Changing School Education Amidst COVID-19 Pandemic
Perspectives from Rajasthan

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Abstract

The sudden emergence of the Covid-19 pandemic has created a crisis situation which, apart from health, has impacted the education sector the most. The online schooling system has created a new form of classroom supported by digital technology. This new classroom setup has changed the entire course of the teaching and learning process. Where the teachers are facing additional challenges of coping up with technology leading to increased workload, the issues of access and efficiency of technology remains a central problem for both students as well as teachers. Along with that, never before had the involvement of parents been so central in the daily learning experiences. This paper analysed how the new school education was perceived by different stakeholders in the Rajasthan state of India. Through surveys and interviews, the paper examined the paradigm shift from the physical classroom to the online classroom through the lens of teachers, students and parents.

Keywords: *Technology, Teachers, Students, Online Education, COVID-19, School Education*

सार

कोविड-19 महामारी के अचानक उभरने से एक नए संकट की स्थिति पैदा हो गई है, जिसने स्वास्थ्य के अलावा शिक्षा के क्षेत्र को सबसे अधिक प्रभावित किया है। ऑनलाइन स्कूली शिक्षा प्रणाली ने डिजिटल तकनीक द्वारा पारंपरिक कक्षा को एक नया रूप दिया है। इस नवीन कक्षा के सेटअप ने शिक्षण और सीखने की प्रक्रिया को पूरी तरह बदल दिया है। एक तरफ शिक्षकों को प्रौद्योगिकी के साथ काम करने की अतिरिक्त चुनौतियों का सामना करना पड़ रहा है, जिससे कारण काम का बोझ बढ़ता जा रहा है। साथ ही प्रौद्योगिकी के उपयोग एवं दक्षता

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दोनों छात्रों के साथ-साथ शिक्षकों के लिए भी एक केंद्रीय समस्या बनी हुई है। इसके साथ ही, पहले कभी भी सीखने की प्रक्रिया में माता-पिता की भागीदारी इतनी केंद्रीय नहीं थी। यह शोध पत्र विश्लेषण करता है कि भारत के राजस्थान राज्य में विभिन्न हितधारकों द्वारा नए स्कूली शिक्षा को कैसे देखा जा रहा है। यह शोध पत्र सर्वेक्षण और साक्षात्कार के माध्यम सेशिक्षकों, छात्रों और माता-पिता की दृष्टि से भौतिक कक्षा से ऑनलाइन कक्षा में प्रतिमान विस्थापन की जाँच करता है।

Introduction

The opening lines of Kothari Commission Report (1964–66, p.2), "The destiny of India is now being shaped in her classrooms" emphasised the importance of education for national growth and development. This marked the beginning of initiating significant reforms and innovations in school education in India in areas of access, retention and completion. In addition, the global transformations in the 21st century have led to a rise in new expectations from the school system which has resulted in changes in the basic structure of education. The symbiotic relationship between stakeholders like teachers, learners, parents and among learners themselves has now become an even more essential factor for effective education.

The classrooms have also evolved and got reshaped over time. Though, in its positive sense, the physical structure of a classroom comprises of walls made of bricks and mortar with basic infrastructural facilities as charted by the Right to Education Act 2010. But the vision of 21st century classrooms, with learners as its centre, the idea of classroom and aim of education has transcended the physical and geographical boundaries. Now, envisioning the learner as a global citizen with both cognitive and non-cognitive skills, the neoliberal dimensions in education got strengthened by way of performance-based education and the introduction of technology in education. This led to a paradigm shift in the way we perceive education and the role of its stakeholders.

The classroom is considered a place where teachers and learners co-create knowledge and collaborate for learning. The inclusive and diverse classroom was considered important to make learning more effective, context-specific and joyful where they interact and learn through innovative pedagogical practices. The aim behind this was to develop a learner into a productive, critical, empathetic, responsible being who grows to be an asset for the society. This change is still progressive and evolutionary with

newer developments and challenges. One of the most important challenge is to impart quality education and achieve educational outcomes vis-a-vis more access to school education. There is a huge gap in learning outcomes creating a cumulative deficit also called 'learning crisis' or 'schooling crisis'. This concern for quality education and learning outcomes has unfolded at a greater intensity with disruption due to pandemic since March 2020 in India.

The unexpected period of lockdown due to the COVID-19 pandemic was a shock and crisis for the education system initially. The need for quick solutions or alternatives brought in many innovative practices in the system, even though it could cater to some students if not all. One of the innovations which got introduced was conducting classes through online mode, for which neither the system was fully prepared nor its recipients. Somehow it also unfolded or pushed the neoliberal idea of education rather quickly as this could be the best possible solution at times of crisis to avoid a complete collapse of the system across the globe. However, for any innovation to be part of the mainstream and sustain through, it is important to understand the perceptions of the stakeholders (Kumar, 2015) to bring in meaningful and effective transitions.

Against this as background, the present study aimed to understand the transitions in the idea of classroom and related aspects of teaching-learning along with the challenges faced by the three key stakeholders — teachers, students and parents concerning this 'new normal' of online classes. The study was conducted in one of the states of India, Rajasthan, and dealing primarily with private sector schools.

The main objectives of the study were to understand:
1. the nature of the new classroom set up
2. the process of remote learning through technology
3. the process of learning in a crisis situation, and
4. the modality of assessment, evaluation and feedback followed.

Method

The study was descriptive in nature. It involved a mix of qualitative and quantitative data. The study was conducted in two phases — (i) Situational assessment involving reviewing existing reports and social media news, analysis of documents related to existing initiatives of the government and carrying out secondary data analysis, and (ii) Field-based study via an online survey (using Google Forms) during May-June 2020 and telephonic interviews.

Sample

Data were collected from three different categories of stakeholders: teachers, parents and students, the composition of which was given in Table 1 below.

Table 1: Research Sample

Students	Parents	Teacher	Total
220	90	46	336

The study was conducted in the state of Rajasthan in India and the students in the study belonged to five districts, namely, Sikar, Jaipur, Jhunjhunu, Nagaur, and Udaipur. The convenience sampling method was used for this study. A large number of students in the sample were from secondary to higher secondary level of education, i.e., Classes IX–XII. In the sample, there were more male students than female students. Among the sampled parents, most of the parents had two children and these children were predominantly from primary and upper primary classes. The majority of the sample teacher population belonged to the age group of 30–39 years. There was more representation of younger teachers than older teachers. As far as gender representation was concerned, about 61 per cent of the teachers who responded to the survey were females. The study also provided information about the educational qualification of teachers. The majority of teachers possessed a postgraduate degree or higher degree, while there were also few teachers who have become teachers without a Bachelor of Education (B.Ed.). The teaching experience of a large number of teachers fell within the range of 5–9 years. Moreover, almost an equal number of teachers had permanent and contractual status with respect to their employment. The proportion of English teachers were higher than other subject teachers (refer to Appendix I).

Tools and Procedure

For the purpose of the survey, questionnaires were prepared each for teachers, parents and students including both close-ended and open-ended questions, out of which 80–90 per cent of the questions were close ended (for more information refer to Appendix II). A pilot study was conducted with 10 per cent of the sample. Furthermore, data collected through the questionnaire and semi-structured interviews were coded, tabulated, and analysed thematically. Some narratives were included with pseudonyms. The quantitative data

were analysed using descriptive statistics. The frequency and percentages were calculated to arrive at inferences.

Results

The New Classroom Set up or Structure

The normative idea of the classroom constitutes a well-defined structure of schooling where every day consisted of several elements bounded by time. These elements collectively guided the rules and norms of daily conduct for the students as well as teachers. Such elements consisted of timetable, attendance, number of classes, breaks, etc. With the onset of lockdown owing to the pandemic situation, the education system had to shift to the online mode, which redefined and restructured some of the elements that existed earlier. While some elements had undergone minor changes to accommodate the new situation, there were other few which were completely dismantled because of the constraint of online education. Some of the major elements of the new system are as follows:

Timetable

A school time-table is a well-defined plan to align school resources with school schedules in the most efficient and effective manner. It encompasses a plan of school activities tabulated on a periodic basis. Currently, in a pandemic situation, the school set-up has undergone immense changes and several new adjustments have been introduced. In the study, it was found that the schools had to prepare a separate time-table for online classes, except for 6 schools where they still followed the same time-table which was followed during the pre-lockdown period.

Timings

The online classes in Rajasthan started as early as 8.00 am (morning shift) and as late as 1.05 pm (evening shift) and lasted till 12.00–12.30 pm in most cases except one which lasted for 5.00 pm (in case of evening shift). The duration of most of these classes ranged between 30–40 minutes and 24 per cent students reported it to last for 1 hour. In none of the reported cases, class exceeded 1 hour duration. Similarly, teachers also reported that the duration of class usually didn't stretched beyond 30 minutes to 1 hour. However, there were two instances where the respondents reported that sometimes class timings were not decided and classes

didn't happen as per the time-table, which created confusion for both parents and students.

Number of Classes

Virtual learning might have removed the physical presence of teachers but at the same time has also led to the emergence of new intricacies of teaching-learning. Teachers were charged with the responsibility to undertake teaching-learning processes through online sources. Most of the teachers talked in length about their responsibility of taking several classes a day. About 21 per cent of teachers took 5 classes a day while 30 per cent of teachers took 2 classes a day.

Attendance

It is imperative on the part of teachers to be available for teaching during online classes. But the question that remains ignored is what about the student's presence in the online curriculum transaction. There were few instances when the attendance was reported to be more than the total strength of the class as sometimes more than one section attended the online class session at a given point of time. However, the average attendance during online class as reported by students was as low as 5 to as high as 150 students; although in most cases, the strength of the class ranged between 40–50 students. As per teachers, the average number of students varied between 10 and 80 in a class. Moreover, 78 per cent of teachers talked about the change in the attendance of students in the online classroom as compared to the physical classroom. A significant percentage of teachers also stated about decrease in attendance in online classes. This absenteeism of students during online teaching-learning processes can create a learning gap. The need of the hour is to make some strategic planning to resolve and address the factors to maintain a higher attendance rate. A well-planned approach and steps need to be undertaken through a collaborative network with other stakeholders and consider positive efforts to engage students.

Break

A regular break can help students to focus, increase their productivity and reduce their stress (Terada, 2018). Such breaks are important for both students as well as teachers, especially in online classes, because online classes restrict the mobility of an

individual, generating a sedentary lifestyle. About 39 per cent of teachers got only a single break and 30 per cent of teachers had no break and worked continuously for long hours. The voice is the primary tool of work and the lack of breaks has a negative impact on their health. Researches have indicated that teachers are at risk of experiencing short and long-term problems in their voice (Kostyk, 1998). The data being a tip of an iceberg needs to be further explored with the focus on the impact of teaching-learning on teachers'. As for students, just like offline classes, got breaks during online mode ranging from 10–30 minutes, but there were also several instances where students didn't got any break in between online classes. This made it difficult for the children to concentrate and retain for long hours.

Dress Code

Dress code has been considered as one of the non-negotiable aspects of the schooling system. Research indicated a strong linkage between dress code and behavioural aspects of students (Kees, 2017). A casual dress code in schools inculcated materialistic orientation among students which further permeated down to their family. Therefore, in order to avoid any form of segregation among the students based on race, religion, class, culture and many more, strong implementation of a dress code is strongly recommended. In the survey, it was found that not many schools followed a dress code for online classes and allowed casual dresses for students whereas only few schools strictly followed school uniform and in a small number of cases, it varied with days.

Remote Teaching-Learning through Technology

In this new idea of the classroom, technology is the only medium connecting the learners with the teachers and is largely instrumental in facilitating learning. In order to assist face-to-face interactions, several group meeting platforms evolved in a short span of time and took a center stage in the virtual learning processes. In the current wave of online teaching-learning, many schools also adopted some online face-to-face interaction platforms.

In the survey, as reported by the students, most of the schools followed Zoom, Google meet and Microsoft team as the platform to conduct online classes. It was interesting to observe that zoom still retained its popularity in terms of customer usage despite negative feedback and advisories issued regarding cyber-security.

The teacher's response on the usage of online platforms, along with Zoom, also focused on YouTube. Approximately 17 per cent of the teachers mentioned YouTube as another platform that was used by them for conducting classes.

With the advancement of digital technology, a myriad of devices were used by students and teachers for online classes. The kind of devices used by the students also has a certain bearing on the concentration and attention which one can render towards studies. Using a desktop or laptop provided better concentration and engagement with the lesson plan as the student was not required to hold the device in hand. Also, it provided a bigger screen area, hence is less stressful to the eyes. In the survey, it was found that the majority of students (56 per cent) relied only on mobile phones for their online classes. About 18 per cent of the students switched between using mobile phones and laptop or desktop. Similarly, about 70 per cent of teachers used mobile phones for conducting online classes. A meager number of sample teachers extensively used laptops or desktops for conducting classes.

In the current context of online education, an uninterrupted internet service is one of the prerequisites for online classes, where classes continue for several hours a day. However, it was found that 65 per cent of the students relied on mobile data for their online classes, the service of which was contingent on the service provider's network connection at that point of time. As a result of which, many students, as well as parents, complained about the issue of erratic connection leading to disruptions in classes. These technological glitches disrupted the learning of the child during the class.

> *It's not at all good in interaction with the online classes as sometimes the phone or laptop shut down and the server also goes down. It needs 5 min to get back to the server. Our teachers said that they will not accept our request of joining classes after 5 min.*
>
> — Pradanya, Class VI

Another respondent, Megha added,

> *I am not satisfied because the videos are not clear sometimes and sometimes the teacher gives home assignments that we are unable to understand. I am happy in my school classes regularly before lockdown*

As for teachers, 70 per cent of the teachers relied on mobile data for conducting classes. As mentioned above, on an average these teachers undertook three classes in a day for 30–40 minutes. Along with that, about 70 per cent teachers used audio video sources to transact the lesson. The most used multimedia sources that emerged from the study were YouTube video clips, quizzes, etc. Given the excessive use of mobile data, 30 per cent of the teachers reported to have incurred additional out-of-pocket expenses on mobile data, in order to ensure the continuity of classes. The out-of-pocket expenses incurred on possessing the technology were not just limited to mobile data recharge. About 33 per cent of the sampled teachers also incurred additional expenses to purchase their own laptop, and 17 per cent of sampled teachers reported to have incurred expenses on arranging plug points or electric sockets near their work area in order to ensure the uninterrupted services.

Table 2: Out of Pocket Expenses for Teachers

Items of Expenses	Percentage of Teachers
Mobile Data	30%
Purchase of Laptops	33%
Electricity	17%
Electric Socket/Plug points	17%

The challenges associated with possession of technological resources was one of the important factors hampering effective classroom environment in the new setup. Here, school management can play a very important role in addressing the financial and technological constraints faced by the teachers so as to motivate and prepare them for the online classes.

Learning in Crisis Situation

"As schools and colleges are shut across India, every house is a school and every parent is a teacher. The playtime and me time get merged with school time and there is no boundary between bedroom and classroom for millions of children in the country."

— Nanda and Khanna (2020)

The concept of online education has increased access to education, but being in school isn't the same thing as learning (World Bank, 2019).

It was important to understand the different dimensions of the learning crisis along with how institutions, teachers, parents and students were coping with this new normal.

It is a well-known fact that parental involvement is vital for a child's success in the class. With the shift of children from school to home, the sense of responsibility had increased multiple times among parents. One of the important concerns raised by parents was related to teaching-learning of different subjects. About 77 per cent of the parents who were actively involved in the online education of their children reported that online education was not suitable for all the subjects. The parents who were rarely involved in their child's education also had similar claims. This seemed to be stemming from either the pre-conceived notion of the inadequacy of online classes or was based upon their and their wards experiences.

As far as student's experience was concerned, students found it difficult to understand mathematics (36 per cent) and science (22 per cent) through online mode. In addition, some students expressed difficulty in understanding English (22 per cent), social science (16 per cent) as well. For disciplines or subjects like sciences, where the practical component was equally important, about 67 per cent of students reported that practical sessions were not happening. In very few cases, practical subjects were explained using videos but about 67 per cent of students found it boring or difficult to understand. Given the responses from the students, it can be said that a shift towards online education didn't brought uniformity of experiences for all the subjects. The experience of online education was contingent upon the subject under consideration.

The online classroom experience has missed out many core aspects which contribute towards holistic education. One of the important neglected aspects of online learning was extracurricular activities which help in developing soft skills and leads to holistic development of the child. It was reported by students that extracurricular activities like music, sports, and theatre were conducted in schools but it was largely missing from online class structure. Only 24 per cent of the students reported having music classes, 9 per cent students had sports classes and 9 per cent students had theatre classes. In addition, another important aspect that has vanished from this structure was the library service, which constituted an important element of school education. Only 3 per

cent of students conveyed that they had a library class. With the prime objective to inculcate reading habit among the students, the temporary cessation of library services has also devoid the students of diverse reading sources.

Table 3: Co-curricular Educational Activities through Online Mode

Subjects	Percentage of Students
Library	3%
Music	24%
Sports/PT	9%
Art/Drawing/Painting	32%
Multimedia (Movies/Plays/Shows)	23%
Dance	19%
Yoga	27%
Theatre	9%

The digital space cannot replicate, or at least has not replicated so far, the experiences that a child gets in a school and classroom. About 75 per cent of students felt that the classroom environment of a school cannot be replicated in the online mode. A student also shared, *"Online classes are not good at all, it's like we are just having classes and nothing is going in our minds!".* In addition, many students felt that classroom fun (71 per cent), moving around the corridor (36 per cent), lunch break (49 per cent), free or substitute period (40 per cent) and the way festivals or competitions and other events were conducted in the school were some experiences that cannot be substituted in an online set up. For children, that was the part and parcel of their school life and these were some experiences that were specific to the 'being' of the school.

It made it more pertinent to understand how teachers conceptualise teaching-learning in the context of online education. One of the positive findings was that the majority of teachers (61 per cent) enjoyed teaching online and more than half (57 per cent) reported that they were fully confident in teaching online.

It is definitely one of the challenging phases especially for a teacher to manage the online classroom as about 78 per cent of teachers mentioned that it was not easier to focus on each student in online mode. The issue was not only the management but also of the teaching-learning process that has become complicated with

the online process. Apart from this, the online classroom set up also opened pathways for distraction. A student also shared during the interview "*It feels like watching a video on YouTube and feel very much lazy and bored... teacher does not give attention to any one and apart from studies the chances of diverting mind are the most*". About 52 per cent of teachers did not agree that they can teach more effectively during online teaching and quite close to that, i.e., 57 per cent teachers did not think that adequate learning was taking place in online mode.

Along with teachers, the concern of parents has also increased about their children's education. The current situation has made parents more aware and conscious of the academic progress of children. A common concern was about lack of adequate teaching learning which has implications on education quality in the long run. About 66 per cent of the parents were of the opinion that the teachers had no idea if the students were learning. Among parents, there was a strong polarised opinion regarding the efficiency of teachers in the online classes. Approximately 38 per cent of the parents felt that the teachers were not well-equipped to handle online classes whereas other 38 per cent were of the view that the teachers were well equipped with these online classes. In addition, parents of primary class students expressed the concern and challenge of making their child sit during the class session. Given their tender age, they roamed aound the house and could not concentrate during the class. The parents were forced to sit with them for the entire duration and made notes for them. This became challenging if both parents were working or there was more than one child in the household.

More than half (56 per cent) of the students mentioned that they were not comfortable taking classes online. There were many reasons behind the dissatisfaction emerging from the online classes for the students. A large number of students (81 per cent) conveyed that there was a difference in clearing doubt in the physical classroom and online classes.

The learners struggled to concentrate as they found it difficult to keep them awake (42 per cent stated yes and 24 per cent sometimes) and 65 per cent students didn't felt active in their online classes. In contrast, only 20 per cent students felt more active in online classes and 12 per cent felt it sometimes. More than half did not feel confident about preparedness from online classes. Other major challenges, as reported by many students, were that

they faced difficulty in taking online classes due to noises from other children's screens and many other factors like background voices at home, power cuts, laziness, etc., due to which it became difficult to concentrate for long hours. Also, they faced difficulty in submitting their homework or assignments online. Except for two students, all other students expressed the need to repeat some concepts when schools will reopen after the lockdown period. It thus emerged from the study that though online education can assist in the learning process, it cannot completely replace the classroom experience.

Assessment, Evaluation and Feedback

Assessment is one of the important pillars for ensuring the quality of education. Since the lockdown, i.e., March 2020, in addition to challenges of ensuring students' attendance, attention and engagement, challenges have emerged with regard to the assessment pattern also. According to the study, most of the students did not have any form of tests, which were otherwise scheduled before their summer vacations. It was also observed that in most cases, the tests were taken for the secondary and higher secondary classes (IX to XII). Among those who appeared for any form of test, 40 per cent of the students were from Classes IX to XII. These classes (i.e. X and XII) were crucial from the perspective of board examinations. Owing to the high stakes of these students, there was a possibility that most of the schools were trying to ensure that assessment of students of these classes in particular was done in a timely manner.

**Table 4: Percentage of Students who Appeared in
any Form of Online Examination**

Appeared for Online Exam	Percentage
Yes	36%
No	64%

Owing to a sudden shift and change in the ways of conducting classes and assessment, anxiety and confusion were reported by most of the students. There was confusion on how a test can be conducted online. Among those who appeared for any form of online assessment, most of them had a negative experience to report. About 63 per cent of the students reported that they faced some or the other form of difficulties in online tests and since this was

the first time that they were appearing for an online exam, they were quite anxious as well. The internet disruptions also added to their anxiety and stress. A great deal of experience with online assessment was also linked with confidence with respect to the preparedness for any form of assessment. Only 18 per cent of the surveyed students felt confident with respect to their preparedness based on online the classes. The fact that many of these students, because of their better socio-economic placement in the society, might be having additional resources at home which provided them with learning assistance can not be discounted. An interesting aspect revealed from the survey was that approximately 99 per cent of the students were of the opinion that some of the concepts needed to be revisited once the school opens after lockdown.

The present assessment scenario calls for the urgent need to change the assessment criteria and adapt them in coherence with the new challenges faced by both students as well as teachers. Most of the teachers reported that it was not easy for them to conduct an assessment for students learning in online classes. The assessment in online classes has brought in additional challenges and has also made some of the existing practices redundant. For example, the assessment of classroom notebook, homework notebook, quizzes, etc., has become redundant. Also, because of the constraint of, invigilation brought forth by increased reliance on technology, there were several examination malpractices adopted by the children, as reported by some of the parents. About 78 per cent of the teachers also believed that it was not possible to keep a check on students during their examinations. The present scenario has also added certain new dimensions into assessment, such as punctuality in joining class, engagement in classroom discussion, attention in classwork, etc.

Teachers and school administrators in Rajasthan were trying to ensure to have regular conversation with the parents, providing them with the feedback and also be available for the parents, in the scheduled time, to be contacted for any queries, clarification or feedback with regards to their ward's homework, classwork or any other aspect of their learning. Though 31 per cent parents reported that they did not received timely feedback from the teachers, they did mentioned that most of these teachers were present on call, message or email to respond to their concerns. Each subject teacher from different classes have been provided a time slot where they should be available for the parents.

These time slots were conveyed to the parents to have smooth communication and flow of information.

Some Additional Concerns

A sudden flip in the idea of the classroom is bound to create disequilibrium and bring forth several concerns and challenges for all the stakeholders. Right from challenges associated with technology, health, indistinct time, finance, etc., parents, teachers and students were together trying to adapt to the new home-schooling system. One of the major challenges faced by the parents was with regards to limiting the screen time for the children. In the guise of online classes, many children had extended the usage of screens which were difficult for the parents to control. Approximately 65 per cent of the parents believed that it was difficult for them to ascertain whether the child was accessing computers or laptops or phones for their studies or otherwise. Hence, 74 per cent of the parents felt that it was getting difficult for them to limit the usage of screens for their children. Taking it as a serious issue, the Ministry of Education issued an advisory to limit the screen time under *Pragyata guidelines* for digital education limiting it to 1.5 hours per day for Classes I–VIII and three hours per day for Classes IX–XII (*The Hindu*, 2020). However, the guidelines were hardly being implemented in many of the private schools. About 80 per cent of the students complained about the strain in the eyes due to increased screen time.

> *"I feel that it's not going good for me to use my mother's phone for so long. As I am having 0.05 on both my eyes, using headphones for so long brings pain in my head. I am not able to understand anything."*

> — Sarthak, a student of Class VIII

The students also experienced a range of negative emotions associated with online classes. About 60 per cent of the students felt that the online classes were boring and about 18 per cent expressed that online classes were useless. Anxiety, stress, nervousness, tiredness, awkwardness and anger were some of the emotions experienced by many students in the survey.

Teachers also reported similar experiences, such as eye strain (65 per cent), back pain (26 per cent), headache (56 per cent), stiffness due to lack of physical activities (74 per cent) etc. The teachers were also under tremendous pressure, both from the

management as well as parents, leading to severe physiological impact. Many of the teachers reported to experience nervousness (22 per cent), anxiety (35 per cent) and frustration (22 per cent) from the existing scenario. The physical and mental health issues experienced by these teachers as well as students have important bearing on the teaching learning practices of the class.

Table 5: Issues Faced by Teachers due to Online Education

Issues/Concerns	Percentage
Back Pain	26%
Eye Strain	65%
Headache	56%
Stiffness due to Lack of Physical Activity	74%
Social Isolation	17%
Harassment by Parents	15%
Harassment by School management	23%
Other Psychological/mental health concerns	62%
None	8%

Another prerequisite for an efficient teaching learning environment was the availability of separate sitting space to engage in online classes. Though the sample under study were students from private schools with better socio-economic positioning in the society as compared to the students from government schools, yet 27 per cent of the students didn't have a separate space available to them for their online classes whereas 7 per cent students reported to have a separate space only sometimes.

Table 6: Availability of Separate Sitting Space for Online Classes

Separate sitting space	Percentage of Students	Percentage of Teachers
Yes	66%	46%
No	27%	57%
Sometimes	7%	11%

Despite the availability of adequate facilities and technology, the students also reported concerns regarding handling the technology. It may be too simple to assume that all the students are well equipped to handle different aspects of technology so much

so that no training was required. Only 44 per cent of the sampled students reported being comfortable with handling the technology. Some schools did made some arrangements to provide preliminary training to the students so that they can handle the technology effectively. About 35 per cent of the students reported having received some kind of training from their schools to use the online platform while 65 per cent of them were left to manage on their own with the new intervention.

All these aspects surrounding the experiences with online education, moulds the preference of an individual with respect to comfort in undertaking their classes online. Despite the fact that 44 per cent of the students reported having sufficient digital knowledge to handle online classes, only 27 per cent of the students reported that they were comfortable with online classes. The rest 73 per cent were discontent with taking classes online.

Discussion and Conclusion

The pandemic has surfaced many challenges. The current situation brings many lessons to reflect on the 'new normal' in the education sector. The online mode of classes has evolved the new idea of classroom and identity of the learner. The classroom is now confined to an electronic gadget and bandwidth of the internet where learners are mainly passive recipients of knowledge. They were now a homogenous category in the way they appear on the black screen with their microphones and videos off. The rationale behind keeping it off was not just to avoid unnecessary disturbances and distractions during the class but also to avoid bringing in limelight on a child's household condition. But it hampered the students' engagement and overall learning experience, as reported by students, in addition to keep their context out of sight. That brought in a divergence of the way the online class setup appears — a divergence between how teachers and administration take vis-a-vis the learners. As Kumar (2015, p.154) points out—

> *Pedagogic modernisation demands that we recognise the richness of experience associated with the diversity of social backgrounds in the classroom. What is learnt is just as important as the ethos in which it is learnt. Homogeneity in the classroom implies a limited pool of the common resources of learning, such as language, culture, and personality.*

There was also an assumption of a supportive household environment which appeared to be more important than ever before. Given this time of crisis, where there was a rise in cases of domestic violence and abuse and many households may be suffering from pay-cuts or job-loss, one may not imagine the impact of this on the overall child psyche. Addition to this was their physical health. That was an unusual phenomenon where children were forced to remain inside their home 24 hours now for several months. It became difficult to channelise their energy constructively and promote outdoor activities.

It has been recognised worldwide that the teacher is a positive force that significantly influences the student learning outcomes. Taking into consideration the central role of teachers in school, NCF (2005) rightly pointed out that the teacher functions within the broader framework of the school education system, i.e., goals, material, methods, expectations from teachers. In the present school context, with the emergence of online classrooms, with the increase in the needs and demands from teachers, their responsibility had increased multiple times. It is high time to address their concerns and revisit teacher education to make them feel empowered than crippled. The school management can extend support with resources and other facilities and maintain trust in them to keep them motivated.

Access to digital technology assumed significance. The digital luxury was unequally divided among students. This digital exclusion has taken many forms, with wide ranging from lack of devices to Internet affordability. Moreover, not everyone has a laptop or desktop as in recent times as even the teacher as parents and students were involved in work from home. The above stated data was a clear reflection of the use of more than one device for the teaching process. The management as well as division of technical instruments needed to be addressed. Kerala has launched a laptop scheme to provide laptops to students.

There was need to evolve with quality parameters and frameworks for this new normal as this will eventually become pedagogical practice into the mainstream system. There was also a need to evolve with better assessment and evaluation practices to assess the learning outcomes and bridge the learning gaps. Also, there was a concern for those who were somehow left out

of the system. Alternative practices have been experimented but there was still a large section of students who were left behind and there was a greater risk of even widening of the learning gaps resulting in inequalities.

The current situation was certainly a boon for pushing EdTech into the system, a system which have evolved even faster than what could have been otherwise but understanding the strengths and limitations would transform it into much better and inclusive one. Certainly, many have supported even in these unprecedented times yet many are pushed out of the system without alternatives. One of the ways was to learn from the innovative practices across the world to cater such sections of students. However, it was also a turning point where education systems across the world needed to reflect and evolve the policies with this newer perspective calling for collaboration at different levels and including all stakeholders.

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Appendix I

Table 1: Class-wise Distribution of Students (in %)

Class	% out of total
KG	5%
I–V	33%
VI–VIII	20%
IX–XII	40%
Unknown class	2%
Total	**100%**

Table 2: Distribution of Teachers

Variables	Percentage of Teachers
Age 20–29 30–39 40–49 50 and above	39% 43% 13% 4%
Gender Male Female	39 % 61%
Educational qualification Having Bachelor's degree Having Master's degree or higher degree Received B.Ed. training	13 % 86% 48%
Employment status Permanent Contractual/Private Part-time Uncertain	43% 39% 9% 9%
Years of teaching experience 1–4 5–9 10–14 15–19 20–24	26% 35% 26% 4% 9%
Teaching subject Computer Science English English and SST	4% 22% 4%

Geography	13%
Hindi	13%
Hindi and Sanskrit	4%
Maths	9%
Math Environment	4%
Science/Chemistry	17%
Science and Maths	4%
Social Science	4%

Appendix II

About the Questionnaire

Teacher questionnaire: It included general information related to age, gender, state, educational qualification, employment status, teaching experience, teaching subjects, teaching class, etc. The focus was specifically on the variation in students' attendance, class duration, average number of classes, breaks, etc. It included mode of online classes, Internet sources used, technological devices, audio-video sources, provision of computers, Internet, etc. Teacher interaction with management, parents and peers; experience with online teaching and issues faced during conducting online class was important to study. The implications of online classes on mental and physical health were an important part of the questionnaire.

Student Questionnaire: It included information related to class, gender, school, district, state, number of siblings, students' presence in online class, class commencement, breaks, change in time-table, etc. It included further information on software, internet sources, devices used for online classes. The experience of students in terms of academic subjects, practicals, and evaluation was also captured through questionnaires. The emotional aspects of students were also addressed. It was further followed by open ended questions based on individual experience with online classes.

Parents Questionnaire: It included information on the number of family members, number of school going children, availability of smart phone, laptops, desktop, etc. The questionnaire tried to capture information on engagement of individuals with child studies. The challenges faced due to school closure were also included. The parents were asked to choose multiple options related to the positive and negative aspects of online education. Further parents' suggestions were taken based on open ended questions about the reopening of schools.