



## VITAL ECONOMIC OPERATIONS MANAGEMENT (VEOM)

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# EDUCATION IN THE TIME OF COVID-19

According to UNESCO, approximately 91% of students or about 1.5 billion children have been affected by school closures due to COVID-19 globally.<sup>1</sup> Many countries closed the schools as part of their initial efforts to contain the disease outbreak. As countries have begun easing lockdowns, there is little consensus on when and how to safely reopen the schools. The debate hinges on a few key considerations that need to be assessed in a balanced way. Namely, the health risks to students and school staff themselves, the risks posed by children's ability to increase the spread of the virus to the rest of the population, and the impact of school closures on children's development, educational achievement, as well as well being.

### HEALTH CONSIDERATIONS

There is a broad consensus based on World Health Organization data and guidelines that indicates that children are not among the most vulnerable groups at higher risk of significant illness or death. However, this does not mean that they are completely immune. The largest global study to date published in Lancet, which is among the world's oldest and best-known medical journal, showed that less than 1% of pediatric patients died of COVID-19,<sup>2</sup> and a study from China suggests that more than 90% of children infected with COVID-19 showed either no symptoms or mild ones.<sup>3</sup> These statistics are encouraging, but preventing any avoidable deaths among children is of the utmost importance for any society.

Evidence is mixed and preliminary on whether children are high spreaders of COVID-19, but a breadth of evidence demonstrates that children are very efficient at contracting and spreading other respiratory infections similar to COVID-19.<sup>4</sup> Therefore, given limited testing capacity and the relatively high incidence of asymptomatic cases, COVID-19 infections in children may be even harder to detect than in adults. Moreover, children (especially young children) may be less capable of following standard operating procedures such as physical distancing. As a result, a young person exposed at school can inadvertently endanger the lives of elderly or other high-risk individuals with whom they come in contact, especially family members.

It can be problematic in the context of Khyber Pakhtunkhwa (KP) where many children live in multi-generational joint households. Thus, school reopening in the near-term has the potential to rapidly increase the spread of COVID-19. Moreover, there is evidence that school closures are efficacious in reducing virus spread. Studies suggest that during influenza pandemics in the past, reactive school closures - after cases had been detected

<sup>1</sup> [https://www.washingtonpost.com/world/coronavirus-schools-reopen/2020/04/18/0c3dfcb6-7e61-11ea-84c2-0792d8591911\\_story.html](https://www.washingtonpost.com/world/coronavirus-schools-reopen/2020/04/18/0c3dfcb6-7e61-11ea-84c2-0792d8591911_story.html)

<sup>2</sup> [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(20\)30177-2/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(20)30177-2/fulltext)

<sup>3</sup> <https://time.com/5816239/children-coronavirus/s>

<sup>4</sup> Edmunds, John. Finding a path to reopening schools during the COVID-19 pandemic. The Lancet Child & Adolescent Health. [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(20\)30249-2/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(20)30249-2/fulltext)



in the school - reduced the cumulative infection rate by about 25% and delayed the peak of the pandemic. A delayed peak can result in the flattening of the curve and spacing out of the cases requiring hospitalisation, thereby making the burden on the healthcare system more manageable. Similarly, proactive school closures - closing before cases have been there - are shown to be “one of the most powerful non-pharmaceutical interventions” to control the spread of infections. Historical data between two cities in the US during the Spanish Flu Pandemic of 1918 showed that proactive school closures reduced the death rate by two-thirds.<sup>5</sup>

## SCHOOL CLOSURES IMPACT ON CHILDREN

### 1. Learning Deficiencies

According to a World Bank report, school closures will lead to falling test scores of up to 25%, and COVID-19 closures could result in a loss of 0.6 years of schooling adjusted for quality, bringing down the effective years of basic schooling that children achieve during their schooling life from 7.9 years to 7.3 years.<sup>6</sup> A study of unscheduled closings in Maryland schools between 1994 and 2005 provides provisional evidence that losing school days to unscheduled closures has negative effects on performance on state assessments and that these school closures have larger effects on performance for students in lower grades. Researchers estimated that the pass rate for third grade math and reading assessments fell by more than half a percent for each school day lost to an unscheduled closure.<sup>7</sup> Several studies suggest that extended school closures have a lasting impact on student’s health and learning outcomes.<sup>8,9</sup>

### 2. Digital Divide

In the wake of the COVID-19 outbreak, some schools especially in the developed countries were quick to respond by switching to online education. While it presumably compensated to some extent for the learning loss, conclusive data on the efficacy of online versus in-classroom learning is not available. In the context of KP, even if online learning is effective, it is not a panacea as many students are without access to the digital facilities. Thus, new concerns about the widening digital divide have been raised. In KP, students from the lower income groups and those attending public schools have had almost a complete stoppage of educational activities. These students are likely to suffer more compared to their peers belonging to upper and middle income groups who attend private schools and have the requisite facilities at home to access online classes and educational material. Technology access, affordability and internet penetration are still out of the reach of millions in KP.

### 3. Learning Gap

According to the Pakistan Telecommunication Authority (PTA), only 31% of Pakistanis have access to the internet. For the children belonging to the rest of the 69% of the population without internet access, this pandemic means losing the opportunity to learn. The closure of school exacerbates hardships faced by students at KP government run schools, which already face an achievement gap. According to the Elementary and Secondary Education Department, a mere 1% of the students in the government schools scored more than 75% and more than 80% of students scored less than 50% in the grade 5 exams.

<sup>5</sup> <https://www.sciencemag.org/news/2020/03/does-closing-schools-slow-spread-novel-coronavirus>

<sup>6</sup> [https://www.worldbank.org/en/topic/education/publication/simulating-potential-impacts-of-covid-19-school-closures-learning-outcomes-a-set-of-global-estimates?cid=ECR\\_E\\_NewsletterWeekly\\_EN\\_EXT&deliveryName=DM69178](https://www.worldbank.org/en/topic/education/publication/simulating-potential-impacts-of-covid-19-school-closures-learning-outcomes-a-set-of-global-estimates?cid=ECR_E_NewsletterWeekly_EN_EXT&deliveryName=DM69178)

<sup>7</sup> <https://www.usf.edu/education/anchin/research/coronavirus-school-closures-challenges-best-practices.aspx>

<sup>8</sup> [https://www.washingtonpost.com/world/coronavirus-schools-reopen/2020/04/18/0c3dfcb6-7e61-11ea-84c2-0792d8591911\\_story.html](https://www.washingtonpost.com/world/coronavirus-schools-reopen/2020/04/18/0c3dfcb6-7e61-11ea-84c2-0792d8591911_story.html)

<sup>9</sup> [https://blogs.worldbank.org/education/how-invest-remote-learning-while-building-education-system-future?CID=EDU\\_TT\\_Education\\_EN\\_EXT](https://blogs.worldbank.org/education/how-invest-remote-learning-while-building-education-system-future?CID=EDU_TT_Education_EN_EXT)



## INCREASING ACCESS TO LEARNING THROUGH EDTECH

There are no straightforward or readymade solutions as of now. It is currently unsafe to open schools, but it is also perilous not to. The best the Government of KP can do is to implement creative solutions designed to balance the need to mitigate health risks with the need to minimise children's disruption in access to education. According to the World Bank, during the interim period while school safety is being assessed and more is learned about COVID-19 prevention and treatment, the focus should be on temporary measures to increase access and mitigate the negative consequences for out of school children.

"In Germany, after reopening of schools, strict hygiene rules have been put in practice. Students are advised not to touch banisters when taking the stairs, to wash hands frequently and to keep a distance from each other. Disinfectant is to be used in schools regularly. Moreover, there is free COVID-19 testing facility for school teachers".

### Deutsche Welle (DW) Article

The development of effective remote learning strategies to provide learning continuity while schools are closed using multiple education technology solutions (radio, television, mobile phones, digital / online tools, and print) with support to students, teachers and parents are needed. For the same purpose, the Government of Pakistan started a TV channel with different grades and subjects but as all pupils do not have access to TV, the need of the hour is to look for other alternative education technology solutions.

## POLICY RECOMMENDATIONS FOR THE GOVERNMENT OF KP

- Enhance the development or adapt existing educational information platforms to fulfill the need for E-learning.
- Work with telecommunication carriers to enhance their connectivity to areas without internet and waive cellular data and internet usage fees to allow students from low income households to access selected educational apps.
- Coordinated broadcasts of classes via television and radio. Can build upon daily classes already airing on networks such as Pakistan Television (PTV).
- Train teachers with standardised electronic devices to meet the needs of online teaching and equip them to use online platforms for high quality teaching.
- Quick assessment to find appropriate actions to ensure the safe reopening of schools consistent with KP's overall COVID-19 health response. Some possible SOPs include:
  1. Staggered attendance to enable physical distancing in classrooms i.e. break up large classes so that students are attending on alternate days to keep classes to a maximum of 10-15 students depending on the classroom size.
  2. Those schools with a low teacher to student ratio as in the case in many remote areas where a single teacher is instructing multiple grade levels, have the grade alternate days for in-person attendance.
  3. Hold classes outdoors where possible. Provide facemasks and also enforce mask wearing for all students and staff.

<sup>10</sup> For more detailed discussion see NORRAG brief of lessons learned from China.  
<https://www.norrag.org/lessons-learned-from-china-bridging-the-digital-divide-during-covid-19-by-ji-liu/>

- The long-term goal is to build a more equitable and resilient post-COVID education system that enables children to learn continuously both in schools and at homes.

The following table lists actions taken by a group of countries, of similar geographical region and one country from Europe to analyse what other countries have done to keep the learning process going for school children, which can serve as examples of ideas that might be implementable in KP.

Activities	Afghanistan	Austria	Bhutan <sup>11</sup>	China <sup>12</sup>	India
Printing and distributing workbooks to areas with no internet connectivity	✓	✗	✓	✗	✗
Education platforms, e.g. self learning resources, e-learning applications, etc.	✓	✓	✓	✓	✓
Broadcasting video based teaching lessons through television	✓	✓	✓	✓	✓
Broadcasting audio based teaching lessons through radio	✓	✗	✗	✓	✓
Broadcasting videos through websites, portals, social media (Facebook and YouTube)	✓	✓	✓	✓	✗
Videos available via memory cards, compact discs and other storage computer devices	✓	✗	✗	✗	✗
Audio lessons shared and accessed through the medium of mobile phones	✓	✗	✓	✓	✗
Virtual reality that provides a collection of videos (learning material) in 360°	✗	✗	✗	✗	✗
Psychologist counseling services in the wake of the adverse impact of COVID-19 on students	✗	✓	✗	✓	✗
Cyber security measures to protect online presence of the students	✗	✗	✗	✓	✗
Capacity building programmes for teachers to help them learn edtech based teaching methods	✓	✗	✗	✓	✓
Using digital volunteers to teach in a limited environment to improve access to education	✗	✗	✗	✗	✓
Small group learning exercises for education continuity while adhering to the social distancing guidelines	✓	✗	✗	✗	✗
Providing computer tablets to students to familiarise with and benefit from digital learning methodologies	✗	✗	✗	✓	✗
Distance learning through Imams (fewer students per mosque without any extracurricular activities to avoid physical interaction)	✓	✗	✗	✗	✗

<sup>11</sup> <https://www.unicef.org/bhutan/press-releases/unicef-urgent-need-secure-learning-children-across-south-asia>

<sup>12</sup> <https://www.mdpi.com/1911-8074/13/3/55>