observed that consistent virtual engagement is closely linked to the availability of technological infrastructure and follow-up by schools.

In Meghalaya, 12.02% of students reported that they did not participate in online classes, whereas only 2% of students in Mizoram faced this issue. A student from Meghalaya explained:

“Frequent power outages hindered my ability to attend classes consistently. At times, I had no option but to miss lectures.”

Adedoyin and Soykan (2020) identified unstable infrastructure as a major barrier to online learning in low-resource environments, which is evident in the Meghalaya context.

Within both situations, students reported that their access to personal devices and access to a quiet space were very significant factors heavily influencing their attendance. In households where there was a sharing of digital devices, students often missed sessions or could not participate in the session fully. Chakraborty et al. (2021) make it clear that both access to digital tools and supportive learning environments influence students' participation as they move through remote education.

The study shows that most students in Mizoram and Meghalaya took part in online classes during the pandemic but that participation was significantly less for students in rural locations with poor infrastructure and few resources at home. Building infrastructure, providing device access, and increasing institutional support, are

essential requirements for achieving equitable access and sustained student engagement in any future remote learning situation.

Table 4.85

Time Spent in Online Classes during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Less than 1 hour	203	33.83	298	31.70
1-2 hours	315	52.50	432	45.95
2-3 hours	49	8.17	153	16.27
More than 3 hours	21	3.50	52	5.53

Note. Percentages represent the duration students spent in online classes during the pandemic.

Table 4.85 examines the daily duration of online class attendance among students in Mizoram and Meghalaya during the pandemic. The most frequently reported time frame in both states was one to two hours, cited by 52.50% of students in Mizoram and 45.95% in Meghalaya.

A student from Mizoram remarked:

“After an hour or two, maintaining concentration became difficult. Extended screen exposure was exhausting.”

This observation is consistent with Bao (2020), who identified extensive digital instruction, as experienced during COVID-19, to be both cognitively taxing and demanding, making it difficult for students to concentrate appropriately and meaningfully process information in a digital space.

A large percentage of students from both Mizoram (33.83%) and Meghalaya (31.70%) attended online classes for less than an hour a day. These patterns again suggest that digital fatigue along with limited access to devices and connectivity, limited the

amount of time students' could have meaningful and effective online learning experiences. In cases, students received instruction for a shorter period of time, because it was preferable, or sometimes due to other circumstances beyond students control.

A smaller group reported attending online classes for two to three hours daily, with 8.16% in Mizoram and 16.27% in Meghalaya. A student from Meghalaya explained:

“Our teachers scheduled longer classes to compensate for lost instructional time, but connectivity issues and digital fatigue made it challenging to remain engaged.”

This reflects the concerns raised by Dhawan (2020), who noted that extended online sessions without sufficient breaks or interactive elements can contribute to disengagement and increased stress.

Only a minimal proportion of students participated in more than three hours of online learning per day, 3.50% in Mizoram and 5.53% in Meghalaya, potentially representing exam-year cohorts or those with comparatively stronger digital access and support.

The findings underscore the need for structured, balanced online teaching schedules. UNESCO (2021) emphasised that concise, well-organised virtual lessons are more likely to sustain student engagement, enhance comprehension, and improve overall satisfaction in remote learning environments.

Table 4.86

Preference for Online or Traditional Classes during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
I prefer online classes	134	22.33	165	17.55
I prefer traditional classes	356	59.33	601	63.93
I have no preference	110	18.33	197	20.95

Note. Percentages indicate students' preferences for online or traditional learning during the pandemic.

Table 4.86 presents students' preferences for online versus traditional classroom instruction during the COVID-19 pandemic in Mizoram and Meghalaya. A majority of students in both states indicated a preference for traditional classroom learning, with 59.33% in Mizoram and 63.93% in Meghalaya expressing this view.

One student from Mizoram commented:

"In a physical classroom, I can interact directly with teachers and classmates, which facilitates understanding."

Similarly, a student from Meghalaya noted:

"Traditional classes provide more structure, and I find it easier to stay motivated compared to online learning."

These statements are consistent with the findings of Chakraborty et al. (2021), who reported that direct peer interaction and immediate access to teacher support in physical classrooms enhanced students' participation and learning outcomes.

A smaller proportion of students favoured online learning, reported by 22.33% in Mizoram and 17.55% in Meghalaya. A student from Meghalaya explained;

"Online classes allowed me to manage my time better and continue learning even during the lockdown."

Another student observed:

"I liked being able to replay recorded lectures and work at my own pace without classroom noise."

These views support the findings of Basilaia and Kvavadze (2020). They noted that online education, when paired with enough digital resources, allowed some students to develop more independent study habits and adjust to their personal learning styles.

A significant portion of students in both states showed no strong preference between online and traditional classes. In Mizoram, 18.33% reported being adaptable to either

format, while in Meghalaya, the figure was 20.95%. One student from Meghalaya stated:

“Sometimes online learning was easier, and sometimes it was not. I just adjusted based on the situation.”

This sentiment reflects a flexible approach to learning amid changing circumstances, in line with Nambiar (2020), who observed that adaptability became a key trait among students managing the uncertainties of pandemic-era education.

Table 4.87

Location of Online Learning during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
At Home	584	97.33	870	92.55
At a friend's house	37	6.16	42	4.46
At a public place (library park etc)	8	1.33	13	1.38

Note. Percentages represent the locations where students attended online classes during the pandemic.

Table 4.87 examines the locations from which students in Mizoram and Meghalaya participated in online classes during the COVID-19 pandemic. The data show that home was by far the most common setting, with 97.33% of students in Mizoram and 92.55% in Meghalaya accessing online learning from their own households.

A student from Mizoram shared:

“I sometimes had to go to a friend's house due to internet issues, but it was not always comfortable.”

These accounts align with UNESCO's findings from 2021, which revealed that home-based learning became the main method during the pandemic, even with various environmental and technological challenges.

Attending classes from a friend's or neighbour's house was reported by 6.16% of students in Mizoram and 4.46% in Meghalaya. Students noted that unreliable internet

connections and shared devices often compelled them to find different places to attend lessons.

One student from Meghalaya explained:

“When our internet connection failed, I had to borrow a neighbour’s phone or go to a relative’s house just to attend classes.”

Such strategies reflect those noted by Human Rights Watch (2021). They observed that when digital access was unstable, students often traveled to other homes or community spaces to continue their education.

Accessing online classes from public places, like libraries or parks, was rare. Only 1.33% of students in Mizoram and 1.38% in Meghalaya reported using this option. These low numbers show that safe public learning spaces were limited or hard to reach during lockdowns.

Overall, these findings highlight that while home was the main place for online learning, it was not always the best environment for sustained engagement. As Bao (2020) and Dhawan (2020) pointed out, students from crowded or resource-poor households often found it hard to focus on lessons, even if they were physically present. These results show that having access does not guarantee good quality or consistency of learning. There is a clear need for targeted support to tackle the challenges of home-based education in future crises.

Table 4.88

Distraction Faced in the Study Environment (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Domestic responsibility	321	53.5	525	55.85
Noise	146	24.33	193	20.53
Limited space	130	21.66	188	20
Lack of privacy	146	24.33	248	26.38

Note. Percentages reflect the distraction students faced in their study environment during the pandemic.

Table 4.88 investigates the types of distractions encountered by students in Mizoram and Meghalaya while attending online classes during the pandemic. Domestic responsibilities emerged as the most prevalent challenge, cited by 53.50% of students in Mizoram and 55.85% in Meghalaya.

A student from Mizoram shared:

“It was hard to focus on my online classes because I was constantly asked to help with cooking, cleaning, and other chores at home.”

These findings align with Dhawan (2020), who observed that home-based learning often increased non-academic pressures and diverted students’ attention from their studies.

Noise in the household environment was reported by 24.33% of students in Mizoram and 20.53% in Meghalaya. In addition, limited space for studying affected 21.66% of students in Mizoram and 20.00% in Meghalaya.

One student from Mizoram reflected:

“It was almost impossible to focus when multiple family members were home throughout the day. There was always some form of distraction.”

Such concerns are supported by Unwin et al. (2021), who found that crowded living conditions heightened stress and interfered with students’ academic routines.

Lack of privacy further compounded these challenges, with 24.33% of students in Mizoram and 26.38% in Meghalaya reporting this issue. A student from Meghalaya explained:

“Privacy was my biggest concern. I had to share my study space with siblings, making online classes and assignments challenging.”

These experiences align with the observations of Chakraborty et al. (2021), who noted that the lack of individual study areas limited focus and decreased the overall effectiveness of virtual learning.

The findings reveal strikingly similar results between the two states. They suggest that, regardless of location, students encountered significant environmental challenges while learning from home. Maqsood et al. (2021) and Singh and Quraishi (2021) highlighted the importance of a quiet, organized environment for effective digital learning. They stressed the need for more awareness and practical support for families to reduce distractions and enhance academic engagement.

Table 4.89

Effect of Study Environment on Academic Performance (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
It has a positive impact	123	20.5	344	36.59
It has a negative impact	317	52.83	323	34.36
It has no impact	160	26.83	268	28.51

Note. Percentages represent students' views on how their study environment affected their academic performance during the pandemic.

Table 4.89 explores student perceptions regarding the influence of their study environment on academic performance during the pandemic. In Mizoram, 52.83% of students indicated that their home environment negatively affected their learning, compared to 34.36% in Meghalaya.

A student from Mizoram remarked:

“The constant noise and distractions at home made it difficult to focus during online lessons, affecting my ability to keep up with my studies.”

This experience mirrors the observations of Pokhrel and Chhetri (2021), who noted that unsuitable home conditions contributed to reduced concentration and diminished academic engagement throughout periods of remote instruction.

Conversely, positive effects of the home study environment were reported more frequently by students in Meghalaya, with 36.59% indicating that their surroundings supported their learning, compared to only 20.50% in Mizoram.

One student from Meghalaya explained:

“Despite some challenges, I adapted to home learning, and my study environment actually helped me manage my time better.”

These findings match those of Khalil et al. (2020). They discovered that some students developed better self-regulation and time management skills during home-based learning when they had flexible routines. Rawal (2021) also noted that access to digital tools and resources helped improve academic performance among students with a digital advantage.

A number of students described the home setting as offering academic advantages that may have undermined the integrity of assessment. For example, a student from Meghalaya shared;

“It was difficult to maintain academic integrity in the home environment, so even without proper preparation, I was able to get good grades.”

This concern echoes Bao (2020), who argued that home-based assessments during the pandemic often failed to capture genuine student learning, as the lack of monitoring sometimes inflated academic results.

Neutral perceptions were also reported, with 26.83% of students in Mizoram and 28.51% in Meghalaya indicating that their study environment had no significant impact on their academic outcomes. This suggests that, for some, personal resilience or previous experience with self-directed study helped mitigate the effects of environmental conditions on academic performance.

As highlighted by UNESCO (2021), students with access to structured and organised learning spaces at home were less likely to experience academic setbacks. Mukhtar et al. (2020) further noted that a quiet, stable environment supports better learning

outcomes, particularly in regions facing pronounced digital and infrastructural disparities.

4.4.2 ACADEMIC CHALLENGES

Table 4.90

A Decline in Academic Performance during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Yes	408	68	709	75.42
No	192	32	229	24.36

Note. Percentages show the proportion of students who reported a decline in academic performance during the pandemic.

Table 4.90 explores the extent to which students reported a decline in academic performance during the COVID-19 pandemic. In Meghalaya, 75.42% of students indicated that their academic outcomes suffered, whereas in Mizoram, the figure stood at 68%.

A student from Meghalaya shared:

“My grades dropped because I could not ask questions in real time like I used to in class.”

These findings are in line with the World Bank (2021), which documented widespread learning loss following the transition to online education and reduced opportunities for student engagement.

In Mizoram, 68% of students who faced academic decline often mentioned problems like unreliable internet and interrupted study spaces. Though this number is lower than in Meghalaya, the issue was still significant. These students likely struggled to concentrate, finish assignments on time, and get timely help from their teachers.

On the other hand, a significant number of students reported no decline in their academic performance. This included 32% in Mizoram and 24.36% in Meghalaya. These students may have found support in stable home environments, prior experience with online learning tools, or strong personal motivation.

One student from Mizoram commented:

“Though it was difficult, I kept a routine and used online tutorials to stay on track with my studies.”

This experience reflects findings from UNICEF (2021), which observed that students with access to digital resources and supportive home settings were better able to maintain academic continuity during school closures.

The responses underline the need for targeted remedial learning strategies. The data highlight the importance of structured academic support, blended learning models, and on-going teacher guidance to address gaps created during periods of disruption. As recommended by recent literature, comprehensive recovery plans that emphasise both content reinforcement and learner well-being will be essential to support students in the post-pandemic academic transition.

Table 4.91

Factors Contributing to the Decline in Academic Performance (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Difficulty in understanding the subject matter	401	66.83	631	67.12
Inability to concentrate during online classes	300	50	325	34.57
Lack of resources for online learning	96	16	137	14.57
Difficulty in completing assignments and homework	132	22	203	21.59

Note. Percentages represent the factors that contributed to the decline in academic performance during the pandemic.

Table 4.91 identifies the factors that contributed to a decline in academic performance among students during the COVID 19 pandemic. The most frequently reported issue

in both Mizoram and Meghalaya was difficulty in understanding subject matter, cited by 66.83% and 67.12% of students respectively.

A student from Mizoram shared:

“Without my teacher’s explanation in class, I found it difficult to understand even the simplest concepts.”

Mogavi et al. (2021) observed that limited teacher interaction during online instruction disrupted conceptual clarity, especially among students who relied on face-to-face explanations.

Concentration difficulties were more pronounced in Mizoram, where 50% of students reported challenges staying focused during online classes, compared to 34.57% in Meghalaya. A student from Mizoram stated:

“I could not concentrate on my studies because there were always distractions at home, and I often felt disconnected from my lessons.”

Agrawal and Krishna (2025) found that digital fatigue, home-based distractions, and irregular routines often led to reduced student attention in virtual learning environments.

Access to resources for online learning was reported as a difficulty by 16% of students in Mizoram and 14.57% in Meghalaya. A student from Mizoram shared:

“Sharing phones with siblings made it difficult to attend all the online classes taken by the teachers.”

Another from Meghalaya added:

“Internet connectivity was unreliable in my area, and sometimes I had to miss my online classes.”

These challenges reflect the persistent digital divide discussed by Dhawan (2020), where limited device availability and poor connectivity hindered consistent participation.

Difficulties in completing assignments and homework were reported by 22% of students in Mizoram and 21.59% in Meghalaya. A student from Meghalaya explained:

“Assignments became more stressful because I did not always understand the concepts, and there was no one to explain them to me immediately.”

Nandlall et al.(2022) highlighted that students often struggled with self-directed learning in the absence of immediate academic support.

A comparison of the response rates reveals that academic challenges appeared slightly more frequently in Mizoram than in Meghalaya. This distinction may be linked to differences in instructional continuity and the level of digital support available in each state. The Organisation for Economic Co-operation and Development (2021) emphasised the importance of structured academic support and frequent teacher interaction in maintaining learning quality during remote education. The findings indicate that education systems must prioritise accessibility, instructional engagement, and tailored interventions to support students during and beyond periods of disruption.

Table 4.92

Perceptions of the Amount of Work Assigned by Teachers during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Too much	152	25.33	209	22.23
About right	375	62.5	548	58.29
Not enough	48	8	97	10.31
I don't have any work	24	4	91	9.68

Note. Percentages indicate students' perceptions of the amount of work assigned by teachers during the pandemic.

Table 4.92 presents students' perceptions regarding the academic workload assigned by teachers during the COVID-19 pandemic. In Mizoram, 25.33% of students

described the workload as excessive, while 22.23% in Meghalaya expressed the same concern.

A student from Mizoram stated:

“It felt like there was more work than before because I had to figure things out on my own without immediate guidance from my teachers.”

This perception reflects findings by Joshi et al. (2022) who reported that the shift to online learning increased students’ cognitive and emotional responsibilities, as self-directed tasks often replaced direct classroom support.

The majority of students in both states, however, considered the workload appropriate. In Mizoram, 62.50% of students reported that the amount of work assigned was about right, while 58.29% in Meghalaya echoed this sentiment.

A student from Meghalaya explained:

“Though it was different, the amount of work felt manageable because our teachers gave clear deadlines and instructions.”

According to Burgess and Sievertsen (2020), effective communication and clear timelines are key to helping students adapt to remote academic requirements and maintain motivation.

A smaller proportion of students felt that the workload was insufficient, with 8% in Mizoram and 10.31% in Meghalaya indicating that they received less work than expected. Additionally, 4% of students in Mizoram and 9.68% in Meghalaya reported periods with no academic assignments at all.

As one student from Meghalaya shared:

“There were times when we had no assignments because some teachers were unsure how to manage online teaching.”

These responses match the observations of Bansal and Singh (2022). They pointed out that gaps in teacher training and uneven digital readiness led to inconsistent academic engagement.

The findings from Table 4.92 show that while most students had a balanced workload during remote learning, a significant minority faced either too much or too little academic demand. These patterns highlight the need for strong teacher training, clear communication, and reliable digital infrastructure. This is essential to ensure consistency and fairness in academic workload, especially during long periods of educational disruption.

Table 4.93

Strategies Used to Cope with Academic Challenges (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Seeking help from teachers or peers	179	29.83	297	31.59
Using online resources or tutorials	320	53.33	382	40.63
Self-study and practice	250	41.66	466	49.57

Note. Percentages show the strategies students used to cope with academic challenges during the pandemic.

Table 4.93 outlines the strategies employed by students in Mizoram and Meghalaya to address academic difficulties encountered during the COVID-19 pandemic. In Mizoram, the use of online resources and tutorials emerged as the most prevalent approach, adopted by 53.33% of students.

One student from Mizoram remarked;

“Whenever I had difficulty understanding a topic, I would search for video tutorials to help me learn better.”

This proactive use of digital content supports the observations of Sang (2020), who found that students who explored online resources developed greater confidence and academic independence during remote learning.

In Meghalaya, self-study and practice were reported as the most common coping strategy, with 49.57% of students relying on independent review of textbooks and regular practice, compared to 41.66% in Mizoram.

A student from Meghalaya shared:

“During the pandemic, we could not fully depend on our teachers. They asked us to read ur textbooks and gave us many assignments, so we had to study and practise on our own.”

This reflects Zimmerman’s theory of self-regulated learning, as discussed by Sharma and Rai (2021), which highlights the critical role of learner responsibility and self-direction in virtual education.

Seeking help from teachers or peers was adopted by 29.83% of students in Mizoram and 31.59% in Meghalaya. In several cases, students also reached out to family members for academic support. Miao and Ma (2022) noted that such collaborative support networks, including peer interaction and teacher guidance, were crucial in helping students navigate the complexities of online learning environments.

Overall, students in Mizoram and Meghalaya reported using one or more coping strategies to overcome academic challenges during the pandemic. These findings illustrate a comparable level of adaptability in both states and emphasise the importance of strengthening digital literacy, promoting independent learning habits, and maintaining accessible support networks to ensure educational resilience during times of disruption.

Table 4.94***Difficulties Faced in Online Exams and Assessments (n=1540)***

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Yes	372	62	657	69.89
No	228	38	280	29.78

Note. Percentages represent the proportion of students who faced difficulties in online exams or assessments during the pandemic.

Table 4.94 highlights the proportion of students who encountered difficulties during online exams and assessments in Mizoram and Meghalaya. In Mizoram, 62% of students reported facing significant challenges, while in Meghalaya this figure was higher at 69.89%.

A student from Meghalaya explained:

“Online examinations were stressful due to technical problems and unclear instructions, which made it difficult to concentrate on answering questions.”

These observations match those of Elsalem et al. (2021). They pointed out that poor connectivity and unfamiliar assessment formats increased stress and lowered performance during remote examinations.

Conversely, 38% of students in Mizoram and 29.78% in Meghalaya stated that they did not face major problems during online assessments. As one student from Mizoram reflected;

“Although it was different, I was used to using the platform and could complete my tests without issues.”

Such responses may reflect higher levels of digital preparedness, prior experience with online systems, or more effective institutional support in certain contexts.

The findings suggest that while a portion of students successfully adapted to online assessments, a substantial number struggled due to technical difficulties and

insufficient academic guidance. These results underscore the importance of implementing accessible, well-supported digital assessment systems that consider disparities in infrastructure and digital readiness. Strengthening teacher guidance, providing clear instructions, and ensuring reliable connectivity will be essential for promoting fairness and reducing stress in future online assessment scenarios.

Table 4.95

Difficulties Encountered During Online Exams or Assessments (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Technical difficulties	153	25.5	403	42.87
Difficulty in understanding the questions	177	29.5	287	30.53
Difficulty in understanding exam instructions	100	16.66	220	23.40
Difficulty in managing time	156	26	318	33.82

Note. Percentages highlight the specific challenges students faced while taking online exams.

Table 4.95 details the specific difficulties students encountered during online exams and assessments in Mizoram and Meghalaya. The data indicate that a higher proportion of students in Meghalaya faced each type of difficulty compared to their counterparts in Mizoram.

Technical problems were the most frequently cited issue in Meghalaya, reported by 42.87% of students, compared to 25.50% in Mizoram.

One student from Meghalaya described;

“My online exam kept getting disrupted because of poor internet. Each time it disconnected, I wasted crucial minutes trying to reconnect, reload the test, and

resume my work. These interruptions not only ate into my exam time but also broke my focus and added unnecessary stress.”

World Bank (2021) similarly highlighted that infrastructural limitations posed significant challenges to the smooth conduct of online assessments, particularly in regions with unstable connectivity.

Difficulty in understanding the questions was reported by 30.53% of students in Meghalaya and 29.50% in Mizoram. A student from Mizoram shared;

“Our online classes kept buffering because mobile networks here are weak. When teachers explained important math formulas, the video would freeze. Later, those same formulas appeared in exams, but I never properly learned them.”

This illustrates how digital disruptions during instruction led to gaps in comprehension that affected exam performance.

Lack of clarity in exam instructions was noted by 23.40% of students in Meghalaya and 16.66% in Mizoram. As one student from Meghalaya remarked, “Before COVID, teachers always made instructions very clear in class. But during online exams, everything became confusing. Some shared them through PDFs that would not open, while others used WhatsApp messages. We were constantly guessing what to do.” The National Council of Educational Research and Training (2022) also identified inconsistent communication as a key challenge during digital assessments.

Time management difficulties were reported by 33.82% of students in Meghalaya and 26% in Mizoram. A student from Meghalaya observed;

“Because of internet problems and the pressure to submit on time, I could not finish my paper even though I knew the answers.”

The Organisation for Economic Co-operation and Development (2021) found that unfamiliarity with digital platforms and exam interfaces often led to difficulties with pacing and timely submission.

Altogether, these findings reveal that students in Meghalaya experienced more pronounced challenges during online exams than their peers in Mizoram. The data highlight the need for enhanced digital preparedness, clear and standardised exam instructions, and targeted support during assessments to promote equitable opportunities and reduce stress among students in remote learning environments.

Table 4.96

Adaptations Made to Online Exams and Assessments (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Practicing with online tools and platforms	384	64	580	61.70
Seeking guidance from teachers or peers	267	44.5	410	43.61

Note. Percentages reflect the strategies students adopted to cope with online assessments.

Table 4.96 highlights the strategies adopted by students in Mizoram and Meghalaya to manage online exams and assessments during the pandemic. Practising with online tools and platforms emerged as the most common approach, reported by 64% of students in Mizoram and 61.70% in Meghalaya.

One student from Mizoram remarked:

“Practising mock tests online helped me get used to the format and feel more confident during exams.”

This reflects the observations of Dhawan (2020), who found that prior engagement with digital tools supported greater confidence and exam readiness among students.

Seeking guidance from teachers or peers was also widely utilised, with 44.50% of students in Mizoram and 43.61% in Meghalaya turning to these support networks. A student from Meghalaya explained:

“Whenever I had doubts, I discussed them with my friends or messaged the teacher. It helped to clear things up before the exams.”

These patterns are consistent with those of Akpen et al. (2024), who noted that peer and teacher support networks play a vital role in enabling students to overcome academic challenges in remote assessment settings.

Some students described using blended or offline submission methods to address technology gaps, particularly in areas with unreliable digital access. A student from Mizoram explained:

“We take the test paper from school and submit it offline. We complete the answers at home, and then submit it back to the school physically.”

UNESCO (2020) noted similar flexible strategies, where schools used both online and offline submission methods. This helped ensure fair participation and continuity of assessment.

The findings indicate that students in both states showed adaptability. They practiced with digital tools, sought academic help, and used suitable solutions. The data emphasize the need for ongoing investment in digital literacy, teacher support, and flexible assessment formats to address students’ varied needs in changing learning environments

4.4.3. SOCIAL CHALLENGES

Table 4.97

Difficulties Experienced in Socializing with Classmates or Peers During Remote Learning (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Unable to meet friends and family	356	59.33	510	54.25
Feeling isolated or lonely	169	28.16	238	25.31
Missing school events and activities	270	45	539	57.34
Technical issues during online meetings or discussions	230	38.33	389	41.38
Difficulty in engaging in group work or projects	215	35.83	352	37.44
Lack of opportunities for social interaction	225	37.5	408	43.40

Note. Percentages indicate the social challenges students encountered while learning remotely.

Table 4.97 provides insight into the social challenges encountered by secondary school students in Mizoram and Meghalaya during remote learning. The inability to meet friends and family emerged as the most frequently cited issue, affecting 59.33% of students in Mizoram and 54.25% in Meghalaya.

One student from Mizoram expressed:

“I felt disconnected from my friends, and even though we could chat online, it was not the same as meeting in person.”

These experiences echo the findings of Miller et al. (2010) and Ngima and Tsering (2020), who observed that reduced social interaction during periods of isolation can adversely affect students' emotional well-being and motivation.

Feelings of isolation were noted by 28.16% in Mizoram and 25.31% in Meghalaya. A student from Meghalaya remarked:

"I missed the small moments of talking with friends between classes. Online classes felt distant and impersonal."

Such accounts are supported by UNICEF (2021), which reported heightened emotional distress among students experiencing prolonged disconnection from peers.

Missing school events and activities was especially prevalent in Meghalaya (57.34%) compared to Mizoram (45.00%). A student from Mizoram commented:

"There are no sports, and the lack of physical activity has caused my football skills to decline."

According to Gupta and Sharma (2021), the absence of extracurricular and physical activities diminished students' sense of belonging and holistic development.

Technical issues during online meetings were reported by 38.33% in Mizoram and 41.38% in Meghalaya, while group work challenges affected 35.83% and 37.44%, respectively. Difficulties collaborating and maintaining quality interaction are consistent with the findings of Alić Topić (2020), who argued that limited informal engagement in digital settings reduced motivation and satisfaction among learners.

A lack of opportunities for informal interaction was identified by 37.50% of students in Mizoram and 43.40% in Meghalaya. As one student from Meghalaya explained:

"There were no casual conversations or group activities outside of class, which made learning feel lonely."

These challenges were worse in Meghalaya, where the response across all categories was higher compared to Mizoram. This difference may indicate connectivity problems and different responses from institutions, as noted by Mehta and Kalita in 2020. It may

also reflect the influence of church-based support networks in Mizoram, according to Paul in 2020.

Overall, the findings show that remote education systems need to include social aspects. This includes virtual clubs, peer group activities, and informal discussions. These features can help support emotional strength and keep peer connections during long breaks from traditional schooling.

Table 4.98

Social Connections with Classmates or Peers during Remote Learning (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No of responses	(%)	No of responses	(%)
Only through participating in online discussions or group work	122	20.33	301	32.02
Using social media or other online platforms	414	69	610	64.89
Meeting in person outside of school	144	24	122	12.97

Note. Percentages show how students maintained social interactions with their classmates despite remote learning conditions.

Table 4.98 illustrates the ways in which secondary school students in Mizoram and Meghalaya maintained social connections during remote learning. The form and context of peer interaction varied distinctly between the two states.

In Meghalaya, 32.02% of students reported maintaining contact through online discussions and collaborative group work. One student from Meghalaya shared:

“I stayed connected with my classmates through online group projects and discussion forums, which helped me feel less isolated.”

These experiences reflect observations by Dhawan (2020), who found that structured digital interaction, like group assignments and discussion platforms, boosted student engagement and lowered the social isolation that comes with remote learning.

Informal digital communication was more prevalent among students in Mizoram, where 69% used social media or similar platforms to connect with friends, compared to 64.89% in Meghalaya. A student from Mizoram explained:

“Social media helped me stay connected with my friends, even when I could not meet them in person.”

UNICEF (2021) similarly reported that social media played a critical role in helping students maintain relationships when physical gatherings were restricted.

Meeting friends outside of school, though less common overall; was reported by 24% of students in Mizoram and 12.97% in Meghalaya. A student from Mizoram noted;

“Whenever possible, I gathered with close friends in small groups, which made online learning feel less isolating.”

The close-knit community networks in Mizoram, often supported by church groups, facilitated informal in-person contact, even during periods of restriction.

While the overall proportion of students using one or more methods was similar, the findings indicate that students in Mizoram were more likely to rely on informal and personal means of connection, whereas their peers in Meghalaya participated more in structured, academic-based digital interaction.

These results highlight the importance of supporting both formal and informal opportunities for social contact during remote learning. Providing platforms for digital collaboration, peer engagement, and casual conversation is essential for reducing feelings of isolation and supporting students' emotional well-being during extended periods away from traditional schooling (UNICEF, 2021; Dhawan, 2020).

4.4.4 EMOTIONAL CHALLENGES

Table 4.99

Mental Health Challenges Experienced During the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Yes	288	48	462	49.14
No	311	52	477	50.74

Note. Percentages represent students who reported experiencing or not experiencing mental health difficulties during the pandemic.

Table 4.99 presents the prevalence of mental health challenges among secondary school students in Mizoram and Meghalaya during the COVID-19 pandemic. Nearly half of the students in states, 49.14% in Meghalaya and 48% in Mizoram, reported experiencing emotional difficulties during this period.

A student from Mizoram described:

“The continuous uncertainty about examinations and school reopening created constant stress, making it difficult to stay focused.”

These experiences echo the findings of Jena (2020), who reported that academic uncertainty and disrupted routines were significant sources of anxiety for students throughout the pandemic.

At the same time, 52% of students in Mizoram and 50.74% in Meghalaya stated that they did not encounter mental health concerns. However, the close percentages across both regions suggest that emotional distress was a widespread issue.

A student from Meghalaya reflected:

“Being away from my classmates and studying alone made me feel mentally exhausted.”

This observation matches the work of Odriozola-González et al. (2020), who found that long periods of social isolation and a sudden shift to independent learning often increased feelings of loneliness and mental fatigue.

The findings highlight the need for mental health support in schools. As Burgess and Sievertsen (2020) pointed out, schools should establish organized emotional support services. This includes giving access to counseling and opportunities for social interaction to protect student well-being and build resilience during times of educational disruption.

Table 4.100

Types of Mental Health Challenges Experienced (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Anxiety	87	14.5	171	18.19
Depression	59	9.83	137	14.57
Loneliness	149	24.83	298	31.70
Stress	163	27.16	533	56.70
Feelings of uncertainty and insecurity	287	47.83	477	50.74
Difficulty in coping with academic pressure	192	32	433	46.06
Feeling overwhelmed or burned out	141	23.5	207	22.02
Difficulty in staying motivated	369	61.5	461	49.04

Note. Percentages reflect the different emotional and psychological difficulties students faced during the pandemic.

Table 4.100 details the range of emotional and psychological difficulties encountered by students in Mizoram and Meghalaya during the COVID-19 pandemic. In Meghalaya, stress was the most prevalent challenge, reported by 56.70% of students, compared to just 27.16% in Mizoram.

A student from Meghalaya reflected:

“Online learning felt overwhelming because I had to take responsibility for my studies without the usual support from my teachers.”

Norabuena-Figueroa et al. (2025) noted that limited teacher contact and on-going digital barriers significantly heightened stress among students navigating remote instruction.

In contrast, the most common concern in Mizoram was difficulty maintaining motivation, affecting 61.50% of students, while 49.04% in Meghalaya reported similar struggles. One student from Mizoram observed:

“Studying at home felt monotonous, and without teachers or classmates to interact with, I found it difficult to stay motivated.”

Limbu and McKinley (2025) also found that the lack of direct peer and teacher engagement reduced students’ academic drive during lockdowns.

Uncertainty and insecurity featured prominently for students in both states; 50.74% in Meghalaya and 47.83% in Mizoram. As a student from Meghalaya shared:

“We were unsure when exams would happen or whether classes would continue online. It was confusing and stressful.”

Mishra and Kumar (2023) have linked these feelings to delays in academic schedules, leaving many students anxious and directionless.

Loneliness also emerged as a challenge, affecting 31.70% of students in Meghalaya and 24.83% in Mizoram. One student from Meghalaya explained:

“Without my friends, I felt very alone. Online classes just weren’t the same.”

UNICEF (2021) observed that extended separation from peers undermined emotional well-being and academic engagement.

Overall, emotional difficulties during the pandemic were more frequently reported by students in Meghalaya than students in Mizoram. This gap may be attributed to stronger community support networks in Mizoram, where organisations like the Young Mizo Association and local churches actively provided outreach during the crisis. Meanwhile, although Meghalaya introduced a mental health policy, implementation in schools was limited in the early pandemic stages (Ghosh, 2023). These findings underscore the importance of comprehensive school-based mental health programmes and consistent community engagement to support student well-being, especially during prolonged educational disruptions.

Table 4.101

Received Support for Mental Health Challenges (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	%	No. of responses	%
Yes	324	54	415	44.14
No	276	46	520	55.31

Note. Percentages indicate whether students received adequate support for their mental health concerns.

Table 4.101 highlights the availability of mental health support for students during the COVID-19 pandemic in Mizoram and Meghalaya. In Mizoram, 54% of students reported having access to mental health support, compared to 44.14% in Meghalaya.

A student from Mizoram explained:

“My teachers encouraged us to talk about our struggles, which helped ease the stress I was feeling.”

This higher rate of support in Mizoram may be due to specific initiatives. For example, the Disaster Management and Rehabilitation Department and the Psychology Department of Mizoram University ran a joint outreach program. They provided counseling services to students during the pandemic (Mishra et al., 2020).

In contrast, 55.31% of students in Meghalaya reported that they did not receive enough mental health support. This is a higher percentage than the 46% reported in Mizoram. One student from Meghalaya remarked:

“There was no structured support, and I did not know where to turn for help when I was struggling with stress.”

This highlights a gap in the availability and visibility of support systems in Meghalaya, where formal counseling services were less accessible to students.

The findings match those of Alexander et al. (2020), who found that students experienced significant emotional stress during the pandemic and stressed the importance of organized counseling services to prevent long-term psychological issues. The results show that, while emotional difficulties were common, the amount of institutional support available varied from state to state. There is a clear need for proactive, school-based mental health interventions to ensure that students receive timely help and guidance, especially during crises and disruptions in education.

Table 4.102

Coping Strategies Used to Face Emotional Challenges (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Talking to friends or family members	397	66.16	631	67.12
Seeking help from a counsellor or mental health professional	38	6.33	60	6.38
Engaging in physical exercise or other self-care activities	175	29.16	323	34.36

Note. Percentages show how students managed emotional difficulties during the pandemic.

Table 4.102 highlights the coping strategies adopted by students in Mizoram and Meghalaya to address emotional challenges during the COVID-19 pandemic. The most commonly used approach in both states was reaching out to friends or family, with 66.16% of students in Mizoram and 67.12% in Meghalaya reporting this strategy.

A student from Meghalaya reflected:

“Talking to my friends about my struggles helped me feel less alone during the pandemic.”

This emphasis on peer and family connections echoes Lin et al. (2020), who found that close social support networks significantly reduced psychological distress during crisis situations.

Engagement in physical exercise or self-care activities was also notable, reported by 29.16% of students in Mizoram and 34.36% in Meghalaya. A student from Meghalaya shared:

“Going for walks and exercising regularly helped me feel more in control of my emotions.”

Wright et al. (2021) similarly observed that regular physical activity played a protective role in managing emotional fatigue and supporting adolescent well-being during extended lockdowns.

In contrast, only a small proportion of students reported seeking help from counsellors or mental health professionals, 6.33% in Mizoram and 6.38% in Meghalaya. As one student from Mizoram admitted:

“I did not feel comfortable discussing my struggles with a professional, as I was unsure of how helpful it would be.”

These low numbers match the findings of Odriozola-González et al. (2020), who observed that stigma, poor mental health knowledge, and limited access often discouraged young people from seeking formal psychological help.

The coping strategies in Mizoram and Meghalaya show that informal support systems are common, but organized mental health programs are still not widely available. Singh et al. (2020) stated that combining mental health education with easy access to professional help is essential for teaching students practical coping skills. These findings highlight the need for schools to include mental health education, reduce stigma around professional support, and encourage a wider range of coping strategies to support student well-being during future disruptions.

4.4.5 TECHNOLOGICAL CHALLENGES

Table 4.103

Devices Primarily Used for Online Learning during the COVID-19 Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Desktop computer	39	6.5	35	3.72
Laptop	54	9	87	9.25
Tablet	46	7.66	53	5.63
Smartphone	562	93.66	871	92.65

Note. Percentages reflect the types of devices students use for online learning.

Table 4.103 summarises the types of devices used by students in Mizoram and Meghalaya for online learning during the pandemic. Smartphones were by far the most common device, with 93.66% of students in Mizoram and 92.65% in Meghalaya relying on them for classes and assignments.

A student from Mizoram shared:

“My smartphone was the only device I had for attending classes, but it was challenging to complete assignments on such a small screen.”

This heavy dependence on smartphones reflects the findings of Kundu and Bej (2022), who noted that mobile phones are often the only digital resource available to students in resource-constrained settings.

Laptops were used by 9% of students in Mizoram and 9.25% in Meghalaya, while desktop computers were less common, used by 6.5% in Mizoram and 3.72% in Meghalaya. Tablets were used by 7.66% of students in Mizoram and 5.63% in Meghalaya.

A student from Meghalaya noted:

“I used my sibling’s tablet whenever possible, but most of the time, I had to rely on my phone for studying.”

This further illustrates that while some students had access to alternative devices, the majority continued to depend on their phones.

The widespread use of smartphones for online learning matches what Thapa et al. (2021) and UNESCO (2021) reported. Both emphasized that small screens and limited functions can make it hard for students to finish more complex academic tasks. These findings stress the need for better access to different types of digital devices. They also highlight the importance of creating educational materials that are mobile-friendly and accessible for students who may rely solely on smartphones for learning.

Table 4.104

Technological Challenges Faced for Online Learning during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Yes	365	60	644	68.51
No	235	40	292	31.06

Note. Percentages indicate whether students faced technological difficulties while learning remotely.

Table 4.104 examines the technological challenges students faced during online learning. The findings indicate that 68.51% of students in Meghalaya and 60% in Mizoram experienced significant difficulties with digital access.

A student from Meghalaya shared:

“Sometimes, I missed entire lessons because of poor internet connectivity, and I couldn’t always re-watch recorded lectures due to limited data.”

These issues are echoed in Dhawan (2020), who found that unstable internet and data constraints were common barriers for students engaging in remote education.

Students in Mizoram described similar obstacles, with one explaining:

“Power cuts and slow internet made it difficult to attend classes without disruptions.”

Despite these challenges, 40% of students in Mizoram and 31.06% in Meghalaya reported that they did not face major technological problems. This difference may result from variations in home infrastructure, digital skills, and family support for online learning.

These findings align with the research of Muthuswamy (2024) and Kundu and Sonawane (2020), who observed that regional and household differences in digital resources affected students’ remote learning experiences. Overall, the data highlights the urgent need to improve access to reliable devices, steady electricity, and stable internet connections. This will help ensure that all students can engage effectively in digital education, regardless of their location or economic situation.

Table 4.105

Types of Technological Challenges Faced During the COVID-19 Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Inadequate internet connection or device	213	35.5	598	63.61
Difficulty in using online tools or platforms	104	17.3	174	18.51
Technical issues during online classes or meetings	179	29.8	302	32.12

Note. Percentages highlight the specific technological issues students encountered.

Table 4.105 identifies the technological challenges that students encountered during the COVID-19 pandemic. Inadequate internet access or lack of devices was the most significant issue, affecting 63.61% of students in Meghalaya and 35.5% in Mizoram.

A student from Meghalaya described:

“Many of my classmates could not afford high-speed internet, so we had to rely on unstable mobile data.”

OECD (2021) similarly reported that limited digital infrastructure was a major barrier to online learning, particularly in regions with fewer resources.

Difficulties in using online tools or platforms were reported by 18.51% of students in Meghalaya and 17.33% in Mizoram. A student from Mizoram noted:

“It took me a while to understand how to submit assignments online because I had never used these platforms before.”

This is supported by Kedia and Mishra (2021), who found that unfamiliarity with digital tools made it more challenging for students to adapt to online education.

Technical issues during live sessions were also common, with 32.12% of students in Meghalaya and 29.83% in Mizoram experiencing disruptions. A student from Meghalaya shared:

“I had to restart my device several times during online exams because my screen kept freezing.”

Ocak and Karakuş (2021) observed that such technical problems often reduced student confidence and affected academic performance during assessments.

The technological challenges faced by students during the pandemic was higher in Meghalaya, compared to Mizoram. These results highlight that while both states faced issues with using digital platforms and technical interruptions, students in Meghalaya experienced more pronounced access-related difficulties. The findings point to the importance of improving internet connectivity, making digital systems more accessible, and providing timely technical support to ensure that all students can participate fully in online education.

Table 4.106

Adequate Access to Necessary Technology for Online Learning (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Yes, I have all the technology I need	212	35.33	241	25.63
I have some of the technology I need	365	60.83	610	64.89
I don't have any of the technology I need	26	4.33	89	9.46

Note. Percentages indicate the extent to which students had access to the required technology for remote learning.

Table 4.107 reveals that students in Mizoram were better equipped with the essential technology for online learning compared to their counterparts in Meghalaya. In Mizoram, 35.33% of students reported having all the required devices and internet access, while in Meghalaya; only 25.63% indicated the same. This difference highlights a higher level of digital readiness in Mizoram. van de Werfhorst et al. (2022) found that such disparities in digital access often mirror underlying economic and infrastructural variations between regions.

Most students in both states had only partial access to the tools needed for remote learning. In Mizoram, 60.83% of students reported having some, but not all, of the necessary technology, while in Meghalaya, the figure was slightly higher at 64.89%.

One student from Mizoram remarked:

“I had a smartphone, but I struggled because I did not have a laptop to complete assignments that required more detailed work.”

A student from Meghalaya shared:

“I had access to a device, but I often had to share it with my siblings, which made it difficult to attend all my classes.”

UNICEF (2021) reported that shared devices and limited internet access were common issues in rural and low-income households.

A small proportion of students lacked access entirely, with 9.46% in Meghalaya and 4.33% in Mizoram reporting no access to the necessary technology. This gap points to deeper financial and infrastructural barriers in Meghalaya. The findings highlight the importance of targeted interventions such as device subsidies, infrastructure development, and affordable internet services to address digital inequality and ensure that all students can participate fully in online education.

Table 4.107***Difficulties Accessing the Internet during the Pandemic (n=1540)***

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Yes	515	85.83	845	89.46
No	85	14.16	95	10.10

Note. Percentages represent the proportion of students who experienced difficulties in accessing the internet during the pandemic.

Table 4.108 demonstrates that internet access was a major obstacle for students in both Mizoram and Meghalaya during the COVID-19 pandemic. In Meghalaya, 89.46% of students reported difficulties with internet connectivity, while in Mizoram the proportion was 85.83%.

A student from Meghalaya shared:

“There were times when I could not join my online classes because of poor network coverage, and I would have to wait for a better signal to access study materials.”

India Today Education Desk (2025) emphasised that weak digital infrastructure, particularly in rural and hilly regions, greatly undermines students' capacity to engage consistently with online education.

Only a small proportion of students reported no significant connectivity issues: 14.16% in Mizoram and 10.10% in Meghalaya. One student from Mizoram explained:

“The unstable internet made it difficult to submit assignments on time, and I often had to reattempt downloading lecture videos multiple times.”

This experience is consistent with OECD (2021), which found that both inadequate coverage and the high cost of mobile data restricted access, especially in areas lacking broadband facilities.

These findings highlight the widespread and persistent impact of internet challenges on students' ability to participate in remote learning. The situation calls for urgent investment in broadband infrastructure, more affordable internet services, and focused initiatives to improve rural connectivity. Without such measures, educational inequalities are likely to persist, limiting students' opportunities for effective online learning and academic progress.

Table 4.108

Coping Strategies Used to Overcome Technological Challenges during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (n=940)	
	No. of responses	(%)	No. of responses	(%)
Seeking help from teachers or technical support	190	31.66	318	33.82
Using alternative devices or internet connections	249	41.5	392	41.70
Learning how to use online tools or platforms	202	33.66	258	27.44

Note. Percentages reflect the different ways students adapted to technological barriers.

Table 4.106 describes the strategies students used to manage technological challenges during the COVID-19 pandemic. The most common solution was using alternative devices or internet connections, with 41.5% of students in Mizoram and 41.70% in Meghalaya adopting this approach.

One student from Mizoram shared;

“Whenever my phone network was weak, I used a friend’s WiFi or borrowed another device.”

Dhawan (2020) found that students frequently depended on shared resources and creative workarounds when digital infrastructure was lacking.

Seeking help from teachers or technical support was another important strategy, mentioned by 31.66% of students in Mizoram and 33.82% in Meghalaya.

A student from Meghalaya explained:

“Whenever I faced issues with online platforms, I would ask my teachers to help, but sometimes they also struggled.”

UNICEF (2021) observed that teachers were a central source of support during remote learning, though they too faced technical limitations.

Learning to use digital tools independently was more common in Mizoram (33.66%) than in Meghalaya (27.44%). As one student from Mizoram described:

“Initially, I struggled with online assignments, but I watched tutorials and gradually learned how to navigate the platform.”

According to Rini et al. (2022), students who built digital literacy through self-learning handled the challenges of online education better.

The use of coping strategies in Mizoram and Meghalaya shows that students in both states were adaptable and resourceful. These findings support Kundu and Bej (2022), who emphasized the importance of peer support, individual effort, and flexibility in overcoming tech challenges during remote learning. The results suggest that continuous investment in digital skills training and accessible support systems will be essential for strengthening resilience during future educational disruptions.

4.4.6 FINANCIAL CHALLENGES

Table 4.109

Financial Challenges Encountered by Students during the Pandemic (n=1540)

Items	Mizoram (n=600)		Meghalaya (940)	
	No. of responses	(%)	No. of responses	(%)
Inability to pay for online learning resources or textbooks	248	41.33	401	42.65
Unable to afford tuition fees or other school-related expenses	195	32.5	269	28.61
Unable to access financial aid or scholarships	277	45.78	322	34.25

Note. Percentages highlight the different financial difficulties students faced in accessing education during the pandemic.

Table 4.109 presents the financial difficulties encountered by students in Mizoram and Meghalaya during the COVID-19 pandemic. The inability to afford online learning resources or textbooks was reported by 41.33% of students in Mizoram and 42.65% in Meghalaya.

One student from Meghalaya commented:

“During the pandemic, I found it really hard to keep up with my studies because I couldn’t afford the textbooks or online resources. The internet costs were high, and sometimes I had to share one device with my siblings.”

UNICEF (2021) also observed that students from low-income households faced heightened barriers in accessing paid digital content during remote education.

Difficulties relating to tuition fees and other school-related expenses were reported by 32.50% of students in Mizoram and 28.61% in Meghalaya. A student from Mizoram shared;

“My family had financial difficulties during the pandemic, and so buying extra study materials was not always possible. We had to prioritise basic needs like food and electricity.”

The economic vulnerability of families, especially in regions reliant on agriculture and informal work, intensified these challenges during prolonged lockdowns.

Access to financial aid or scholarships showed the largest difference between the two states. In Mizoram, 45.78% of students had trouble getting financial support, compared to 34.25% in Meghalaya. This gap may be due to slow bureaucracy and unclear eligibility criteria. Kundu and Bej (2022) noted that these administrative issues often delayed the timely distribution of scholarships in emergencies.

The financial difficulties in Mizoram and Meghalaya highlight how economic hardship affects students' ability to participate in online learning. The findings reveal a clear need for better financial aid systems, simpler administrative processes, and specific emergency support to lessen the financial strain on students and ensure they can access education during future crises.

CHAPTER-V
MAJOR FINDINGS,
RECOMMENDATIONS AND
SUMMARY

CHAPTER-V

MAJOR FINDINGS, SUMMARY, AND RECOMMENDATIONS

This chapter highlights the findings of Objectives 1, 2, 3, and 4 of the study. It includes suggestions for administrators, teachers, students, and parents to address educational challenges during crises. It also presents educational implications, recommendations, and suggestions for further research.

5.1.0 MAJOR FINDINGS: The major findings of the study are as follows:

5.1.1 Major Findings of Objective 1: Educational Challenges Faced by Secondary School Administrators in Mizoram and Meghalaya during the COVID-19 pandemic.

1. Health and Safety Challenges:

- Administrators in both states reported difficulty in implementing COVID-19 testing, tracing, and quarantine protocols (70% in Mizoram, 68.18% in Meghalaya).
- Lack of awareness of COVID-19 protocols was cited by 65.71% of administrators in Mizoram and 74.54% of administrators in Meghalaya.
- Emotional concerns such as fear and anxiety among staff and students were reported by 41.42% of administrators in Mizoram and 50% of administrators in Meghalaya during the pandemic.
- Problems in conducting board exam classes were noted by 67.14% of administrators in Mizoram and 57.27% of administrators in Meghalaya during the pandemic.
- The discussion also reveals that school administrators in both Mizoram and Meghalaya struggled to enforce COVID-19 safety protocols, with challenges in monitoring mask use, managing fear among students, and conducting board exams under strict guidelines. Emotional distress and

logistical delays, such as in collecting answer sheets, further disrupted the learning process.

2. Technological and Online Learning Challenges:

- Limited access to digital devices in remote learning during the pandemic was reported by 61.42% of administrators in Mizoram and 88.18% of administrators in Meghalaya.
- Connectivity issues affected 57.14% of administrators in Mizoram and 65.45% of administrators in Meghalaya during the pandemic.
- Maintaining digital infrastructure in remote learning during the pandemic was a challenge for 21.42% of administrators in Mizoram and 27.27% of administrators in Meghalaya.
- WhatsApp was the most used platform (82.85% in Mizoram, 93.63% in Meghalaya) during the pandemic; Mizoram had higher use of Zoom and Google Meet.
- School administrators highlighted that many students lacked personal devices and stable internet, particularly in Meghalaya, due to economic and infrastructural disadvantages. Despite challenges, schools adapted by using accessible tools like WhatsApp and text messaging, while some even relied on neighbors to pass messages, revealing the flexible and community-driven approaches adopted to maintain learning continuity.

3. Academic Progress and Student Learning:

- Difficulties in comprehension among students during the pandemic were observed by 51.42% of administrators in Mizoram and 44.54% of administrators in Meghalaya.
- Lack of academic social interaction during the pandemic was higher in Meghalaya (50%) than in Mizoram (31.42%).
- Increased dropout rates during the pandemic were reported by 40% of administrators in Mizoram and 60.90% of administrators in Meghalaya.

- Student disengagement in virtual learning was common during the pandemic (84.28% in Mizoram, 80.90% in Meghalaya).
- The qualitative insight reveals that many students struggled with motivation and comprehension during the pandemic, with administrators observing stress-related symptoms like panic and fainting. Infrastructural gaps, particularly in Meghalaya, led to higher dropout rates and disengagement. To support learning, schools relied on printed materials and community efforts like local organisations and even makeshift learning spaces, showing how grassroots responses helped bridge digital divides.

4. Curriculum and Assessment:

- Reduction of curriculum during the pandemic was reported by 48.57% of administrators in Mizoram and 57.27% of administrators in Meghalaya.
- Online examinations during the pandemic were more prevalent in Mizoram (85.71%). But in Meghalaya giving assignments and project work were common (75.45%).
- Adoption of 100% promotion policy during the pandemic was higher in Meghalaya (78.18%) than in Mizoram (45.71%).
- Reliability, fairness, and academic integrity in assessments were consistent challenges in both states.
- The qualitative findings revealed that schools in Mizoram followed a uniform 30% curriculum reduction, while those in Meghalaya made selective cuts focusing on core subjects, showing different regional approaches to easing academic pressure. Mathematics was the most affected subject due to the need for real-time explanation, while science engagement dropped because of the lack of hands-on experiments.
- Most schools were unable to conduct exams as planned due to inadequate health infrastructure, prompting a shift to alternative assessments like assignments and open-book tests. Mizoram showed more reliance on

structured online exams, while Meghalaya adopted 100% promotion more widely due to difficulties in organizing evaluations. The varied use of methods like projects, open-book tests, and selective curriculum adjustments reflects each state's differing capacity, digital readiness, and emphasis on maintaining academic standards during the pandemic.

5. Teacher Support and Professional Development:

- Limited opportunities for collaboration and training were reported by 58.57% of administrators in Mizoram and 60% of administrators in Meghalaya.
- Increased workload was observed by 41.42% of administrators in Mizoram and 49.09% of administrators in Meghalaya.
- Difficulties in managing remote instruction were noted by 44.28% of administrators in Mizoram and 48.18% of administrators in Meghalaya.
- Administrators noted that the pandemic disrupted teacher collaboration and reduced cooperation among staff. Teachers experienced exhaustion due to longer working hours and the pressures of adapting to online instruction. These challenges highlight the need to prioritise teacher well-being and professional development during crises.

6. Mental Health and Well-being:

- Increased stress levels among staff and students during the pandemic were reported more in Mizoram (61.42%) than in Meghalaya (40.90%).
- Limited access to mental health resources during the pandemic affected 47.14% of administrators in Mizoram and 52.72% of administrators in Meghalaya.
- Difficulty in managing anxiety was more frequently noted in Meghalaya (55.45%) than in Mizoram (37.14%).
- The qualitative insight revealed that Administrators in Mizoram encouraged students and teachers to address mental health issues, reflecting

greater awareness in some schools. In Meghalaya, there was no specific response to address mental health issues, and support relied mainly on phone conversations due to limited resources. These responses highlight the urgent need for accessible, school-based mental health support systems.

7. Financial Challenges:

- Budget cuts during the pandemic were reported by 50% of administrators in Mizoram and 46.36% of administrators in Meghalaya during the pandemic.
- Salary reductions during the pandemic were more common in Mizoram (38.57%) than in Meghalaya (2.72%), largely due to unpaid fees (37.14% vs. 1.81%).
- No government funding was received by any institution in either state during the pandemic.
- External non-government support during the pandemic was received by only 8.57% of administrators in Mizoram and 4.54% of administrators in Meghalaya.
- Private schools faced severe financial strain during the pandemic due to unpaid student fees, which led to salary cuts or delays for teachers. While some institutions managed with community donations or cost-cutting, external support—both government and non-government—was minimal or absent. Access issues and lack of infrastructure further deepened existing inequalities.

OVERALL DISCUSSION AND COMPARISON

1. **Health and Safety Challenges:** From the comparative analysis, it is clear that the administrators in Mizoram greatly benefited from community partnerships, where the Young Mizo Association took an active role in spreading health-related information and enforcing safety measures. This cooperation has allowed for the adoption of safety measures with the greatest degree of

confidence in schools. In contrast, Meghalaya's administrators kept on mentioning the lack of clear communication structures, which heightened anxiety and led to protocol irregularities among both staff and students. These findings support Aytaç (2021), who emphasized the need for transparent and structured communication strategies during crisis management.

2. **Technological and Online Learning Challenges:** The pandemic exacerbated the digital divide in Meghalaya. Mostly, these schools reported that students did not possess phones or laptops, or did not have access to the internet. In Mizoram, this kind of problem existed, but only to a lesser extent. Some of the schools in towns already had experience working with digital tools, which became an advantage for them. Pre-pandemic, though, schools in Meghalaya are spread over hill and rural terrains where internet and electricity are unreliable. As such, it was challenging for them to put in place online classes. As cited by Putra et al. (2020) and Das et al. (2021), schools in remote, poverty-stricken areas normally encounter difficulty in switching to online education.
3. **Academic Learning and Student Progress:** Meghalaya saw more students dropping out or losing interest in their studies during the pandemic. This may be because many students had to help at home or could not attend online classes due to poor connectivity. Mizoram had fewer cases of dropout, and this may be due to stronger family support and regular follow-up by teachers. Churches in Mizoram also helped students stay connected to learning. At the same time, Mizoram reported more difficulty in helping students understand lessons, which could be because teachers had higher academic expectations and were paying closer attention to student progress. According to Kundu and Sonawane (2020), learning loss is greater when students cannot interact with teachers or classmates regularly.
4. **Curriculum Adaptation and Assessment:** Mizoram followed a more organised way of reducing the school syllabus during the pandemic. Many schools used online tests and assignments to check student learning. In Meghalaya, schools made different kinds of changes, and many had to promote students without holding exams. This happened mostly because online learning was not possible in many areas. While such decisions were practical, they also

risk leaving students behind academically. Bailey et al. (2020) warned that if there is no follow-up support after such promotion, students may struggle in the next class.

5. **Teacher Support and Professional Development:** Teachers in both states had to adjust quickly to teaching from home during the pandemic, and many did not receive enough training. In Meghalaya, teachers often worked alone without technical help. Many of them were responsible for checking in on students and solving problems without support. In Mizoram, some teachers already had some experience with blended learning, and school leaders often helped guide the process. This made the transition slightly easier. Kim and Asbury (2020) explained that when teachers are asked to take on new tasks without training or support, they often feel stressed and overworked.
6. **Mental Health and Well-being:** Many schools in Mizoram noticed rising stress levels among both students and staff during the pandemic. This may be because teachers and school heads were more aware of mental health issues and took time to check in regularly. In Meghalaya, anxiety was more common, but there were fewer ways to support students emotionally. Many teachers wanted to help but did not have access to counsellors or training. Singh et al. (2021) and Pfefferbaum and North (2020) found that schools without proper mental health services often struggle to support students and staff during crises like a pandemic.
7. **Financial and Resource Challenges:** Financial problems affected schools in both states, but the situation was more serious in Mizoram during the pandemic. Many private schools could not collect fees from students and had to cut teacher salaries to keep running. In Meghalaya, this was not as common. Some schools there received help from churches or were supported by the government. Still, neither state received any special funding from the government to manage the crisis, nor only a few schools got help from other organisations. Debbarma and Durai (2021) and the Global Partnership for Education (2022) reported that many schools in less visible and rural areas were left out when support was being provided.

5.1.2 Major Findings of Objective 2: Educational Challenges Faced by Secondary School Teachers in Mizoram and Meghalaya during the pandemic

1. Curriculum Challenges:

- A majority of teachers in both states modified the curriculum during the pandemic (88% in Mizoram and 85.53% in Meghalaya).
- Reduction of course content during the pandemic was reported by 52.66% of teachers in Mizoram and 51.48% of teachers in Meghalaya.
- Use of online resources among teachers during the pandemic was slightly higher in Meghalaya (41.70%) than in Mizoram (35.33%).
- The qualitative findings showed that teachers adapted to the challenges of remote learning by significantly modifying the curriculum—condensing lessons, simplifying content, and focusing on essential and fundamental topics. They prioritized skill-based learning and provided self-study materials to support independent learning. Due to poor internet access in some areas, teachers used tools like WhatsApp, voice notes, and shared study materials asynchronously. They also integrated digital resources such as recorded videos, PowerPoint presentations, and online assessments to engage students and monitor their progress.

2. Pedagogical Challenges:

- A large majority of teachers faced challenges in implementing modified teaching strategies (94% in Mizoram and 91.48% in Meghalaya).
- Limited access to technology during the pandemic was reported by 42.66% of teachers in Mizoram and 60% of teachers in Meghalaya.
- Adapting teaching methods during the pandemic was a concern for 52% of teachers in Mizoram and 43.4% of teachers in Meghalaya.
- Teachers in Mizoram and Meghalaya faced significant challenges adapting to remote teaching during the COVID-19 pandemic, mainly due to poor

digital access, heavy workloads, and lack of training. Many teachers had to teach themselves how to use online platforms and struggled with student disengagement and inability to provide devices to students by parents. Despite these issues, some adapted by using pre-recorded videos, WhatsApp, and project-based learning to reach students. A few continued with printed worksheets due to poor connectivity. Overall, teachers adopted flexible strategies based on local conditions, but the experience revealed an urgent need for better digital training and infrastructure.

3. Student Challenges:

- A decline in engagement and motivation in remote learning was observed among students by 87.33% of teachers in Mizoram and 91.06% of teachers in Meghalaya.
- Difficulty in accessing technology for online learning among students was reported by 77% of teachers in Mizoram and 80.42% of teachers in Meghalaya.
- Changes in student mental health during the pandemic were noticed by 73.33% of teachers in Mizoram and 67.23% of teachers in Meghalaya.
- From the qualitative findings, several teachers explained that students lacked routine, discipline, and motivation, often failing to follow timetables or participate actively in online classes. Many students kept their cameras off, and teachers could not tell whether they were listening or engaged. Teachers also observed that household distractions and poor digital skills reduced attentiveness. In Meghalaya, teachers noted that much classroom time was spent troubleshooting online platforms rather than teaching. Students were anxious about exams, college admissions, and their academic progress. Some became withdrawn, stopped attending regularly, or showed stress due to isolation and lack of peer interaction. Teachers in Mizoram shared that they provided moral and emotional support, including weekly sermons to encourage students and help them cope. Across both

states, communication with parents relied mainly on phone calls and text messages, as these were the most practical and accessible methods.

4. Technological Challenges:

- Only 33.34% of teachers in Mizoram and 14.89% of teachers in Meghalaya received training in technology use during the pandemic.
- Lack of internet connectivity was the most reported issue during the pandemic (54.66% in Mizoram and 71.48% in Meghalaya).
- Technological hurdles in online classes were encountered by 85.33% of teachers in Mizoram and 88.51% of teachers in Meghalaya.
- In the qualitative findings, most teachers reported that schools were unprepared and provided little technological support, forcing them to manage online teaching independently. Many lacked personal devices, faced unstable internet, and received no formal digital training, relying instead on trial and error. Financial difficulties further limited their access to tools and connectivity. While video conferencing platforms were widely used, they posed challenges due to technical issues, whereas apps like WhatsApp were more accessible. Most teachers had moderate confidence with basic tools but struggled with advanced features, and many continued to feel anxious even after months of remote teaching.

5. Assessment and Grading:

- Changes in assessment methods during the pandemic were made by 66% of teachers in Mizoram and 61.27% of teachers in Meghalaya.
- Difficulties in student evaluation during the pandemic were reported by 86.66% of teachers in Mizoram and 92.76% of teachers in Meghalaya.
- Academic performance decline during the pandemic was observed by 58.66% of teachers in Mizoram and 65.10% of teachers in Meghalaya.

- The qualitative data reveals that teachers faced significant challenges in assessing students during the pandemic due to lack of training, unstable internet, and limited student access to digital devices. Many had to adapt assessments using Google Forms, open-book tests, phone calls, and past academic records, often without administrative support. Teachers struggled to engage students online, and participation was low, especially where connectivity was poor. Despite efforts to be fair, assessment quality was compromised, leading many teachers to promote students leniently out of empathy and concern. Some tried innovative methods like group work, but inconsistent access and coordination issues limited their success. Overall, teachers showed flexibility and compassion but felt that student learning and evaluation were far from satisfactory.

6. Emotional Challenges:

- Emotional challenges during the pandemic were experienced by 57.33% of teachers in Mizoram and 70.21% of teachers in Meghalaya.
- Feelings of isolation during the pandemic were more common among teachers in Meghalaya (50.21%) than in Mizoram (34%).
- Institutional emotional support was received by fewer than half of teachers in both states.
- The qualitative data highlights that many teachers felt emotionally overwhelmed, drained, and isolated while balancing teaching with household responsibilities. Several described days when they felt like shutting down due to exhaustion and the constant fear of the virus affecting students or colleagues. Some teachers expressed frustration over being expected to teach online without proper training or guidance, while others noted that even when training was provided, poor internet and lack of devices limited its usefulness. A few teachers shared that counselling services and mental health workshops helped them manage stress and recognise signs of anxiety in themselves and their students. Supportive

interactions with colleagues and regular school check-ins were described as emotional lifelines during this difficult period.

7. Financial Challenges:

- Salary reduction during the pandemic was reported by 34.66% of teachers in Mizoram and 10.63% of teachers in Meghalaya.
- Problems in affording internet bills and technology during the pandemic were reported by 17.33% of teachers in Mizoram and 14.89% of teachers in Meghalaya.
- Based on the qualitative findings, teachers from both Mizoram and Meghalaya faced financial burdens due to the cost of internet and technology required for online teaching. One teacher from Mizoram highlighted that the situation was worsened by a reduced salary, making it difficult to afford these essentials. A teacher from Meghalaya, while not experiencing a salary cut, still had to make personal sacrifices to cover these expenses.

OVERALL DISCUSSION AND COMPARISON

1. **Curriculum Challenges:** Teachers in both states adjusted their curriculum during the pandemic, with Mizoram showing a slightly higher percentage of modifications. In Mizoram, teachers brought in skill-based learning, whereas in Meghalaya, teachers preferred to draw on digital resources. The difference arose because Mizoram was slowly being exposed to blended learning approaches, whereas asynchronous content was becoming a big focus for Meghalaya, much of which was disseminated via WhatsApp and similar tools. As Huber and Helm (2021) mentioned, when pressing coverage has not been possible, focusing on core competencies has helped to bridge the learning gap.
2. **Pedagogical Challenges:** Most teachers encountered difficulties in applying modified strategies during the pandemic. Teachers in Mizoram struggled more with adapting methods, whereas those in Meghalaya faced greater

technological barriers. This may be due to poorer infrastructure and limited device access in remote areas of Meghalaya. The use of pre-recorded videos and WhatsApp-based instructions became the norm in both regions. Bhattacharya and Tandon (2023) found that remote instruction increased workload and demanded new forms of preparation, particularly in low-resource contexts.

3. **Student Challenges:** Both states experienced student disengagement and motivational issues during the pandemic, with higher rates in Meghalaya. Poor internet access and lack of structure contributed to this decline. Teachers in Mizoram noted students' academic anxiety, while their counterparts in Meghalaya expressed concern over the limited support systems at home. Mumin and Sulong (2023) affirmed that the absence of consistent peer interaction and structured routines severely hindered student motivation in digital learning environments.
4. **Technological Challenges:** Technological challenges were reported more frequently in Meghalaya during the pandemic, where training and access were comparatively lower. In Mizoram, a third of the teachers received training, while in Meghalaya, this figure dropped to just fewer than 15%. Video conferencing was found to be the most difficult tool to manage in both states, particularly in areas with unstable networks. Zhang et al. (2024) emphasised the need for structured training and affordable digital tools to enable sustainable digital instruction.
5. **Assessment and Grading:** Teachers in both states modified assessment practices, with more than 60% reporting changes during the pandemic. However, conducting assessments online remained difficult due to connectivity problems and challenges in maintaining academic integrity. Meghalaya reported slightly more difficulties, possibly due to greater student disengagement. Hodges and Barbour (2021) and UNESCO-IBE (2023) advocated for flexible and context-sensitive assessments, especially when schools operate remotely under resource constraints.

6. **Emotional Challenges:** Teachers in Meghalaya faced greater emotional strain, with higher reports of isolation, health worries, and work-life imbalance during the pandemic. Institutional emotional support was limited in both states, though peer support helped to some extent. Teachers in Mizoram reported that regular school meetings and community interaction played a positive role in mitigating emotional fatigue. According to Cho et al. (2021) and Kim and Asbury (2020), emotional well-being directly influences a teacher's resilience and instructional effectiveness during crises.
7. **Financial Challenges:** Mizoram reported higher financial strain due to salary cuts and personal expenses for digital instruction during the pandemic. This likely stems from a higher proportion of private schools depending on tuition fees, many of which faced payment disruptions during lockdowns. Meghalaya teachers, although affected by technology costs, faced fewer salary-related challenges. India Today (2021) and Mahdy (2020) similarly reported that teachers in private institutions often bore the brunt of financial stress during remote learning transitions.

5.1.3 Major Findings of Objective 3: Educational Challenges Faced by Parents/Community Members in Mizoram and Meghalaya

1. Technological Access:

- Limited access to devices or reliable internet during the pandemic was reported by 66% of parents in Mizoram and 67% of parents in Meghalaya.
- 45% of parents in Mizoram and 65% in Meghalaya could not provide multiple digital devices for more than one child.
- Personal device access was higher in Mizoram (65%) than in Meghalaya (17%), while parental device use was higher in Meghalaya (78%).
- The qualitative findings showed that parents in both Mizoram and Meghalaya faced significant financial and technological difficulties in supporting their children's online education during the pandemic. Many could not afford separate devices or regular internet access, leading to children sharing phones or borrowing from neighbors, which disrupted

consistent learning. Digital illiteracy added to their challenges, as several parents struggled to navigate online platforms. Despite these barriers, some families prioritized purchasing additional devices or sought help from relatives to cope.

2. Mental, Social, and Academic Support:

- Stress and anxiety were reported by 65% of parents in Mizoram and 44% in Meghalaya during the pandemic.
- Difficulty supporting children's mental health during the pandemic was observed by 36% of parents in Mizoram and 41% of parents in Meghalaya.
- 62% of parents in Meghalaya and 15% of parents in Mizoram observed emotional effects from reduced peer interaction during the pandemic.
- Online addiction was noted by 67% of parents in Mizoram and 74% of parents in Meghalaya during the pandemic.
- 74% of parents in Mizoram and 49% of parents in Meghalaya feared learning loss during the pandemic.
- The qualitative findings showed that parents in Mizoram and Meghalaya experienced considerable stress and anxiety while trying to support their children's online learning, often feeling unsure about their ability to help effectively. In Mizoram, some children remained active and cheerful through support from family and neighbors, which helped mitigate the effects of social isolation. In contrast, parents in Meghalaya reported more emotional challenges in their children, including withdrawal, irritability, and increased anxiety, largely due to limited peer interaction and disruption of normal school routines. Parents—particularly in Meghalaya—faced challenges with digital literacy, making it difficult to assist with online platforms. Many parents in both states also expressed concern about learning loss, especially in difficult subjects, fearing long-term academic setbacks.

3. Coping Strategies for Support:

- Goal-setting was more common as a coping strategy used by parents in Mizoram (69%), while multimedia tools were favoured in Meghalaya (55%).
- 70% of parents in Mizoram practised self-care to model emotional resilience, compared to 43% of parents in Meghalaya.
- Maintaining peer connections was higher in Meghalaya (48%) than in Mizoram (22%).
- The qualitative findings showed that parents in Mizoram often relied on structured routines and reward systems to motivate children, believing that clear goals helped maintain focus. In contrast, Meghalaya parents leaned more on multimedia tools and group activities, such as storytelling and crafts, to sustain engagement. Emotional support in Meghalaya focused on open communication and peer connection, while Mizoram parents emphasized building independence and practicing self-care to manage stress. One respondent from Mizoram shared that creative activities like drawing and walking were encouraged as coping methods during emotional distress.

4. Time Management, Communication, and Workload:

- Difficulty in prioritising tasks was high in both states (78% Mizoram, 68% Meghalaya).
- Communication issues with schools were higher in Meghalaya (34%) than in Mizoram (18%).
- 96% of parents in Mizoram and 86% in Meghalaya reported being able to help their children with schoolwork during the pandemic
- Increased workload during the pandemic was experienced by 61% of parents in Meghalaya and 44% of parents in Mizoram.
- The qualitative findings showed that parents in both Mizoram and Meghalaya faced significant challenges in managing their children's learning. Many struggled to establish consistent study routines and balance

competing household, work, and educational responsibilities. To cope, parents adjusted work schedules, supervised children while working from home, or sought help from relatives, reflecting adaptive strategies to manage dual responsibilities under constrained circumstances.

5. Home Environment:

- 89% of parents in Meghalaya and 62% of parents in Mizoram lacked a conducive learning environment in remote learning during the pandemic.
- Background noise was the most common challenge (57% Mizoram, 62% Meghalaya).
- 82% of parents in Mizoram and 87% of parents in Meghalaya believed the home environment in remote learning affected concentration.
- 42% of parents in Mizoram and 79% of parents in Meghalaya could not control distractions in remote learning during the pandemic.
- The qualitative data reveal that children in Meghalaya faced greater challenges in concentrating during online classes due to overcrowded, noisy, and space-constrained home environments. In contrast, some parents in Mizoram managed to create simple but effective study spaces, which helped reduce distractions. However, both states experienced difficulties such as increased household chores and background noise that interfered with learning.

6. Coping Strategies for Home Learning:

- Family cooperation to reduce distractions in remote learning was practised by 56% of parents in Mizoram and 24% of parents in Meghalaya.
- Establishing routines was reported by 32% of parents in Mizoram and 21% of parents in Meghalaya during the pandemic.
- The qualitative finding highlights the difficulty of maintaining a quiet environment during online classes due to constant household activity. Despite efforts to involve all family members in reducing distractions, the lack of control over the home setting remains a major challenge. This

highlights how crowded living conditions and limited private space can undermine even well-intentioned strategies for supporting children's learning.

7. Satisfaction:

- Satisfaction with children's academic performance was higher in Mizoram (63%) than in Meghalaya (28%).
- 58% of parents in Mizoram and 30% in Meghalaya were satisfied with teaching methods.
- 57% of Mizoram parents were satisfied with educational policies, while only 28% of parents in Meghalaya felt the same during the pandemic.
- Online classroom preference was higher in Mizoram (96%) than in Meghalaya (88%).
- The qualitative findings showed that parents in Mizoram showed satisfaction with their children's academic performance, teaching methods, and educational policies during the pandemic, often crediting strong school support and effective adaptation to online learning. Parents in Meghalaya reported dissatisfaction and uncertainty, especially due to limited teacher accessibility and weak policy implementation in rural areas. Even in Mizoram, some parents expressed concerns about the quality of learning despite good exam results.

OVERALL DISCUSSION AND COMPARISON

1. **Technological Access:** Parents in both states struggled with digital access during the pandemic, but the burden was heavier in Meghalaya. More families there lacked digital literacy and had to share limited devices, resulting in disrupted learning. In Mizoram, relatively better access to mobile phones and community support made adaptation easier. The Telecom Regulatory Authority of India (2021) and UNESCO (2022) confirmed that affordability and digital skill gaps significantly hindered equitable access, particularly in rural north eastern households.

2. **Mental, Social, and Academic Support:** Parents in Mizoram reported higher stress due to consistent involvement in learning activities, while those in Meghalaya faced greater difficulty supporting their children emotionally during the pandemic. Emotional changes in children, such as anxiety and online addiction, were more frequently reported in Meghalaya. Saitluanga et al. (2022) suggested that tight family networks in Mizoram might have spared people from emotional trauma, whereas Nonglait and Myrthong (2023) suggested that social isolation heightened stress levels among top students in Meghalaya.
3. **Coping Strategies for Support:** Mizoram parents emphasised structured goals and routines during the pandemic, reflecting a strategy rooted in family order and consistency. In contrast, Meghalaya parents leaned more towards interactive tools and collaborative approaches to keep children engaged. Spinelli et al. (2020) and Bakhshialiabad et al. (2022) noted that both structured routines and multimedia learning can foster motivation, though regional differences affect their adoption.
4. **Time Management, Communication, and Workload:** Balancing responsibilities was already challenging during the pandemic for parents of both the states, but Meghalaya came with more communication gaps with schools and workloads. Parents of Mizoram have shown a stronger presence when it comes to homework support and supervision on a daily basis. Wei and Ni (2020) attest that communication and time management have to be consistent for keeping the parental engagement, which seemed more stable in Mizoram.
5. **Home Environment:** Meghalaya reported more unfavourable learning environments in remote learning during the pandemic, including noise, space constraints, and distractions. Parents in Mizoram were more likely to create quiet spaces or cooperate as a family to support learning. The ASER Report (2021) and UNESCO (2020) observed that effective home-based learning depends heavily on household conditions and the availability of uninterrupted space.

6. **Coping Strategies for Home Learning:** More proactive efforts were seen in Mizoram, where families reported higher rates of routine-building and joint efforts to reduce distractions in remote learning during the pandemic. In Meghalaya, parents were less likely to implement structured strategies. Kundu and Bej (2021) emphasised that family coordination is critical to enabling home-based education, especially in multi-member households.
7. **Satisfaction:** Parental satisfaction with children's academic performance, teacher support, and government policy during the pandemic was considerably higher in Mizoram. In Meghalaya, a significant proportion remained undecided or unsatisfied, likely reflecting gaps in infrastructure, teacher interaction, and policy implementation. As per Bhue & Paltasingh (2020) trust in educational efforts improves when implementation is localised, consistent, and transparent, qualities more evident in Mizoram's approach.

5.1.4 Major Findings of Objective 4: Educational Challenges Faced by Secondary School Students in Mizoram and Meghalaya

1. Learning Environment:

- Participation of students in online classes during the pandemic was higher in Mizoram (98%) than in Meghalaya (88.08%).
- Most students spent 1–2 hours daily on online classes (52.5% in Mizoram, 45.95% in Meghalaya).
- A strong preference for traditional learning was noted even during the pandemic (59.33% in Mizoram, 63.93% in Meghalaya).
- Home was the primary location for online learning in both states, but shared devices and distractions were common.
- Domestic responsibilities, noise, and lack of privacy affected over 30% of students in both regions during the pandemic
- 52.83% of students in Mizoram and 34.36% of students in Meghalaya believed their study environment negatively affected their academic performance during the pandemic

- The qualitative insight showed that students in Mizoram were determined to attend classes despite internet issues, while students in Meghalaya struggled more due to frequent power cuts and had to rely on neighbors or relatives for access. Students cited digital fatigue, household chores, and lack of privacy as major distractions. Preferences leaned toward traditional classrooms for their structure, interaction, and clarity, although some appreciated the flexibility and pace of online formats. They expressed concerns about a lack of academic integrity, with some achieving good grades despite limited preparation

2. Academic Challenges:

- Decline in academic performance was reported by 68% of students in Mizoram and 75.42% of students in Meghalaya during the pandemic
- Difficulty in understanding subject matter in online learning during the pandemic is the leading issue (66.83% in Mizoram, 67.12% in Meghalaya).
- Concentration difficulties were more common in Mizoram (50%) than in Meghalaya (34.57%).
- Students used various coping strategies for learning challenges during the pandemic, online resources were most used by students in Mizoram (53.33%), while self-study method dominated in Meghalaya (49.57%).
- Students in both states faced difficulties in online assessments during the pandemic, with Meghalaya reporting a higher frequency (69.89%) than Mizoram (62%).
- The qualitative findings revealed that students from Mizoram and Meghalaya faced difficulties understanding lessons online due to the absence of real-time teacher guidance and explanations. Maintaining focus was challenging for some students, particularly in environments with distractions or shared devices. Internet connectivity issues disrupted learning and online examinations, causing stress and loss of concentration. Some students felt the workload increased because they had to study independently without immediate support, while others found it manageable when teachers provided clear instructions and deadlines. To

cope, students used alternative resources such as online tutorials, discussion with peers, and practicing mock tests. Offline submission of work was used in some cases to adapt to connectivity problems.

3. Social Challenges:

- Inability to meet peers was the most cited challenge by students during the pandemic (59.33% in Mizoram, 54.25% in Meghalaya).
- Feelings of isolation and missed school activities during the pandemic were also common.
- Students in Mizoram maintained contact primarily through social media, while those in Meghalaya relied more on academic group work during the pandemic.
- Informal peer interaction was more prevalent in Mizoram, while formal digital engagement was slightly higher in Meghalaya during the pandemic.
- Qualitative data reflected some common feelings among students; they experienced emotional pressure from less peer interaction, with numerous students conveying feelings of loneliness and disconnect even despite their digital interaction. While group activities and forums provided some structure for latter-day Meghalaya students, fostering engagement, students from Mizoram relied more on informal techniques such as social media and irregular physical meets to retain their connections. The isolation, however, was further cemented by the absence of school fests and casual peer interactions.

4. Emotional Challenges:

- Emotional difficulties were reported by 48% of students in Mizoram and 49.14% in Meghalaya during the pandemic.
- Mizoram students reported more issues with motivation (61.5%), while stress was higher in Meghalaya (56.7%) during the pandemic.
- Feelings of uncertainty and academic pressure were prevalent across both states during the pandemic.

- Students in Mizoram had higher access to emotional support (54%) than Meghalaya (44.14%) during the pandemic.
- Most students coped through informal support from friends and family during the pandemic.
- The qualitative findings revealed common concerns reported by students, including stress from academic uncertainty, feelings of isolation, lack of motivation, and emotional exhaustion due to remote learning. While some students found relief through informal support like friends, family, or physical activity, others struggled due to the absence of structured mental health services or hesitation to seek professional help.

5. Technological Challenges:

- Smartphones were the primary device for learning in both states (93.66% in Mizoram, 92.65% in Meghalaya) in remote learning during the pandemic.
- 60% of students in Mizoram and 68.51% of students in Meghalaya faced technological difficulties during the pandemic.
- Inadequate internet/device access was higher in Meghalaya (63.61%) than in Mizoram (35.5%) for remote learning during the pandemic.
- Only 35.33% of students in Mizoram and 25.63% of students in Meghalaya had full access to required technology.
- Internet access difficulties were reported by 85.83% of students in Mizoram and 89.46% of students in Meghalaya during the pandemic.
- Students coped by using alternative devices, seeking help, and learning digital tools.
- The qualitative findings highlight that students in Mizoram and Meghalaya encountered significant barriers to online learning due to lack of digital devices, poor internet connectivity, and shared usage of phones among siblings. Many struggled with attending classes regularly and completing assignments on time, especially when relying solely on mobile phones and unstable networks. Power outages and lack of digital literacy added to their

frustration and stress. Despite these challenges, some students showed initiative by borrowing phones, using downloaded videos, and turning to friends or teachers for support.

6. Financial Challenges:

- Inability to afford resources for online learning was noted by over 40% of students in both states during the pandemic
- 45.78% of students in Mizoram and 34.25% of students in Meghalaya faced challenges in accessing financial aid or scholarships during the pandemic.
- The qualitative findings revealed that students in Meghalaya could barely afford digital resources or even the price of internet access, having to share a single device with their siblings, thereby impairing the learning experience. To the same effect, families in Mizoram would rather attend basic life needs before going for educational materials as serious economic distresses dictated so.

OVERALL DISCUSSION AND COMPARISON

1. **Learning Environment:** A higher participation of students in Mizoram is observed in online schooling, along with well-equipped learning spaces, opposed to their counterparts in Meghalaya. Nonetheless, distractions such as domestic work or lack of privacy were all common across both states. More students in Mizoram reported negative impacts on their academic performance, and that may be because their expectations and those from the environment could be higher. As has been noted by Chakraborty et al. (2021), Environmental quality is a very important factor that affects academic engagement, particularly affecting home-based learning.
2. **Academic Challenges:** Both regions reported significant academic decline during the pandemic, with a higher degree of diminution being recorded in Meghalaya. Students in Mizoram encountered more difficulty concentrating, perhaps due to more crowding within individual homes or stricter self-

discipline. In comparison with Meghalaya, online tutorials have been more commonly used in Mizoram, whereas students from Meghalaya have had to rely much on self-study. These coping styles speak to alternative adaptive mechanisms that come into play with resource availability and teacher involvement (Kundu & Bej, 2022).

3. **Social Challenges:** Social disconnection appeared to be a common concern; however, it was the students from Mizoram who proactively employed informal mechanisms such as social media and meet-ups, while their counterparts from Meghalaya appeared more inclined to use formal academic avenues for such engagements. According to UNICEF (2021), both forms of formal and informal engagements are vital to cushioning the impacts of social isolation during remote learning.
4. **Emotional Challenges:** Students in both regions faced emotional distress during the pandemic, but the type of concern varied. Motivation loss was more rampant in Mizoram, while stress and pressure seemed to take the lead for Meghalaya. Access to structured support is a bit better in Mizoram, in all probability owing to community-led initiatives (School Education Department of Mizoram, 2016). This suggests that emotional support systems instituted in terms of local institutions can shield students from getting a psychological strain (Burgess and Sievertsen, 2020).
5. **Technological Challenges:** The pandemic threw up digital hurdles for both states. However, the severity remained somewhat more in Meghalaya, largely owing to internet access issues. Students in Mizoram demonstrated greater digital self-efficacy, potentially on account of greater focalization on technology in the past or better support from peers. UNESCO (2021) stressed the fact that adaptive use of digital tools with technical guidance could improve the students' ability to manage online learning stress.
6. **Financial Challenges:** In both the states, the financial burden of online learning during the pandemic was huge, while Mizoram witnessed a greater incidence of difficulty in accessing scholarships. Meghalaya noted a higher number of students devoid of essential technological access. These findings hint at larger regional inequalities and do support the reports by OECD (2021)

and UNICEF (2021) that economic hardship largely shaped the digital education experience of the students.

5.2.0 EDUCATIONAL IMPLICATIONS OF THE STUDY:

The findings of this study provide meaningful insights into the multifaceted challenges experienced by secondary school students, parents, teachers, and administrators during the COVID-19 pandemic in Mizoram and Meghalaya. These insights carry significant implications for educational policy, school leadership, teacher training, student support systems, and broader systemic reforms.

1. **Bridging the Digital Divide:** The study highlights significant disparities in access to digital devices and stable internet, particularly among students in rural and low-income households. This suggests that equitable access to digital resources must be viewed not as a luxury but as a basic educational right. The digital divide must be addressed through targeted infrastructure development, public-private partnerships, and device distribution schemes that reach the most vulnerable learners.
2. **Designing Inclusive Learning Strategies:** Comprehension issues coupled with students' disengagement indicate a huge need to develop teaching methodologies that are inclusive and adaptable to change. Instructional content should be designed with consideration for students' diverse learning needs, technological limitations, and home environments. The inclusion of interactive media along with modular content and an array of language options could further enhance student interest and learning efficacy.
3. **Prioritising Emotional and Psychological Wellbeing:** The prevalence of stress, anxiety, and emotional exhaustion among students and teachers emphasises the importance of integrating mental health into the education system. Emotional wellbeing must be treated as a foundational component of learning, not as an optional service. To check the proper development of students in the long run, mental health education needs to be implemented in tandem with peer support systems and counselling services.

4. **Strengthening Parental and Community Involvement:** The findings show that parental support played a crucial role in shaping students' academic experiences. However, not all parents were equipped to assist effectively. This marked the need for having strengthened school-home partnerships. Learning through community programmes and parental engagement can foster more support and resilience in the learning environment.
5. **Empowering School Leaders for Crisis Response:** School administrators faced unprecedented pressures related to health protocols, teacher management, and academic continuity. The study highlights the need for school leaders to be trained in crisis preparedness and adaptive leadership. Effective educational leadership must be able to make decisions under uncertainty, engage the community, and exercise emotional intelligence.
6. **Fostering Peer Interaction and Social Connection:** Students reported feeling socially disconnected due to the absence of in-person interactions. This implies that peer relationships are critical to students' motivation, identity formation, and emotional stability. Schools should prioritise social interaction during curriculum delivery. Whether online or offline, such social interactions should nourish the learners' cries for belongingness and community.
7. **Rethinking Assessment Systems:** The challenges faced during online examinations reflect a broader concern regarding the rigidity and inaccessibility of traditional assessment methods. Assessments must evolve to become more formative, competency based, and adaptable to different learning contexts. Clear communication of instructions and equitable testing conditions are crucial for maintaining academic integrity.
8. **Recognising the Central Role of Teachers:** The study confirms that teachers are pivotal in sustaining educational continuity, yet many were overburdened and under-supported. Investing in teacher training, digital literacy, and professional collaboration is vital. Teachers must be recognised not just as deliverers of content, but as facilitators of learning, wellbeing, and community engagement during times of crisis.

5.3.0 RECOMMENDATIONS:

Building upon the educational implications, the following recommendations are proposed to address the issues uncovered and to enhance the resilience, inclusivity, and quality of secondary education systems in Mizoram, Meghalaya, and similar contexts:

1. **Expand and Upgrade Digital Infrastructure:** Government and education authorities must prioritise investment in internet connectivity, particularly in remote and underdeveloped areas. Collaborations with telecom providers can help reduce data costs and increase broadband reach. Additionally, educational institutions should be equipped with digital tools that support both teachers and students in blended and remote learning.
2. **Ensure Access to Digital Devices for All Students:** Device provisioning schemes must be designed with equity at the core. Efforts should be made to provide affordable or free devices, such as tablets or low-cost laptops, to students from economically disadvantaged families. Device banks or community learning centres may be established in villages and small towns.
3. **Promote Blended and Flexible Learning Models:** It is crucial to enrich the traditional classroom setting with some digital content and flexible modes of delivery. Blended learning techniques would permit educational instruction to be continued during disruptions; face-to-face methods might prevail over distance ones or vice versa. Teachers need to be in a position to draw upon resources and training, so they can design activities suitable for various formats.
4. **Institutionalise School-Based Mental Health Programmes:** Mental health support should be integrated into school structures. Schools should engage trained counsellors and mental health professionals regularly. Mental health awareness should be regularly promoted with peer mentoring, stress management, and other workshops in the school curriculum.
5. **Develop Community-Based Support Mechanisms:** Schools should collaborate with local organisations, youth associations, and religious institutions to provide learning support, especially during emergencies.

Community volunteers can mentor kids, administer offline materials, and follow up with learners at risk of dropping out.

6. **Enhance Teacher Professional Development:** Regular, practice-based professional development programmes should be implemented focusing on digital pedagogy, classroom management in online settings, and learner-centred teaching strategies. Mentoring and peer learning models should be fostered to create collaborative culture among the teaching corps.
7. **Adopt Transparent and Flexible Assessment Practices:** School assessment policies must be revised to accommodate alternative methods such as portfolio work, project based learning, and oral examinations. These approaches provide a fairer measure of student understanding, especially during disrupted schooling periods. Instruction must be standardised for all assessments, and there should be a rubric to accompany every test.
8. **Encourage Parental Engagement in Education:** Schools should build sustained channels of communication with parents. Occasional training sessions, guidelines handbooks, and regular updates will help raise parents' capabilities to better support their children in learning. Targeted outreach may need to be implemented for those parents less proficient in literacy or technology.
9. **Design Contingency Plans for Emergency Education:** Each school must have a contingency education plan that includes detailed protocols for shifting to remote learning, managing academic schedules, and ensuring safety. These plans should be periodically reviewed and practiced to enhance institutional preparedness for future crises.
10. **Provide Financial Assistance and Learning Subsidies:** Targeted financial aid, including scholarships, device support, and data subsidies should be provided to students most affected by economic hardship. Emergency education relief funds can ensure that no student is excluded due to financial constraints during difficult times.

5.4.0 SUGGESTIONS FOR FURTHER RESEARCH

1. A Longitudinal Study on the Lasting Impact of Pandemic-Induced Learning Loss among Secondary School Students in Mizoram and Meghalaya
2. An Exploratory Study on the Preparedness of Schools for Future Educational Disruptions: Lessons from COVID-19
3. A Comparative Analysis of Mental Health Support Practices for Secondary School Students in Rural and Urban Settings
4. A Study on the Role of Digital Literacy and Training among Secondary School Teachers in Enhancing Remote Teaching Effectiveness
5. A Qualitative Inquiry into Parental Coping Mechanisms and Support Systems in Remote Learning Environments
6. An Evaluation of State-Level Education Policy Interventions During the Pandemic: A Focus on Implementation and Equity
7. A Cross-State Study on Technological Accessibility and the Efficacy of Data Subsidies in Reducing the Digital Divide

SUMMARY

Introduction:

The emergence of SARS-CoV-2, the virus responsible for COVID-19, in late 2019 marked the onset of a global health crisis that profoundly altered societal structures and daily life. First identified in Wuhan, Hubei Province, China, early research points to a zoonotic origin, where pathogens transmit from animals to humans. Investigations suggest that the Huanan Seafood Wholesale Market, where wild animals and seafood were sold nearby, may have played a role in the initial transmission (Centers for Disease Control and Prevention, 2021).

The COVID-19 pandemic exposed critical vulnerabilities across global healthcare, economic, and social systems. Healthcare infrastructures were overwhelmed by surging cases, revealing shortages in resources such as personal protective equipment and ventilators, and highlighting the need for systemic reforms to enhance resilience in public health systems. Economically, lockdowns and remote work transitions disrupted industries like retail and hospitality, leading to widespread unemployment and financial instability, particularly in low-income countries with limited fiscal capacity. Socially, prolonged isolation and uncertainty contributed to increased mental health issues, underscoring the importance of integrating psychological support into public health responses.

In March 2020, UNESCO reported that school closures in 107 countries had disrupted the education of approximately 862 million students, nearly half of the global student population. The education sector experienced some of the most severe disruptions, as remote and hybrid instructional models rapidly replaced traditional in-person learning. The closure of schools, colleges, and universities affected millions of students and educators worldwide, introducing challenges related to digital accessibility, disparities in instructional quality, and student engagement in virtual environments. The sudden shift necessitated an unplanned transition to online learning, presenting significant logistical, technological, and pedagogical challenges. To sustain academic continuity, many schools implemented a combination of synchronous learning, such as live video lectures, and asynchronous methods,

including pre-recorded lessons and digital assignments (Donitsa-Schmidt & Ramot, 2020). The abrupt transition also placed additional responsibilities on parents and caregivers, who had to support at-home learning while managing their professional obligations.

By March 2020, schools across the country were closed as a precautionary measure, affecting over 320 million students and exposing significant gaps in the education system's preparedness for remote learning (UNESCO, 2020). This shift revealed stark disparities in digital access, particularly in rural and low-income regions where digital infrastructure remains underdeveloped (UNESCO, 2020; Mishra, Gupta, & Shree, 2020).

In India, the first confirmed case was reported on 30 January 2020 in Kerala, following the arrival of a traveller from Wuhan, China, marking the onset of a significant national health crisis (Wikipedia, 2020). As infections began to rise, the Indian government responded with swift containment measures, including the closure of schools, travel restrictions, and a nationwide lockdown aimed at curbing the spread of the virus. The urgency of the situation intensified following the country's first COVID-19-related fatality on 12 March 2020. To mobilise public support for preventive measures, the government introduced the *Janta Curfew* on 22 March, which was followed by a full-scale national lockdown from 25 March. As the crisis persisted, lockdown measures evolved through successive phases, culminating in *Lockdown 5.0* by June 2020 (Ministry of Health and Family Welfare [MoHFW], 2020).

The first confirmed case of COVID-19 in Mizoram was reported on 24 March 2020, involving a pastor returning from Amsterdam (Times of India, 2020). In response, the state government swiftly implemented strict lockdown measures to contain the spread of the virus. Schools were closed indefinitely, necessitating an urgent transition to online learning platforms to ensure continuity. Limited internet connectivity in remote areas, coupled with a lack of digital devices for many students, created a stark digital divide, disproportionately affecting learners from economically disadvantaged backgrounds (Lalzuiliana & Vanlalpeka, 2020).

The first confirmed case of COVID-19 in Meghalaya was reported on 14 April 2020, when a doctor returning from the United Kingdom tested positive, raising significant public health concerns across the state (Government of Meghalaya, 2020). In response, the government swiftly introduced preventive measures, including the closure of schools from 17 March 2020, to limit the spread of the virus. While these measures were essential for safeguarding public health, they posed immediate challenges to educational continuity, particularly in remote and rural areas where access to digital learning resources was severely limited (Sangma & Lyngdoh, 2021).

Rationale of the Study:

The COVID-19 pandemic profoundly disrupted education systems worldwide, necessitating an abrupt and unplanned transition from traditional classroom-based instruction to remote learning. This shift left schools, teachers, students, and families with little time to adapt, raising immediate concerns about learning continuity and the long-term effects on students' academic progress and the stability of educational structures (UNESCO, 2020). As the world moves toward a post-pandemic reality, it is essential to examine both the short-term disruptions and the enduring implications of these unprecedented changes in education (Sahlberg, 2021).

Mizoram and Meghalaya, two states in northeastern India, provide distinct yet comparable contexts for examining these educational challenges. While both states share certain socio-economic and cultural characteristics, their unique geographical and infrastructural conditions influenced their responses to pandemic-induced disruptions. With predominantly rural landscapes, limited digital infrastructure, and economic constraints, both states faced considerable difficulties in shifting to online education. However, the nature of these challenges and the strategies adopted to mitigate them varied, making a comparative study particularly valuable (Sen & Dhar, 2021).

A comparative analysis of the educational challenges during the COVID-19 pandemic in Mizoram and Meghalaya offers a critical opportunity to explore how regions with similar constraints can implement diverse strategies to address educational crises. The ultimate goal is to provide evidence-based recommendations

to strengthen the education systems of both states, focusing on resilience, equity, and adaptability to ensure that quality education remains accessible to all students, particularly during times of crisis (Borah & Lyngdoh, 2021).

By analyzing the responses of Mizoram and Meghalaya, this study aims to identify effective strategies that can be applied to similar regions facing comparable infrastructural and socio-economic challenges. The findings will help bridge the digital divide, enhance teacher training, and address structural inequalities exacerbated by the pandemic, ensuring that all students have equitable access to quality learning, even in times of uncertainty (Indian Council of Social Science Research [ICSSR], 2021).

Research Questions:

The research questions of the study are as follows:

1. What are the educational challenges faced by school administrators of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya?
2. What are the educational challenges faced by teachers of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya?
3. What are the educational challenges faced by community members of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya?
4. What are the educational challenges faced by secondary school students during COVID-19 pandemic in Mizoram and Meghalaya?

Statement of the study:

The problem has been stated as “*Educational Challenges faced by Stakeholders of Secondary Schools during COVID-19 Pandemic in Mizoram and Meghalaya*”

Objectives of the Study:

Aligned with the research questions outlined earlier, the objectives of this study have been formulated as follows:

1. To find out and compare the educational challenges faced by school administrators of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.
2. To find out and compare the educational challenges faced by teachers of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.
3. To find out and compare the educational challenges faced by community members during COVID-19 pandemic in Mizoram and Meghalaya.
4. To find out and compare the educational challenges faced by secondary school students during COVID-19 pandemic in Mizoram and Meghalaya.

Operational Definitions of Key Terms:

Educational Challenges: In this study, *educational challenges* refer to the various difficulties encountered by stakeholders in maintaining effective teaching and learning during the pandemic

Stakeholders: For this study, *stakeholders* specifically refer to school administrators, teachers, community members, and secondary school students.

COVID-19: COVID-19 is an infectious disease caused by a novel strain of coronavirus. The name derives from *CO* (corona), *VI* (virus), and *D* (disease). Initially referred to as the *2019 novel coronavirus* or *2019-nCoV*, the disease has had profound global consequences, affecting multiple sectors, including education.

Secondary Schools: For this study, *secondary schools* refer to the institutions that offer classes 9 and 10 and are affiliated with the Mizoram Board of School Education (MBSE) in Mizoram and the Meghalaya Board of School Education (MBOSE) in Meghalaya.

Delimitation of the study

The study is delimited to the school affiliated to the Mizoram Board of School Education in Mizoram and the Meghalaya Board of School Education.

Review of Related Literature:

A total of 107 related literatures were reviewed in the study. There were 35 studies done in India and 72 studies done abroad. The review period ranges from the year 2004 to 2024.

Method of the study:

This study adopted an explanatory sequential mixed-methods design, integrating phenomenological inquiry to explore participants' lived experiences. The first phase involved a quantitative method, and the second phase involved a qualitative method. This dual-phase approach enabled methodological triangulation, enriching the study by combining broad patterns (quantitative) with deep, experiential insights (qualitative).

Population of the study:

The population of the study include the following:

- **Secondary School Students:** This category encompasses all students enrolled in secondary schools affiliated with the Mizoram Board of School Education (MBSE) and the Meghalaya Board of School Education (MBOSE).
- **Secondary School Teachers:** This group includes all teachers serving in secondary schools affiliated with MBSE and MBOSE.
- **Secondary School Principals:** This category comprises all principals of secondary schools affiliated with MBSE and MBOSE.
- **Community Members or Parents:** This group includes all community members or parents associated with secondary school students in Mizoram and Meghalaya.

As per UDISE 2021-22 record there were 698 secondary schools, 4214 teachers, 39410 students in Mizoram and 1049 secondary schools, 5283 teachers and 65197 students in Meghalaya

Sampling Technique:

For this study, the investigator employed a multi stage and multi phased stratified random sampling approach to ensure diverse representation across key subgroups.

First, two districts from each state were randomly selected to represent the overall population: Aizawl and Lunglei in Mizoram, and East Khasi Hills and West Garo Hills in Meghalaya. From the selected districts, 10% of the schools were chosen as sampling units for the selection of students and teachers, while 23% of the schools were sampled for the selection of administrators in each state. All samples were selected proportionally based on the number of schools in the respective districts.

In Mizoram, students and teachers were selected from a total of 30 schools—20 schools from Aizawl and 10 schools from Lunglei. From each of these schools, 20 students and 5 teachers were selected, resulting in a total sample of 600 students and 150 teachers. A sample of administrators was also drawn from 70 schools, comprising 48 administrators from Aizawl and 22 administrators from Lunglei.

In Meghalaya, students and teachers were selected from 47 schools—32 schools from East Khasi Hills and 15 schools from West Garo Hills. As in Mizoram, 20 students and 5 teachers were selected from each school, resulting in a total of 940 students and 235 teachers. For administrators, the sample was collected from 110 schools, consisting of 75 administrators from East Khasi Hills and 35 administrators from West Garo Hills.

However, since the total number of community members was unknown, a convenience sampling method was employed. Accordingly, 100 community members were selected from each state—Mizoram and Meghalaya—based on accessibility and willingness to participate in the study.

For the focus group discussion, a purposive sampling technique was used; stakeholders who were known to have faced significant challenges during the COVID-19 pandemic were intentionally selected. These participants included teachers, school administrators, parents, and community representatives who

experienced educational challenges. This approach ensured that the discussions would provide rich, relevant, and experience-based insights to complement the quantitative findings of the study.

The following Table shows the details of the sample selected for the study:

Table 1

Selected sample of stakeholders in secondary Education in Mizoram and Meghalaya

Stakeholders	Mizoram	Meghalaya	Grand Total
Administrators	70	110	180
Community Members/Parents	100	100	200
Teachers	150	235	385
Students	600	940	1540
Total	920	1385	2305

For the focus group discussion, a purposive sampling technique was used; stakeholders who were known to have faced significant challenges during the COVID-19 pandemic were intentionally selected. The sample consisted of the following:

Table 2

Selected Sample for Focus Group Discussion in Mizoram and Meghalaya

Stakeholders	Mizoram	Meghalaya	Grand Total
Administrators	6	4	10
Teachers	6	6	12
Students	6	6	12
Community Members	6	4	10
Total	24	20	44

Tools used for data collection:

For the present study, the investigator developed a questionnaire, which are as follows:

1. Questionnaire on Educational challenges during the COVID-19 pandemic for Administrators/Principals
2. Questionnaire on Educational Challenges during the COVID-19 pandemic for Teachers
3. Questionnaire on Educational Challenges during the COVID-19 pandemic for Community members/Parents.
4. Questionnaire on Educational Challenges during the COVID-19 pandemic for Students
5. Discussion Guide for Focus Group Discussion

Procedure of Data Collection:

The investigator undertook field visits to secondary schools in Mizoram and Meghalaya, where formal consent was obtained from a diverse group of respondents, including principals or administrators, teachers, students, and community members or parents (the latter accessed indirectly through students) to administer questionnaires. The researcher personally explained the purpose and significance of the study, providing clear instructions to ensure that all participants fully understood the questions and the confidentiality measures established to protect their responses.

By building strong rapport with the respondents, the investigator created a supportive environment that encouraged open and sincere communication.

In the second phase of data collection, the qualitative phase, Focus Group Discussions were conducted through the Zoom Meetings platform as well as through in-person meetings. Participants, including students, teachers, administrators, and community members, were invited via phone calls and were provided with clear information regarding the discussion topics and the procedures of the session. Informed consent was obtained from all participants before the discussions began. The

sessions were scheduled according to the availability and convenience of the participants, especially students, parents, and administrators.

Analysis of Data:

To analyse the quantitative data, the investigator used descriptive statistical techniques such as frequency distribution and percentage as and when necessary. The descriptive qualitative analysis is used to analyse the qualitative data collected using focus group discussions.

MAJOR FINDINGS: The major findings of the study are as follows:

Major Findings of Objective 1: Educational Challenges Faced by Secondary School Administrators in Mizoram and Meghalaya during the COVID-19 pandemic.

1. Health and Safety Challenges:

- Administrators in both states reported difficulty in implementing COVID-19 testing, tracing, and quarantine protocols (70% in Mizoram, 68.18% in Meghalaya).
- Lack of awareness of COVID-19 protocols was cited by 65.71% of administrators in Mizoram and 74.54% of administrators in Meghalaya.
- Emotional concerns such as fear and anxiety among staff and students were reported by 41.42% of administrators in Mizoram and 50% of administrators in Meghalaya during the pandemic.
- Problems in conducting board exam classes were noted by 67.14% of administrators in Mizoram and 57.27% of administrators in Meghalaya during the pandemic.
- The discussion also reveals that school administrators in both Mizoram and Meghalaya struggled to enforce COVID-19 safety protocols, with challenges in monitoring mask use, managing fear among students, and conducting board exams under strict guidelines. Emotional distress and

logistical delays, such as in collecting answer sheets, further disrupted the learning process.

2. Technological and Online Learning Challenges:

- Limited access to digital devices in remote learning during the pandemic was reported by 61.42% of administrators in Mizoram and 88.18% of administrators in Meghalaya.
- Connectivity issues affected 57.14% of administrators in Mizoram and 65.45% of administrators in Meghalaya during the pandemic.
- Maintaining digital infrastructure in remote learning during the pandemic was a challenge for 21.42% of administrators in Mizoram and 27.27% of administrators in Meghalaya.
- WhatsApp was the most used platform (82.85% in Mizoram, 93.63% in Meghalaya) during the pandemic; Mizoram had higher use of Zoom and Google Meet.
- School administrators highlighted that many students lacked personal devices and stable internet, particularly in Meghalaya, due to economic and infrastructural disadvantages. Despite challenges, schools adapted by using accessible tools like WhatsApp and text messaging, while some even relied on neighbors to pass messages, revealing the flexible and community-driven approaches adopted to maintain learning continuity.

3. Academic Progress and Student Learning:

- Difficulties in comprehension among students during the pandemic were observed by 51.42% of administrators in Mizoram and 44.54% of administrators in Meghalaya.
- Lack of academic social interaction during the pandemic was higher in Meghalaya (50%) than in Mizoram (31.42%).

- Increased dropout rates during the pandemic were reported by 40% of administrators in Mizoram and 60.90% of administrators in Meghalaya.
- Student disengagement in virtual learning was common during the pandemic (84.28% in Mizoram, 80.90% in Meghalaya).
- The qualitative insight reveals that many students struggled with motivation and comprehension during the pandemic, with administrators observing stress-related symptoms like panic and fainting. Infrastructural gaps, particularly in Meghalaya, led to higher dropout rates and disengagement. To support learning, schools relied on printed materials and community efforts like local organisations and even makeshift learning spaces, showing how grassroots responses helped bridge digital divides.

4. Curriculum and Assessment:

- Reduction of curriculum during the pandemic was reported by 48.57% of administrators in Mizoram and 57.27% of administrators in Meghalaya.
- Online examinations during the pandemic were more prevalent in Mizoram (85.71%). But in Meghalaya giving assignments and project work were common (75.45%).
- Adoption of 100% promotion policy during the pandemic was higher in Meghalaya (78.18%) than in Mizoram (45.71%).
- Reliability, fairness, and academic integrity in assessments were consistent challenges in both states.
- The qualitative findings revealed that schools in Mizoram followed a uniform 30% curriculum reduction, while those in Meghalaya made selective cuts focusing on core subjects, showing different regional approaches to easing academic pressure. Mathematics was the most affected subject due to the need for real-time explanation, while science engagement dropped because of the lack of hands-on experiments.

- Most schools were unable to conduct exams as planned due to inadequate health infrastructure, prompting a shift to alternative assessments like assignments and open-book tests. Mizoram showed more reliance on structured online exams, while Meghalaya adopted 100% promotion more widely due to difficulties in organizing evaluations. The varied use of methods like projects, open-book tests, and selective curriculum adjustments reflects each state's differing capacity, digital readiness, and emphasis on maintaining academic standards during the pandemic.

5. Teacher Support and Professional Development:

- Limited opportunities for collaboration and training were reported by 58.57% of administrators in Mizoram and 60% of administrators in Meghalaya.
- Increased workload was observed by 41.42% of administrators in Mizoram and 49.09% of administrators in Meghalaya.
- Difficulties in managing remote instruction were noted by 44.28% of administrators in Mizoram and 48.18% of administrators in Meghalaya.
- Administrators noted that the pandemic disrupted teacher collaboration and reduced cooperation among staff. Teachers experienced exhaustion due to longer working hours and the pressures of adapting to online instruction. These challenges highlight the need to prioritise teacher well-being and professional development during crises.

6. Mental Health and Well-being:

- Increased stress levels among staff and students during the pandemic were reported more in Mizoram (61.42%) than in Meghalaya (40.90%).
- Limited access to mental health resources during the pandemic affected 47.14% of administrators in Mizoram and 52.72% of administrators in Meghalaya.

- Difficulty in managing anxiety was more frequently noted in Meghalaya (55.45%) than in Mizoram (37.14%).
- The qualitative insight revealed that Administrators in Mizoram encouraged students and teachers to address mental health issues, reflecting greater awareness in some schools. In Meghalaya, there was no specific response to address mental health issues, and support relied mainly on phone conversations due to limited resources. These responses highlight the urgent need for accessible, school-based mental health support systems.

7. Financial Challenges:

- Budget cuts during the pandemic were reported by 50% of administrators in Mizoram and 46.36% of administrators in Meghalaya.
- Salary reductions during the pandemic were more common in Mizoram (38.57%) than in Meghalaya (2.72%), largely due to unpaid fees (37.14% vs. 1.81%).
- No government funding was received by any institution in either state during the pandemic.
- External non-government support during the pandemic was received by only 8.57% of administrators in Mizoram and 4.54% of administrators in Meghalaya.
- Private schools faced severe financial strain during the pandemic due to unpaid student fees, which led to salary cuts or delays for teachers. While some institutions managed with community donations or cost-cutting, external support—both government and non-government—was minimal or absent. Access issues and lack of infrastructure further deepened existing inequalities.

Major Findings of Objective 2: Educational Challenges Faced by Secondary School Teachers in Mizoram and Meghalaya during the pandemic

1. Curriculum Challenges:

- A majority of teachers in both states modified the curriculum during the pandemic (88% in Mizoram and 85.53% in Meghalaya).
- Reduction of course content during the pandemic was reported by 52.66% of teachers in Mizoram and 51.48% of teachers in Meghalaya.
- Use of online resources among teachers during the pandemic was slightly higher in Meghalaya (41.70%) than in Mizoram (35.33%).
- The qualitative findings showed that teachers adapted to the challenges of remote learning by significantly modifying the curriculum—condensing lessons, simplifying content, and focusing on essential and fundamental topics. They prioritized skill-based learning and provided self-study materials to support independent learning. Due to poor internet access in some areas, teachers used tools like WhatsApp, voice notes, and shared study materials asynchronously. They also integrated digital resources such as recorded videos, PowerPoint presentations, and online assessments to engage students and monitor their progress.

2. Pedagogical Challenges:

- A large majority of teachers faced challenges in implementing modified teaching strategies (94% in Mizoram and 91.48% in Meghalaya).
- Limited access to technology during the pandemic was reported by 42.66% of teachers in Mizoram and 60% of teachers in Meghalaya.
- Adapting teaching methods during the pandemic was a concern for 52% of teachers in Mizoram and 43.4% of teachers in Meghalaya.
- Teachers in Mizoram and Meghalaya faced significant challenges adapting to remote teaching during the COVID-19 pandemic, mainly due to poor

digital access, heavy workloads, and a lack of training. Many teachers had to teach themselves how to use online platforms and struggled with student disengagement and the inability to provide devices to students by parents. Despite these issues, some adapted by using pre-recorded videos, WhatsApp, and project-based learning to reach students. A few continued with printed worksheets due to poor connectivity. Overall, teachers adopted flexible strategies based on local conditions, but the experience revealed an urgent need for better digital training and infrastructure.

3. Student Challenges:

- A decline in engagement and motivation in remote learning was observed by 87.33% of teachers in Mizoram and 91.06% of teachers in Meghalaya.
- Difficulty in accessing technology for online learning was reported by 77% of teachers in Mizoram and 80.42% of teachers in Meghalaya.
- Changes in student mental health during the pandemic were noticed by 73.33% of teachers in Mizoram and 67.23% of teachers in Meghalaya.
- From the qualitative findings, several teachers explained that students lacked routine, discipline, and motivation, often failing to follow timetables or participate actively in online classes. Many students kept their cameras off, and teachers could not tell whether they were listening or engaged. Teachers also observed that household distractions and poor digital skills reduced attentiveness. In Meghalaya, teachers noted that much classroom time was spent troubleshooting online platforms rather than teaching. Students were anxious about exams, college admissions, and their academic progress. Some became withdrawn, stopped attending regularly, or showed stress due to isolation and lack of peer interaction. Teachers in Mizoram shared that they provided moral and emotional support, including weekly sermons to encourage students and help them cope. Across both states, communication with parents relied mainly on phone calls and text messages, as these were the most practical and accessible methods.

4. Technological Challenges:

- Only 33.34% of teachers in Mizoram and 14.89% of teachers in Meghalaya received training in technology use during the pandemic.
- Lack of internet connectivity was the most reported issue during the pandemic (54.66% in Mizoram and 71.48% in Meghalaya).
- Technological hurdles in online classes were encountered by 85.33% of teachers in Mizoram and 88.51% of teachers in Meghalaya.
- In the qualitative findings, most teachers reported that schools were unprepared and provided little technological support, forcing them to manage online teaching independently. Many lacked personal devices, faced unstable internet, and received no formal digital training, relying instead on trial and error. Financial difficulties further limited their access to tools and connectivity. While video conferencing platforms were widely used, they posed challenges due to technical issues, whereas apps like WhatsApp were more accessible. Most teachers had moderate confidence with basic tools but struggled with advanced features, and many continued to feel anxious even after months of remote teaching.

5. Assessment and Grading:

- Changes in assessment methods during the pandemic were made by 66% of teachers in Mizoram and 61.27% of teachers in Meghalaya.
- Difficulties in student evaluation during the pandemic were reported by 86.66% of teachers in Mizoram and 92.76% of teachers in Meghalaya.
- Academic performance decline during the pandemic was observed by 58.66% of teachers in Mizoram and 65.10% of teachers in Meghalaya.
- The qualitative data reveals that teachers faced significant challenges in assessing students during the pandemic due to lack of training, unstable internet, and limited student access to digital devices. Many had to adapt

assessments using Google Forms, open-book tests, phone calls, and past academic records, often without administrative support. Teachers struggled to engage students online, and participation was low, especially where connectivity was poor. Despite efforts to be fair, assessment quality was compromised, leading many teachers to promote students leniently out of empathy and concern. Some tried innovative methods like group work, but inconsistent access and coordination issues limited their success. Overall, teachers showed flexibility and compassion but felt that student learning and evaluation were far from satisfactory.

6. Emotional Challenges:

- Emotional challenges during the pandemic were experienced by 57.33% of teachers in Mizoram and 70.21% of teachers in Meghalaya.
- Feelings of isolation during the pandemic were more common among teachers in Meghalaya (50.21%) than in Mizoram (34%).
- Institutional emotional support was received by fewer than half of teachers in both states.
- The qualitative data highlights that many teachers felt emotionally overwhelmed, drained, and isolated while balancing teaching with household responsibilities. Several described days when they felt like shutting down due to exhaustion and the constant fear of the virus affecting students or colleagues. Some teachers expressed frustration over being expected to teach online without proper training or guidance, while others noted that even when training was provided, poor internet and lack of devices limited its usefulness. A few teachers shared that counselling services and mental health workshops helped them manage stress and recognise signs of anxiety in themselves and their students. Supportive interactions with colleagues and regular school check-ins were described as emotional lifelines during this difficult period.

7. Financial Challenges:

- Salary reduction during the pandemic was reported by 34.66% of teachers in Mizoram and 10.63% of teachers in Meghalaya.
- Problems in affording internet bills and technology during the pandemic were reported by 17.33% of teachers in Mizoram and 14.89% of teachers in Meghalaya.
- Based on the qualitative findings, teachers from both Mizoram and Meghalaya faced financial burdens due to the cost of internet and technology required for online teaching. One teacher from Mizoram highlighted that the situation was worsened by a reduced salary, making it difficult to afford these essentials. A teacher from Meghalaya, while not experiencing a salary cut, still had to make personal sacrifices to cover these expenses.

Major Findings of Objective 3: Educational Challenges Faced by Parents/Community members in Mizoram and Meghalaya

1. Technological Access:

- Limited access to devices or reliable internet during the pandemic was reported by 66% of parents in Mizoram and 67% of parents in Meghalaya.
- 45% of parents in Mizoram and 65% in Meghalaya could not provide multiple digital devices for more than one child.
- Personal device access was higher in Mizoram (65%) than in Meghalaya (17%), while parental device use was higher in Meghalaya (78%).
- The qualitative findings showed that parents in both Mizoram and Meghalaya faced significant financial and technological difficulties in supporting their children's online education during the pandemic. Many could not afford separate devices or regular internet access, leading to children sharing phones or borrowing from neighbors, which disrupted consistent learning. Digital illiteracy added to their challenges, as several parents struggled to navigate online platforms. Despite these barriers, some

families prioritized purchasing additional devices or sought help from relatives to cope.

2. Mental, Social, and Academic Support:

- Stress and anxiety were reported by 65% of parents in Mizoram and 44% in Meghalaya during the pandemic.
- Difficulty supporting children's mental health during the pandemic was observed by 36% of parents in Mizoram and 41% of parents in Meghalaya.
- 62% of parents in Meghalaya and 15% of parents in Mizoram observed emotional effects from reduced peer interaction during the pandemic.
- Online addiction was noted by 67% of parents in Mizoram and 74% of parents in Meghalaya during the pandemic.
- 74% of parents in Mizoram and 49% of parents in Meghalaya feared learning loss during the pandemic.
- The qualitative findings showed that parents in Mizoram and Meghalaya experienced considerable stress and anxiety while trying to support their children's online learning, often feeling unsure about their ability to help effectively. In Mizoram, some children remained active and cheerful through support from family and neighbors, which helped mitigate the effects of social isolation. In contrast, parents in Meghalaya reported more emotional challenges in their children, including withdrawal, irritability, and increased anxiety, largely due to limited peer interaction and disruption of normal school routines. Parents—particularly in Meghalaya—faced challenges with digital literacy, making it difficult to assist with online platforms. Many parents in both states also expressed concern about learning loss, especially in difficult subjects, fearing long-term academic setbacks.

3. Coping Strategies for Support:

- Goal-setting was more common as a coping strategy used by parents in Mizoram (69%), while multimedia tools were favoured in Meghalaya (55%).
- 70% of parents in Mizoram practised self-care to model emotional resilience, compared to 43% of parents in Meghalaya.
- Maintaining peer connections was higher in Meghalaya (48%) than in Mizoram (22%).
- The qualitative findings showed that parents in Mizoram often relied on structured routines and reward systems to motivate children, believing that clear goals helped maintain focus. In contrast, Meghalaya parents leaned more on multimedia tools and group activities, such as storytelling and crafts, to sustain engagement. Emotional support in Meghalaya focused on open communication and peer connection, while Mizoram parents emphasized building independence and practicing self-care to manage stress. One respondent from Mizoram shared that creative activities like drawing and walking were encouraged as coping methods during emotional distress.

4. Time Management, Communication, and Workload:

- Difficulty in prioritising tasks was high in both states (78% Mizoram, 68% Meghalaya).
- Communication issues with schools were higher in Meghalaya (34%) than in Mizoram (18%).
- 96% of parents in Mizoram and 86% in Meghalaya reported being able to help their children with schoolwork during the pandemic
- Increased workload during the pandemic was experienced by 61% of parents in Meghalaya and 44% of parents in Mizoram.
- The qualitative findings showed that parents in both Mizoram and Meghalaya faced significant challenges in managing their children's learning. Many struggled to establish consistent study routines and balance

competing household, work, and educational responsibilities. To cope, parents adjusted work schedules, supervised children while working from home, or sought help from relatives, reflecting adaptive strategies to manage dual responsibilities under constrained circumstances.

5. Home Environment:

- 89% of parents in Meghalaya and 62% of parents in Mizoram lacked a conducive learning environment in remote learning during the pandemic.
- Background noise was the most common challenge (57% Mizoram, 62% Meghalaya).
- 82% of parents in Mizoram and 87% of parents in Meghalaya believed the home environment in remote learning affected concentration.
- 42% of parents in Mizoram and 79% of parents in Meghalaya could not control distractions in remote learning during the pandemic.
- The qualitative data reveal that children in Meghalaya faced greater challenges in concentrating during online classes due to overcrowded, noisy, and space-constrained home environments. In contrast, some parents in Mizoram managed to create simple but effective study spaces, which helped reduce distractions. However, both states experienced difficulties such as increased household chores and background noise that interfered with learning.

6. Coping Strategies for Home Learning:

- Family cooperation to reduce distractions in remote learning was practised by 56% of parents in Mizoram and 24% of parents in Meghalaya.
- Establishing routines was reported by 32% of parents in Mizoram and 21% of parents in Meghalaya during the pandemic.
- The qualitative finding highlights the difficulty of maintaining a quiet environment during online classes due to constant household activity. Despite efforts to involve all family members in reducing distractions, the lack of control over the home setting remains a major challenge. This

highlights how crowded living conditions and limited private space can undermine even well-intentioned strategies for supporting children's learning.

7. Satisfaction:

- Satisfaction with children's academic performance was higher in Mizoram (63%) than in Meghalaya (28%).
- 58% of parents in Mizoram and 30% in Meghalaya were satisfied with teaching methods.
- 57% of Mizoram parents were satisfied with educational policies, while only 28% of parents in Meghalaya felt the same during the pandemic.
- Online classroom preference was higher in Mizoram (96%) than in Meghalaya (88%).
- The qualitative findings showed that parents in Mizoram showed satisfaction with their children's academic performance, teaching methods, and educational policies during the pandemic, often crediting strong school support and effective adaptation to online learning. Parents in Meghalaya reported dissatisfaction and uncertainty, especially due to limited teacher accessibility and weak policy implementation in rural areas. Even in Mizoram, some parents expressed concerns about the quality of learning despite good exam results.

Major Findings of Objective 4: Educational Challenges Faced by Secondary School Students in Mizoram and Meghalaya

1. Learning Environment:

- Participation of students in online classes during the pandemic was higher in Mizoram (98%) than in Meghalaya (88.08%).
- Most students spent 1–2 hours daily on online classes (52.5% in Mizoram, 45.95% in Meghalaya).

- A strong preference for traditional learning was noted even during the pandemic (59.33% in Mizoram, 63.93% in Meghalaya).
- Home was the primary location for online learning in both states, but shared devices and distractions were common.
- Domestic responsibilities, noise, and lack of privacy affected over 30% of students in both regions during the pandemic
- 52.83% of students in Mizoram and 34.36% of students in Meghalaya believed their study environment negatively affected their academic performance during the pandemic
- The qualitative insight showed that students in Mizoram were determined to attend classes despite internet issues, while students in Meghalaya struggled more due to frequent power cuts and had to rely on neighbors or relatives for access. Students cited digital fatigue, household chores, and lack of privacy as major distractions. Preferences leaned toward traditional classrooms for their structure, interaction, and clarity, although some appreciated the flexibility and pace of online formats. Students cited digital fatigue, household chores, and lack of privacy as major distractions. They noted noise and overcrowding as challenges, and expressed concerns about a lack of academic integrity, with some achieving good grades despite limited preparation

2. Academic Challenges:

- Decline in academic performance was reported by 68% of students in Mizoram and 75.42% of students in Meghalaya during the pandemic
- Difficulty in understanding subject matter in online learning during the pandemic is the leading issue (66.83% in Mizoram, 67.12% in Meghalaya).
- Concentration difficulties were more common in Mizoram (50%) than in Meghalaya (34.57%).
- Students used various coping strategies for learning challenges during the pandemic, online resources were most used by students in Mizoram (53.33%), while self-study method dominated in Meghalaya (49.57%).

- Students in both states faced difficulties in online assessments during the pandemic, with Meghalaya reporting a higher frequency (69.89%) than Mizoram (62%).
- The qualitative findings revealed that students from Mizoram and Meghalaya faced difficulties understanding lessons online due to the absence of real-time teacher guidance and explanations. Maintaining focus was challenging for some students, particularly in environments with distractions or shared devices. Internet connectivity issues disrupted learning and online examinations, causing stress and loss of concentration. Some students felt the workload increased because they had to study independently without immediate support, while others found it manageable when teachers provided clear instructions and deadlines. To cope, students used alternative resources such as online tutorials, discussion with peers, and practicing mock tests. Offline submission of work was used in some cases to adapt to connectivity problems.

3. Social Challenges:

- Inability to meet peers was the most cited challenge by students during the pandemic (59.33% in Mizoram, 54.25% in Meghalaya).
- Feelings of isolation and missed school activities during the pandemic were also common.
- Students in Mizoram maintained contact primarily through social media, while those in Meghalaya relied more on academic group work during the pandemic.
- Informal peer interaction was more prevalent in Mizoram, while formal digital engagement was slightly higher in Meghalaya during the pandemic.
- Qualitative data reflected some common feelings among students; they experienced emotional pressure from less peer interaction, with numerous students conveying feelings of loneliness and disconnect even despite their digital interaction. Group activities and forums offered students from Meghalaya a structured environment that encouraged engagement, whereas

students from Mizoram depended more on informal approaches, such as social media and occasional face-to-face meetings, to stay connected. Nevertheless, the feeling of isolation was intensified by the lack of school events and everyday peer interactions.

4. Emotional Challenges:

- Emotional difficulties were reported by 48% of students in Mizoram and 49.14% in Meghalaya during the pandemic.
- Mizoram students reported more issues with motivation (61.5%), while stress was higher in Meghalaya (56.7%) during the pandemic.
- Feelings of uncertainty and academic pressure were prevalent across both states during the pandemic.
- Students in Mizoram had higher access to emotional support (54%) than Meghalaya (44.14%) during the pandemic.
- Most students coped through informal support from friends and family during the pandemic.
- The qualitative findings revealed common concerns reported by students, including stress from academic uncertainty, feelings of isolation, lack of motivation, and emotional exhaustion due to remote learning. While some students found relief through informal support like friends, family, or physical activity, others struggled due to the absence of structured mental health services or hesitation to seek professional help.

5. Technological Challenges:

- Smartphones were the primary device for learning in both states (93.66% in Mizoram, 92.65% in Meghalaya) in remote learning during the pandemic.
- 60% of students in Mizoram and 68.51% of students in Meghalaya faced technological difficulties during the pandemic.
- Inadequate internet/device access was higher in Meghalaya (63.61%) than in Mizoram (35.5%) for remote learning during the pandemic.

- Only 35.33% of students in Mizoram and 25.63% of students in Meghalaya had full access to required technology.
- Internet access difficulties were reported by 85.83% of students in Mizoram and 89.46% of students in Meghalaya during the pandemic.
- Students coped by using alternative devices, seeking help, and learning digital tools.
- The qualitative findings highlight that students in Mizoram and Meghalaya encountered significant barriers to online learning due to lack of digital devices, poor internet connectivity, and shared usage of phones among siblings. Many struggled with attending classes regularly and completing assignments on time, especially when relying solely on mobile phones and unstable networks. Power outages and lack of digital literacy added to their frustration and stress. Despite these challenges, some students showed initiative by borrowing phones, using downloaded videos, and turning to friends or teachers for support.

6. Financial Challenges:

- Inability to afford resources for online learning was noted by over 40% of students in both states during the pandemic
- 45.78% of students in Mizoram and 34.25% of students in Meghalaya faced challenges in accessing financial aid or scholarships during the pandemic.
- The qualitative findings revealed that students in Meghalaya could barely afford digital resources or even the price of internet access, having to share a single device with their siblings, thereby impairing the learning experience. To the same effect, families in Mizoram would rather attend basic life needs before going for educational materials as serious economic distresses dictated so.

Educational Implications of the Study

1. Bridging the Digital Divide
2. Designing Inclusive Learning Strategies

3. Prioritizing Emotional and Psychological Wellbeing
4. Strengthening Parental and Community Involvement
5. Empowering School Leaders for Crisis Response
6. Fostering Peer Interaction and Social Connection
7. Rethinking Assessment Systems
8. Recognizing the Central Role of Teachers

Recommendations of the Study

1. Expand and Upgrade Digital Infrastructure
2. Ensure Access to Digital Devices for All Students
3. Promote Blended and Flexible Learning Models
4. Institutionalise School-Based Mental Health Programmes
5. Develop Community-Based Support Mechanisms
6. Enhance Teacher Professional Development
7. Adopt Transparent and Flexible Assessment Practices
8. Encourage Parental Engagement in Education
9. Design Contingency Plans for Emergency Education
10. Provide Financial Assistance and Learning Subsidies

Suggestions for further research

1. A Longitudinal Study on the Lasting Impact of Pandemic-Induced Learning Loss among Secondary School Students in Mizoram and Meghalaya
2. An Exploratory Study on the Preparedness of Schools for Future Educational Disruptions: Lessons from COVID-19
3. Comparative Analysis of Mental Health Support Practices for Secondary School Students in Rural and Urban Settings
4. A Study on the Role of Digital Literacy and Training among Secondary School Teachers in Enhancing Remote Teaching Effectiveness
5. A Qualitative Inquiry into Parental Coping Mechanisms and Support Systems in Remote Learning Environments
6. An Evaluation of State-Level Education Policy Interventions During the Pandemic: A Focus on Implementation and Equity

APPENDIX-I

Questionnaire on Educational challenges during the COVID-19 pandemic for Administrators/Principals

INSTRUCTION

This study aims to find out the Educational Challenges faced by Administrators of Secondary School during COVID-19 pandemic in Mizoram and Meghalaya. I would be grateful if you could spare a few minutes to give your response to the questions. I assure you that the information given by you will be used for research purposes only and will be strictly kept confidential. Thank you for your kind cooperation.

General Information

Name: _____

Age: _____ Gender: _____

Locality: _____ Urban/Rural: _____

Name of school _____

Type of School Management (Private/Government) _____

Professional Qualification (Trained/ Untrained) _____

Teaching Experience (in years) _____

I. Health and Safety Challenges

1. What Health and Safety Issues Did You Encounter During the COVID-19 Pandemic? (choose all that apply)

- a) Problems in implementing COVID-19 testing, tracing, and quarantine measures ☐
- b) Lack of awareness of COVID-19 protocol ☐
- c) Problems in alleviating fears and anxieties among staff and students ☐
- d) Problems in conducting classes for board examinations ☐
- e) Other (Please specify) _____

II. Technology and Online Learning Challenges

2. What are the Primary Technological Difficulties Faced during the COVID-19 Pandemic? (*choose all that apply*)

- a) Limited access to technology and devices for students and staff ☐
- b) Bandwidth and connectivity issues ☐
- c) Troubles with managing and maintaining hardware and software ☐
- d) Other (Please specify) _____

3. What are the methods employed by the school to Maintain Communication and Collaboration during the Pandemic? (*choose all that apply*)

- a) Phone calls ☐
- b) Text messaging ☐
- c) Video conferencing ☐
- d) Other (please specify) _____

4. What Online Learning Platforms and Resources did your institution use during the pandemic? (*choose all that apply*)

- a) Zoom ☐
- b) Google Meet ☐
- c) Email ☐
- d) Whatsapp ☐
- e) Teacher Mint ☐
- f) Other (Please specify) _____

III. Challenges in Student Learning and Academic Progress

5. What are the effects of the Pandemic on Students' Academic Progress? (*choose all that apply*)

- a) Student comprehension was hindered ☐
- b) Lack of academic social interaction ☐
- c) Increased drop out rate ☐
- d) Other (Please specify) _____

6. What Issues did the institution face regarding student attendance and participation during the COVID-19 Pandemic? (*choose all that apply*)

- a) Student disengagement in virtual learning ☐
- b) Managing attendance in hybrid learning environments ☐
- c) Technology access and equity challenges ☐
- d) Other (Please specify) _____

7. What are the learning challenges faced by students during the Pandemic? (*choose all that apply*)

- a) Difficulty accessing technology or internet connectivity ☐
- b) Challenges in staying engaged and motivated ☐
- c) Problems with time management ☐
- d) Other (Please specify) _____

8. What are the Actions Taken by the School to Support Student Learning and Academic Progress during the Pandemic? (*Choose all that apply*)

- a) Providing technology and internet access to students in need ☐
- b) Distributing materials and resources to students' homes ☐
- c) Collaborating with community partners to address equity issues ☐
- d) Other (Please specify) _____

IV. Curriculum

9. How has the institution Adapted the Curriculum in Response to the COVID-19 Pandemic?

- a) Reduced all curriculum ☐
- b) Reduced for some specific courses ☐
- c) Adapted curriculum without reduction ☐

10. Which school subjects have been most impacted by the pandemic? (*choose all that apply*)

- a) English ☐
- b) Regional Language ☐
- c) Science ☐
- d) Social Science ☐
- e) Mathematics ☐

V. Challenges in Assessment/Evaluation

11. Was your institution able to conduct exams as planned during the pandemic?

- a) Able to conduct as usual ☐
- b) Unable to conduct as planned ☐

12. What difficulties have you faced regarding assessment and grading during the COVID-19 pandemic? (*Choose all that apply*)

- a) Addressing the reliability and validity of remote assessments ☐
- b) Ensuring equity and fairness in grading and evaluation ☐
- c) Managing cheating and academic integrity in virtual environments ☐
- d) Other (please specify) _____

13. Did you adopt the 100% Promotion Policy During the Pandemic?

- a) Yes ☐
- b) No ☐

14. How have assessment methods changed during the COVID-19 Pandemic? (*Please choose just one.*)

- a) Implemented new methods for all subjects ☐
- b) Implemented new methods for some subjects ☐
- c) No changes made ☐

15. How has your school monitored and assessed student learning during the pandemic? (Choose all that apply)

- a) Assignment and project work ☐
- b) Online examination ☐
- c) Open book test ☐
- d) Others (please specify) _____

VI. Challenges in Teacher Support and Professional Development

16. What problems have you faced in managing and supporting teachers during the pandemic? (Choose all that apply)

- a) Limited opportunities for collaboration and professional development ☐
- b) Difficulties in managing and supporting remote instruction ☐
- c) Increased workload and stress for teachers ☐
- d) Others (please specify) _____

VII. Personal Challenges

17. What mental health and well-being issues have you encountered during the COVID-19 pandemic? (Choose all that apply)

- a) Increased stress level ☐
- b) Limited Access to Mental Health Resources ☐
- c) Managing anxiety and stress among staff and students ☐
- d) Other (please specify) _____

VIII. Financial challenges

18. What financial and resource-based issues have you encountered during the COVID-19 pandemic? (Choose all that apply)

- a) Addressing budget cuts and limitations related to COVID-19 ☐
- b) Ensuring equitable distribution of resources in virtual environments ☐
- c) Supporting mental health resources ☐
- d) Other (please specify) _____

19. How were teachers' and staffs' salaries managed or addressed during the COVID-19 pandemic? (*Please select only one*)

- a) Salaries increased ☐
- b) Salaries remained the same ☐
- c) Salaries decreased ☐

20. What are the reason for decrease of teachers salaries? (*choose all that apply*)

- a) Unpaid student fees ☐
- b) Teachers did not come to school during the pandemic ☐
- c) Others (Please specify) _____

21. Has your institution received any external non-government funding to address pandemic-related issues due to COVID-19?

- a) Received ☐
- b) Not Received ☐

22. Has your institution received any external government funding to address pandemic-related issues due to COVID-19?

- a) Received ☐
- b) Not Received ☐

APPENDIX-II

Questionnaire on Educational Challenges during the COVID-19 pandemic for Teachers

INSTRUCTION

This study aims to find out the Educational Challenges faced by Teachers of secondary school during COVID-19 pandemic in Mizoram and Meghalaya. I would be grateful if you could spare a few minutes to give your response to the questions. I assure you that the information given by you will be used for research purposes only and will be strictly kept confidential. Thank you for your kind cooperation.

Name: _____

Age: _____ Gender: _____

Locality: _____ Urban/Rural: _____

Name of school _____

Type of School Management (Private/Government) _____

Professional Qualification (Trained/ Untrained) _____

Teaching Experience (in years) _____

I. Curriculum Challenges

1. Did you need to modify your curriculum during the COVID-19 pandemic?

a. Yes ☐

b. No ☐

2. What modifications did you make to the curriculum? (*Choose all that apply*)

a. Reduced course content ☐

b. Focused more on essential skills and knowledge ☐

c. Integrated online resources and materials ☐

d. Other (please specify) _____

II. Pedagogical Challenges

3. Did you faced challenges in executing modified teaching strategies during the COVID-19 pandemic?

a) Yes ☐

b) No ☐

4. What challenges did you face in implementing the changes to the curriculum? (*Choose all that apply*)

a. Limited access to technology and reliable internet connectivity ☐

b. Difficulties managing students remotely ☐

c. Struggling with students' lack of engagement or motivation ☐

d. Other (please specify) _____

5. How has the COVID-19 pandemic influenced your approach to teaching? (*Choose only one*)

a. Changed teaching approach completely ☐

b. Made some modifications to teaching approach ☐

c. The teaching approach remained largely the same ☐

6. How effective have these strategies been in engaging students during remote instruction?

a) Effective ☐

b) Ineffective ☐

7. What strategies have you employed to overcome the challenges of remote teaching? (*Choose all that apply*)

a. Utilized pre-recorded video lessons ☐

b. Conducted live video sessions ☐

c. Assigned project-based work ☐

d. Other (please specify) _____

III. Students Challenges

8. Have you observed any changes in student engagement and motivation during the COVID-19 pandemic?

- a. Yes ☐
- b. No ☐

9. What changes did you observe in students' engagement and motivation? (Choose all that apply)

- a. Difficulties accessing technology or reliable internet connectivity. ☐
- b. Issues with time management ☐
- c. Lack of focus and attentiveness ☐
- d. Decreased participation and interaction ☐
- e. Increased levels of anxiety and stress ☐
- f. Other (please specify) _____

10. Have you observed any changes in students' mental health since the onset of the pandemic?

- a. Yes ☐
- b. No ☐

11. What Students mental health issues have you observed during the COVID-19 pandemic?

- a. Increased stress and anxiety ☐
- b. Difficulty in staying motivated ☐
- c. Other (Please specify) _____

12. How have you provided support to students who were struggling during the pandemic? (Choose all that apply)

- a. Increased individual support ☐
- b. Provided additional resources ☐
- c. Enhanced communication with parents/guardians ☐
- d. Other (please specify) _____

13. How have you maintained communication with students and their families during the pandemic? (*Choose all that apply*)

- a. Email ☐
- b. Phone calls ☐
- c. Text messaging ☐
- d. Video conferencing ☐
- e. Other (please specify) _____

IV. Technological challenges

14. Have you undergone any training for utilizing technology in teaching during the pandemic?

- a. Yes ☐
- b. No ☐

15. Did you have problems in acquiring the necessary technology for online teaching? (*Choose only one*)

- a. Access to all required technology ☐
- b. Access to some of the required technology ☐
- c. Did not have access to any of the necessary technology ☐

16. How has the use of technology influenced student participation during the pandemic? (*Choose only one*)

- a. Increased participation ☐
- b. Decreased participation ☐
- c. No noticeable change ☐

17. Have you encountered any technological hurdles while conducting online classes?

- a. Yes ☐
- b. No ☐

18. What has been your greatest obstacle in utilizing technology for teaching during the pandemic? (*Choose only one*)

- a. Limited access to technology ☐
- b. Lack of internet connectivity ☐
- c. Troubleshooting technical issues ☐
- d. Inadequate training on technology ☐
- e. Issues with software/application compatibility ☐
- f. Other (please specify) _____

19. How confident do you feel using technology for instruction? (*Choose only one*)

- a. Highly confident ☐
- b. Moderately confident ☐
- c. Slightly confident ☐
- d. Not at all confident ☐

20. What technological tools have you utilized for teaching during the pandemic? (*Choose all that apply*)

- a. Learning management systems (e.g. Canvas, Blackboard) ☐
- b. Video conferencing (e.g. Zoom, Google Meet, webex etc.) ☐
- c. Educational software (e.g. Kahoot, Quizlet, Teacher mint etc.) ☐
- d. Social Platform (Whatsapp, Telegram, Facebook) ☐
- e. Other (please specify) _____

21. Has your school offered sufficient technological support during the pandemic?

- a. Yes ☐
- b. No ☐

22. Which technological tools have proven most difficult to use during remote or hybrid teaching? (*Choose only one*)

- a. Learning management systems (e.g., Blackboard, Canvas) ☐
- b. Video conferencing software (e.g., Zoom, Google Meet) ☐
- c. Online collaboration tools (e.g., Google Docs, Microsoft Teams) ☐
- d. Social Platform (Whatsapp, Telegram, Facebook) ☐
- e. Other (please specify) _____

V. Assessment and Grading

23. Did you change your methods of assessment and grading during the pandemic? (*Choose only one*)

a. No change ☐

b. Altered my approach ☐

24. Have you encountered any difficulties in evaluating students during the COVID-19 pandemic?

a. Yes ☐

b. No ☐

25. What difficulties did you encounter in student evaluations? (*Choose all that apply*)

a. Inadequate access to technology or internet ☐

b. Challenges in remotely supervising students ☐

c. Difficulty in maintaining academic integrity ☐

d. Other (please specify) _____

26. Have you observed any changes in students' performance since the onset of the pandemic?

a. Yes ☐

b. No ☐

27. What changes did you observe in students' learning outcomes? (*Choose all that apply*)

a. Decline in academic performance ☐

b. Difficulty in achieving learning objectives ☐

c. Other (please specify) _____

28. Do you think the promotion of students was very much lenient during the pandemic?

a. Yes ☐

b. No ☐

29. What was the main reason for lenient promotion?

- a. Students unable to adjust quickly and perform at their best. ☐
- b. Unfamiliarity of online platforms and technologies ☐
- c. Emotional challenges for students to engage effectively in their studies. ☐
- d. Traditional assessment not suitable for remote learning. ☐
- e. Diverse backgrounds of students ☐
- f. Other (Please Specify) _____

30. What forms of assessments have you implemented during the pandemic? (Choose all that apply)

- a. Online quizzes/tests ☐
- b. Written tasks ☐
- c. Projects or group assignments ☐
- d. Other (Please specify) _____

31. How have you managed issues related to student performance during the pandemic? (Choose all that apply)

- a. Offered additional support ☐
- b. Modified grading policies ☐
- c. Promoted student advancement ☐
- d. Other (please specify) _____

VI. Personal and Emotional Challenges**32. Did you encounter any emotional challenges while delivering online classes?**

- a. Yes ☐
- b. No ☐

33. What emotional difficulties did you face? (Choose all that apply)

- a. Feelings of isolation or disconnection from colleagues and students ☐
- b. Experienced overwhelming stress due to workload ☐
- c. Worries about your own and your loved ones' health and safety ☐
- d. Other (please specify) _____

34. Did your institution provide any emotional support to tackle the challenges faced by educators?

- a. Yes ☐
- b. No ☐

35. Have you received any professional development or support during the pandemic?

- a. Yes ☐
- b. No ☐

36. What kind of emotional support was provided by your institution?
(Choose all that apply)

- a. Counseling services ☐
- b. Peer support ☐
- c. Professional development on Mental ☐
- d. Other (please specify) _____

37. What type of Professional Support did you receive from the institution? (Choose all that apply)

- a. Training on technology usage ☐
- b. Educational training for remote teaching ☐
- c. Strategies to enhance student engagement and motivation ☐
- d. Other (Please specify) _____

VII. Financial Challenges

38. What are the financial challenges encountered by the teachers during the COVID-19 pandemic

- a. Problems in paying internet bills and the technology needed for online learning ☐
- b. Experience a decrease in pay during the COVID-19 pandemic. ☐
- c. Other (Please specify) _____

APPENDIX-III

Questionnaire on Educational Challenges during the COVID-19 pandemic for Community members/Parents

INSTRUCTION

This study aims to find out the Educational Challenges faced by Community members/parents during COVID-19 pandemic in Mizoram and Meghalaya. I would be grateful if you could spare a few minutes to give your response to the questions. I assure you that the information given by you will be used for research purposes only and will be strictly kept confidential. Thank you for your kind cooperation.

General Information

Name: _____

Age: _____ Gender: _____

Locality: _____ Urban/Rural: _____

Status: Mother/Father/Other Family Member _____

Occupation _____

I. Challenges in Technological Access

1. What issues have you faced to provide your child with technology for online learning during the COVID-19 pandemic? (*choose all that apply*)

- a) Limited access to a device or reliable internet ☐
- b) Insufficient technical knowledge or support for virtual learning platforms ☐
- c) Others (Please specify) _____

2. Were you able to provide multiple digital devices for more than one child?

- a) Provide ☐
- b) Unable to provide ☐

3. What device did your child use for online classes during the pandemic?

(choose all that apply)

- a) Personal device (mobile phone) ☐
- b) Parent's device ☐
- c) Home computer ☐
- d) Sibling's device ☐
- e) Friend's device ☐
- f) Other (please specify) _____

II. Challenges in Social, Emotional, and Academic Progress

4. As a parent, what mental health challenges have you encountered during the COVID-19 pandemic? (choose all that apply)

- a) Problems in managing stress and anxiety related to virtual learning and pandemic concerns ☐
- b) Problems in supporting child's mental health and wellness in virtual learning environments ☐
- c) Other (please specify) _____

5. Have you noticed any negative effects on your child due to lack of socialization and peer interaction?

- a) Yes ☐
- b) No ☐

6. What are the *negative effects on the child due to lack of socialization*?

- a) Laziness ☐
- b) Anxiety/ stress ☐
- c) Online addiction ☐
- d) Other please specify _____

7. What challenges have you encountered in overseeing and supporting your child's academic progress during the pandemic? (choose all that apply)

- a) Limited access to grades and teacher feedback ☐
- b) Struggle in supporting child's virtual learning ☐
- c) Concerns about potential learning loss or falling behind ☐
- d) Other (please specify) _____

Coping strategies

8. How have you kept your child motivated and engaged in remote learning?

(choose all that apply)

- a) Set goals and incentives for task completion ☐
- b) Used interactive and multimedia tools to enhance learning ☐
- c) Collaborated with other parents to organize online activities for children ☐
- d) Other (please specify) _____

9. How have you provided emotional support to your child during the pandemic? *(choose all that apply)*

- a) Encouraged open communication and a safe space for expressing feelings ☐
- b) Assisted children in maintaining social connections with peers and friends ☐
- c) Practiced self-care to demonstrate healthy coping mechanisms ☐
- d) Other (please specify) _____

III. Challenges in Communication, Time Management, and Workload

10. What Problems have you faced in the management of time while supervising the child's education during the pandemic?

- a) Problems in making a schedule/routine for a child's learning ☐
- b) Problems in prioritizing tasks based on importance and urgency ☐
- c) Problems in including other family members in the child's education ☐
- d) Other (Please specify) _____

11. What issues have you faced when communicating with your child's school and staying involved in their learning during the pandemic? *(choose all that apply)*

- a) Limited communication from the school or teachers ☐
- b) Difficulty accessing and navigating virtual learning platforms ☐
- c) Balancing work and home responsibilities with involvement in child's learning ☐
- d) Other (please specify) _____

12. Were you able to assist the child with homework and explain lessons during the pandemic?

- a) Able to help ☐
- b) Unable to help ☐

13. What is your Workload during the COVID-19 pandemic?

- a) Workload increased ☐
- b) Same workload ☐

Coping strategies

14. How have you managed work and childcare responsibilities during the pandemic? (*choose all that apply*)

- a) Adjusted work hours to meet childcare needs ☐
- b) Worked from home while supervising the child's education ☐
- c) Enlisted a caregiver or a family member's help ☐
- d) Other (please specify) _____

IV. Environmental Challenges

15. Did you lack of a conducive home environment for online classes during the pandemic?

- a) Yes ☐
- b) No ☐

16. What Environmental challenges did you faced for the academic progress of students during the COVID-19 pandemic?

- a) Background noise
- b) Limited space
- c) Increased household chores
- d) Others (Please specify) _____

17. Do you believe the home environment affects your child's concentration during online classes in the pandemic? (*Choose only one*)

- a) Have an effect ☐
- b) Not have effect ☐

18. Were you able to control distractions and interruptions while your child attended online classes during the pandemic? (*Choose only one*)

- a) Be able to control distractions ☐
- b) Unable to control distraction ☐

Coping strategies for challenges in the home environment

19. What Strategies did you used for making the home environment conducive while the child attends online classes during the pandemic?

- a) Designate a quiet area ☐
- b) Encourage children to follow a routine ☐
- c) Family cooperation to minimize distraction ☐
- d) Other (Please specify) _____

V. Satisfaction

20. Are you satisfied with your child's academic performance during the pandemic? (*Choose only one*)

- a) Satisfied ☐
- b) Unsatisfied ☐
- c) Undecided ☐

21. Are you satisfied with the teaching methods used by the child's teachers during the pandemic?

- a) Satisfied ☐
- b) Unsatisfied ☐
- c) Undecided ☐

22. Are you satisfied with the planning and implementation of educational policies during the pandemic?

- a) Satisfied ☐
- b) Unsatisfied ☐
- c) Undecided ☐

23. What mode do you prefer for the teaching-learning process of your child during the pandemic?

- a) Online ☐
- b) Offline ☐

APPENDIX-IV

Questionnaire on Educational Challenges during the COVID-19 pandemic for Community members/Parents (MIZO)

HRIATTURTE

He zirbingna hian COVID-19 hri len laia Mizoram leh Meghalaya nu leh pa ten an fate zirna chungchanga an harsatna tawh hrang hrang te zir chian a tum a. Heng zawhna te chhang tur ai hun tlem min pek theih chuan ka lawm ngawt ang. I chhanna te pawh research atan chiah hman a ni ang.

Hming _____

Chhungkua a nihna Nu ber/ Pa ber/ Chhungkaw member dang _____

Eizawna _____

Hlawh nei/ Hlawh neilo _____

I. Challenges in Technological Access

1. COVID-19 hri a len laia online a lehkha zir a nih lai khan I fate an zirna mamawh pek chungchang ah eng harsatna nge I tawh ? (Pakhat aia tam a thai theih)

- a) Khawl tha leh internet chak neih tawh loh vang ☐
- b) Khawl hmanthiam tawh loh vang ☐
- c) Thil dang a awm chuan ziahlan ni se _____

2. I fa/fate pakhat aia tam tan an indaih khawl (phone/computer etc) i pe thei em?

- a) Pe thei e ☐
- b) Pe thei lo ☐

3. COVID-19 lai khan eng khawl nge online a lekhazir nan I fate in hman tir?

(Pakhat aia tam a thai theih)

- a) Mobile phone ☐
- b) Nu leh Pate Mobile phone ☐
- c) Computer/laptop ☐
- d) Unaute phone ☐
- e) Thiante phone ☐
- f) Thil dang a awm chuan ziah lan ni se _____

II. Challenges in Social, Emotional, and Academic Progress

4. Zirlai enkawltu I nih angin, COVID-19 laia zirlai enkawl chungchang ah eng rilru hahna nge I tawh thin? (Pakhat aia tam a thai theih)

- a) COVID hri leh hri len laia lekhka zirna chungchang ah ☐
- b) Hri len laia zirlai rilru hriselna vawnhim chungchang ah ☐
- c) Hrilen laia zirlai in khung hran leh rualpawl chungchang ah ☐
- d) Thil dang a awm chuan ziah lan ni se _____

5. Hrilen lai in I faten rual an pawl loh avangin a thalo zawngin an nungchang a nghawngin I hria em?

- a) Hria e ☐
- b) Hre lo ☐

6. Hrilen lai in I faten rual an pawl loh avangin a thalo zawngin an nungchang a nghawng dan a I hriatte han thlang teh. (Pakhat aia tam a thai theih)

- a) Thatchhiatna
- b) Engto luatna
- c) Online addiction
- d) Thil dang a awm chuan ziah lan ni se _____

7. Hri len lai in zirlaite an zirna hmasawwna a puihna chungchang ah eng harsatna nge I tawh? (*Pakhat aia tam a thai theih*)

- a) Zirna hmanraw tha neih loh vang leh zirtirtute atanga thu dawn tlem vangin ☐
- b) Online zirna a fate puih theih ☐
- c) Zirlai te an thiam tur ang thiam loh leh rualpui te an tluk loh hlauih na ☐
- d) Thil dang a awm chuan ziah lan ni se _____

Coping strategies

8. Hri len lai in engtin nge I fate online a lehkhazir turin I fuih a , I chawh phur thin? (*Pakhat aia tam a thai theih*)

- a) An zawh chin tur bihthiah sak ☐
- b) Lehkha zirna atana hmanraw hrang hrang hman tir ☐
- c) Nu leh pa dangte nena in rawn khawm ☐
- d) Thil dang a awm chuan ziah lan ni se _____

9. Hri len lai in engtin nge I fate rilru hriselnan I puih thin? (*Pakhat aia tam a thai theih*)

- a) Fate an inbun ruah nan ka inhawng thin. ☐
- b) Rual an pawl theih nan ka pui thin ☐
- c) Rilru kalhmang hrisel an neih theih nan mahni inenkawl dan ka zirtir thin
- d) Thil dang a awm chuan ziah lan ni se _____ ☐

III. Challenges in Communication, Time Management, and Workload

10. COVID-19 laiin I fate zirna atan hun vawndik chungchang ah eng harsatna nge I tawh thin? (*Pakhat aia tam a thai theih*)

- a) An lehkhazir hun bituk harsa ka ti thin ☐
- b) A lehkhazir tur a pawimawh dan leh tul mila a zirtir harsa ka ti ☐
- c) Chhungkaw member dang inpuih tir nachang ka hre thin lo ☐
- d) Thil dang a awm chuan ziah lan ni se _____

11. COVID-19 lai khan I fate sikul biak pawh ah leh an zirna ah eng harsatna nge I tawh? (*Pakhat aia tam a thai theih*) ☐

- a) Sikul leh zirtirtute biak pawh an har ☐
- b) Fate online a lehkha zirna ah puih ka harsat
- c) Eizawwnna hna , in lam hna leh naupang enkawl hna tih kawp a harsa ☐
- d) Thil dang a awm chuan ziah lan ni se _____

12. Hri len lai khan I fate homework leh zirlai I pui thei em? (*Pakhatchauh thlang rawh*)

- a) Pui thei ziah e ☐
- b) Pui thei ngai lo ☐

13. Hri len lai khan hna I ngah sawtin I inhria em?

- a. Aw ☐
- b. Aih ☐

Coping Strategy

14. Engtin nge hri len laiim mahni eizawwnna hna leh naupang enkawl hna I kawp? (*Pakhat aia tam a thai theih*)

- a) Fate enkawl nan ka hna lam ah hun ka siamrem ☐
- b) Naupang enkawl pah in in lam ah hna ka thawk ☐
- c) Naupang enkawl turin midang (Tutor/awmpui/ chhungkaw member dang) ☐
ka chhawr
- d) Thil dang a awm chuan ziah lan ni se _____

IV. Environmental Challenges

15. Hri len lai khan in lamah I fate insawrbing taka lehkha zir nah un leh hmun tha in nei em?

- a) Nei e ☐
- b) Nei lo ☐

16. Hri len lai khan in lamah I fate lehkha zir lama harsatna an tawh chhan te han sawi teh. *(Pakhat aia tam a thai theih)*

- a) Bengchheng tam lutuk ☐
- b) Hmun awl nei thalo ☐
- c) Inchung sekrek khawih tur tam ☐
- d) Thil dang a awm chuan ziah lan ni se _____

17. Hri len lai khan in incchung boruak in I fate lehkha zirna a nghawng in I hria em? *(Pakhat chiah thlang rawh)*

- a) Nghawng tehreng e ☐
- b) Nghawng lo ☐

18. Hri len laia online class an lak lai khan I fate an zirlai ti buai thei hrang hrang te I lo thunun sak thei em? *(Pakhat chiah thlang rawh)*

- a) Thei ziah e ☐
- b) Thei ngai lo ☐

Coping strategies for challenges in the home environment

19. Hri len lai khan I faten tha taka in lama lehkha an zir theihnan eng tin nge I tih? *(Pakhat aia tam a thai theih)*

- a) Hmun reh ka siamsak ☐
- b) Hunbi nei zir turin ka fuih ☐
- c) Chhungkua ahlehkha zir laia bengchhe siam lo turin kan in fuih thin ☐
- d) Thil dang a awm chuan ziah lan ni se _____

V. Satisfaction

20. Hri len laia I fate exam result ah I lungawi em? *(Pakhat chiah thlang rawh)*

- a) Lungawi e ☐
- b) Lungawi lo ☐
- c) Sawi thei lo ☐
- d) Lungawi loh chuan a chhan sawi ni se _____

21. Hri len lai khan zirtirtuten I fate an zirtir dan ah I lungawi em? (Pakhat chiah thlang rawh)

- a) Lungawi e ☐
- b) Lungawi lo ☐
- c) Sawi thei lo ☐
- d) Lungawi loh chuan a chhan sawi ni se _____

22. Hri len laia zirna leh zirtirna dan an ruahman leh tihhlawhtlin c hungchang ah I lungawi em? (Pakhat chiah thlang rawh)

- a) Lungawi e ☐
- b) Lungawi lo ☐
- c) Sawi thei lo ☐
- d) Lungawi loh chuan a chhan sawi ni se _____

23. I fate zirna leh zirtirna chungchang ah online a lehkha zir hi I duhpui zawk em?

- a)Aw, duhpui e ☐
- b) Aih, duhpui lo ☐

APPENDIX-V

Questionnaire on Educational Challenges during the COVID-19 pandemic for Students

INSTRUCTION

This study aims to find out the Educational Challenges faced by Students secondary school during COVID-19 pandemic in Mizoram and Meghalaya. I would be grateful if you could spare a few minutes to give your response to the questions. I assure you that the information given by you will be used for research purposes only and will be strictly kept confidential. Thank you for your kind cooperation.

General Information

Name: _____

Age: _____ Gender(Male/Female): _____

Locality: _____ Urban/Rural: _____

Name of school _____

Class: _____

Type of School Management (Private/Government) _____

I. Learning Environment

1. Have you participated in online classes during the pandemic?

a) Participated ☐

b) Not participated ☐

2. On average, how many hours per day do you spend attending online classes?

(Please select only one)

a) Less than 1 hour ☐

b) 1-2 hours ☐

c) 2-3 hours ☐

d) More than 3 hours ☐

3. Compared to traditional classes, how do you feel about attending online classes? (*Choose only one*)

- a) I prefer online classes ☐
- b) I prefer traditional classes ☐
- c) I have no preference ☐

4. Where did you typically attend your online classes? (*choose all that apply*)

- a) At home ☐
- b) At a friend's house ☐
- c) At a public place (e.g., library, park) ☐
- d) Other (please specify): _____

5. During the pandemic, what distractions have you faced while trying to create a suitable study environment? (*Choose all that apply*)

- a) Domestic responsibility ☐
- b) Noise ☐
- c) Limited space ☐
- d) Lack of privacy ☐
- e) Other (please specify): _____

6. In your opinion, how does your study environment affect your academic performance? (*choose only one*)

- a) It has a positive impact ☐
- b) It has a negative impact ☐
- c) It has no impact ☐

II. Academic Challenges

7. Have you experienced a decline in your academic performance since the beginning of the pandemic?

- a) Yes ☐
- b) No ☐

8. What academic challenges have you faced during the COVID-19 pandemic?

(Choose all that apply)

- a) Difficulty in understanding the subject matter ☐
- b) Inability to concentrate during online classes ☐
- c) Lack of resources for online learning ☐
- d) Difficulty in completing assignments and homework ☐
- e) Other (please specify): _____

9. How do you feel about the amount of work assigned by teachers during the pandemic? (Choose any one)

- a) Too much ☐
- b) About right ☐
- c) Not enough ☐
- d) I don't have any work. ☐

10. How have you coped with various academic challenges? (Choose all that apply)

- a) Seeking help from teachers or peers ☐
- b) Using online resources or tutorials ☐
- c) Self-study and practice ☐
- d) Other (please specify): _____

11. Have you experienced any difficulties while taking online exams or assessments?

- a) Yes ☐
- b) No ☐

12. If you answered 'Yes' to the previous question, what difficulties have you encountered while taking online exams or assessments during the COVID-19 pandemic? (Choose all that apply)

- a) Technical difficulties ☐
- b) Difficulty in understanding the questions ☐
- c) Difficulty in understanding exam instructions ☐
- d) Difficulty in managing time ☐
- e) Other (please specify): _____

13. How have you adapted to taking online exams or assessments? (*Choose all that apply*)

- a) Practicing with online tools and platforms ☐
- b) Seeking guidance from teachers or peers ☐
- c) Other (please specify): _____

III. Social Challenges

14. How has the COVID-19 pandemic impacted your social life? (*Choose all that apply*)

- a) Unable to meet friends and family ☐
- b) Feeling isolated or lonely ☐
- c) Missing school events and activities ☐
- d) Technical issues during online meetings or discussions ☐
- e) Difficulty in engaging in group work or projects ☐
- f) Lack of opportunity for social interaction ☐
- g) Other (please specify): _____

15. How have you maintained social connections with classmates or peers during remote learning? (*Choose all that apply*)

- a) Only through participating in online discussions or group work ☐
- b) Using social media or other online platforms ☐
- c) Meeting in person outside of school ☐
- d) Other (please specify): _____

III. Emotional Challenges

16. Have you experienced any mental health challenge during the pandemic?

- a) Yes ☐
- b) No ☐

17. If you answered 'Yes' to the previous question, what types of mental health challenges have you experienced? (*Choose all that apply*)

- a) Anxiety ☐
- b) Depression ☐
- c) Loneliness ☐
- d) Stress ☐
- e) Feelings of uncertainty and insecurity ☐
- f) Difficulty in coping with academic pressure ☐
- g) Feeling overwhelmed or burned out ☐
- h) Difficulty in staying motivated ☐
- i) Other (please specify): _____

18. Have you received adequate support for any mental health challenges you've faced during the pandemic?

- a) Yes ☐
- b) No ☐

19. How have you coped with these emotional challenges? (*Choose all that apply*)

- a) Talking to friends or family members ☐
- b) Seeking help from a counselor or mental health professional ☐
- c) Engaging in physical exercise or other self-care activities ☐
- d) Other (please specify): _____

IV. Technological Challenges

20. What device(s) do you primarily use for online learning during the COVID-19 pandemic? (*Choose all that apply*)

- a) Desktop computer ☐
- b) Laptop ☐
- c) Tablet ☐
- d) Smartphone ☐
- e) Others (please specify): _____

21. Have you faced any technological challenges for online learning during the pandemic?

- a) Yes ☐
- b) No ☐

22. What technological challenges have you faced during the COVID-19 pandemic? (Choose all that apply)

- a) Inadequate internet connection or device ☐
- b) Difficulty in using online tools or platforms ☐
- c) Technical issues during online classes or meetings ☐
- d) Other (please specify): _____

23. How have you coped with these technological challenges? (Choose all that apply)

- a) Seeking help from teachers or technical support ☐
- b) Using alternative devices or internet connections ☐
- c) Learning how to use online tools or platforms ☐
- d) Others (please specify): _____

V. Financial Challenges:

24. Have you had adequate access to the necessary technology for online learning? (Choose any one)

- a) Yes, I have all the technology I need ☐
- b) I have some of the technology I need ☐
- c) I don't have any of the technology I need ☐

25. Have you experienced any difficulty accessing the internet during the pandemic? (Choose any one)

- a) Yes ☐
- b) No ☐

26. What are the Financial Challenges Encountered by you during the COVID-19 pandemic?

- a) Inability to pay for online learning resources or textbooks ☐
- b) Unable to afford tuition fees or other school-related expenses ☐
- c) Unable to access financial aid or scholarships ☐

APPENDIX-VI

DISCUSSION GUIDE FOR FGD WITH ADMINISTRATORS

1. What challenges did you encounter while implementing COVID-19 testing, tracing, and quarantine measures during the pandemic?
2. To what degree were students, staff, and parents informed about COVID-19 safety guidelines?
3. What common fears or psychological concerns were expressed by students and staff?
4. How did your school handle board examination classes amidst the pandemic restrictions?
5. What obstacles did your school face in providing digital devices (laptops, tablets, smartphones) for students and staff?
6. What factors contributed to the significant technological challenges faced by schools in Meghalaya during the COVID-19 pandemic, and how did these challenges affect the effectiveness of online learning?
7. Why was text messaging the most prevalent method of communication during the pandemic?
8. Why did WhatsApp emerge as the most popular online learning platform, while email was the least utilized during the pandemic?
9. What led to Meghalaya experiencing more academic challenges during the pandemic?
10. What issues arose regarding student attendance and participation during the COVID-19 pandemic?
11. Why did many students encounter difficulties in learning during the pandemic?

12. What initiatives did your school undertake to provide students with digital devices and internet access during the pandemic?
13. How did your school collaborate with local communities, organizations, or village councils to support students during the pandemic?
14. What were the reasons for the reduction of the curriculum during the pandemic?
15. Why was mathematics the subject most affected by the pandemic?
16. What reasons can you provide for the inability to conduct exams as usual during the pandemic?
17. Why did Meghalaya face more challenges in assessment and grading during the COVID-19 pandemic?
18. Why is online examination more favored in Mizoram, while open book tests are preferred in Meghalaya?
19. Why do you believe schools in Meghalaya faced more challenges than those in Mizoram in managing and supporting teachers during the COVID-19 pandemic?
20. Why do you think mental health challenges were more pronounced in Meghalaya than in Mizoram during the COVID-19 pandemic?
21. How did financial and resource-related challenges during the COVID-19 pandemic impact your school's ability to support students and teachers, particularly in remote or underserved areas?
22. Why do you think the distribution of physical materials was more significant in Meghalaya than in Mizoram?

APPENDIX-VII

DISCUSSION GUIDE FOR FGD WITH TEACHERS

1. What specific challenges have teachers in Mizoram faced while adapting their teaching methods to new strategies or technologies?
2. How has limited access to technology and reliable internet connectivity impacted your ability to implement modified teaching strategies?
3. What specific modifications have you made in your teaching approach due to the COVID-19 pandemic?
4. What factors influenced your decision to use pre-recorded video lessons as a primary remote teaching strategy?
5. What factors led the majority of teachers in Meghalaya to adopt project-based assignments as a primary strategy for remote teaching?
6. Why is decreased participation and interaction among students in online classes common during the pandemic?
7. Why have most students faced difficulties in staying motivated during the pandemic?
8. What specific methods did teachers in your state employ to maintain regular communication with parents during the pandemic?
9. How did varying levels of confidence in using technology affect teaching effectiveness and student engagement during the pandemic?
10. Considering that only 8% of teachers in Mizoram and 8.51% in Meghalaya reported using Learning Management Systems (LMS) such as Canvas or Blackboard, what factors contributed to the limited adoption of these platforms, and how can their usage be increased in the future?

11. Why is videoconferencing the most widely used platform among teachers, yet considered the most challenging for educators in Meghalaya during the pandemic?
12. How did limitations in students' access to technology and internet connectivity affect your ability to conduct fair and effective assessments during the pandemic?
13. What factors contributed to the observed decline in academic performance and difficulties in achieving learning objectives among students during the pandemic?
14. What has been your experience in evaluating students during the pandemic?
15. How did feelings of isolation impact your teaching and personal well-being?
16. How did the pandemic affect your ability to balance work responsibilities with personal life?
17. Reflecting on the emotional support measures available during the pandemic, how did access to counseling services, peer support, and professional development programs influence your emotional well-being and teaching effectiveness?
18. How did you acquire professional support during the pandemic?
19. How did salary reductions and difficulties in affording internet and technological resources during the COVID-19 pandemic impact your teaching effectiveness and personal well-being?
20. What is the reason for not being able to access the required technology for online teaching during the pandemic?
21. What is the main reason for not being able to conduct online classes successfully?

APPENDIX-VIII

DISCUSSION GUIDE FOR FGD WITH PARENTS

1. What factors contributed to the significant technological challenges faced in Meghalaya during the pandemic?
2. Why did many parents in Meghalaya struggle to provide separate digital devices for each of their children during the pandemic?
3. What made stress and anxiety related to virtual learning and pandemic-related issues particularly common among parents in Mizoram?
4. What challenges did parents in Meghalaya face that hindered their ability to support their children's virtual learning during the pandemic?
5. Why were parents in Mizoram more likely to be concerned about learning loss or their children falling behind during the pandemic?
6. Why were the negative effects of limited social interaction on children more pronounced in Meghalaya during the pandemic?
7. What types of goals and incentives did parents employ to keep their children motivated and engaged in online learning during the pandemic?
8. In what ways did parents assist their children in maintaining social connections with friends and peers during the pandemic?
9. How did parents practice self-care to model healthy coping strategies while emotionally supporting their children during the pandemic?
10. What were the primary reasons behind the increased workload parents experienced during the pandemic?
11. How did the home environment influence children's ability to concentrate during online classes in the pandemic?

12. Why were many parents in Mizoram content with their children's academic progress, teaching methods, and educational policy implementation during the pandemic?
13. Why did more parents in Meghalaya report dissatisfaction compared to satisfaction with their child's academic performance during the pandemic?

APPENDIX-IX

DISCUSSION GUIDE FOR FGD WITH STUDENTS

1. What factors contributed to the lower student participation rate in online classes in Meghalaya?
2. What reasons led most students to spend only 1–2 hours on online classes during the pandemic?
3. What aspects made traditional (offline) classes more appealing to students during the pandemic?
4. What types of distractions did students encounter while learning online during the pandemic?
5. What were the reasons for the negative impact on academic performance being most prevalent among students in Mizoram during the pandemic?
6. What factors contributed to the positive impact on academic performance being most common among students in Meghalaya during the pandemic?
7. What challenges did most students face in understanding subjects during the pandemic?
8. Did teachers assign more or less work during the pandemic?
9. What led most students to rely on online resources and self-study methods instead of seeking help from teachers during the pandemic?
10. Why did more students report difficulties in understanding exam questions during online exams, while in Meghalaya, technical difficulties were reported as the main challenge during the pandemic?
11. What reasons motivated more students to practice on online platforms rather than seek help from teachers during online exams?

12. What social challenges did students in Mizoram face, such as the inability to meet friends, compared to students in Meghalaya who missed school events during the pandemic?
13. What motivated most students to prefer online platforms for social connection during the pandemic?
14. What emotional challenges were most common among students in Mizoram, such as difficulty staying motivated, compared to stress being the most common challenge among students in Meghalaya during the pandemic?
15. What coping strategies, such as talking with friends, were most commonly used to address emotional challenges during the pandemic?
16. What reasons led the majority of students to use smartphones as their primary tool for online learning during the pandemic?
17. What issues, such as inadequate internet connections, lack of devices, and technical problems, were prevalent among students in Meghalaya during the pandemic?
18. What coping strategies, such as using alternative devices, were most common among students for dealing with technological challenges during the pandemic?
19. What factors contributed to more than half of the students in both Mizoram and Meghalaya having only some of the technology needed for online learning during the pandemic?
20. What difficulties did the majority of students face in accessing internet facilities during the pandemic?
21. What challenges, such as the inability to pay for online learning resources or textbooks and access scholarships, were common among students during the pandemic?

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Examination	Board/University	Year of passing	Division	(%)
HSLC	Govt.Mizo High School	2009	First	65.4
HSSLC (Arts)	Govt.Mizo Higher Secondary School	2011	First	66.6
B.A(Education)	Pachhunga University College	2014	First	72
M.A (Education)	Mizoram University	2016	Distinction	75.8
B.Ed	Mizoram University	2018	First	72.95
NET- Education	UGC/CBSE	2016	Lectureship	
NET(JRF) Education	UGC/ NTA	2022	Lectureship	

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1. **Lalhmingangi, R.** (2022). A comparative study on attitude towards science among higher secondary school students in Aizawl. *Quest Journal of Research in Humanities and Social Science*, 10(4, Series 3), 43–48. <http://www.questjournals.org/jrhss/archive.html>
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PRESENTATION, WORKSHOP AND CONFERENCE

1. Presented a paper on “Vocationalisation of Higher Secondary Education: A Descriptive Study on Vocational Education and its Implementation in Mizoram” at a One-Day National Seminar on *Recent Trends in Education* on 31st August 2022, organized by the Institute of Advanced Studies in Education.
2. Presented a paper on “Implementation of Vocational Education for Disabled Individuals in Aizawl: A Study” at a National Seminar on *Contemporary Issues in Education* on 18th November 2022, organized by Mizoram Educational Foundation in collaboration with the All India Education Forum.
3. Presented a paper on “Artificial Intelligence in Higher Education: Issues and Challenges” at the International Conference on *Reskilling and Upskilling Stakeholders of Higher Education Through Artificial Intelligence* under the G20 Initiative, held on 19th–20th May 2023, organized by the Department of Education, Mizoram University.
4. Presented a paper on “Environmental Activity of College Students in Aizawl City” at the National Seminar on *Educating Youth in the Digital and Transformative Innovation Age* on 8th June 2023, organized by the Department of Education, Pachhunga University College.
5. Presented a paper on “Deciphering Study Habits: A Detailed Examination of High School Students’ Learning Practices” on 8th June 2023, organized by the Department of Education, Pachhunga University College.
6. Presented a paper on “Educational Challenges Faced by College Teachers During the COVID-19 Pandemic in Mizoram” on 8th June 2023, organized by the Department of Education, Pachhunga University College.
7. Presented a paper on “Educational Challenges Faced by College Students in Mizoram During the COVID-19 Pandemic” at the International Conference on *Higher Education: Issues, Challenges and Ways Forward* held from 25th to 27th October 2023, organized by the School of Education, Mizoram University.

8. Presented a paper on “Engagement of Postgraduate Teachers and Students in Mizoram University in the Context of the National Education Policy 2020” at the International Conference on *NEP 2020: Teaching, Education and New Learning Technology* on 18th and 19th March 2024, organized by the Department of Education, North Eastern Hill University (NEHU).
9. Presented a paper on “Academic Challenges Encountered by High School Principals in Mizoram and Meghalaya During the COVID-19 Pandemic” on 8th November 2024, organized by the Institute of Advanced Studies in Education, Aizawl, Mizoram.
10. Presented a paper on “A Study Examining the Study Habits of Postgraduate Students in Aizawl City” at the Two-Day National Seminar on *Analyzing Contemporary Issues in North-East India: Problems and Opportunities* held on 9th and 10th July 2025, organized by Government Aizawl College.
11. Presented a paper on “Comparative Analysis of Occupational Stress Among Secondary School Teachers in Sikkim” at the Two-Day National Seminar on *Analyzing Contemporary Issues in North-East India: Problems and Opportunities* held on 9th and 10th July 2025, organized by Government Aizawl College.
12. Presented a paper on “Assessing Moral Values Among Middle School Students in Aizawl: A Comparative Analysis by Gender and School Management” at the Two-Day National Seminar on *Analyzing Contemporary Issues in North-East India: Problems and Opportunities* held on 9th and 10th July 2025, organized by Government Aizawl College.
13. Presented a paper on “Gender Differences in Self-perception Among Students at Government Hrangbana College: A Descriptive Survey” at the Two-Day National Seminar on *Analyzing Contemporary Issues in North-East India: Problems and Opportunities* held on 9th and 10th July 2025, organized by Government Aizawl College.



ISSN:2455-7838 (Online)

DOI:10.36713/epra2016

SJIF Impact Factor(2025) : 8.688

ISI I.F Value : 1.241

EPRA International Journal of

RESEARCH & DEVELOPMENT

(IJRD)

Monthly, Peer Reviewed (Refereed) & Indexed International Journal

Volume-10 Issue-7 July 2025

**RESEARCH
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ISSN (Online): 2455-7838

SJIF Impact Factor (2025):8.688

ISI I.F. Value : 1.241

DOI : 10.36713/epra2016

EPRA International Journal of Research & Development (IJRD)

Monthly Peer Reviewed & Indexed
International Online Journal

Volume: 10, Issue:7, July 2025

Indexed By:



Published By

EPRA Publishing

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DIGITAL DIVIDES AND DUAL BURDENS: PARENTAL CHALLENGES IN REMOTE LEARNING DURING COVID-19 PANDEMIC IN MIZORAM, INDIA

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Article DOI: <https://doi.org/10.36713/epra23060>

DOI No: 10.36713/epra23060

ABSTRACT

*The COVID-19 pandemic exacerbated preexisting inequities in education, disproportionately affecting marginalized communities. This mixed-methods study examines the dual burden—technological and socioemotional—borne by parents in Mizoram, India, during school closures. Survey data (*n* = 100) and parental interviews reveal that 66% faced inadequate digital access, while 45% lacked devices for multiple children, exacerbating intra-household disparities. Concurrently, 65% of parents reported severe stress from balancing educational supervision with employment, compounded by concerns over children's mental health (34% anxiety, 67% screen addiction) and academic regression (74% feared learning loss). Despite adaptive strategies (e.g., goal-setting by 69%), systemic gaps in institutional support left parents disproportionately responsible for mitigating crisis impacts. Findings highlight how intersecting burdens of digital exclusion and caregiving strain perpetuate inequality in low-resource settings. The study advocates for policies that concurrently address infrastructure deficits and psychosocial support to enhance resilience in future disruptions.*

KEYWORDS: Parents, Educational Challenges, Remote Learning, COVID-19

INTRODUCTION

The COVID-19 pandemic caused massive disruption across global education systems. At the height of the crisis in April 2020, UNESCO reported that nearly 1.6 billion learners—around 94% of students worldwide—were impacted by school closures (UNESCO, 2020). Although the effects were widespread, they hit marginalized and under-resourced communities the hardest.

In Mizoram, a remote, mountainous state in northeastern India with limited digital infrastructure, the shift to online learning exposed long-standing educational inequalities. Many families, struggling with poor internet access and a lack of digital devices, were unable to fully engage in virtual classes.

Consequently, parents were thrust into dual roles as technical facilitators and educational mentors, often without prior experience or training. Research from Gulf countries revealed that “parents’ academic stress is a significant predictor of engagement with their children’s online learning,” highlighting how the burden of compensating for teachers emotionally and cognitively amplified parental stress (Abo Hamza & Elsantil, 2023).

The stress took both an emotional and mental toll. A study from the U.S. revealed that disruptions to children’s daily routines during the pandemic led to a noticeable rise in caregiver stress and anxiety, especially among mothers (Xu et al., 2023). Similar trends were seen worldwide, with many families reporting increased parental burnout, growing anxiety in children, and a drop in overall motivation (Brown et al., 2020). On top of emotional stress, parents also faced tough practical challenges. Those working from home had to juggle their jobs, manage household responsibilities, and oversee their children’s learning—often without any real support. This situation echoed research from Japan, where school closures were linked to a decline in mental health, especially among less educated mothers caring for young school-age children (Yamamura & Tsutsui, 2021).

Beyond the difficulties, a small number of families reported beneficial outcomes, such as stronger parent-child-teacher relationships and personalized learning approaches. However, these were the exception rather than the norm. This paper explores the multifaceted challenges—technological, educational, emotional, and logistical—faced by parents in Mizoram during pandemic-induced remote learning. By examining these struggles and the coping strategies employed, this study aims to inform more effective support mechanisms and policies to enhance educational resilience in future crises.

OBJECTIVE OF THE STUDY

To find out the educational challenges faced by parents during the COVID-19 Pandemic in Mizoram.



METHOD OF THE STUDY

This study used mixed-methods design, integrating a quantitative survey with qualitative parental testimonies.

Population

The population of the study includes all the parents of secondary school students in Mizoram.

Sampling

Participants were recruited using a stratified random sampling technique for quantitative data and a purposive sampling technique for qualitative data across rural and urban districts of Mizoram to ensure representation from a wide range of socioeconomic backgrounds. The study included 100 parents from the state. Data collection involved distributing questionnaires to secondary school students; all returned questionnaires were included in the analysis.

Data Gathering Instrument

The survey questionnaire was designed by the investigator. It featured multiple-choice questions allowing respondents to select more than one answer, along with open-ended items for detailed responses. Items were drafted based on literature and expert consultation. To ensure content validity, the draft questionnaire was evaluated by a panel of 15 subject-matter experts, who reviewed each item's relevance, clarity, and alignment with the study's objectives. Additionally, semi-structured interviews were conducted after analysis of quantitative data

DATA ANALYSIS METHOD

To analyze the quantitative data, the investigator used descriptive statistical techniques such as frequency distribution and percentage as and when necessary. The descriptive qualitative analysis is used to analyze the qualitative data collected using focus group discussions. The qualitative data is used to enrich and support the quantitative findings.

FINDINGS AND DISCUSSION

Table 1: Challenges Faced by Parents in Mizoram During the COVID-19 Pandemic (n=100)

Category	Specific Challenge	Responses	(%)
Technological Challenges	Limited access to a device/reliable internet	66	66
	Insufficient technical knowledge for virtual platforms	12	12
Device Provision	Able to provide multiple devices for children	55	55
	Unable to provide multiple devices	45	45
Mental Health Challenges	Stress/anxiety related to virtual learning & pandemic	65	65
	Difficulty supporting child's mental well-being	36	36
Negative Effects on children	Laziness	56	56
	Anxiety/stress	34	34
	Online addiction	67	67
Academic Challenges	Limited access to grades/teacher feedback	30	30



Category	Specific Challenge	Responses	(%)
Time Management Issues	Struggles in supporting virtual learning	17	17
	Concerns about learning loss/falling behind	74	74
	Problems creating a learning schedule/routine	33	33
	Problems prioritizing tasks by urgency/importance	78	78
School Communication Issues	Limited communication from school/teachers	18	18
	Difficulty navigating virtual platforms	20	20
Workload Changes	Increased workload during pandemic	44	44
	Same workload	56	56
Environmental Challenges	Background noise at home	57	57
	Limited physical space	30	30
	Increased household chores	44	44

Technological Challenge

The findings reveal profound technological limitations that severely constrain remote learning capabilities. A significant majority of respondents (66%) reported inadequate access to digital devices or reliable internet connectivity during the pandemic. As one parent poignantly stated, *"We cannot afford to buy a laptop or tablet for our children. Even the data packs or the internet are too expensive for us to use every day,"* highlighting the intersection of economic constraints and digital exclusion.

Device provision

The device provision data presents a concerning picture of intra-household resource allocation, with 45% of families unable to provide multiple devices for their children. Parental narratives such as *"We had to buy a second phone because both our children had online classes at the same time"* versus *"Others could not afford even one device"* starkly illustrate the socioeconomic gradients in digital access. States like Assam, Manipur, and Meghalaya had 40–50% of students without digital access (NAS, 2021). Philippines and Indonesia reported device shortages and parental inability to support learning (Putra et al., 2020; Barrot et al., 2021).

Mental Health Challenges

The psychological toll of pandemic-era education emerges as a dominant theme in our analysis. An alarming 65% of parents reported significant stress and anxiety related to virtual learning responsibilities. One participant's account - *"The pressure to ensure my child does not fall behind... It is mentally exhausting"* - captures the emotional labor. Children's physical health declined due to sedentary routines (Wang et al., 2020).



Negative effect on children

Children's mental health outcomes present equally concerning patterns. The prevalence of online addiction (67%). Parents also report that their children use devices for gaming more than learning. Behavioral changes, including increased laziness (56%) and anxiety (34%) can also be evident during the pandemic.

Academic Challenges

The educational consequences of these compounded stressors manifest clearly in the data. A striking 74% of parents expressed concerns about learning loss. The statement *"I'm afraid they will fall behind"* shows widespread anxieties about academic regression. 30% of parents reported limited access to grades/teacher feedback, and 17% Struggles in supporting virtual learning.

Time Management issue

33% of parents reported difficulties in establishing consistent daily routines for home learning. The majority—78%—struggled with determining which tasks or subjects to focus on first, highlighting widespread difficulties in managing academic priorities. One parent put it, *"It was difficult to know what assignments were essential versus what could wait, so everything felt urgent at once"*. Parents faced stress balancing home tutoring and responsibilities (India Today, 2020).

School Communication Issue

18% of parents indicated they received too little guidance or updates from educational staff. One parent reflected, *"I rarely heard from the school – it was just silence, and we didn't know what was expected of our child,"*. 20% struggled with using online learning systems, underscoring barriers in adapting to digital tools for communication with schools. Many educators lacked training, especially in developing countries (Izhar et al., 2021; The British Council, 2020).

Changes in Parental Workload

44% reported their own workload increased during the pandemic, reflecting the added stress of remote work or reduced outside help (e.g., from grandparents or daycare). One parent described the balancing act as: *"It was stressful. I could not fully give my attention to my work and my child simultaneously."* 56% maintained their usual workload, but still had to manage it alongside supervising their children's education.

Environmental Challenges

Environmental barriers further exacerbated these challenges. Fifty-seven percent of respondents cited background noise as disruptive, while 30% reported inadequate study spaces. Parental descriptions like *"Our house is small with no quiet space"* illustrate the physical constraints that hindered effective remote education.

DISCUSSION

The pandemic laid bare deep inequalities in digital access, mental health, and academic stability for families trying to cope with remote learning. Parents were stretched thin—dealing with limited devices, unreliable internet, heavier workloads, and growing emotional strain—while schools often lacked the resources to truly support them. Across income levels, but especially in rural and low-income communities, families encountered major digital roadblocks. Research highlighted widespread issues like poor internet access (National Achievement Survey, 2021; Mishra et al., 2020) and not enough devices to go around (India Today, 2021), which made regular class participation difficult. In India, the digital gap was especially stark: rural families faced costly data plans and spotty connections (Mishra et al., 2020). Globally, nearly half of lower-income households reported at least one major tech-related challenge during this time (Vogels, 2021).

The transition to home-based learning created complex role conflicts for parents. Working parents, especially mothers, faced extreme stress balancing professional duties with educational supervision (Alghamdi, 2021; Cui et al., 2021). Many lacked formal teaching skills, making concept explanation difficult (Putra et al., 2020), while schools provided inadequate guidance on supporting home learning (Rawal, 2021). Financial pressures only made things harder. Some families couldn't afford the necessary technology (Barrot et al., 2021), and in India, the suspension of mid-day meal programs raised serious concerns about children's nutrition (Jena, 2020). Parents worried not just about their children falling behind academically (Singh & Quraishi, 2021), but also about the amount of time they were spending on screens (Wang et al., 2020). The home learning environment proved difficult to manage, with children often distracted by entertainment media (Apriyanti, 2020) and parents struggling to enforce productive routines (India Today, 2020; Lau et al., 2021). Many experienced guilt over perceived inadequate support (Donnelly et al., 2021), compounded by limited access to teacher consultations in disadvantaged regions (Dawadi et al., 2020).

**Comprehensive Survey Results on Pandemic Challenges and Strategies in Mizoram (n=100)**

Category	Specific Item	Responses	(%)
Motivation Strategies	Set goals and incentives for task completion	69	69
	Used interactive/multimedia tools	31	31
	Collaborated with other parents for online activities	12	12
Emotional Support Methods	Encouraged open communication	31	31
	Maintained child's social connections	22	22
	Practiced self-care as coping model	70	70
Work-Childcare Management	Adjusted work hours	39	39
	Worked from home while supervising a child	61	61
	Enlisted caregiver/family help	8	8
Home Environment optimization Strategies	Designated quiet area	20	20
	Encouraged routine following	32	32
	Family cooperation to minimize distractions	56	56

Motivational Strategies

The data demonstrates significant parental investment in maintaining educational engagement, with 69% implementing goal-setting strategies. A parent's account that *"We allowed our children to touch the phone for 30 minutes after they completed their online class and helped with household chores"* illustrates the behavioral reinforcement mechanisms families developed.

Notably, only 31% of parents utilized interactive/multimedia tools, suggesting either limited awareness or access barriers to digital learning resources. The minimal collaboration between parents (12%) for organizing online activities reflects the social distancing constraints, though it also indicates potential missed opportunities for collective learning solutions.

Emotional Support Mechanisms

The predominance of self-care modeling (70%) as a coping strategy shows the importance of parental emotional regulation during crises. Statements like *"We told our kid to go for walks, draw, or listen to music when they start becoming lazy"* exemplify the adaptive techniques families employed.

However, the relatively lower rates of maintaining social connections (22%) may reflect health anxieties, as captured in one parent's admission: *"I usually kept my children indoors to avoid being infected by the virus."*



Work-Childcare Management

The 61% of parents who worked from home while supervising children demonstrates significant role adaptation during school closures. The limited utilization of external caregiving support (8%) may reflect both cultural norms and restricted access to formal childcare services.

Home Environment Optimization Strategies

Family cooperation emerged as the predominant environmental strategy (56%). The relatively low implementation of designated quiet spaces (20%) likely reflects material constraints, as described in parental accounts of small living quarters. The moderate adoption of routine-following (32%) suggests potential gaps in time management support.

DISCUSSION

The findings reveal both resilience and gaps in parental strategies during pandemic-era remote learning. While 69% of parents implemented goal-setting techniques—aligning with self-determination theory (Ryan & Deci, 2000), which emphasizes autonomy-supportive practices—the low use of interactive tools (31%) reflects persistent digital divides (Livingstone & Blum-Ross, 2020) or lack of institutional guidance (Rawal, 2021). The minimal parental collaboration (12%) mirrors global reports of isolation exacerbated by health anxieties (Brooks et al., 2020), though peer-support networks could have mitigated stress (Iyengar, 2021). Parents prioritized self-care modeling (70%), consistent with studies highlighting parental stress management as critical for child well-being (Wang et al., 2020). However, limited social connections (22%) align with findings on pandemic-induced isolation (Herzallah et al., 2021) and missed opportunities for communal coping (Donnelly et al., 2021). The 61% of parents juggling work and childcare underscores role strain theories (Greenhaus & Beutell, 1985), exacerbated by inadequate external support (8%), a gap noted in low-income contexts (Barrot et al., 2021). Family cooperation (56%) was a key adaptive strategy, yet limited quiet spaces (20%) reflect socioeconomic barriers (Cui et al., 2021). Routine-following (32%) was moderate, suggesting needs for structured time-management aids (Lau et al., 2021).

CONCLUSION

The COVID-19 pandemic exposed profound vulnerabilities in Mizoram's education system, where families struggled to maintain learning continuity amidst severe technological constraints and psychological stressors. Parents demonstrated remarkable adaptability, creating structured home learning environments and emotional support systems, yet these efforts were fundamentally limited by systemic barriers, including device scarcity, cramped living conditions, and inadequate institutional support.

This research highlights how crises, like the pandemic, tend to deepen existing gaps in education, hitting marginalized communities the hardest. The findings point to an urgent need for well-rounded policy responses that not only help students catch up in the short term but also build stronger, more resilient education systems for the future. Instead of placing the burden on families to adapt on their own, long-lasting solutions should focus on improving digital access, fostering stronger partnerships between teachers and parents, and weaving mental health support into the fabric of education. Mizoram's experience offers valuable insights for developing equitable crisis-response frameworks worldwide. Moving forward, educational planning must prioritize bridging the digital divide while fostering community-based support networks that protect vulnerable learners during disruptions. The pandemic has made clear that true educational resilience requires systemic transformation, not just temporary adaptations.

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EPRA International Journal of Research and Development (IJRD)

Volume - 10 Issue - 7 July 2025



ISSN 2455-7838



9 772455 783005

Published By :EPRA Publishing

Navigating Online Teaching During the COVID-19 Pandemic: Challenges and Coping Strategies Among College Teachers in Mizoram

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Abstract: The COVID-19 pandemic caused an unprecedented disruption in education systems worldwide, necessitating a rapid transition to online instruction. This study investigates the challenges encountered and coping strategies employed by college faculty in Mizoram, a geographically remote state in Northeast India. Using a descriptive survey design, data were collected from 50 college teachers via a structured online questionnaire. The results identified poor internet connections, inadequate technology, low levels of student interaction, mental strain, and financial difficulties as some of the major problems. Nevertheless, educators were able to adapt through video conferencing, project-based evaluation, and self-care. This study emphasizes the need to focus on digital infrastructure, faculty development programs, and mental health services to build sustainability against future challenges. The study underscores the importance of investing in digital infrastructure, faculty training, and mental health support to enhance institutional resilience in the face of future disruptions.

Key words: Online education, COVID-19, Mizoram, college teachers, digital divide, teaching challenges

I. Introduction

The COVID-19 pandemic has profoundly disrupted global education systems, leading to unprecedented challenges and exacerbating existing inequalities. At the height of the crisis, over 1.6 billion learners in more than 190 countries were affected by school closures, representing approximately 91% of the global student population (UNESCO, 2020). These closures compelled educational institutions to rapidly transition to remote learning modalities. However, the shift exposed significant disparities, particularly in low- and lower-middle-income countries, where limited access to digital infrastructure hindered effective learning. A joint report by UNESCO, UNICEF, and the World Bank revealed that children in these regions lost nearly four months of schooling, compared to six weeks in high-income countries (UNESCO, UNICEF, & World Bank, 2020). The pandemic not only disrupted academic progress but also highlighted the urgent need for resilient and inclusive education systems capable of withstanding such global crises. Measures such as lockdowns and social distancing, while necessary to curb the virus's spread, led to increased social isolation and loneliness. Studies have shown a significant increase in loneliness during the pandemic, with reduced social interactions predicting greater feelings of isolation (Killgore et al., 2020). This social isolation

has been linked to adverse mental health outcomes, including heightened levels of depression and anxiety (Horigian et al., 2021). In terms of the economy, the pandemic caused many companies to close and many jobs to be lost. Small businesses suffered the most; estimates indicate that if the crisis continued for several months, closures could result in the loss of over 30 million jobs (Fairlie, 2020).

In India, over 320 million students were affected by school closures, with many struggling to access remote learning due to limited internet connectivity and a shortage of digital devices (World Economic Forum, 2020). This digital divide disproportionately impacts underprivileged groups, including girls, children with disabilities, and those from low-income families, exacerbating existing educational inequalities (Al Jazeera, 2021).

In the northeastern state of Mizoram, educational institutions were closed on March 17, 2020, as a precautionary measure against the spread of COVID-19 (NDTV, 2020). To ensure continuity in education, the Mizoram government initiated virtual classes via television broadcasts starting April 13, 2020, allowing students to access lessons from their homes (India Today, 2020).

Teachers across India faced numerous challenges adapting to remote teaching methodologies. Many grappled with limited access to technology, inadequate online resources, and a lack of professional development opportunities to effectively deliver virtual lessons (Wason & Sahni, 2023). This abrupt shift not only strained educators but also affected the quality of teacher-student interactions, highlighting the need for comprehensive support systems to enhance digital literacy and pedagogical skills among teachers (Dayal, 2023).

The crisis highlighted the importance of responsive and transparent governance, as effective communication and policy coordination were crucial in managing the pandemic's challenges (Gostin & Wiley, 2020). There is an urgent need for investment in digital infrastructure and inclusive educational policies to bridge the digital divide and ensure equitable access to quality education for all students, regardless of their socioeconomic background.

Objective of the study

The objective of this study was to identify educational challenges experienced and coping strategies used by college teachers in Mizoram during the pandemic.

II. Methodology

The study aimed to include the entire population of college teachers in Mizoram, but due to feasibility reasons, a convenient sample of 50 college teachers was selected. The use of convenience sampling was deemed appropriate due to time constraints and the accessibility of participants during lockdown conditions. While this limits generalizability, the sample provides meaningful insight into the experiences of educators across both public and private colleges. To collect data, an online survey was employed and distributed to the participants via WhatsApp. The survey was created using Google Forms. The study utilized a descriptive survey approach to collect information from college teachers residing in various regions of Mizoram.

Participants

Out of the 50 participants, 20 were from government colleges, while 30 were from private colleges in Mizoram. The participants were from various colleges, including Pachhunga University College, Government Hrangbana College, Government Aizawl College, Government Aizawl North College, Government Lunglei College, Government J. Buana College, Government Saitual College, Government Zawlnuam College, ICFAI, St. Xavier's College, Aizawl City College, Mizoram Christian College, HATIM, and Kawnpui College, in both the Arts and Commerce streams. Among the participants, 29 were female and 21 were male.

Data gathering instrument

The survey was designed as a questionnaire developed by the investigator, comprising seven dimensions: Pedagogical Challenges, Students' Challenges, Technological Challenges, Assessment and Grading, Personal and Emotional Challenges, and Financial Challenges. The questionnaire included multiple-choice options as well as opportunities for open-ended answers. The questionnaire was reviewed by subject experts to ensure content validity. An online survey was conducted utilizing Google Forms. Participation in the study was entirely voluntary, and no personal information was gathered. The collected data was analyzed through percentage calculations.

III. Challenges

Table 1

Pandemic-Related Educational Challenges faced by College Teachers in Mizoram (N = 50)

Domain	Major Challenge	(n)	(%)
Technological	Internet reliability issues	50	100%
	Frequent technical problems	34	68%
Financial	Educator pay reductions	20	40%
	Partial technology access	26	52%
Pedagogical	Low student engagement	30	61.4%
	Remote classroom management	27	53.6%
Teacher Well-being	Increased stress/anxiety	33	66%
	Work-life imbalance	19	38%

Domain	Major Challenge	(n)	(%)
Assessment	Remote monitoring difficulties	28	63.6%
	Academic integrity concerns	22	50%

Discussion

The study reveals significant challenges of college teachers in Mizoram faced during the COVID-19 pandemic across five critical domains:

Technological Challenges

All surveyed teachers (100%) reported unreliable internet connectivity, and 68% faced frequent technical problems. These findings highlight significant infrastructure limitations that hindered effective online teaching. Such challenges are consistent with broader research indicating that inadequate technological infrastructure was a primary barrier to effective online education in developing regions (Bozkurt & Sharma, 2020). Additionally, 52% of teachers reported partial access to necessary technology, reflecting the digital divide that exacerbated educational inequalities during the pandemic (Alam & Mohanty, 2022). Geographical factors contributed to the challenges faced by teachers during the pandemic. As noted by Mishra, Gupta, and Shree (2020), persistent connectivity issues continue to serve as a significant barrier in several north-eastern states, particularly during efforts to transition schools to digital platforms without adequate preparation.

Financial Challenges

The data reveals substantial financial strain among teachers, with 40% reporting pay reductions and 52% lacking full access to necessary technology. Teachers who worked in private institutions faced more financial challenges due to unpaid fees from the students during the pandemic. According to India Today (2021), a significant proportion of teachers in states like Uttar Pradesh and Chhattisgarh lacked the devices necessary to conduct online classes. These barriers were compounded by recurring power outages, unreliable internet connectivity, and insufficient IT training—issues mirrored in Mizoram's hilly and rural regions. This supports findings that educators in resource-constrained settings often bear the financial burden of transitioning to online instruction (World Bank, 2021). Mahdy (2020) observed that financial constraints and unreliable internet connectivity remained persistent barriers to the effective implementation of digital education throughout the country. The limited access to technology particularly underscores the inequitable resource distribution noted in studies of pandemic-era education (Pokhrel & Chhetri, 2021).

Pedagogical Challenges

More than half of teachers in the study reported difficulties with student engagement (61.4%) and classroom management (53.6%) during the shift to online learning. Student engagement issues can be due to limited peer interaction and irregular feedback contributed significantly to student disengagement across the north-eastern region (Baruah & Sarmah, 2022). Problems with classroom management can also be due to the sudden transition to online education (Hodges et al., 2020). Such issues were particularly acute in contexts

lacking prior online teaching experience (Rapanta et al., 2020). Priyadarshani and Jesuiya (2021) also revealed that teachers encountered difficulties in conducting online classes due to insufficient preparation and development for this new teaching mode. British Council (2020) and Izhar et al., (2021) also found that extended preparation time for lessons, feelings of being overwhelmed, and difficulty balancing administrative burdens with pedagogical responsibilities increased the challenges faced by teachers during the pandemic.

Teacher Well-being

High levels of stress and anxiety were reported by 66% of teachers in the study, with 38% experiencing work-life imbalance. Teachers had to rapidly adapt to online teaching, often without adequate training or resources (UNESCO, 2021). Many struggled with extended working hours, as preparing digital lessons, troubleshooting tech issues, and responding to students/parents outside school hours blurred work-life boundaries (Kim & Asbury, 2020). Brooks et al. (2020) also reported that educators took on additional caregiving roles at home while managing remote teaching, compounding stress, and also noted the psychological impact of quarantine and potential mitigation strategies, and revealed a variety of negative psychological effects, such as symptoms of post-traumatic stress, confusion, and anger.

Assessment Challenges

Challenges in remote monitoring (63.6%) and concerns about academic integrity (50%) were prevalent among teachers. Many online learning platforms lack robust proctoring tools, making it difficult for teachers to supervise exams in real-time, and uncontrolled testing environments (e.g., home settings) allow for unauthorized resources (notes, internet searches) during exams. These issues reflect well-documented difficulties in maintaining academic standards in unproctored online environments (Iglesias-Pradas et al., 2021). Studies have shown increased opportunities for academic dishonesty in remote assessment formats (Watson & Sottile, 2010).

IV. Coping strategies

Table 2

Coping Strategies Implemented by College Teachers in Mizoram during the Pandemic (N = 50)

Strategy Type	Specific Approach	(n)	(%)
Technology Adaptation	Video conferencing tools	48	96%
Engagement	Interactive online activities	25	50%
	Increased communication	28	56%
Educator Support	Institutional mental health resources	18	36%

Strategy Type	Specific Approach	(n)	(%)
Assessment	Professional development	21	42%
	Project-based assessments	23	46%
Well-being	Self-care promotion	35	70%

The data on Coping Strategies Implemented by College Teachers in Mizoram during the Pandemic (N = 50) reveals a multifaceted response to the challenges posed by the COVID-19 disruption, reflecting adaptability, creativity, and institutional support

Technology Adaptation

A significant 96% of teachers in the study reported using video conferencing tools, indicating a rapid shift to digital platforms like Zoom, Google Meet, or Microsoft Teams to ensure continuity of instruction. This mirrors global trends where synchronous online teaching became the primary method for delivering classes during school closures (Trust & Whalen, 2020). The high percentage demonstrates not only technological adoption but also teachers' resilience in unfamiliar environments.

Student Engagement Strategies

To address reduced motivation and attention spans in remote settings, 50% of teachers utilized interactive online activities, while 56% increased communication with students. These findings align with research emphasizing that interactive pedagogy and consistent communication are key to sustaining student engagement in online learning environments (Martin & Bolliger, 2018). These methods help in reducing student isolation and fostering a sense of community, both of which are crucial in remote education settings.

Teacher Support Mechanisms

36% of teachers reported that they made use of institutional mental health resources, and 42% of teachers reported having professional development opportunities such as training on the use of technology and application of software during the pandemic. These indicate that some institutions took active steps to support teacher well-being and professional readiness. As per UNESCO (2021), teacher training in digital pedagogy and mental health support were recommended globally to help educators cope with increased stress and the demands of remote teaching.

Assessment Adjustments

About 46% of teachers employed project-based assessments as alternatives to traditional exams during the pandemic. This approach is consistent with recommendations to shift towards formative and authentic assessments during emergencies, which promote deeper learning and reduce academic dishonesty (Iglesias-Pradas et al., 2021).

Well-being Measures

Notably, 70% of teachers reported promoting self-care during the pandemic, indicating a strong awareness of mental health and burnout risks. This finding aligns with studies demonstrating that self-care

practices, including mindfulness, time management, and peer support, were effective coping strategies for educators globally during the pandemic (Kim & Asbury, 2020).

Conclusion:

This study contributes to the growing global literature on pandemic-era education by providing localized evidence from India's northeastern region - an area often underrepresented in educational research. While documenting significant hardships, the findings ultimately suggest an optimistic vision: that the crisis-induced innovations in Mizoram, if properly supported and institutionalized, could seed longer-term transformations toward more flexible, equitable, and resilient education systems. The pandemic has highlighted that quality education depends not just on curriculum and pedagogy, but equally on technological infrastructure, institutional supports, and educator well-being that make teaching and learning possible. As education systems move forward, the lessons from Mizoram's teachers - both their struggles and their adaptive innovations - offer valuable guidance for building education systems capable of weathering future disruptions while providing quality learning for all. The experiences documented in this research highlight the need for comprehensive approaches that address both structural challenges and human factors in education.

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EPRA International Journal of Research & Development (IJRD)

ISSN : 2455-7838 (Online)

Impact Factor : (SJIF)8.688(ISI)1.241



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Volume 10 , *Issue* 7 , July , 2025

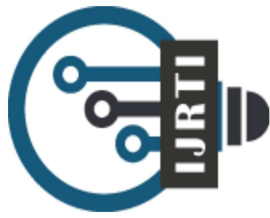


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Paper ID - IJRTI2505315

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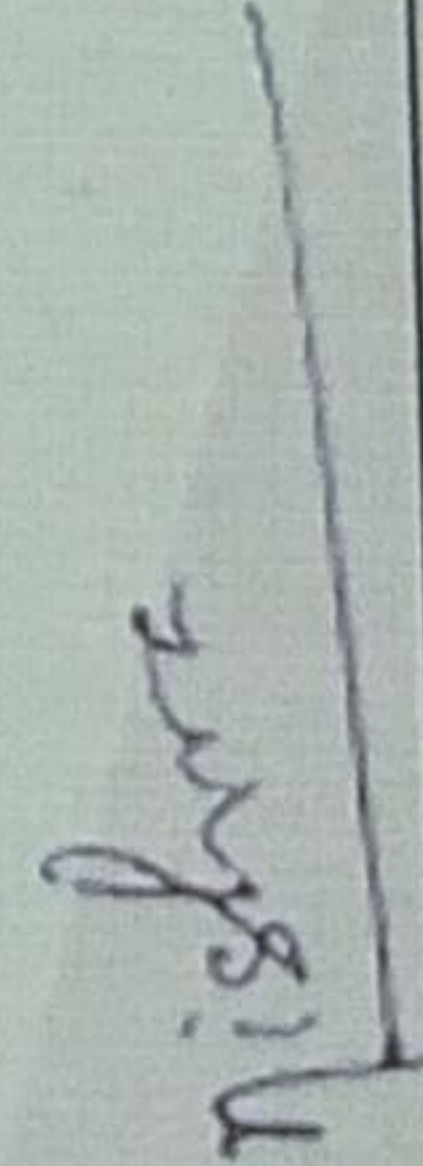


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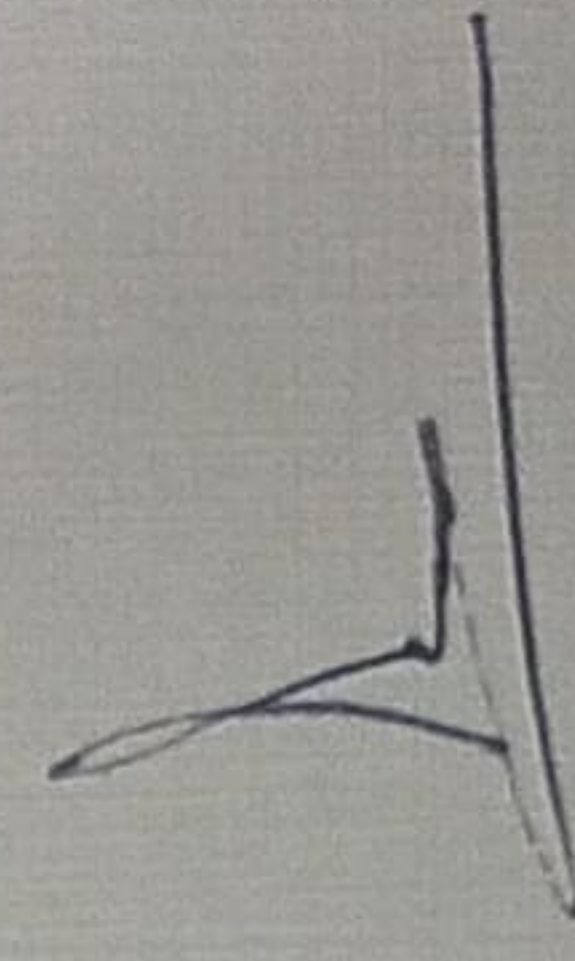
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To

The Principal

Subject: Request for Permission to Collect Research Data

Respected Sir/Madam,

I am R. Lalhmingangi, a Research Scholar under the supervision of Dr. Lalmuanzuali in the Department of Education at Mizoram University. I am currently conducting a research study titled *“Educational Challenges Faced by Stakeholders of Secondary Schools during the COVID-19 Pandemic in Mizoram and Meghalaya.”*

As part of my study, I am preparing to distribute structured questionnaires to stakeholders in your institution—namely the principal, teachers, students, and parents—to gather relevant data for analysis. I kindly seek your permission to carry out this data collection activity within your school.

Your support in facilitating this academic endeavor would be highly valued and greatly appreciated.

Thank you for your kind consideration.

Yours sincerely,

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DEGREE	: Ph.D.
DEPARTMENT	: Education
TITLE OF THESIS	: Educational Challenges faced by Stakeholders of Secondary Schools during COVID-19 Pandemic in Mizoram and Meghalaya
DATE OF ADMISSION	: 26.10.2020
DATE OF APPROVAL OF RESEARCH PROPOSAL	
1. DRC	: 30.03.2021 & 31.03.2021
2. BOS	: 16.04.2021
3. SCHOOL BOARD	: 20.05.2021
MZU REGISTRATION NO.	: 794 of 2011
Ph.D REGISTRATION NO. and DATE	: MZU/Ph.D./1634 of 26.10.2020
EXTENSION (IF ANY)	:

Head

Department of Education

ABSTRACT

EDUCATIONAL CHALLENGES FACED BY STAKEHOLDERS OF SECONDARY SCHOOLS DURING COVID-19 PANDEMIC IN MIZORAM AND MEGHALAYA

**AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
PHILOSOPHY**

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MZU REGISTRATION NO.: 794 of 2011

Ph.D. REGISTRATION NO.: MZU/Ph.D./1634 of 26.10.2020



**DEPARTMENT OF EDUCATION
SCHOOL OF EDUCATION
NOVEMBER, 2025**

**EDUCATIONAL CHALLENGES FACED BY STAKEHOLDERS OF SECONDARY
SCHOOLS DURING COVID-19 PANDEMIC IN MIZORAM AND MEGHALAYA**

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**Submitted
In partial fulfillment of the requirement of the Degree of Doctor of Philosophy in
Education, Mizoram University, Aizawl.**

Introduction:

The emergence of SARS-CoV-2, the virus responsible for COVID-19, in late 2019 marked the onset of a global health crisis that profoundly altered societal structures and daily life. First identified in Wuhan, Hubei Province, China, early research points to a zoonotic origin, where pathogens transmit from animals to humans. Investigations suggest that the Huanan Seafood Wholesale Market, where wild animals and seafood were sold nearby, may have played a role in the initial transmission (Centers for Disease Control and Prevention, 2021).

The COVID-19 pandemic exposed critical vulnerabilities across global healthcare, economic, and social systems. Healthcare infrastructures were overwhelmed by surging cases, revealing shortages in resources such as personal protective equipment and ventilators, and highlighting the need for systemic reforms to enhance resilience in public health systems. Economically, lockdowns and remote work transitions disrupted industries like retail and hospitality, leading to widespread unemployment and financial instability, particularly in low-income countries with limited fiscal capacity. Socially, prolonged isolation and uncertainty contributed to increased mental health issues, underscoring the importance of integrating psychological support into public health responses.

In March 2020, UNESCO reported that school closures in 107 countries had disrupted the education of approximately 862 million students, nearly half of the global student population. The education sector experienced some of the most severe disruptions, as remote and hybrid instructional models rapidly replaced traditional in-person learning. The closure of schools, colleges, and universities affected millions

of students and educators worldwide, introducing challenges related to digital accessibility, disparities in instructional quality, and student engagement in virtual environments. The sudden shift necessitated an unplanned transition to online learning, presenting significant logistical, technological, and pedagogical challenges. To sustain academic continuity, many schools implemented a combination of synchronous learning, such as live video lectures, and asynchronous methods, including pre-recorded lessons and digital assignments (Donitsa-Schmidt & Ramot, 2020). The abrupt transition also placed additional responsibilities on parents and caregivers, who had to support at-home learning while managing their professional obligations.

By March 2020, schools across the country were closed as a precautionary measure, affecting over 320 million students and exposing significant gaps in the education system's preparedness for remote learning (UNESCO, 2020). This shift revealed stark disparities in digital access, particularly in rural and low-income regions where digital infrastructure remains underdeveloped (UNESCO, 2020; Mishra, Gupta, & Shree, 2020).

In India, the first confirmed case was reported on 30 January 2020 in Kerala, following the arrival of a traveller from Wuhan, China, marking the onset of a significant national health crisis (Wikipedia, 2020). As infections began to rise, the Indian government responded with swift containment measures, including the closure of schools, travel restrictions, and a nationwide lockdown aimed at curbing the spread of the virus. The urgency of the situation intensified following the country's first COVID-19-related fatality on 12 March 2020. To mobilise public

support for preventive measures, the government introduced the *Janta Curfew* on 22 March, which was followed by a full-scale national lockdown from 25 March. As the crisis persisted, lockdown measures evolved through successive phases, culminating in *Lockdown 5.0* by June 2020 (Ministry of Health and Family Welfare [MoHFW], 2020).

The first confirmed case of COVID-19 in Mizoram was reported on 24 March 2020, involving a pastor returning from Amsterdam (Times of India, 2020). In response, the state government swiftly implemented strict lockdown measures to contain the spread of the virus. Schools were closed indefinitely, necessitating an urgent transition to online learning platforms to ensure continuity. Limited internet connectivity in remote areas, coupled with a lack of digital devices for many students, created a stark digital divide, disproportionately affecting learners from economically disadvantaged backgrounds (Lalzuiliana & Vanlalpeka, 2020).

The first confirmed case of COVID-19 in Meghalaya was reported on 14 April 2020, when a doctor returning from the United Kingdom tested positive, raising significant public health concerns across the state (Government of Meghalaya, 2020). In response, the government swiftly introduced preventive measures, including the closure of schools from 17 March 2020, to limit the spread of the virus. While these measures were essential for safeguarding public health, they posed immediate challenges to educational continuity, particularly in remote and rural areas where access to digital learning resources was severely limited (Sangma & Lyngdoh, 2021).

Rationale of the Study:

The COVID-19 pandemic profoundly disrupted education systems worldwide, necessitating an abrupt and unplanned transition from traditional classroom-based instruction to remote learning. This shift left schools, teachers, students, and families with little time to adapt, raising immediate concerns about learning continuity and the long-term effects on students' academic progress and the stability of educational structures (UNESCO, 2020). As the world moves toward a post-pandemic reality, it is essential to examine both the short-term disruptions and the enduring implications of these unprecedented changes in education (Sahlberg, 2021).

Mizoram and Meghalaya, two states in northeastern India, provide distinct yet comparable contexts for examining these educational challenges. While both states share certain socio-economic and cultural characteristics, their unique geographical and infrastructural conditions influenced their responses to pandemic-induced disruptions. With predominantly rural landscapes, limited digital infrastructure, and economic constraints, both states faced considerable difficulties in shifting to online education. However, the nature of these challenges and the strategies adopted to mitigate them varied, making a comparative study particularly valuable (Sen & Dhar, 2021).

A comparative analysis of the educational challenges during the COVID-19 pandemic in Mizoram and Meghalaya offers a critical opportunity to explore how regions with similar constraints can implement diverse strategies to address educational crises. The ultimate goal is to provide evidence-based recommendations

to strengthen the education systems of both states, focusing on resilience, equity, and adaptability to ensure that quality education remains accessible to all students, particularly during times of crisis (Borah & Lyngdoh, 2021).

By analyzing the responses of Mizoram and Meghalaya, this study aims to identify effective strategies that can be applied to similar regions facing comparable infrastructural and socio-economic challenges. The findings will help bridge the digital divide, enhance teacher training, and address structural inequalities exacerbated by the pandemic, ensuring that all students have equitable access to quality learning, even in times of uncertainty (Indian Council of Social Science Research [ICSSR], 2021).

Research Questions:

The research questions of the study are as follows:

1. What are the educational challenges faced by school administrators of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya?
2. What are the educational challenges faced by teachers of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya?
3. What are the educational challenges faced by community members of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya?
4. What are the educational challenges faced by secondary school students during COVID-19 pandemic in Mizoram and Meghalaya?

Statement of the study:

The problem has been stated as “*Educational Challenges faced by Stakeholders of Secondary Schools during COVID-19 Pandemic in Mizoram and Meghalaya*”

Objectives of the Study:

Aligned with the research questions outlined earlier, the objectives of this study have been formulated as follows:

1. To find out and compare the educational challenges faced by school administrators of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.
2. To find out and compare the educational challenges faced by teachers of secondary schools during COVID-19 pandemic in Mizoram and Meghalaya.
3. To find out and compare the educational challenges faced by community members during COVID-19 pandemic in Mizoram and Meghalaya.
4. To find out and compare the educational challenges faced by secondary school students during COVID-19 pandemic in Mizoram and Meghalaya.

Operational Definitions of Key Terms:

Educational Challenges: In this study, *educational challenges* refer to the various difficulties encountered by stakeholders in maintaining effective teaching and learning during the pandemic

Stakeholders: For this study, *stakeholders* specifically refer to school administrators, teachers, community members, and secondary school students.

COVID-19: COVID-19 is an infectious disease caused by a novel strain of coronavirus. The name derives from *CO* (corona), *VI* (virus), and *D* (disease). Initially referred to as the *2019 novel coronavirus* or *2019-nCoV*, the disease has had profound global consequences, affecting multiple sectors, including education.

Secondary Schools: For this study, *secondary schools* refers to the institutions that offer classes 9 and 10 and are affiliated with the Mizoram Board of School Education (MBSE) in Mizoram and the Meghalaya Board of School Education (MBOSE) in Meghalaya.

Delimitation of the study

The study is delimited to the school affiliated to the Mizoram Board of School Education in Mizoram and the Meghalaya Board of School Education.

Review of Related Literature:

A total of 107 related literatures were reviewed in the study. There were 35 studies done in India and 72 studies done abroad. The review period ranges from the year 2004 to 2024.

Methododology:

This study adopted an explanatory sequential mixed-methods design, integrating phenomenological inquiry to explore participants' lived experiences. The first phase involved a quantitative method, and the second phase involved a qualitative method. This dual-phase approach enabled methodological triangulation, enriching the study by combining broad patterns (quantitative) with deep, experiential insights (qualitative).

Population of the study:

The population of the study include the following:

- **Secondary School Students:** This category encompasses all students enrolled in secondary schools affiliated with the Mizoram Board of School Education (MBSE) and the Meghalaya Board of School Education (MBOSE).
- **Secondary School Teachers:** This group includes all teachers serving in secondary schools affiliated with MBSE and MBOSE.
- **Secondary School Principals:** This category comprises all principals of secondary schools affiliated with MBSE and MBOSE.
- **Community Members or Parents:** This group includes all community members or parents associated with secondary school students in Mizoram and Meghalaya.

As per UDISE 2021-22 record there were 698 secondary schools, 4214 teachers, 39410 students in Mizoram and 1049 secondary schools, 5283 teachers and 65197 students in Meghalaya.

Sampling Technique:

For this study, the investigator employed a multi stage and multi phased stratified random sampling approach to ensure diverse representation across key subgroups.

First, two districts from each state were randomly selected to represent the overall population: Aizawl and Lunglei in Mizoram, and East Khasi Hills and West Garo Hills in Meghalaya. From the selected districts, 10% of the schools were chosen as sampling units for the selection of students and teachers, while 23% of the

schools were sampled for the selection of administrators in each state. All samples were selected proportionally based on the number of schools in the respective districts.

In Mizoram, students and teachers were selected from a total of 30 schools—20 schools from Aizawl and 10 schools from Lunglei. From each of these schools, 20 students and 5 teachers were selected, resulting in a total sample of 600 students and 150 teachers. A sample of administrators was also drawn from 70 schools, comprising 48 administrators from Aizawl and 22 administrators from Lunglei.

In Meghalaya, students and teachers were selected from 47 schools—32 schools from East Khasi Hills and 15 schools from West Garo Hills. As in Mizoram, 20 students and 5 teachers were selected from each school, resulting in a total of 940 students and 235 teachers. For administrators, the sample was collected from 110 schools, consisting of 75 administrators from East Khasi Hills and 35 administrators from West Garo Hills.

However, since the total number of community members was unknown, a convenience sampling method was employed. Accordingly, 100 community members were selected from each state—Mizoram and Meghalaya—based on accessibility and willingness to participate in the study.

For the focus group discussion, a purposive sampling technique was used; stakeholders who were known to have faced significant challenges during the COVID-19 pandemic were intentionally selected. These participants included teachers, school administrators, parents, and community representatives who experienced educational challenges. This approach ensured that the discussions would provide rich, relevant, and experience-based insights to complement the quantitative findings of the study.

The following Table shows the details of the sample selected for the study:

Table 1

Selected sample of stakeholders in secondary Education in Mizoram and Meghalaya

Stakeholders	Mizoram	Meghalaya	Grand Total
Administrators	70	110	180
Community Members/Parents	100	100	200
Teachers	150	235	385
Students	600	940	1540
Total	920	1385	2305

For the focus group discussion, a purposive sampling technique was used; stakeholders who were known to have faced significant challenges during the COVID-19 pandemic were intentionally selected. The sample consisted of the following:

Table 2

Selected Sample for Focus Group Discussion in Mizoram and Meghalaya

Stakeholders	Mizoram	Meghalaya	Grand Total
Administrators	6	4	10
Teachers	6	6	12
Students	6	6	12
Community Members	6	4	10
Total	24	20	44

Tools used for data collection:

For the present study, the investigator developed a questionnaire, which are as follows:

1. **Questionnaire on Educational Challenges During the COVID-19**

Pandemic for Administrators/Principals: The questionnaire has 22 questions grouped accordingly into eight key categories that reflect the major responsibilities of school leaders amid the COVID-19 pandemic. These dimensions include health and safety challenges, technology and online learning, student learning and academic progress, assessment and evaluation, teacher support and professional development, mental health and well-being of students and staff, communications and engagement, and financial constraints.

2. **Questionnaire on Educational Challenges during the COVID-19**

pandemic for Teachers: The questionnaire designed for teachers consists of 38 questions, organised across seven key categories to comprehensively address the diverse educational challenges faced by teachers during the COVID-19 pandemic. These dimensions include curricular challenges, pedagogical challenges, student-related issues, technological challenges, assessment and grading, personal and emotional challenges, and financial challenges.

3. **Questionnaire on Educational Challenges during the COVID-19**

pandemic for Community members/Parents: This questionnaire is designed to capture parents' perspectives on the obstacles and adjustments

they faced, from managing digital learning environments to balancing their own responsibilities while supporting their children. The 23 questions are divided into five categories: challenges in technological access, challenges in mental, social, and academic support, challenges in time management and communication, environmental challenges, and overall satisfaction with their child's education during the pandemic. Given the linguistic diversity, the questionnaire was translated into Mizo for respondents in Mizoram to facilitate comprehension and ease of response, while in Meghalaya, where English is widely used, it was administered in English.

4. Questionnaire on Educational Challenges during the COVID-19

pandemic for Students: To understand the unique challenges faced by students during the shift to new learning environments, a well-structured questionnaire comprising 26 questions was thoughtfully developed. This questionnaire is organised around six essential categories that encompass the range of difficulties students encountered: learning environment, academic challenges, social challenges, emotional challenges, technological challenges, and financial challenges.

5. Discussion Guide for Focus Group Discussion for

Administrators/Principals, Teachers. Community members/Parents and

Students: After the quantitative data were collected and analysed, the investigator identified specific issues and trends that required deeper exploration to fully understand their underlying causes and contextual significance. This qualitative tool was framed based on the findings of the

quantitative phase, with the aim of eliciting rich, descriptive insights and participant perspectives.

Procedure of Data Collection:

The investigator undertook field visits to secondary schools in Mizoram and Meghalaya, where formal consent was obtained from a diverse group of respondents, including principals or administrators, teachers, students, and community members or parents (the latter accessed indirectly through students) to administer questionnaires. The researcher personally explained the purpose and significance of the study, providing clear instructions to ensure that all participants fully understood the questions and the confidentiality measures established to protect their responses.

By building strong rapport with the respondents, the investigator created a supportive environment that encouraged open and sincere communication.

In the second phase of data collection, the qualitative phase, Focus Group Discussions were conducted through the Zoom Meetings platform as well as through in-person meetings. Participants, including students, teachers, administrators, and community members, were invited via phone calls and were provided with clear information regarding the discussion topics and the procedures of the session. Informed consent was obtained from all participants before the discussions began. The sessions were scheduled according to the availability and convenience of the participants, especially students, parents, and administrators.

Analysis of Data:

To analyse the quantitative data, the investigator used descriptive statistical techniques such as frequency distribution and percentage as and when necessary. The descriptive qualitative analysis is used to analyse the qualitative data collected using focus group discussions.

MAJOR FINDINGS: The major findings of the study are as follows:

Major Findings of Objective 1: Educational Challenges Faced by Secondary School Administrators in Mizoram and Meghalaya during the COVID-19 pandemic.

1. Health and Safety Challenges:

- Administrators in both states reported difficulty in implementing COVID-19 testing, tracing, and quarantine protocols (70% in Mizoram, 68.18% in Meghalaya).
- Lack of awareness of COVID-19 protocols was cited by 65.71% of administrators in Mizoram and 74.54% of administrators in Meghalaya.
- Emotional concerns such as fear and anxiety among staff and students were reported by 41.42% of administrators in Mizoram and 50% of administrators in Meghalaya during the pandemic.
- Problems in conducting board exam classes were noted by 67.14% of administrators in Mizoram and 57.27% of administrators in Meghalaya during the pandemic.
- The discussion also revealed that school administrators in both Mizoram and Meghalaya struggled to enforce COVID-19 safety protocols, with challenges in monitoring mask use, managing fear among students, and conducting board exams under strict guidelines. Emotional distress and logistical delays, such as in collecting answer sheets, further disrupted the learning process.

2. Technological and Online Learning Challenges:

- Limited access to digital devices in remote learning during the pandemic was reported by 61.42% of administrators in Mizoram and 88.18% of administrators in Meghalaya.

- Connectivity issues affected 57.14% of administrators in Mizoram and 65.45% of administrators in Meghalaya during the pandemic.
- Maintaining digital infrastructure in remote learning during the pandemic was a challenge for 21.42% of administrators in Mizoram and 27.27% of administrators in Meghalaya.
- WhatsApp was the most used platform (82.85% in Mizoram, 93.63% in Meghalaya) during the pandemic; Mizoram had higher use of Zoom and Google Meet.
- School administrators highlighted that many students lacked personal devices and stable internet, particularly in Meghalaya, due to economic and infrastructural disadvantages. Despite challenges, schools adapted by using accessible tools like WhatsApp and text messaging, while some even relied on neighbors to pass messages, revealing the flexible and community-driven approaches adopted to maintain learning continuity.

3. Academic Progress and Student Learning:

- Difficulties in comprehension among students during the pandemic were observed by 51.42% of administrators in Mizoram and 44.54% of administrators in Meghalaya.
- Lack of academic social interaction during the pandemic was higher in Meghalaya (50%) than in Mizoram (31.42%).
- Increased dropout rates during the pandemic were reported by 40% of administrators in Mizoram and 60.90% of administrators in Meghalaya.
- Student disengagement in virtual learning was common during the pandemic (84.28% in Mizoram, 80.90% in Meghalaya).
- The qualitative insight reveals that many students struggled with motivation and comprehension during the pandemic, with administrators observing stress-related symptoms like panic and fainting. Infrastructural

gaps, particularly in Meghalaya, led to higher dropout rates and disengagement. To support learning, schools relied on printed materials and community efforts like local organisations and even makeshift learning spaces, showing how grassroots responses helped bridge digital divides.

4. Curriculum and Assessment:

- Reduction of curriculum during the pandemic was reported by 48.57% of administrators in Mizoram and 57.27% of administrators in Meghalaya.
- Online examinations during the pandemic were more prevalent in Mizoram (85.71%). But in Meghalaya giving assignments and project work were common (75.45%).
- Adoption of 100% promotion policy during the pandemic was higher in Meghalaya (78.18%) than in Mizoram (45.71%).
- Reliability, fairness, and academic integrity in assessments were consistent challenges in both states.
- The qualitative findings revealed that schools in Mizoram followed a uniform 30% curriculum reduction, while those in Meghalaya made selective cuts focusing on core subjects, showing different regional approaches to easing academic pressure. Mathematics was the most affected subject due to the need for real-time explanation, while science engagement dropped because of the lack of hands-on experiments.
- Most schools were unable to conduct exams as planned due to inadequate health infrastructure, prompting a shift to alternative assessments like assignments and open-book tests. Mizoram showed more reliance on structured online exams, while Meghalaya adopted 100% promotion more widely due to difficulties in organizing evaluations. The varied use of methods like projects, open-book tests, and selective curriculum

adjustments reflects each state's differing capacity, digital readiness, and emphasis on maintaining academic standards during the pandemic.

5. Teacher Support and Professional Development:

- Limited opportunities for collaboration and training were reported by 58.57% of administrators in Mizoram and 60% of administrators in Meghalaya.
- Increased workload was observed by 41.42% of administrators in Mizoram and 49.09% of administrators in Meghalaya.
- Difficulties in managing remote instruction were noted by 44.28% of administrators in Mizoram and 48.18% of administrators in Meghalaya.
- Administrators noted that the pandemic disrupted teacher collaboration and reduced cooperation among staff. Teachers experienced exhaustion due to longer working hours and the pressures of adapting to online instruction. These challenges highlight the need to prioritise teacher well-being and professional development during crises.

6. Mental Health and Well-being:

- Increased stress levels among staff and students during the pandemic were reported more in Mizoram (61.42%) than in Meghalaya (40.90%).
- Limited access to mental health resources during the pandemic affected 47.14% of administrators in Mizoram and 52.72% of administrators in Meghalaya.
- Difficulty in managing anxiety was more frequently noted in Meghalaya (55.45%) than in Mizoram (37.14%).
- The qualitative insight revealed that Administrators in Mizoram encouraged students and teachers to address mental health issues, reflecting greater awareness in some schools. In Meghalaya, there was no specific response to address mental health issues, and support relied

mainly on phone conversations due to limited resources. These responses highlight the urgent need for accessible, school-based mental health support systems.

7. Financial Challenges:

- Budget cuts during the pandemic were reported by 50% of administrators in Mizoram and 46.36% of administrators in Meghalaya.
- Salary reductions during the pandemic were more common in Mizoram (38.57%) than in Meghalaya (2.72%), largely due to unpaid fees (37.14% vs. 1.81%).
- No government funding was received by any institution in either state during the pandemic.
- External non-government support during the pandemic was received by only 8.57% of administrators in Mizoram and 4.54% of administrators in Meghalaya.
- Private schools faced severe financial strain during the pandemic due to unpaid student fees, which led to salary cuts or delays for teachers. While some institutions managed with community donations or cost-cutting, external support—both government and non-government—was minimal or absent. Access issues and lack of infrastructure further deepened existing inequalities.

Major Findings of Objective 2: Educational Challenges Faced by Secondary School Teachers in Mizoram and Meghalaya during the pandemic

1. Curriculum Challenges:

- A majority of teachers in both states modified the curriculum during the pandemic (88% in Mizoram and 85.53% in Meghalaya).
- Reduction of course content during the pandemic was reported by 52.66% of teachers in Mizoram and 51.48% of teachers in Meghalaya.

- Use of online resources among teachers during the pandemic was slightly higher in Meghalaya (41.70%) than in Mizoram (35.33%).
- The qualitative findings showed that teachers adapted to the challenges of remote learning by significantly modifying the curriculum—condensing lessons, simplifying content, and focusing on essential and fundamental topics. They prioritized skill-based learning and provided self-study materials to support independent learning. Due to poor internet access in some areas, teachers used tools like WhatsApp, voice notes, and shared study materials asynchronously. They also integrated digital resources such as recorded videos, PowerPoint presentations, and online assessments to engage students and monitor their progress.

2. Pedagogical Challenges:

- A large majority of teachers faced challenges in implementing modified teaching strategies (94% in Mizoram and 91.48% in Meghalaya).
- Limited access to technology during the pandemic was reported by 42.66% of teachers in Mizoram and 60% of teachers in Meghalaya.
- Adapting teaching methods during the pandemic was a concern for 52% of teachers in Mizoram and 43.4% of teachers in Meghalaya.
- Teachers in Mizoram and Meghalaya faced significant challenges adapting to remote teaching during the COVID-19 pandemic, mainly due to poor digital access, heavy workloads, and a lack of training. Many teachers had to teach themselves how to use online platforms and struggled with student disengagement and the inability to provide devices to students by parents. Despite these issues, some adapted by using pre-recorded videos, WhatsApp, and project-based learning to reach students. A few continued with printed worksheets due to poor connectivity. Overall, teachers adopted flexible strategies based on local conditions, but the experience revealed an urgent need for better digital training and infrastructure.

3. Student Challenges:

- A decline in engagement and motivation in remote learning was observed by 87.33% of teachers in Mizoram and 91.06% of teachers in Meghalaya.
- Difficulty in accessing technology for online learning was reported by 77% of teachers in in Mizoram and 80.42% of teachers in Meghalaya.
- Changes in student mental health during the pandemic were noticed by 73.33% of teachers in Mizoram and 67.23% of teachers in Meghalaya.
- From the qualitative findings, several teachers explained that students lacked routine, discipline, and motivation, often failing to follow timetables or participate actively in online classes. Many students kept their cameras off, and teachers could not tell whether they were listening or engaged. Teachers also observed that household distractions and poor digital skills reduced attentiveness. In Meghalaya, teachers noted that much classroom time was spent troubleshooting online platforms rather than teaching. Students were anxious about exams, college admissions, and their academic progress. Some became withdrawn, stopped attending regularly, or showed stress due to isolation and lack of peer interaction. Teachers in Mizoram shared that they provided moral and emotional support, including weekly sermons to encourage students and help them cope. Across both states, communication with parents relied mainly on phone calls and text messages, as these were the most practical and accessible methods.

4. Technological Challenges:

- Only 33.34% of teachers in Mizoram and 14.89% of teachers in Meghalaya received training in technology use during the pandemic.
- Lack of internet connectivity was the most reported issue during the pandemic (54.66% in Mizoram and 71.48% in Meghalaya).

- Technological hurdles in online classes were encountered by 85.33% of teachers in Mizoram and 88.51% of teachers in Meghalaya.
- In the qualitative findings, most teachers reported that schools were unprepared and provided little technological support, forcing them to manage online teaching independently. Many lacked personal devices, faced unstable internet, and received no formal digital training, relying instead on trial and error. Financial difficulties further limited their access to tools and connectivity. While video conferencing platforms were widely used, they posed challenges due to technical issues, whereas apps like WhatsApp were more accessible. Most teachers had moderate confidence with basic tools but struggled with advanced features, and many continued to feel anxious even after months of remote teaching.

5. Assessment and Grading:

- Changes in assessment methods during the pandemic were made by 66% of teachers in Mizoram and 61.27% of teachers in Meghalaya.
- Difficulties in student evaluation during the pandemic were reported by 86.66% of teachers in Mizoram and 92.76% of teachers in Meghalaya.
- Academic performance decline during the pandemic was observed by 58.66% of teachers in Mizoram and 65.10% of teachers in Meghalaya.
- The qualitative data reveals that teachers faced significant challenges in assessing students during the pandemic due to lack of training, unstable internet, and limited student access to digital devices. Many had to adapt assessments using Google Forms, open-book tests, phone calls, and past academic records, often without administrative support. Teachers struggled to engage students online, and participation was low, especially where connectivity was poor. Despite efforts to be fair, assessment quality was compromised, leading many teachers to promote students leniently out of empathy and concern. Some tried innovative methods like group work, but inconsistent access and coordination issues limited their

success. Overall, teachers showed flexibility and compassion but felt that student learning and evaluation were far from satisfactory.

6. Emotional Challenges:

- Emotional challenges during the pandemic were experienced by 57.33% of teachers in Mizoram and 70.21% of teachers in Meghalaya.
- Feelings of isolation during the pandemic were more common among teachers in Meghalaya (50.21%) than in Mizoram (34%).
- Institutional emotional support was received by fewer than half of teachers in both states.
- The qualitative data highlights that many teachers felt emotionally overwhelmed, drained, and isolated while balancing teaching with household responsibilities. Several described days when they felt like shutting down due to exhaustion and the constant fear of the virus affecting students or colleagues. Some teachers expressed frustration over being expected to teach online without proper training or guidance, while others noted that even when training was provided, poor internet and lack of devices limited its usefulness. A few teachers shared that counselling services and mental health workshops helped them manage stress and recognise signs of anxiety in themselves and their students. Supportive interactions with colleagues and regular school check-ins were described as emotional lifelines during this difficult period.

7. Financial Challenges:

- Salary reduction during the pandemic was reported by 34.66% of teachers in Mizoram and 10.63% of teachers in Meghalaya.
- Problems in affording internet bills and technology during the pandemic were reported by 17.33% of teachers in Mizoram and 14.89% of teachers in Meghalaya.

- Based on the qualitative findings, teachers from both Mizoram and Meghalaya faced financial burdens due to the cost of internet and technology required for online teaching. One teacher from Mizoram highlighted that the situation was worsened by a reduced salary, making it difficult to afford these essentials. A teacher from Meghalaya, while not experiencing a salary cut, still had to make personal sacrifices to cover these expenses.

Major Findings of Objective 3: Educational Challenges Faced by Parents/Community members in Mizoram and Meghalaya

1. Technological Access:

- Limited access to devices or reliable internet during the pandemic was reported by 66% of parents in Mizoram and 67% of parents in Meghalaya.
- 45% of parents in Mizoram and 65% in Meghalaya could not provide multiple digital devices for more than one child.
- Personal device access was higher in Mizoram (65%) than in Meghalaya (17%), while parental device use was higher in Meghalaya (78%).
- The qualitative findings showed that parents in both Mizoram and Meghalaya faced significant financial and technological difficulties in supporting their children's online education during the pandemic. Many could not afford separate devices or regular internet access, leading to children sharing phones or borrowing from neighbors, which disrupted consistent learning. Digital illiteracy added to their challenges, as several parents struggled to navigate online platforms. Despite these barriers, some families prioritized purchasing additional devices or sought help from relatives to cope.

2. Mental, Social, and Academic Support:

- Stress and anxiety were reported by 65% of parents in Mizoram and 44% in Meghalaya during the pandemic.
- Difficulty supporting children's mental health during the pandemic was observed by 36% of parents in Mizoram and 41% of parents in Meghalaya.
- 62% of parents in Meghalaya and 15% of parents in Mizoram observed emotional effects from reduced peer interaction during the pandemic.
- Online addiction was noted by 67% of parents in Mizoram and 74% of parents in Meghalaya during the pandemic.
- 74% of parents in Mizoram and 49% of parents in Meghalaya feared learning loss during the pandemic.
- The qualitative findings showed that parents in Mizoram and Meghalaya experienced considerable stress and anxiety while trying to support their children's online learning, often feeling unsure about their ability to help effectively. In Mizoram, some children remained active and cheerful through support from family and neighbors, which helped mitigate the effects of social isolation. In contrast, parents in Meghalaya reported more emotional challenges in their children, including withdrawal, irritability, and increased anxiety, largely due to limited peer interaction and disruption of normal school routines. Parents—particularly in Meghalaya—faced challenges with digital literacy, making it difficult to assist with online platforms. Many parents in both states also expressed concern about learning loss, especially in difficult subjects, fearing long-term academic setbacks.

3. Coping Strategies for Support:

- Goal-setting was more common as a coping strategy used by parents in Mizoram (69%), while multimedia tools were favoured in Meghalaya (55%).

- 70% of parents in Mizoram practised self-care to model emotional resilience, compared to 43% of parents in Meghalaya.
- Maintaining peer connections was higher in Meghalaya (48%) than in Mizoram (22%).
- The qualitative findings showed that parents in Mizoram often relied on structured routines and reward systems to motivate children, believing that clear goals helped maintain focus. In contrast, Meghalaya parents leaned more on multimedia tools and group activities, such as storytelling and crafts, to sustain engagement. Emotional support in Meghalaya focused on open communication and peer connection, while Mizoram parents emphasized building independence and practicing self-care to manage stress. One respondent from Mizoram shared that creative activities like drawing and walking were encouraged as coping methods during emotional distress.

4. Time Management, Communication, and Workload:

- Difficulty in prioritising tasks was high in both states (78% Mizoram, 68% Meghalaya).
- Communication issues with schools were higher in Meghalaya (34%) than in Mizoram (18%).
- 96% of parents in Mizoram and 86% in Meghalaya reported being able to help their children with schoolwork during the pandemic
- Increased workload during the pandemic was experienced by 61% of parents in Meghalaya and 44% of parents in Mizoram.
- The qualitative findings showed that parents in both Mizoram and Meghalaya faced significant challenges in managing their children's learning. Many struggled to establish consistent study routines and balance competing household, work, and educational responsibilities. To cope, parents adjusted work schedules, supervised children while working from home, or sought help from relatives, reflecting adaptive strategies to manage dual responsibilities under constrained circumstances.

5. Home Environment:

- 89% of parents in Meghalaya and 62% of parents in Mizoram lacked a conducive learning environment in remote learning during the pandemic.
- Background noise was the most common challenge (57% Mizoram, 62% Meghalaya).
- 82% of parents in Mizoram and 87% of parents in Meghalaya believed the home environment in remote learning affected concentration.
- 42% of parents in Mizoram and 79% of parents in Meghalaya could not control distractions in remote learning during the pandemic.
- The qualitative data reveal that children in Meghalaya faced greater challenges in concentrating during online classes due to overcrowded, noisy, and space-constrained home environments. In contrast, some parents in Mizoram managed to create simple but effective study spaces, which helped reduce distractions. However, both states experienced difficulties such as increased household chores and background noise that interfered with learning.

6. Coping Strategies for Home Learning:

- Family cooperation to reduce distractions in remote learning was practised by 56% of parents in Mizoram and 24% of parents in Meghalaya.
- Establishing routines was reported by 32% of parents in Mizoram and 21% of parents in Meghalaya during the pandemic.
- The qualitative finding highlights the difficulty of maintaining a quiet environment during online classes due to constant household activity. Despite efforts to involve all family members in reducing distractions, the lack of control over the home setting remains a major challenge. This highlights how crowded living conditions and limited private space can undermine even well-intentioned strategies for supporting children's learning.

7. Satisfaction:

- Satisfaction with children's academic performance was higher in Mizoram (63%) than in Meghalaya (28%).
- 58% of parents in Mizoram and 30% in Meghalaya were satisfied with teaching methods.
- 57% of Mizoram parents were satisfied with educational policies, while only 28% of parents in Meghalaya felt the same during the pandemic.
- Online classroom preference was higher in Mizoram (96%) than in Meghalaya (88%).
- The qualitative findings showed that parents in Mizoram showed satisfaction with their children's academic performance, teaching methods, and educational policies during the pandemic, often crediting strong school support and effective adaptation to online learning. Parents in Meghalaya reported dissatisfaction and uncertainty, especially due to limited teacher accessibility and weak policy implementation in rural areas. Even in Mizoram, some parents expressed concerns about the quality of learning despite good exam results.

Major Findings of Objective 4: Educational Challenges Faced by Secondary School Students in Mizoram and Meghalaya

1. Learning Environment:

- Participation of students in online classes during the pandemic was higher in Mizoram (98%) than in Meghalaya (88.08%).
- Most students spent 1–2 hours daily on online classes (52.5% in Mizoram, 45.95% in Meghalaya).
- A strong preference for traditional learning was noted even during the pandemic (59.33% in Mizoram, 63.93% in Meghalaya).
- Home was the primary location for online learning in both states, but shared devices and distractions were common.

- Domestic responsibilities, noise, and lack of privacy affected over 30% of students in both regions during the pandemic
- 52.83% of students in Mizoram and 34.36% of students in Meghalaya believed their study environment negatively affected their academic performance during the pandemic.
- The qualitative insight showed that students in Mizoram were determined to attend classes despite internet issues, while students in Meghalaya struggled more due to frequent power cuts and had to rely on neighbors or relatives for access. Students cited digital fatigue, household chores, and lack of privacy as major distractions. Preferences leaned toward traditional classrooms for their structure, interaction, and clarity, although some appreciated the flexibility and pace of online formats. Students cited digital fatigue, household chores, and lack of privacy as major distractions. They noted noise and overcrowding as challenges, and expressed concerns about a lack of academic integrity, with some achieving good grades despite limited preparation.

2. Academic Challenges:

- Decline in academic performance was reported by 68% of students in Mizoram and 75.42% of students in Meghalaya during the pandemic
- Difficulty in understanding subject matter in online learning during the pandemic is the leading issue (66.83% in Mizoram, 67.12% in Meghalaya).
- Concentration difficulties were more common in Mizoram (50%) than in Meghalaya (34.57%).
- Students used various coping strategies for learning challenges during the pandemic, online resources were most used by students in Mizoram (53.33%), while self-study method dominated in Meghalaya (49.57%).
- Students in both states faced difficulties in online assessments during the pandemic, with Meghalaya reporting a higher frequency (69.89%) than Mizoram (62%).

- The qualitative findings revealed that students from Mizoram and Meghalaya faced difficulties understanding lessons online due to the absence of real-time teacher guidance and explanations. Maintaining focus was challenging for some students, particularly in environments with distractions or shared devices. Internet connectivity issues disrupted learning and online examinations, causing stress and loss of concentration. Some students felt the workload increased because they had to study independently without immediate support, while others found it manageable when teachers provided clear instructions and deadlines. To cope, students used alternative resources such as online tutorials, discussion with peers, and practicing mock tests. Offline submission of work was used in some cases to adapt to connectivity problems.

3. Social Challenges:

- Inability to meet peers was the most cited challenge by students during the pandemic (59.33% in Mizoram, 54.25% in Meghalaya).
- Feelings of isolation and missed school activities during the pandemic were also common.
- Students in Mizoram maintained contact primarily through social media, while those in Meghalaya relied more on academic group work during the pandemic.
- Informal peer interaction was more prevalent in Mizoram, while formal digital engagement was slightly higher in Meghalaya during the pandemic.
- Qualitative data reflected some common feelings among students; they experienced emotional pressure from less peer interaction, with numerous students conveying feelings of loneliness and disconnect even despite their digital interaction. Group activities and forums offered students from Meghalaya a structured environment that encouraged engagement, whereas students from Mizoram depended more on informal approaches,

such as social media and occasional face-to-face meetings, to stay connected. Nevertheless, the feeling of isolation was intensified by the lack of school events and everyday peer interactions.

4. Emotional Challenges:

- Emotional difficulties were reported by 48% of students in Mizoram and 49.14% in Meghalaya during the pandemic.
- Mizoram students reported more issues with motivation (61.5%), while stress was higher in Meghalaya (56.7%) during the pandemic.
- Feelings of uncertainty and academic pressure were prevalent across both states during the pandemic.
- Students in Mizoram had higher access to emotional support (54%) than Meghalaya (44.14%) during the pandemic.
- Most students coped through informal support from friends and family during the pandemic.
- The qualitative findings revealed common concerns reported by students, including stress from academic uncertainty, feelings of isolation, lack of motivation, and emotional exhaustion due to remote learning. While some students found relief through informal support like friends, family, or physical activity, others struggled due to the absence of structured mental health services or hesitation to seek professional help.

5. Technological Challenges:

- Smartphones were the primary device for learning in both states (93.66% in Mizoram, 92.65% in Meghalaya) in remote learning during the pandemic.
- 60% of students in Mizoram and 68.51% of students in Meghalaya faced technological difficulties during the pandemic.
- Inadequate internet/device access was higher in Meghalaya (63.61%) than in Mizoram (35.5%) for remote learning during the pandemic.

- Only 35.33% of students in Mizoram and 25.63% of students in Meghalaya had full access to required technology.
- Internet access difficulties were reported by 85.83% of students in Mizoram and 89.46% of students in Meghalaya during the pandemic.
- Students coped by using alternative devices, seeking help, and learning digital tools.
- The qualitative findings highlight that students in Mizoram and Meghalaya encountered significant barriers to online learning due to lack of digital devices, poor internet connectivity, and shared usage of phones among siblings. Many struggled with attending classes regularly and completing assignments on time, especially when relying solely on mobile phones and unstable networks. Power outages and lack of digital literacy added to their frustration and stress. Despite these challenges, some students showed initiative by borrowing phones, using downloaded videos, and turning to friends or teachers for support.

6. Financial Challenges:

- Inability to afford resources for online learning was noted by over 40% of students in both states during the pandemic
- 45.78% of students in Mizoram and 34.25% of students in Meghalaya faced challenges in accessing financial aid or scholarships during the pandemic.
- The qualitative findings revealed that students in Meghalaya could barely afford digital resources or even the price of internet access, having to share a single device with their siblings, thereby impairing the learning experience. To the same effect, families in Mizoram would rather attend basic life needs before going for educational materials as serious economic distresses dictated so.

Educational Implications of the Study:

The findings of this study provide meaningful insights into the multifaceted challenges experienced by secondary school students, parents, teachers, and administrators during the COVID-19 pandemic in Mizoram and Meghalaya. These insights carry significant implications for educational policy, school leadership, teacher training, student support systems, and broader systemic reforms.

1. **Bridging the Digital Divide:** The study highlights significant disparities in access to digital devices and stable internet, particularly among students in rural and low-income households. This suggests that equitable access to digital resources must be viewed not as a luxury but as a basic educational right. The digital divide must be addressed through targeted infrastructure development, public-private partnerships, and device distribution schemes that reach the most vulnerable learners.
2. **Designing Inclusive Learning Strategies:** Difficulties in comprehension and disengagement from online classes among students indicate the need to develop inclusive and adaptive teaching strategies. Instructional content should be designed with consideration for students' diverse learning needs, technological limitations, and home environments. The integration of interactive media, modular content, and multi-language options could promote deeper engagement and improve learning outcomes.
3. **Prioritising Emotional and Psychological Wellbeing:** The prevalence of stress, anxiety, and emotional exhaustion among students and teachers emphasises the importance of integrating mental health into the education system. Emotional wellbeing must be treated as a foundational component of learning, not as an optional service. The inclusion of mental health education, along with peer support systems and accessible counselling, is essential to ensure long-term student development.
4. **Strengthening Parental and Community Involvement:** The findings show that parental support played a crucial role in shaping students' academic experiences. However, not all parents were equipped to assist effectively.

This underscores the need to strengthen school-home partnerships. Community-based learning initiatives and parental engagement programmes can create a more supportive and resilient learning environment.

5. **Empowering School Leaders for Crisis Response:** School administrators faced unprecedented pressures related to health protocols, teacher management, and academic continuity. The study highlights the need for school leaders to be trained in crisis preparedness and adaptive leadership. Effective educational leadership must include skills in decision making under uncertainty, community engagement, and emotional intelligence.
6. **Fostering Peer Interaction and Social Connection:** Students reported feeling socially disconnected due to the absence of in-person interactions. This finding suggests that peer relationships are integral to student motivation, identity formation, and emotional stability. Schools should prioritise social interaction within curriculum delivery, using both online and offline opportunities to nurture a sense of belonging and community among learners.
7. **Rethinking Assessment Systems:** The challenges faced during online examinations reflect a broader concern regarding the rigidity and inaccessibility of traditional assessment methods. Assessments must evolve to become more formative, competency based, and adaptable to different learning contexts. Clear communication of instructions and equitable testing conditions are crucial for maintaining academic integrity.
8. **Recognising the Central Role of Teachers:** The study confirms that teachers are pivotal in sustaining educational continuity, yet many were overburdened and under-supported. Investing in teacher training, digital literacy, and professional collaboration is vital. Teachers must be recognised not just as deliverers of content, but as facilitators of learning, wellbeing, and community engagement during times of crisis.

Recommendations of the Study:

Building upon the educational implications, the following recommendations are proposed to address the issues uncovered and to enhance the resilience, inclusivity, and quality of secondary education systems in Mizoram, Meghalaya, and similar contexts:

1. **Expand and Upgrade Digital Infrastructure:** Government and education authorities must prioritise investment in internet connectivity, particularly in remote and underdeveloped areas. Collaborations with telecom providers can help reduce data costs and increase broadband reach. Additionally, educational institutions should be equipped with digital tools that support both teachers and students in blended and remote learning.
2. **Ensure Access to Digital Devices for All Students:** Device provisioning schemes must be designed with equity at the core. Efforts should be made to provide affordable or free devices such as tablets or low-cost laptops to students from economically disadvantaged families. Device banks or community learning centres may be established in villages and small towns.
3. **Promote Blended and Flexible Learning Models:** The traditional classroom model should be enriched with digital content and flexible delivery modes. Blended learning approaches that combine in-person teaching with remote instruction will allow education to continue despite disruptions. Teachers should be supported with resources and training to plan lessons suitable for multiple formats.
4. **Institutionalise School-Based Mental Health Programmes:** Mental health support should be integrated into school structures. Schools should engage trained counsellors and mental health professionals on a regular basis. Mental health awareness campaigns, peer mentoring, and stress management workshops should be a standard part of the school curriculum.
5. **Develop Community-Based Support Mechanisms:** Schools should collaborate with local organisations, youth associations, and religious institutions to provide learning support, especially during emergencies.

Community volunteers can assist in mentoring students, delivering offline resources, and ensuring follow-up for learners at risk of dropping out.

6. **Enhance Teacher Professional Development:** Regular, practice-based professional development programmes should be implemented focusing on digital pedagogy, classroom management in online settings, and learner-centred teaching strategies. Mentoring and peer learning models should also be encouraged to foster a culture of collaboration among teachers.
7. **Adopt Transparent and Flexible Assessment Practices:** School assessment policies must be revised to accommodate alternative methods such as portfolio work, project based learning, and oral examinations. These approaches provide a fairer measure of student understanding, especially during disrupted schooling periods. Standardised instructions and clear rubrics should accompany all assessments.
8. **Encourage Parental Engagement in Education:** Schools should build sustained channels of communication with parents. Short training sessions, guidance handbooks, and regular updates can empower parents to support their children's learning more effectively. Special outreach efforts may be needed for parents with limited literacy or technological knowledge.
9. **Design Contingency Plans for Emergency Education:** Each school must have a contingency education plan that includes detailed protocols for shifting to remote learning, managing academic schedules, and ensuring safety. These plans should be periodically reviewed and practiced to enhance institutional preparedness for future crises.
10. **Provide Financial Assistance and Learning Subsidies:** Targeted financial aid, including scholarships, device support, and data subsidies should be provided to students most affected by economic hardship. Emergency education relief funds can ensure that no student is excluded due to financial constraints during difficult times.

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