

A Resilient Indian School Education System

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The use of technology, while not without its challenges, offers a path to a more resilient and better quality educational system for India.

But investment in it needs to start now.

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How should India tackle the massive disruptions caused by the pandemic to the school education of millions? Are measures of social distancing and hygiene being proposed even implementable by the majority of Indian schools? The use of technology, while not without its challenges, offers a path to a more resilient and better quality educational system for India. But investment in it needs to start now.

Indeed, it is worth noting that while the COVID pandemic is a body slam bringing to a halt the entire country, local injuries to various parts of India happen regularly and with increasing frequency. Take the three states of Andhra Pradesh (AP), Odisha and West Bengal (WB). Since 1990, AP has been hit by 12 cyclones, seven of which were in the last decade. Similarly, Odisha has been hit by six cyclones, five within the last decade. In WB, six of the 13 cyclones to hit since 1990 have been in the last 10 years. This, in just one region of the country. As we think about the future our focus should be an education system that is as resilient to disruptions as possible.

Since March, various elements of the Indian school system have migrated to online modes of instruction with varying degrees of success. Challenges with this are obvious. First is the low ownership of computers or smartphones in households in India. How will students then access online teaching? The second is problems with internet connectivity and challenges with power availability in large parts of the

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country. Third is the ability of our teachers to teach online. Existing ways of teaching and teachers are unfamiliar with online instruction. Problems of access to computers and internet and facility with such technology also apply to teachers.

Proposed safety measures to maintain social distancing include running schools in multiple shifts and staggered opening with an early opening for senior class students. However, various surveys show that parents are not comfortable sending children to school given the risk of infection. There are concerns about whether schools will be able to ensure social distancing. And it seems that these concerns are well founded.

DISE (District information system for education) data show that a large proportion of schools in the country do not have the required infrastructure to adhere to social distancing norms. As of 2016-17, 7% of schools in the country only have one teacher. The number is much higher for some states. Close to one in every 10 schools in AP, Telangana and Odisha only have one classroom. The corresponding number for the country is one in every twenty five schools. How would classes with multiple shifts be conducted? How would social distance be maintained when there is just one classroom? Availability of functioning toilets is another problem, as this is far from universal in certain states. Clearly, we need to look for alternative options.

Some schools (mostly elite private) have moved to real-time online classes to substitute for the lost learning. This, however, requires matching investments from parents in smartphones and/or computers for children. This immediately suggests that such online teaching has the potential to deepen the existing divide in learning opportunities between rich and poor students.

The National Sample Survey (NSSO) 71st education round shows that computer (including laptop and smartphone) and internet access is very low (11% and 21% respectively) among households with school-going age children (5 to 18 year olds). Access is also differential. Government school students have much lower access to computers (5%) as compared to private school students (20%). Unsurprisingly the gap is starker when we compare ownership across rich and poor households. Only 2% of poor households own computers as compared to 40% of rich households.

Thus while a large number of (mostly) private school going better off students are making use of online classes, poorer public school students and indeed millions who pay fees to attend smaller private schools are lagging behind. Then again poor internet bandwidth and frequent power cuts reduce the efficacy of such a medium for large parts of the country.

Thus, in the short run, we need to think of methods of delivery that can reach larger sections. The central government's recently announced e-Vidya initiative, that aims to deliver education through dedicated television channels and radio programs, including community radios, is a great idea. A much larger proportion in the country own televisions and radios as compared to computers and laptops and with local teachers being roped in this could fill the gap to an extent.

In the long run, though, we need to invest in technology as an integral part of our education. This means three things. Firstly, investments in digital infrastructure so that access to faster more reliable internet is universal. Secondly, investments in innovating with newer curricula and pedagogy that are more amenable to a mixed delivery, where a substantial part of the course is delivered online. And investments in teacher training.

Finally investments by families in smartphones and computers. Will this not impose a burden on the poorest families? It will. But a recent increase in uptake of smartphones by parents suggests that financial constraints may not be as binding as we think. If they see value in such investment they are willing to make it. And more than financial constraints per se it is often liquidity constraints that bind. These can be easily resolved.

We have been grappling with the poor state of infrastructure in our schools for ages. It is imperative to increase the use of technology to deliver quality education. Will we be able to step up to the task this time?