Resilience and Inclusion in Education: Bridging the Learning Gap

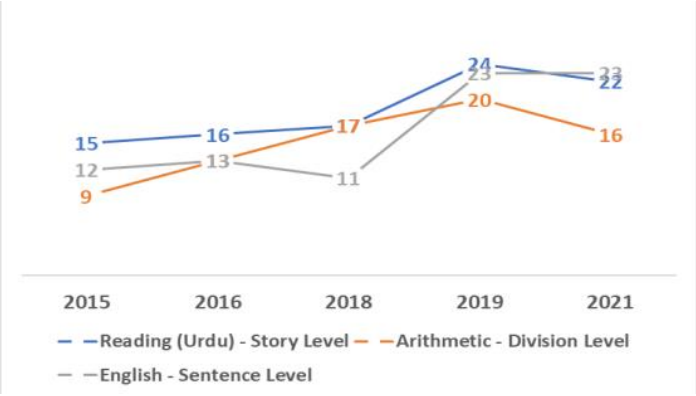
Enrollment rates and learning outcomes for children in Pakistan have remained critically low in comparison to countries with similar development levels. Pakistan the second-highest number of out-of-school children1 with significant disparities on the basis of gender, socio-economic status and geography. Moreover, teacher absenteeism, poor accountability and management, and inefficient funding of schools attribute to poor learning outcomes for a significant number of school-going children. Gross enrolment and literacy rates were somewhat improving as a result of efforts to improve the education system, however, this problem exacerbated after the onset of COVID-19 as sporadic closure of schools and digital divide among students increased learning losses and dropout rates, wiping out years of progress made in this sector.

This policy note borrows from the discussion at a webinar jointly hosted by Consortium for Development Policy Research (CDPR) and the World Bank on 'Resilience and Inclusion in Education: Bridging the Learning Gap', and focuses on the impact of the pandemic on enrolment and learning outcomes for children. It further sheds light on actions that should be taken in order to recover from the learning losses which occurred and what is required to build a resilient and robust education system.

Context

Prior to the pandemic, an estimated of 22.8 million children aged 5-16 were out of school1. The net enrolment rate (NER) was reduced to half as children moved from primary school age to middle school age (66% NER at age 6-10; 38% NER at age 11-13 in year 2018-192). Some of the efforts in revamping the education sector were paying off as gross enrolment rate stood at 95% by 20193 and learning levels were gradually improving before the pandemic. However, the onset of COVID-19 further widened these gaps, bringing prevailing challenges in the education sector in sharper light. Learning levels for class 1 to 5 demonstrated an upward trend from 2015 to 2019, but it slowed down during the pandemic (Figure 1). As a result of closure of schools for months, around 1 million children are expected to drop out of primary and secondary school and an average student will face a loss of 0.3 to 0.8 years of learning-adjusted schooling4.

Figure 1: Learning Levels over the Years (Class 1-5)



Source: "Measuring the Impact of COVID-19 on education in Pakistan" (2021)

75% of children in Pakistan are unable to read and comprehend a simple text by the age of 10, referred to as 'Learning Poverty'. This number is alarmingly high as learning poverty in other low-and-middle

income countries and countries with similar level of economic development is much lower. Moreover, learning poverty is expected to rise up to 79% as a consequence of the pandemic4. This is worrisome as access to formal jobs for these children will be affected. Moreover, the pandemic has worsened regional and gender differences in terms of educational outcomes. Learning outcomes in Balochistan were the lowest even before the pandemic, and post-COVID learning losses are expected to rise due to closure of schools and inadequate access of children to digital devices for remote learning. Similarly, closure of schools will enhance disparity in literacy levels on the basis of gender as girls are more likely to drop out of schools owing to household responsibilities and less likely to join back when schools reopen.

Effect of the Pandemic on Pakistan's Education: Addressing the Three Rs

1) Response:

Pakistan like the rest of the world was under lockdown as COVID-19 struck and was among the first countries in the world to initiate widespread closure of schools. While these efforts were effective in curbing the spread of the virus, it left some unintended consequences behind. 46 million learners aged 5 to 16 were effected by school clousures4. Physical absence in schools meant shifting towards remote learning; however, it posed challenges for all children in terms of accessing continuous education, remaining engaged with learning and having necessary support at home and from teachers.

i. School closures and remote learning:

School closure nationwide became effective on 13 March 2020. Over the next two years, schools were closed for more than 10.5 months, opening intermittently in between. This demanded a shift to online schooling, which came with various challenges. A large fraction of school-going children belong to rural and peri-urban communities, who do not have access to digital devices and internet facilities. According to Pakistan Telecommunication Authority, only one million school-age children have regular access to a digital device and the bandwidth to access educational content and smartphone penetration in the country is only 51%5. This figure further condenses as we move towards women, who are 37% less likely to own a mobile phone as compared to their male counterparts6. Television and internet have been the main channels of delivering remote learning, and their distribution is asymmetric between different income quintiles (Table 1)4. In Punjab, only 30% of households were aware of remote learning opportunities, and only 1 out of these 3 families knew how to actually use these learning facilities4. Hence, it was particularly difficult for these children to learn while being out of school. Moreover, teachers were also not trained to manage distance learning and were ill-equipped to provide necessary support to children as they themselves had limited access to such resources.

Table 1: Asset Ownership in Pakistan

	Percentage of households that have asset					
	Across all groups	Poorest 20	20–40	40–60	60–80	Richest 20
Any remote learning technology	63%	15%	45%	74%	90%	98%
Television	62%	15%	45%	73%	88%	96%
Computer	15%	s0%	3%	7%	15%	56%
Internet	12%	0%	0%	2%	9%	50%
Radio	8%	7%	10%	8%	6%	8%
Internet and Computer	8%	0%	0%	1%	4%	40%

Source: DHS 2017/18

Source: "Learning Losses in Pakistan due to COVID-19 School Closures: A Technical Note on Simulation Results" (2020)

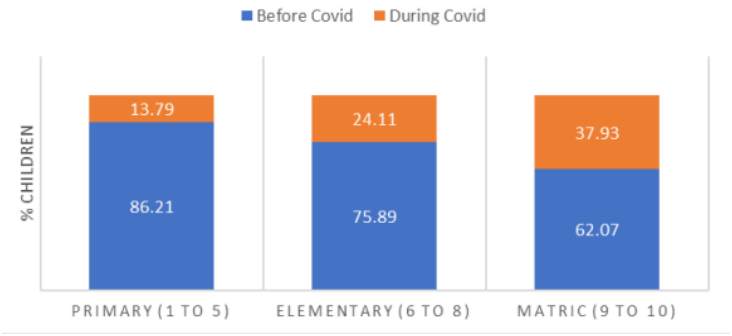
ii. Translating access to technology into academic learning:

Inadequate access of children to remote learning has been one part of the problem, but keeping students who had access to remote learning continuously engaged with the learning material was another challenge. About 60% of children enrolled in schools spent less than an hour a day studying during school closures7. Devices have to be shared among siblings in a family in order for them to participate in remote learning, and younger children receive less time to access these as compared to older children7. Moreover, students cited low motivation levels as another reason that prevented them from spending time on studying during school closures8. Lastly, distractions in households, such as chores, also prevented children from engaging effectively with academic learning.

iii. Reenrollment after opening of schools:

Compared to the rest of the world, Pakistan is likely to experience the highest dropouts in relative terms as a result of the pandemic4. In a survey conducted by Gallup, by June 2021, reenrollment in schools in Punjab was visibly lower for both genders and all age groups (dropout rates among adolescent boys was the highest). By autumn of 2021, school systems in Punjab lost 8% of adolescent girls and 21% of adolescent boys. Dropout rate was low when schools opened for the first time but increased as schools closed and opened repeatedly. Moreover, students were twice as likely to drop out if they were not learning. Dropout rate among children increased as their level of education increased, hence it was highest at secondary level (Figure 2). In this case, gender disparity was mainly driven by boys as they were expected to get jobs at the expense of their education to support their families. However, dropout rates among girls were also high as they were expected to take responsibility of household chores and their education was considered as an unnecessary expenditure.

Figure 2: Dropouts by Education Level and Time of Dropout



Source: "Measuring the Impact of COVID-19 on education in Pakistan" (2021)

To address these challenges, multiple initiatives were taken by the federal and provincial governments as well as private institutions to mitigate learning losses.

i. Teleschool Programme:

On 1 April 2020, the government of Punjab rolled out 'Taleem Ghar', which was immediately followed by the federal government launching the TV program 'Teleschool' across Pakistan. It was aired on state-owned broadcasting network, Pakistan Television Corporation (PTV), from 8am to 6pm, providing one hour of instruction for each age group3. Over 300 companies, organizations and people donated content for these videos, which were also made available on program websites, YouTube channels and mobile apps. Teaser videos, announcements via local mosques, social media and newspaper advertising were used to spread awareness about Teleschool9. During the first two months, nearly 1 in every 3 children ranging five to fifteen years of age accessed Teleschool lessons, with estimated weekly viewership of six million. Telecasts in sign language were also recorded for deaf children. Taleem Ghar mobile app was downloaded more than 80,000 times, its TV lessons broadcasted across more than 95 percent of cable TV operators across Punjab, and its website accessed more than one million times9. In November 2020, Radio school was introduced to cater to children who had only access to radios. Moreover, provincial governments collaborated with different online learning platforms in order to devise online courses for students.

ii. Text message nudges:

Mr Koen Geven in the webinar highlighted the work several agencies and institutions jointly carried out in Punjab in order to analyze the consequences of school closures. As a part of communications campaign, text messages were sent to parents which contained learning content, facts about returns to schooling, suggestions about what parents could do at home to support remote learning, talking points regarding counselling of their children, voice messages by celebrities and tutoring support. This measure was taken in order to establish communication with parents regarding their children's schooling and encourage them to retain their children in schools. This intervention led to a strong and positive effect on learning outcomes in both Urdu and mathematics, a small increase in parents' expectations for grade completion, and a very small increase in time spent on remote learning (however, this fades out towards the end of the survey). It demonstrates that keeping parents engaged with their children's schooling will help children to remain in school and engage with remote learning more effectively.

iii. Printed packs and textbooks:

In an effort to keep students connected with the process of learning, especially those who did not have access to digital devices, printed packs and textbooks were distributed by schools. These often included course content, self-led activities, DIY columns, stories, homework etc.

iv. Community-based learning:

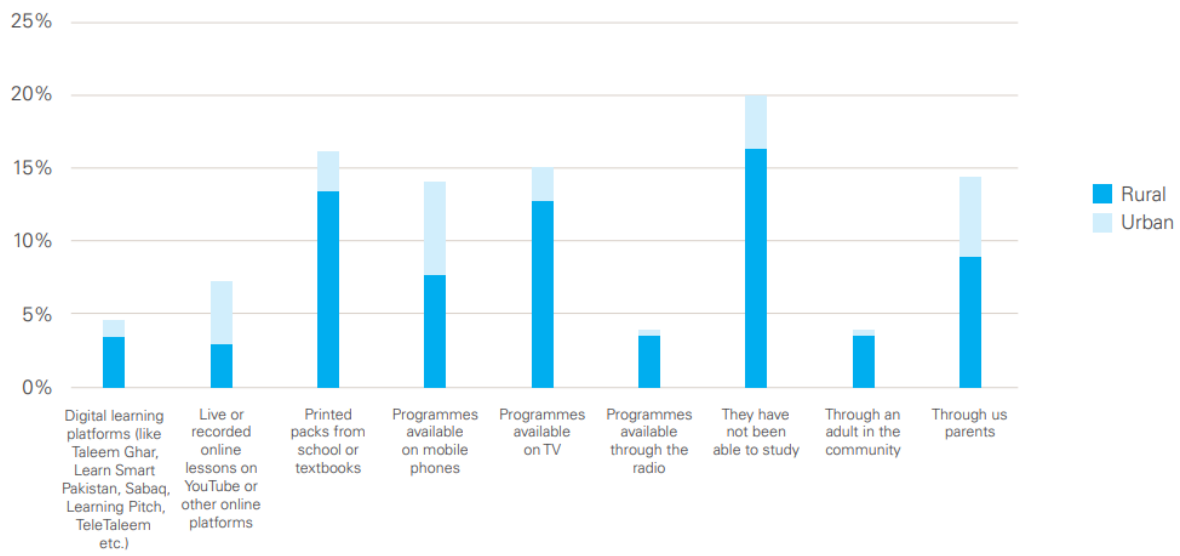
In some areas, females in neighborhoods gathered children and formed learning circles. As community connections in these areas are strong, it helped keep children engaged with learning.

v. Feedback from children:

After rolling out these initiatives, it was crucial to gather feedback from children and incorporate it in future policies. In KPK, worksheets were developed and distributed among children where they could share their concerns and problems. The private sector utilized their own methods. In The Citizen's Foundation (TCF) schools, children could respond via SMS and letters. They also kept mental health check on their students. Moreover, some teachers used phone calls and SMS to contact their students or their parents.

These emergency response measures included multiple strategies so that children could benefit from at least one of them. Children learned through different ways during school closures: in urban areas, students were able to access digital resources, whereas children in rural areas and peri-urban areas made use of television, radios, printed packs and community based learning (Figure 3).

Figure 3: How did Children Learn while Schools were closed



Source: "Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia" (2021)

2) Recovery:

Earlier examples from Pakistan show that school closures can lead to repercussions which impact children throughout their lives. In spite of remediation efforts, an entire cohort of students aged 3 to 15 at the time of earthquake in 2005 in Pakistan had lower academic scores four years later as compared to their

peers10. Learning losses as a result of COVID-19 are considerably more. Furthermore, post-COVID, poverty levels are also expected to rise, which leaves families with a tradeoff between educating their children and employing them elsewhere to help earn their daily bread. Aforementioned initiatives might have helped to keep children engaged with learning, but they are not enough to mitigate learning losses. Hence, constructive policies should be devised which specifically target solutions to not only minimize these learning losses but compensate for them as well.

i) Targeted instruction:

As students have returned to school, it is important to take into account remedial measures to make up for learning losses. Schools should not rashly follow previous curriculums. They should instead shift their focus to first understand the learning levels at which students stand and tailor the curriculum accordingly. Simple assessments can be conducted to gauge the learning levels of students. This will allow them to be grouped according to their ability and for the curriculum to be adapted for each group. Children should be engaged with tailored curriculum for at least some part of the day (for instance, classrooms can be rearranged for an hour each day where teachers teach children according to their ability and not their grade). This adapted curriculum can include learning exercises and materials, reinforcement of curriculum and play-based learning for primary school students.

Studies conducted in different countries also show that teaching students according to their learning level rather than their grade or age improves learning outcomes, especially literacy and numeracy for primary school children. Banerjee et al. used Pratham's "Teaching at the Right Level" methodology in elementary schools in India and demonstrated it to be effective to raise children's learning levels when properly implemented13. Duflo et al. gauge similar results in Ghana after assistants were provided to schools for working with remedial learners and teaching grade-level content14. Gallego et al. used problem-based learning approach to tailor instructions for math for preschoolers in Peru and the results exhibit improvement in math outcomes, which persist in some areas even one year after the program ended15.

The private sector has also initiated its own programs to make up for learning losses. One example is of TCF schools who introduced the program "Aghaaz" after reopening, in which first 8 weeks of the academic year were dedicated to class remediation programs. Individual child diagnostics were conducted after which teachers placed them in different groups and structured the study pack for them accordingly. Furthermore, afterschool activities were carried out for students who required attention despite remedial measures. Towards the end of the day, students would engage in a circle activity where they would reflect and share their apprehensions, creating a safe space for them enhance their social skills.

ii) Pedagogical support for teachers:

It is essential to provide teachers with adequate training and support to help them implement relevant measures for curriculum adaptation. Furthermore, schools which can deploy technology in classrooms should also provide teachers with blended training so that they can leverage technology to complement their teaching. The government of KPK plans to allot school leaders to different schools who would observe students and teachers in classroom and determine whether teaching methods are proving to be effective or not, ultimately providing feedback to be incorporated.

iii) Continue to engage parents:

It has been demonstrated that engaging parents in their children's schooling positively effects learning outcomes for them. It is crucial to keep parents in the loop and frequently communicate to them the importance of schooling so that they keep their children enrolled. This would also unveil the obstacles they face in sending their children to school, allowing use of appropriate measures to help them. For instance, TCF provided families who faced financial hardships with food, books, uniform etc. in order to retain students in school. Moreover, parents should also be provided with counselling regarding early marriages for girls and how schooling can increase economic opportunities for them to reduce dropouts.

iv) Digital development:

One major lesson Pakistan learned during the pandemic is how dependent the world has become on technology and how much we are lagging behind. Learning losses due to school closures are immense, however, the digital divide among students has distributed these losses unequally, with the poor being disproportionately affected. Therefore, it is crucial to digitalize the education system and simultaneously equip children with skills to use it. Low-tech solutions using existing infrastructure should be utilized first. The federal and provincial governments plan to provide schools and students with tablets and devices and is negotiating with companies to provide low-cost internet services3. Government of Pakistan launched 'Digital Pakistan' back in 2018, which aims to bolster IT industry, increase digital investment, improve connectivity and digital infrastructure and promote innovation11. It is imperative to align this agenda with COVID-19 response action in order to not only achieve short-term goal of mitigating learning losses, but long-term goal to digitalize education system in Pakistan as well.

3) Resilience:

Although the pandemic shook even the most robust education systems around the globe, Pakistan had to bear severe consequences due to an already fragile educational environment. Stakeholders were quick to realize the gravity of the situation and launched multiple initiatives to make remote learning accessible to children. However, the chapter of COVID-19 has not concluded yet, and it has become essential to address the gaps present in the education sector so that it can become resilient against any shocks or crises in the future.

i) The government needs to incorporate effective distance learning strategies in their plans. They should also have contingency plans for remote learning ready for any unforeseen scenarios in the future so that learning among children is not as severely compromised.

ii) 64% of the population constitutes people under 3012. Therefore, it has become vital to not only provide them with educational opportunities but also equip them with digital skills so that they are able to effectively compete in the job market. Digital development is also crucial to strengthen remote learning systems. Therefore, 'Digital Pakistan' agenda should be launched on a larger scale to address the digital divide. Both federal and provincial governments should invest in digital infrastructure and introduce digital training programs.

iii) Similarly, it is also important to provide teachers with professional development and blended training so that they are able to manage learning and support children in case of any future shocks. Current curriculum needs to be revised in order to cater for blended and resilient learning.

iv) Strong investment needs to be done in curriculum and teacher development strategy as learning levels even before the pandemic were low, indicating an unaddressed gap.

v) A strong monitoring system to needs to be set up to track the progress of all relevant interventions and incorporate feedback alongside.

vi) There are 1 million deaf children in Pakistan and only 5% of them attended school pre-pandemic3. The pandemic has expected to reduce this number even further. COVID-19 widened the already existing divide among children, particularly challenging children with disabilities, children speaking different languages or other minority or marginalized groups3. This demonstrates that much more tailored responses are needed to adequately engage all children with learning.

vii) The pandemic illustrated that the government and private sector can work together to devise relevant strategies in an effective manner. The government and private Education Technology (EdTech) sector quickly combined their efforts and collaborated to work towards the federal Teleschool initiative. Over 300 people and organizations donated their content. Private sector providers who developed digital programmes under the FCDO-funded ILM ideas programme offered their digital platforms and programmes to the government for free3. Therefore, the private sector should be engaged in identifying gaps and opportunities and be involved in enhancing capacity.

viii) SOPs in COVID-19 response plan should include improving WASH facilities and infrastructure of school so that children who are reenrolled can take care of their hygiene and prevent the transmission of diseases (currently, the corona virus itself).

ix) Data gaps need to be addressed in order to systematically collect information regarding learning outcomes, attendance and dropout rates in order to use them to monitor and analyze the impact COVID-19 on the education sector. Efficient data collection is also essential for future research, as lessons from the pandemic can be quantified and studied in a bigger context.

Conclusion:

Pakistan was already facing an education crisis before the pandemic as learning outcomes for children were low. However, the onset of the pandemic adversely impacted the progress made over the years, and Pakistan now needs to be more vigilant as it needs to address learning losses and the increased number of out of school children. Both public and private stakeholders have introduced initiatives using methods for remote learning, despite limited resources, to keep children engaged with academics. Yet, more is required to compensate for the learning losses incurred. Therefore, it is imperative to develop both short-term and long-term policy initiatives so that gap in the education system which existed and widened due to the pandemic can be filled.

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