Impact of COVID-19 on the Pedagogy of Indian Schools Educators

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Abstract - **The recent crisis in the world due to Coronavirus scare did force the whole education world to ponder about the importance of building a back-up system for this all-important instructional system called 'school'. The pandemic is also an opportunity to rethink as a parent about our expectations from school and one's role as a 'surrogate teacher'. Through this paper, the researcher will try to find out how the pedagogy has changed in Indian schools in the few months of lockdown, the challenges faced by educators, families and the students suggesting the need to plan for similar situations in future.**

Index Terms - **educational system, school, lockdown, challenges, COVID19, pedagogy**

1.INTRODUCTION

In one way or another SARS-COV2 affected almost every aspect of personal and community life in India. As per a study conducted by Pearson, "In a matter of weeks, coronavirus (COVID-19) has changed how students are educated around the world. Those changes give us a glimpse at how education could change for the better – and the worse – in the long term. Schools were closed suddenly. Teachers had to re-think their teaching strategies and provide their students with new and different opportunities to work through curriculum requirements. Some teachers simply recorded teaching monologues and uploaded them online. Other more innovative teachers set virtual meetings and activities, but most were unprepared. These changes have certainly caused a degree of inconvenience, but they have also prompted new examples of educational innovation. Although it is too early to judge how reactions to COVID-19 will affect education systems around the world, signs are suggesting that it could have a lasting impact on the trajectory of learning innovation and digitization. Now it is to be seen whether, like past incidents of school closure, COVID-19 too acts as a catalyst for change in

the educational sector for innovative solutions in a relatively short period" [Pearson study May 14, 2020]. Since the study is mainly done in heart of India, Delhi hence the observations and narrations would be mostly referring to changes in local scenario though reference would be made to some historical and international studies too to get a wider perspective.

2. THE INITIAL STAGES

Since 24 March 2020, as the lockdown was announced for the whole nation due to COVID-19 situation, our school and college leaders have been facing the challenge of completing the current session in their respective institutes. Classes in schools and colleges were suspended and exams postponed.

The status of proactive closure of the International school with updates by key countries due to Coronavirus (ISC report COVID-19] as updated on 1st June 2020 showed 32 out of 58 countries could not open their schools. Some countries were partially open while only four could open their school. Indian schools were closed only to reopen zone-wise with students above class 8th attending school from July 2020 at the beginning and that too with 30% attendance to ensure social distancing [ISC covid-19-update]. It was extended to July 31st, 2020 later.

3. PAST INCIDENTS OF SCHOOL CLOSURE ALL OVER THE WORLD

Schools have neither been closed for the first time nor is the dilemma of social and educational institutes as how to keep the young minds engaged fruitfully and deliver the education. There had been incidents in history when similar predicament was faced by the families fearing a similar fate for their offspring. Many reasons deprive a child of education. Some of them are pandemic disease to extremist violence to socio-

cultural reasons, distance factor to climate insecurity, and war.

Reactive closure of schools was done in different areas of world like France pandemic [1957], during 1918 influenza pandemic in the US and Australian cities, due to influenza spread in Hong Kong in March 2008 [Cauchemez et al 2009]. In 2003, the Severe Acute Respiratory Syndrome or SARS spread in Hong Kong too caused the same impact [Fox Robert 2004].

4. PRE-CORONA EFFORTS MADE BY INDIAN GOVERNMENT AGENCIES

CBSE and directorate of education made commendable efforts of installing Vidyadaan app, Olalabs and e-pathshala, which was already in place for virtual learning and lab activities for school students. DIKSHA - National Teachers Platform for India started by National Council for Teacher Education (NCTE) offers teachers, students, and parents, engaging learning material like lesson plans, worksheets, and activities, relevant to the prescribed school curriculum. [Google App] National Academic Depository (NAD) run by UGC, National Digital Library of India run by Ministry of Human Resource Development (MHRD) under its National Mission on Education through Information and Communication Technology (NMEICT) also provide content to not just school students but also students pursuing higher education and PhD level education. SWAYAM is another program initiated by the Government of India and to take the best teaching-learning resources to all, including the most disadvantaged [Wikipedia].

5. CURRENT STUDY: RESEARCH METHOD

In order to understand the evolution of pedagogy and challenges faced by educators during the lockdown period, keeping the limitations in mind in the current situation interview method for Teachers, for parents and students, was followed.

5.1 Samples

The selection of the sample was done keeping in mind different types of schools in Delhi. The table given below shows the cross-section of the sample. It has been done to ensure diversity in pedagogical styles and challenges faced.

Twenty-five teachers from each type of schools were approached but the response received from lesser. As the next step, fifteen students (age group 13-18) and ten parents from the same school as that of the teacher were approached and again lesser number responded. During the discussion with them, some more from private schools volunteered to join in discussion hence included. The student's age group was chosen for two reasons.

- The communication was through phone therefore it was expected a senior student would communicate better.
- These students are being focused more by the schools as in India school students in class 10th and 12th face a public examination at the end of the school year.

Table 1 Sample of teachers, students, and parents from different types of schools in Delhi

Type of school numbers	Government-run schools and Government aided schools	The trust run private school	Private School	Kendria Vidyalaya	Total
Schools	13	14	18	11	56
Teachers	21	17	28	16	82
students	10	15	20	12	57
parents	9	10	13	8	40
total interviewed persons	40	42	61	36	179

5.2 Methodology- Interview

Initially, a questionnaire was prepared for the teachers but as most of them were not willing to submit any detail online, therefore, oral interviews were conducted on phone on the condition of confidentiality of their identity and their school's name. The data would be presented with just the type of schools. The same method was employed for parents and teachers but chosen mostly from the same school to check the authenticity of reporting.

The questions were kept essentially the same as given in the questionnaire.

5.2.1 Teacher's interview

The themes of questions for the interview were

- Methodology and aids used earlier and now.
- Level of interaction with students, their regularity and communication with their families.

- Preparedness to handle technology and online assessment.
- Role of school in guidance and support to use new technology.
- Work stress and indiscipline among students

It was not practical to involve the teachers in very long telephonic conversation given their busy schedule therefore they needed to be contacted more than once as per their convenience. After ice- breaking dialogues in both Hindi and English language and interviewing them only the first two or three themes, in the next conversations, their reactions, views and suggestions came out in a more structured manner.

5.2.2 Parent's interview

The parents were contacted telephonically and mostly within two calls, each interview could be conducted with one parent. In case of parents of students coming from Government-run schools and Government – aided schools, conference calls involving more than one parent and students had to be organised to ease out communication.

Parent reactions were recorded regarding.

- Provision of internet, digital devices, peaceful place
- Expectation from school and teachers and level of communication with them.
- Supervision and monitoring by family members.
- Challenges faced or some specific observations.

5.2.3 Student's interview

Student of almost all schools was contacted in the presence of older family members and reactions were taken to find out.

Challenges faced with respect to

- Online communication with teacher and submission of work,
- Time management among various activities and stress factors

5.3 Response to Teacher's Interviews

5.3.1 Methodology and aids used earlier and now.

Before lockdown, all teachers used conventional methods and other ways of interactive teaching though not using technology. Private schools used technology based- interactive tools. Post school-closure, majority of teaching happened though PPTs and notes. Almost all teachers had a exposure to online teaching and adapted to different extent depending upon availability of resources and their requirement.

5.3.2 Level of interaction with students, their regularity and communication with their families

In most of the cases, student's interaction with teachers during online classes was on lower side. The attendance was there in most of cases giving leverage of connectivity issues, but attentiveness could not be proved to be there in majority of cases. Clear case of attentiveness and interaction was seen only where the tools used were more interactive or there was incentive given to students.

Interaction with families was highly varied depending upon the education-level, social-background, financial status, and structure of families.

5.3.3 Preparedness to handle technology and online assessment.

Though this parameter also received a varied response, yet the common part was the ability of each teacher to communicate with their student virtually using some medium or the other. The variation was seen due to resources and training available and technical support provided to teachers. It also depended upon expectation from parent and student body as shown in responses from other two interview findings. Researcher wants to admit here that the age factor for teachers was not kept in consideration hence she is not able to comment upon its relation of with Preparedness to handle technology. Though What's App, Facebook and emails were used for general communication among common people but during Corona-times, these channels played a major role in school education. The mobile phones are not allowed for school-students in Delhi but they turned out to be most useful device for teacher-student community.

5.3.4 Role of school in guidance and support to use new technology.

The digital connect was provided for online learning by all schools but differently.

Almost all schools ensured communication with students whether through privately managed virtual platform or through social media which proved to be a very strong media for education during this lockdown. The training and support provided by schools was somewhat varied as per the resources available to them. But no teacher admitted being left alone without

any communication from the schools. Every teacher was encouraged to attend webinars, workshops, and training sessions organised by NGOs, Government run organisation or those organised by school.

5.3.5 Work stress and indiscipline among students

Not too many indiscipline problems were reported from any sector which could be because of the presence of family in the background of children and school support to the teachers in case such incident occurs. Universally work stress was on higher side for all teachers. The contributing factors were household work, working from homes where constant disturbance is caused by other factors and preparation for class material from online sources.

5.4 Response from Parents

5.4.1 Provision of internet, digital devices, peaceful place

There are different types of families in terms of structure, availability of resources and education level. Some children have free access to digital media so for them access to education comes easy. For others it may be a challenge. A peaceful and supportive environment at home plays a great role too in learning process but could be provided only by some families to children during lockdown period.

5.4.2 Expectation from school and teachers and level of communication with them.

Depending upon the family's resources and social background, expectations from school and teachers were different. The communication between two stakeholders has to be mutual. Very few parents showed the responsibility and role of family in child's learning during lockdown however the expectation from school was there from every family.

5.4.2 Supervision and monitoring by family members.

Some sectors did not have an educated elder to supervise and monitor learning at home due to different reasons.

5.4.3 Challenges faced or some specific observations.

Common challenges were digital resources, inability of children to play outdoors, too much involvement with gadgets, longer screen time, mental and physical health.

5.5 Response from Students

5.5.1 Online communication with teacher and submission of work

It depended more on student-teacher rapport and the teaching methodology used during virtual meetings. An incentive-based class was more interactive. Another contributing factor was what the means of communication is. Live classes gave a student chance to get queries answered immediately.

5.5.2 Time management among various activities and stress factors

Many found it difficult to manage too much online work coming from school as well as coaching. Lack of physical exercise, long screen hours and concern for marks were some stress factors.

6. POST-CORONA EFFORTS MADE BY INDIAN GOVERNMENT AGENCIES

CBSE has been instructing the principals of schools regarding the future of education during the quarantine lockdown. A comprehensive letter sent on April 4, 2020, stated, the need to build foundations of resilience and to reinvent the education process. To shift focus from schooling only at schools to school-home collaboration for learning. They were advised to invite parents and to work with the students and parents. Head centric role learning to be converted into experimental learning. Online classes synced with the normal timetable followed while in school. They should allow children to reflect on what they learn and make presentations on studies completed on their own. Use the internet and social media platforms, such as WhatsApp, Facebook groups, etc. for sending daily guidance was suggested. The kitchen can be used as the lab with real tools for a child's cognitive, affective, and psychomotor development. The letter also mentioned projecting the Indian culture and value systems. (CBSE April 4th, 2020). The role of parents and family was stressed.

In another set of guidelines Art-integration activities and projects are to be included so that the stress can be taken off and children enjoy these online learning [CBSE 14th May 2020]. An alternative academic calendar for students of classes 1 to 12 is also developed with reduction in syllabus up to 30% [NCERT 2020]. In a guideline sent out CBSE, screen time of students was reduced as per their age group [CBSE 11th July 2020].

PRAGYATA guidelines released by honorable MHRD minister recently focus on online/blended/digital education for students providing a roadmap or pointers for carrying forward online education to enhance the quality of education that will be relevant and useful for a diverse set of stakeholders including school heads, teachers, parents, teacher educators and students. The guidelines stress upon the use of alternative academic calendar of NCERT, for both, learners having access to digital devices and learners having limited or no access [MHRD 15th July 2020].

Government's e-Learning Platforms Popularity: As per a report, the Central Government's online e-learning platforms saw a surge in usage of digital learning platforms, following school closures and postponement of exams due to Coronavirus outbreak. [Jagran Josh April 10, 2020].

The digital world and e-learning are expanding its presence globally. Therefore, students are advised to make full use of these online resources, especially during the COVID-19 outbreak to avoid any obstacles in the path of learning [Gupta Nidhi Apr 14, 2020]. India's HRD ministry has been aggressively advocating for students to leverage official e-learning platforms.

The government launched a host of online learning initiatives under its National Digital Literacy Mission. Although tech solutions are aplenty, the question of accessibility remains unanswered amid India's huge digital divide (Soni Yatti, 06 May'20).

7. CONCLUSION

We have a widely variable capacity in our families and school systems. Most schools in Delhi found stop-gap solutions to continue teaching, but the quality of learning is heavily dependent on the level and quality of digital access and its appropriate usage. Role of the family as a 'facilitator' and a very important team member in their child's education became quite evident in this study.

The e-learning portal though provided by Government still needed to be more publicised and encouragement for them to be used optimally. Inspite of Governmental agencies coming up with best of solutions to reach out to every student, reducing their burden of academics as well as screen time and distressing them through inclusion of Arts and music in academics, yet a lot of groundwork is required to train the teachers and families.

Twenty-first-century learning requires technology and internet. All of our children should have the technology they need to learn outside of school.

Though every household in Delhi may possess at least one mobile phone yet it may not support the apps required to download the digital lessons or attend online classes. The digital divide became more extreme because educational access was dictated by access to the latest technologies. Children come from very different backgrounds and have very different resources, opportunities, and support outside of school. Students who have high-quality learning devices, coupled with various enrichment activities had better opportunities to learn than other students who do not have access to anything of quality, not even a peaceful corner in their household for attending an online class. As a result, the most economically challenged in our society will be the most vulnerable in this crisis, and most advantaged are most likely to survive it without losing too much ground. Perhaps it is time to nudge those who may have these devices lying unused at homes. A wave of sensitivity needs to be started to make everyone realize, what impact it can have on education of these 'have-nots' if they come to possess a 'used but repaired' digital device from their social counterparts without making it a big deal about it. Schools and NGOs may have a greater role to play in this venture.

It is necessary to develop a backup online learning system so that during this period of sudden school closure, the transition, is relatively easy to undertake. Direct instruction can be moved seamlessly to online instruction. This system can be used from time to time to keep it in a functional state. We can learn some things through this crisis about online delivery of not only instruction but an array of opportunities for learning and support. In this way, we can make the most of the crisis to help redesign better systems of education and child development.

Research is required in the field of online learning, generating more affordable and realistic apps and tools, making them available to far-off schoolteachers and students, uniform online testing, customized syllabi for online learning, alternative activities, assessment systems and instructional technology for teachers, parents and students. Equitable access to

educational technology as a way to close the digital learning gap.

Household studies showed lesser interest or awareness about the role of the family in educating the children. Private help did have a larger presence indicating the dependence of students on tuition and coaching centers which are online too. Perhaps more student friendly online materials can replace this dependence and the gap created between those who can avail this private help and those who cannot.

The curriculum for teacher's training should have a component of teaching online in emergency time in a paperless classroom.

Once SARS cov2 leaves the human population, several lessons for life will be left behind. Besides many other important ones, reconsidering changes in educational instructions and assessment should be one of them.

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