Looming Crisis of the Pandemic: Forlorn State of Education with Exacerbating Inequalities

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Abstract

The much-awaited Right to Education act passed in 2009 to ensure compulsory education for all kids aged 6 -14 years seems to have completely lost its essence post-pandemic. Concerns about its four essential components, namely availability, accessibility, acceptability, and adaptability to provide an equitable education are lost, and economically weaker sections are further being pushed to the periphery. In light of these events, this paper attempts to understand the benefits and drawbacks of online education and the core issues of online education from primary stakeholders, namely, teachers and students across different school levels. The paper finds that as schools moved to online education through digital mediums in the absence of alternatives, the digital divide has exacerbated the existing rift between the haves and have-nots and the gender bias in education. There have been numerous initiatives like E-platforms, door-to-door distribution of study materials, and provisions for providing digital devices, but only to a limited extent. India is certainly not prepared to embrace the mass shift to the online school education system until the broader issue of the digital divide in the country is addressed. As students return to school this year, there is a need to recognize and address the learning loss of students, especially the vulnerable groups, during school closures induced by the pandemic.

Keywords: Online education, COVID -19, School education, Digital access

Introduction

COVID-19 pandemic has transpired global economies into an unimaginable forlorn state, reportedly the worst multifaceted crisis since the second world war (BBC, 2020). Coronavirus has raised alarming questions about our preparedness to combat epidemics and neglect of lessons we ought to have learned from previous pandemics of the 20th century such as the Asian flu in 1957, the infectious pandemic witnessed in the 21st century including the severe acute respiratory syndrome or 'SARS' in 2002 and the N1H1 or 'Bird flu' in 2009 (Baldwin and Mauro, 2020). Distanced social relations, loss of income, migration, and school closures experienced will have a long-lasting impact on school learners.

There may be divergent discourses on what the future portends, however online learning or virtual classes is what schools in different countries will tend to adopt during school closures. Thus, it is essential to understand the effectiveness of online education. In light of these questions, the paper attempts to understand the core issues of online education from the perspectives of primary stakeholders, namely, teachers and students across different school levels. The paper also attempts to evaluate if the Indian economy is prepared to embrace this broad shift in our school education system and extend digital education to all learners.

History Of Online Education

The history of Online learning dates back to the 19th century when it was first introduced in the form of distance learning at the University of Chicago. Technological advancement led to an exploration of alternative mediums of education like the radio in the 1920s. Television in the 1950s opened room for virtual instructions, especially to reach out to learners who were unable to attend face to face classes during wartime or due to schedule conflicts and accessibility issues (Mclsaac & Gunawardena, 1996). The first online course for credit, using computers and emails, was introduced by the Ontario Institute for Studies in Education, University of Toronto in 1984 (Bates, 2019). Online learning got an exponential thrust with the advent of the World Wide Web in 1991, and not only online credit courses but entire degree programs are being offered online (Sun & Chen, 2016). MIT initiated free online courses through its 'OpenCourseWare' project in 2003 and Massive Open Online Courses (MOOCs) started in 2007 with the creation of Advance Learning Interactive Systems Online (ALISON). Online education providers have expanded from universities, colleges, and K-12 schools to private education initiatives like edX, Khan Academy, Coursera, MOOC, Minerva, Udemy, TEDx, and MITx among others.

Arguments For Online Education

According to the distance learning expert, Thomas L Russell, "... No matter how it is produced, how it is delivered, whether or not it is interactive, low-tech, or high-tech, students

learn equally well with each technology and learn as well as their on-campus face-to-face counterparts", however, this argument is widely contested in academic scholarship which asserts that online education can supplement but not replace offline education. Developing a curriculum for e-learning that promotes active learning using digital technology in their daily learning activities has also gained international support as it supports acquiring 21st century skills. Repetto & Spitler (2014) established online education as a connecting conduit between "current concerns" and "learning objectives" for at-risk learners. Success depends on the instructor–learner engagement and course design that suffices triangular need of academics, social and behavioral interventions. It is argued that virtual classes provide flexibility in location and time (Thomson, 2010). Other potential benefits are increased efficiency with less traffic, parking issues, pollution, and time taken to travel to schools; reduction in the cost of school-based facilities; salary cost; realizing economies of scale by reuse of study resources; broadening access in remote locations with low enrolment rates and engages learners in active learning (Thomson, 2010; Bakia, Shear et al., 2012).

Online education is also observed as a learner-centric platform that paves the way for them to take up courses of their choice at their self-guided pace as per their educational needs (Brittany, 2015).

Arguments Against Online Education

Disturbing emerging issues and concerns of online education encircling the students during times of pandemic are increased violence at home, safety concerns, sexual abuse, neglect, lack of access to school-provided facilities like mid-day meals, absence of counseling sessions, online protection threats, social skills, ostracization, discrimination, denial of opportunities in lack of digital resources, the likelihood of girls not returning to school and rise in adolescent pregnancy (Viner et al., 2020). Studies have reported an increase in anxiety and stress among students and parents. Parents struggle to arrange devices and support their younger children with classes and assignments while working from home. The challenge is more so for parents with more than a single child to arrange digital devices to attend online classes (Jessen and Waights, 2020). Other major worries concern teachers and students from non-English mediums due to very less content available in languages other than English.

An empirical evaluation of publicly available data of ten states on distance learning's effectiveness in the K–12 setting by Harris & Ségol (2015) states that the performance of online schools is not homogenous. Another study performed to investigate the relationship between students' perception of interaction, and the blended learning environment observes that (a) students believed student-teacher interactions is vital for their learning experiences (b) students were moderately satisfied with blended learning (c) students' personality is a key factor influencing the level of interaction and satisfaction gained from attending the course. Extroverts are more satisfied and interactive than introverts in such settings. (Kuo, Belland et al.,2014).

Pandemic Induced Online School Education In India

School closures in 162 countries have impacted the education of more than 1.2 billion children, approximately 70% of the global enrolled student population (UNESCO, 2020). In India, since the second week of March 2020, a phase-wise lockdown started in different parts of the country to contain the spread of coronavirus as a public health mandate. In the last week of March 2020, schools were closed nationwide, at a crucial time when students were appearing for their annual examinations.

From physical classrooms, schools then moved to the virtual classroom using platforms like MS Teams, Google Meet, Skype, WhatsApp, and YouTube which served as the connecting links between students and schools. The Central government encouraged the use of platforms like ePathshala, Swayam, and 'T.V. classroom' Swayam Prabha. State governments and union governments undertook digital initiatives; e.g. Delhi government launched online classes for mathematics in collaboration with Khan Academy, Kerala used T.V. classrooms and an e-portal, and the UP government began online courses through WhatsApp groups, Tamil Nadu conducted bridge courses on Kalvi TV. However, it is feared that these initiatives may not have reached many students. According to the National Sample Survey report on education (2017-18), only 24% of households in India have internet facilities, and only 8% of households with members aged between 5-24 years have a computer with an internet connection. According to government estimates, around 60% of India's student population is enrolled in government schools, and around 43.5% of them have no access to smartphones.

Even those students who have been attending online school are facing varied difficulties. Given an average student-teacher ratio of 30:1 or higher in most schools, it is difficult for the teachers to gauge each student's understanding. The study used google forms for an online survey to understand the experience of teachers and students with online learning. (Please refer to the end of the paper to access the google forms and the detailed results generated from the study). The results of the study showed that most students preferred physical education over online education. The most prominent reasons for the respondents for preference toward physical education were poor network connectivity, power issues, decrease in interaction with teachers, distractions caused by social media, discomfort like headache and tiredness due to increased screen time, and the time lag to receiving feedback on submitted assignments.

Additionally, few teachers remarked that face-to-face classroom sessions in a traditional classroom setting better facilitated a student-centered approach and observed the need to devise pedagogies to reach specially-abled students better. Some teachers were satisfied with the mode of teaching as it allows students to continue learning and can write their doubts and get them clarified anytime. Many others expressed dissatisfaction with online education due to the inability to discern students' understanding, difficulties in evaluation, and reduced freedom and flexibility in teaching due to interruptions by students' guardians during classroom sessions.

Key Issues Concerning Indian School Education Post-Pandemic

Around 250 million students in India were adversely affected by the government-mandated school closures during the pandemic. With around 40% of India's population of 1.38 billion under 18 years, impaired access to education has multitudes of repercussions, the effects of which will be long felt. This section attempts to examine the differential impact of the pandemic on the learners to apprise us of the critical areas to focus on policymaking for school education post-pandemic. The Pandemic impacted all students, but the impact was amplified for the vulnerable groups. Students from lower-income deciles dropped out of private schools, some transferred to public schools while others had to take up odd jobs to support their families in times of income loss and pandemic-related deaths of family members. Government schools, especially in the rural areas struggled to transition to distance education from the traditional mode of teaching. Pandemic may have multiplied the dropout rates, especially for girls leaving them at the peril of attending to domestic chores, care responsibilities, early marriage, and even trafficking.

In contrast to the formal schooling system, the online coaching industry mushroomed during the absence of in-person teacher-pupil interactions. According to a study published by Boston Consulting Group in collaboration with Teach for India in January 2022, the impact of school closures extended much beyond learning, including a rise in malnourishment, lack of academic discipline, and an increase in exploitation and emotional issues for children. Pratham, a non-profit organization, conducted a household-level telephonic survey to understand the transition in the education system when schools are reopening after almost 18 months. The report stated that the young children were the most affected as non-enrolment was the highest for children below five years. Approximately 35.9% of children in classes one and two have had no classroom experience. Teachers interviewed in the survey echoed the same concern as they elaborated on how difficult it is to make these young children sit in the class first, let alone basic reading and writing alphabets and numbers. A sample survey conducted in Karnataka showed that there has been a steep decline in children's foundation skills, specifically for lower primary classes.

Further, the negative impact of the pandemic was multiplied for children with disabilities, children of migrant workers, refugees, and asylum seekers. As per government estimates, the country experienced a mass internal migration of around 10 million migrant workers, who were employed as daily wage workers due to loss of livelihoods in urban areas. This led to a significant percentage of school dropouts. A Principal in a Delhi government school recounted that it was particularly difficult for them to trace the children of migrant workers. Many children have taken up menial tasks to support their family members during the pandemic. In an interview, teachers at a government school in Tamil Nadu have noted that it is difficult to bring back drop-out students and rekindle their interest in studies.

Dropouts and learning losses posed by school closures are likely to continue or even be aggravated as children return to school if the curriculum design and lesson plans do not

consider the differential learning losses due to school closures. It is, therefore, essential to assess the basic literacy levels, language, and math to identify the learning gaps and plan remedial strategies for the children before beginning with the respective grade level. It is equally crucial to recognize and address the basic foundational skills for early grades. Large scale standardized efforts are required to ensure the emotional well-being of the children. Assessments should be creative including role play, games, quizzes, discussions, and presentations to encourage the cognitive, social, and critical thinking skills of the students rather than the rudimentary pen and paper format. It is time that we reset our education system to blend the learnings of the past and the technology of the present to fix the bridge from education to employment. Pandemic amidst all its drawbacks has shown us teachers and students are quick to adapt to technology and also brought to light the large digital divide that needs correction if sincerely we intend to transform our education system to make it more relevant to meet the demands of the 21st century.

Conclusion

For millions of learners, the reopening of physical classrooms brought back the hope of interpersonal interaction, exchange of ideas, access to mid-day meal schemes, and freedom from the burden of household responsibilities. Centre and state governments certainly need to work on the following key aspects among others to build an inclusive education system: Identification and provision of training requirements for teachers; find ways to strengthen Anganwadi and Midday meal schemes; identify displaced migrants and enrolling their children back to schools in their areas; develop a mechanism to control dropout rates and gender disparity; support with pedagogical practices to meet the diverse needs of specially-abled students. This paper appreciates the steps taken up by the education departments, but they are ineffective if access issues are not timely addressed. Several initiatives like e-learning platforms in local languages, AI enriched digital apps, door-to-door supply of study materials, and provision of digital devices by state-governments, local bodies, NGOs, and local communities have been taken up to ensure undisturbed learning. However, the reach of such initiatives is very low, considering India homes 320 million learners. The learning loss of the students is a critical issue that needs to be addressed while developing curriculum and lesson outcomes for different grades. Assessment and teaching should be conducted at the right level, especially for vulnerable groups. Pandemic showed that teachers are quick to adapt to technology and highlighted the need for professional development to support the changing role of teachers. The biggest challenges for continued learning during school closures were power, device and data affordability, and network connectivity infrastructure. These challenges should be actively addressed by the government, not just during the response planning, to make sure that all children have equitable access to e-learning ◆

Demographic information of the survey respondents

Total Respondents	128
Response surveys with missing values	4
Remaining final response survey count	124

Age statistics

Class interval (Age in years)	Upper bin	Frequency
20 - 30	30	14
30 - 40	40	53
40 - 50	50	28
50 - 60	60	26
60 - 70	70	2
70 and above	More	1
		124

Gender distribution

Gender	Frequency	% distribution
Male	23	19
Female	101	81
	124	

Rural/ Urban statistics	Frequency	% distribution
Rural	33	27
Urban	91	73
	124	

Mode of teaching after COVID-19 lockdown	Frequency	% distribution
Fully online (You interact with students in real time eg. Online conference, Chat room etc.)	33	27
Partially online (You communicate to the students with a time lag through email, Whatsapp etc.)	91	73
Not taking classes	124	

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