Azim Premji University

Issues in Education

Volume 11

The Pandemic and School Education

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The Pandemic and School Education

Issues in Education | Volume II

The Pandemic and School Education

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Foreword

1. Why a Series on Issues in Education?

Education is fundamental to every society in many ways. It is the most organised process for economic, social, and cultural development. It is also the systematic effort of a society to progress towards its ideals; in the case of India – to bring to life the vision and values of our Constitution. And for a democratic society, a vibrant public education system is foundational.

This Series on Issues in Education aims to bring into focus educational matters that are important for the improvement of the education system in India. These are all fundamental issues that need to be addressed on priority. The Series will attempt to connect to the reality of education on the ground, which is often complex and defies any kind of clear narrative and definitive conclusions. The Series was launched in 2021 and the first volume addressed issues on Teachers and Teacher Education.

Azim Premji Foundation's deep presence in 55 disadvantaged districts in the country, our work with school systems in over 15 States and with the Government of India, our two decades of experience in working directly and continuously with over a million public schools, teachers and education leaders has enabled this Series.

The second volume in this Series is on The Pandemic and School Education.

2. About this Volume

The COVID-19 pandemic was an unprecedented situation, which resulted in prolonged school closure in India and across the world. Schools were fully or partially closed in India for over two years, among the longest periods in any country. Governments responded as best as they could, primarily through enabling education using technology. However, given the nature of digital divide in the country and the lack of readiness of teachers, these efforts were suboptimal at best. Further, while face-to-face learning was not possible, some efforts at teacher-driven community-based learning were made. However well-meaning, these efforts could not prevent the loss of curricular learning for the period schools were closed as well as the loss of learning or forgetting what had been learnt before schools were closed.

At the same time, the efforts of teachers during these difficult times must be noted. Despite these severe unprecedented challenges during the pandemic, it was the concerted effort of motivated teachers that provided rays of hope. As frontline professionals who are best positioned to understand, empathise, and devise innovative and consistent approaches to the challenges faced by the children who come to their schools, many teachers across the country showed how the

seemingly insurmountable problems of the pandemic could also be addressed. Like other frontline workers across government departments, many teachers across the country ignored the 'fear' of the pandemic and took it as their professional calling to devise ways and means to stay connected with the children from their schools and communities, offering whatever they could do to help children stay connected with schools and learning processes even during multiple adversities they were facing.

This volume brings together a series of studies done during the pandemic. It is an attempt to document and highlight the unique challenges of the situation, as well as efforts to overcome these challenges.

3. Studies in this Volume

In this volume, we look at the challenges that the public school education system faced during the pandemic and the ways in which committed teachers within the same system mustered resources and their professional dedication to underline how it is only through such teachers that the public school education system can become the mainstay for the future of millions of underprivileged children in this country.

Paper 1: Myths of Online Education

Published in September 2020

The first paper in this volume discusses the inefficacy of online learning for elementary school students. The paper exposes the 'myths of online education' and endorses findings that show such technology-led solutions to be suboptimal, pedagogically unsound, and inadequate substitutes of face-to-face interactions for education among disadvantaged populations. Moreover, the inadequacy of technology-led solutions for early years of schooling, which require much more intimate in-person presence of teachers as facilitators of the teaching-learning process, is also emphasised.

Paper 2: Loss of Learning during the Pandemic

Published in February 2021

The second paper is a seminal empirical study that reveals the extent and nature of the 'forgetting/regression' kind of learning loss (i.e., what was learnt earlier but has now been lost) among children in public schools across primary classes because of school closure during the pandemic. The study reveals that the extent and nature of learning loss during the pandemic was serious enough to warrant action at all levels. Most importantly, it highlights the need to allow teachers and the school system enough time to compensate for the significant learning loss in foundational abilities in language and mathematics and, by extension, in other subject areas, instead of moving children into the syllabus for the next classes in a business-as-usual approach.

Paper 3: Open Schools, Focus on Recovering Lost Learning: Clear Voice of Teachers

Published in August 2021

The third study shows that teachers were also deeply concerned about the loss of learning due to prolonged school closure (at this time, schools across the country had been closed for more than 300 working days). They recognised the futility of online learning and, therefore, the urgency of getting children back to learning in schools and classrooms, with due safety protocols in place.

Paper 4: Learnings from Azim Premji Schools during COVID-19

Published in October 2021

The fourth paper focuses inwards and examines the experiences of teachers of Azim Premji School in Tonk, Rajasthan. This study, dealing with a school that is similar to public schools in terms of context and the population group it caters to, shows how alternative strategies to online learning were devised and implemented successfully by the school. These efforts ensured continuity of engagement and learning for children of the school.

Paper 5: Teacher Efforts to Support Learning Recovery after School Reopening

Published in June 2022

The fifth and final paper reports on how committed teachers have tried to work systematically on recovery of learning loss among their children after schools reopened post-pandemic. The paper shows that teachers working within the system, and within similar constraints and challenges as other teachers, can and are able to re-orient their existing good practices at different levels – curricular changes, content selection, continuous formative assessments – to effect a more consistent recovery of learning loss among their children. The study underscores the need of a systemic multipronged, long-term effort, with a focus on teacher capacity and support for addressing the serious learning loss that has taken place across the school system.

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Abbreviations

ECCE	Early Childhood Care and Education
FLN	Foundational Literacy and Numeracy
ICT	Information and Communication Technology
MDM	Mid-Day Meal
MGML	Multi-grade Multi-level
OECD	Organisation for Economic Cooperation and Development
TLMs	Teaching-Learning Materials
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund

Paper 1

Myths of Online Education

Research Group, Azim Premji Foundation

Executive Summary

The COVID-19 pandemic has led to disruptions in all walks of life. Schools, colleges, and all other academic institutions have been forced to look for alternatives to ensure continuity in learning. In the past six months, across the world, various digital or ICT-based learning options have been explored. Most of these options have proved to be suboptimal, pedagogically unsound and inadequate substitutes of face-to-face interactions. For school-going children, these have been particularly ineffective due to the deeply intimate nature of learning that is needed in the formative years of schooling. Not only that, the lack of access to devices and infrastructure has led to several children being left out from the process of learning. Emerging evidence also reveals that the endorsement of online learning solutions is often closely tied to the influence of market-based solutions, commercialisation of education, and a lack of belief and investment in the professional capacity of teachers.

With this backdrop, the Field Research Group at the Azim Premji Foundation undertook a study covering **1,522 teachers (in 1,522 schools) and 398 parents in the public school system across 26 districts in five states.**[1] These schools have more than 80,000 children from the most disadvantaged geographies across India. The objective of the study was to understand the challenges experienced by children and teachers in the implementation of online learning solutions within the public school system. The survey tools for teachers and parents were implemented primarily through telephonic discussions and were supplemented with a few open-ended questions for the teachers.

The survey of teachers and parents reveals the ineffectiveness of online learning solutions in providing meaningful learning opportunities, exclusion of majority of children due to poor access, and the professional frustration of teachers (see, Box 1). This resonates with the findings from a recent rapid survey report that underscores the exclusion of over 80% students in public schools due to dependence on technology and 'the complete lack of capacity building/support by state governments to deliver education digitally' (Vyas 2020). Our study also reveals that *contrary to popular belief, most parents are eager to send their children to schools with necessary health safeguards and do not think that health of their children would be affected in such an event.*

1 Chhattisgarh, Madhya Pradesh, and Rajasthan are the states that have been implementing different forms of online teaching in public schools, while Karnataka and Uttarakhand have not implemented any state-level initiatives for online teaching. The categories 'implementing states' and 'non-implementing states' have been used for these two sets of states.

Box 1: Key Findings

Finding 1: Online learning opportunities are ineffective in providing any actual education. *Responses of an overwhelming majority of the teachers show the complete inadequacy of delivering meaningful education through the online mode.*

1.1 *More than 80% teachers expressed the impossibility of maintaining an emotional connect with children in this mode.*

1.2 *More than 90% teachers responded that no meaningful assessment of children's learning was possible in online classes.*

1.3 *Almost 50% teachers reported that children were unable to complete assignments shared during online classes, which in turn led to serious gaps in learning.*

1.4 *The data collected on, both, the frequency and the duration of online classes suggests inadequate time spent with children for their learning.*

1.5 *Parents have, likewise, echoed their own dissatisfaction with 70% being of the opinion that online classes are not effective for the learning of their children.*

Finding 2: Almost 60% children cannot access online learning opportunities.

Reasons for this varied from absence of a smartphone to multiple siblings sharing a smartphone and difficulty in using the Apps for online learning. The issue of access is further exacerbated for children with disabilities. Among teachers of children with disabilities in their regular classes, more than 90% found them unable to participate in online classes.

Finding 3: The study also aimed to understand parents' attitude and concerns towards interrupted learning caused due to the pandemic. Parents have overwhelmingly supported the reopening of schools with the necessary safety protocols.

Almost 90% of the parents were willing to send their children to school with necessary health safeguards. Close to 65% were of the opinion that schools, when they reopen, would not pose a problem for their children's health.

The open-ended questions that were implemented with a sample of teachers reinforced the quantitative findings from the survey. The analysis of these questions clearly underlines the professional frustration of the teachers with online modes of teaching. The responses of teachers also reveal the initiatives were being taken by them to find alternative, meaningful ways to engage with their children as the regular public school system continued to remain closed and inaccessible for a vast majority of the country's school-going child population.

The inadequacy of the digital modes adopted by some of the states has also led states lead the state education departments of backtrack on the online options, adopting more direct teaching-learning processes, with teachers visiting the families and school children, for example, *Padhai Tuhar Para* (education in your neighbourhood) scheme in Chhattisgarh; *Hamara Ghar - Hamara Vidyalaya* (our home - our school) in Madhya Pradesh and; *Vidyagama* in Karnataka.

Overall, the study is in alignment with other recent studies that have underscored the fallacy of resorting to online learning solutions for school-going children, especially in disadvantaged contexts. The study thus, endorses the urgent need to reopen schools in a phased manner with due preparations for the health and well-being of both children and teachers, while at the same time encouraging and facilitating teachers to pursue more community-based solutions for direct interactions with children in the interim period.

1. Introduction

The COVID-19 pandemic and the ensuing closure of school systems has led to a heightened interest in online learning alternatives for the mainstream school system. A number of recent studies and reports, both globally (E.g., Vegas 2020; UNICEF 2020) and in the Indian context[2] have, however, underlined how digital, online learning solutions are a pipedream in contexts that lack adequate digital infrastructure and access (especially for underprivileged groups), and as far as teacher preparedness is concerned. There is also enough evidence to show that digital solutions should not be regarded as a replacement for regular teaching (Mukunda 2019, pp. 301-355). In addition, the turn towards digital and ICT-based online learning models can be seen to be enmeshed in commercial interests and a preference for market-based solutions.

In this context, the objective of the current study was to understand the difficulties faced by public school children and teachers when confronted with online learning solutions that a number of state education departments had hurriedly adopted since April 2020. The study primarily used survey tools that were implemented through telephonic discussions with teachers and parents across a large number of public schools in five states (Table 1). Three of these five states – Chhattisgarh, Madhya Pradesh, and Rajasthan – have been implementing different forms of online teaching in public schools over the past few months, while Karnataka and Uttarakhand have not implemented any state-level initiatives for online teaching[3].

Table 1: Teachers and parents surveyed

States	No. of districts	Teachers Survey	Parents Survey
Implementing states: Chhattisgarh; Madhya Pradesh; Rajasthan	12	634	179
Non-implementing states: Karnataka; Uttarakhand	14	888	219
Total	26	1522	398

2 For example, see 'Status Report- Government and Private Schools During COVID-19' by Oxfam, India; 'Are schools in Karnataka ready for a post-COVID 19 world?' by the NGO, Dream a Dream and; 'Scenario Amidst Covid-19: On-ground Situations and Possible Solutions' by the NGO, Smile Foundation.

3 For example, see 'Online Education in India: 2021', a study by KPMG and Google in May 2017; URL: https://assets.kpmg.com/content/dam/kpmg/in/pdf/2017/05/Online-Education-in-India-2021.pdf

Also see, https://www.india-briefing.com/news/investing-indias-education-market-after-covid-19-new-growth-drivers-20330.html/.

A number of critical concerns related to online learning models emerge from the study. These include poor digital access for children and families, minimalist and inadequate teaching-learning processes, and insufficient knowledge of digital platforms or their use among teachers, compounded by the lack of training and support.

Possibly, state education departments have also realised the folly of their initial misadventures with online teaching-learning models as they have now started shifting to more direct interactions with public school children through teacher visits and community-based classes. This, along with the findings of the study that show the willingness of parents to send their children to schools under proper norms of safety and health, clearly indicate the need to open public schools as early as possible.

The study, in general, highlights the compounded nature of challenges associated with and the fundamental ineffectiveness of online learning solutions in the public school system. The findings from the study endorse the more recent initiatives by the state education departments to encourage and facilitate teachers in reaching children directly through conventional modes that encourage active teacher-student interaction in physical settings. It simultaneously suggests that a phased reopening of schools, with due provisions for the health and well-being of both children and teachers, should be the most immediate step to bring children in public schools back on the road to learning.

2. Findings

2.1 Most children cannot access online learning opportunities

Teachers in the implementing states reported that, out of 30,511 children who attended regular classes, only 11,474 were actually attending online classes. On an average, 42 percent of children were attending online classes across the schools surveyed. This means that around 60 percent of children cannot access online learning opportunities.

Out of 110 teachers in implementing states who had children with disabilities in their regular classes, only 87% confirmed that these children were attending online classes.

In the Teachers Survey, teachers were asked how many of their regular students had easy access to smartphones for attending online classes. Table 2 shows that, on an average, 31 percent children had easy access to smartphones for online classes. Similarly, data from the Parents Survey shows that, overall, though around 87 percent of the parents have smartphones, proportion of parents who have more than one smartphone is only 22 percent. This has implications for access, as was evident from the discussions with teachers that shows that most of the parents needed to carry their smartphones to work and these devices were not available for the children to use at home.

Table 2: Access of parents and children to smartphones

	Implementing states	Non-implementing states	Total
Teachers Survey *Children in regular classes*	30,511	49,577	80,088
Children for whom smartphone easily available for online classes	8,650	13,595	22,245
Average no. of children for whom smartphone easily available for online classes (%)	32	29	31
Parents Survey *Parents have smartphone (%)*	91	85	87
Parents have more than one smartphone (%)	20	24	22

The responses of the teachers in the implementing states to the open-ended questions around the issue of access reveal the same concerns as the survey (Box 2).

Box 2: Response of teachers on the issue of access to online classes

'In a 45-minute class, half the time goes in saying "hello-hello" as the network is bad and girls cannot hear properly and keep saying, "Madam, theek se sunai nahi de raha hai" (madam, we cannot hear properly). It is very difficult to teach even with these four girls; I do not know how it would be if all the students connected to the class.' ***(Teacher, Raipur, Chhattisgarh)***

'Attendance is a very big issue. It is quite unusual for us to conduct classes with 2-3 children. Out of 14 children, only 4 have been able to join the class. Network issues also affect the classes.' ***(Teacher, Dhamtari, Chhattisgarh)***

'Only 20% parents have smartphones. Majority of them are labourers. It is difficult for children to access the content as parents go for work in the morning and come back in the evening. Half of them [who have smartphones] do not give phone to children as they think it is not good for children and can hamper values. The connectivity is very poor; I had to come outside of school to talk to you. Most of the families are economically weak and are not able to afford smartphones.' ***(Teacher, Tonk, Rajasthan)***

2.2 Online learning opportunities are ineffective in providing any actual education

Teachers in both the implementing and non-implementing states shared their concerns about maintaining the emotional connect with children during the online classes (Table 3). While 84 percent teachers in the implementing states said it was difficult or impossible to maintain an emotional connect with children during online classes, 89 percent teachers in non-implementing states shared the same concern in the eventuality of online classes in their states.

Table 3: Emotional connect with children during online classes

	Implementing states		Non-implementing states		Total	
	Number	%	Number	%	Number	%
Easy to maintain emotional connect with children	102	16	102	11	204	13
Difficult or impossible to maintain emotional connect with children	532	84	786	89	1318	13

Similar concerns are seen in the responses of teachers in the implementing states to the open-ended questions around the issue of online teaching learning (Box 3).

Box 3: Responses of teachers on the issue of effectiveness of online teaching-learning

'It is mostly one-way communication; we make PPTs and share pictures and videos. But it is difficult to know how much children can follow. It also feels bad that majority of the students are not able to participate in the class. We do not know what will happen to those children. We also share some readings on WhatsApp and some homework which some children do and send back. Now textbooks are also not available with most children; only some have taken textbooks from their siblings or neighbours.' ***(Teacher, Raipur, Chhattisgarh)***

'I am sending material related to maths. In maths, watching a video on any concept is fine, but this subject requires exercises. Children are watching the videos but not doing any exercises. For practice and exercise, there should be someone with them.' ***(Teacher, Tonk, Rajasthan)***

'Every child is different. If I have three children who have three different interests, then I motivate them according to their interest. We have to teach through activities. How can I do it on phone? Language used in the videos and the language a teacher uses is very different. They [the children and parents] cannot understand such language. We get the content from the centre [state office] and then, we have to send it to the children. We do not create material for our children. How can somebody sitting far away make content for my children? It [the online material] is very different from my children's context.' ***(Teacher, Barmer, Rajasthan)***

90 percent of the teachers (base=634) in the implementing states responded that they were not able to do any meaningful assessment of children's learning during the online classes. Even out of the remaining 10 percent, half of them maintained that it was very difficult to do any meaningful assessment.

Teachers were asked whether assignments were given to the children during the online classes. In the implementing states, around 17 percent of the teachers (base=548) had not given any assignments. From among the teachers who had given assignments (base=456), 44 percent reported that children were not able to complete those.

The Parents Survey revealed concerns that could possibly explain some of the above observations by the teachers. 36 percent of the parents (base=124) in the implementing states shared that their children were not able to use the Apps for online classes on their own.

Parents were also asked about the suitability of online classes for their children. In the implementing states, around 70 percent parents expressed that they did not find online classes suitable for their children and in the non-implementing states, more than 50 percent of parents shared that they felt that online classes would not be suitable for their children (Table 4).

Table 4: Suitability of online classes

	Implementing states		Non-implementing states		Total	
	Number	%	Number	%	Number	%
Online classes suitable for children	42	31	78	46	120	39
Online classes not suitable for children	93	69	93	54	186	61

2.3 Teachers are ill-prepared for online learning platforms

Online learning platforms and modes of online teaching are not a regular feature of the public school system, or for that matter, the school system at large, in India. More than half the teachers (overall, 54%), shared that their knowledge and user-experience of such platforms and modes of teaching were inadequate (Table 5).

Table 5: Teachers' knowledge of online teaching-learning platforms

	Implementing states		Non-implementing states		Total	
	Number	%	Number	%	Number	%
Inadequate knowledge of online learning platforms	334	53	493	56	827	54
Adequate knowledge of online learning platforms	300	47	395	44	695	46

2.4 Processes of online teaching

The Teachers Survey revealed the minimalist nature of engagement in online classes. Only around 50 percent of the teachers were found to engage with children daily, while the rest engaged with online classes at a much lesser frequency (Table 6).

Table 6: Frequency of online classes

	Teachers (%)	Parents (%)
Daily	49	49
Alternate days	17	17
Twice a week	14	6
Once a week	12	0
Once every fortnight	2	4
No fixed frequency	7	25

Also, the Teachers Survey shows that around 75 percent of the teachers spent, on an average, less than an hour per day on online classes for any grade (Table 7). Responses of both teachers and parents suggest that, on an average, in at least 80 percent of the instances, only an hour or less per day is spent by the teachers per grade on online classes.

Table 7: Average teaching time spent per grade on online classes

	Teachers (%)	Parents (%)
Less than one hour a day	74	20
One hour a day	24	64
More than one hour a day	2	16

In some implementing states, a significant proportion of the teachers (24%) responded that they did not share any teaching-learning materials for the online classes while another 24 percent teachers responded that such material was shared during the class. Consequently, for most online classes, children did not have access to online teaching-learning materials prior to the class.

In the implementing states, the main mode for sharing online materials was found to be WhatsApp with 71 percent teachers using this mode. Around 14 percent of teachers also used other Apps, such as MS Teams, Zoom and WebEx.

2.5 *Parents are willing to send their children to school when schools reopen*

In the Parents Survey, we asked whether parents were willing to send their children to school when schools reopen with necessary safety precautions. Contrary to popular perception, a majority of parents (90% overall) were willing to do so (Table 8).

Table 8: Parents willing to send children to school when schools reopen

	Implementing states		Non-implementing states		Total	
	Number	%	Number	%	Number	%
No	2	1	30	18	32	10
Yes	133	99	141	82	274	90

Reinforcing the above opinion, overall 66 percent parents also shared that they did not think schools would be a cause of any problem for their children's health after they reopen (Table 9).

Table 9: Parents' opinion about safety of schools when they reopen

	Implementing states		Non-implementing states		Total	
	Number	%	Number	%	Number	%
No	44	38	42	30	86	34
Yes	71	62	98	70	169	66

3. Conclusion

Studies in the context of the COVID-19 pandemic, both in India and globally, have emphasised the sharpening of inequalities that could result from the indiscriminate adoption of ICT in school education to address the current challenges. It is hardly surprising that in a context of existing inequalities of access in terms of provisioning for basic school education and the socio-economic differences that underlie such inequalities, online teaching-learning solutions would lead to furthering of such inequalities in school education.

This study, overall, is in alignment with other such recent studies and underscores the severe problems that online learning solutions generate for the public school children across states. These are in terms of abysmal access of poor families and children to online learning options, the ineffectiveness of online teaching learning to provide substantive learning opportunities, and inadequate preparedness of teachers for online teaching. The study also makes evident the minimalist nature of the online solutions that had been adopted by some state governments in the early stages of the pandemic. Fortunately, many of these initiatives have since then been rolled back and state education departments have begun to endorse more context-based, direct teaching-learning solutions. This also resonates with the finding of the study that indicates that parents are both dissatisfied with online learning solutions and eager to have their children back in school with necessary safeguards for their health and well-being.

The study, therefore, points to the urgent need to reopen schools in a phased manner with adequate provisions for the health and safety of both children and teachers in the public school system. It also suggests the need to adopt context-based, direct teaching-learning solutions with the physical presence of teachers during the transition period of the reopening of public schools.

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Paper 2

Loss of Learning during the Pandemic

Research Group, Azim Premji Foundation

Executive Summary

School closure due to the COVID-19 pandemic has led to complete disconnect from education for the vast majority of children or inadequate alternatives like community-based classes or poor alternatives in the form of online education, including mobile phone-based learning.

One complete academic year has elapsed in this manner, with almost no or little curricular learning in the current class. But this is only one kind of loss of learning. Equally alarming is the widespread phenomenon of 'forgetting' by students of learning from the previous class – this is regression in their curricular learning. This includes losing foundational abilities such as reading with understanding and performing addition and multiplication, which they had learnt earlier and become proficient in, and which are the basis of further learning. These foundational abilities are such that their absence will impact not only learning of more complex abilities, but also conceptual understanding across subjects.

Thus, this overall loss of learning–loss (regression or forgetting) of what children had learnt in the previous class, as well as what they did not get an opportunity to learn in the present class – is going to lead to a cumulative loss over the years, impacting not only the academic performance of children in their school years, but also their adult lives. To ensure that this does not happen, multiple strategies must be adopted with rigorous implementation to compensate for this overall loss of learning when schools reopen.

This study, undertaken in January 2021, reveals the extent and nature of the 'forgetting/regression' kind of learning loss (i.e. what was learnt earlier but has now been lost) among children in public schools across primary classes because of school closure during the COVID-19 pandemic. The study covered 16067 children in 1137 public schools in 44 districts across 5 states. It focused on the assessment of four specific abilities each in language and mathematics, across classes 2-6. These four specific abilities for each grade were chosen because these are among the abilities for all subsequent learning – across subjects – and so the loss of any one of these would have very serious consequences on all further learning.

An assessment of the learning levels of children when schools closed as well of their current status were necessary to understand any such regression. The former was best done through teachers who have been deeply engaged with their learners, and thus had a reliable assessment

of children's abilities, when schools closed in March 2020. Therefore, this baseline assessment of children's learning levels, i.e.where they were assessed on specific abilities in language and mathematics when schools closed, was done based on a comprehensive analysis by the relevant teachers, aided by appropriate assessment tools. All abilities associated with the previous class were not assessed; a few abilities critical for further learning were carefully identified and assessed. These are referred to as specific abilities in the document. 'Endline' was the assessment of the same children's proficiency on these very same abilities in January 2021, which was done by administering oral and written tests.

Key Findings

Learning loss in language

- *92% of children on an average have lost at least one specific language ability from the previous year across all classes.*[1]
- *Illustratively, these specific abilities include describing a picture or their experiences orally; reading familiar words; reading with comprehension; and writing simple sentences based on a picture.*
- *92% of children in class 2, 89% in class 3, 90% in class 4, 95% in class 5, and 93% in class 6 have lost at least one specific ability from the previous year.*

Learning loss in mathematics

- *82% of children on an average have lost at least one specific mathematical ability from the previous year across all classes.*[2]
- *Illustratively, these specific abilities include identifying single- and two-digit numbers; performing arithmetic operations; using basic arithmetic operations for solving problems; describing 2D/3D shapes; and reading and drawing inferences from data.*
- *67% of children in class 2, 76% in class 3, 85% in class 4, 89% in class 5, and 89% in class 6 have lost at least one specific ability from the previous year.*

1 This is not the simple average of values for each class, but a weighted average where the average of each class is weighted by the number of children in the sample from each class.

2 As in footnote above.

The extent and nature of learning loss is serious enough to warrant action at all levels. Policy and processes to identify and address this loss are necessary as children return to schools. Supplemental support, whether in the form of bridge courses, extended hours, community-based engagements and appropriate curricular materials, will be needed to help children gain the foundational abilities when they return to school. It follows that teacher capacity to ensure student learning in these unusual circumstances must be in focus, particularly with respect to pedagogy and assessment needed to deal with students at diverse learning levels. And, most importantly, the teachers must be given enough time to compensate for both kinds of learning loss – and we must not rush into promoting children to the next class.

1. Introduction

Studies across the world have clearly indicated that school closures have significant negative impact on learning levels of children, with children from disadvantaged backgrounds being affected more severely.[3] This loss of learning is not simply the curricular learning that children would have acquired if schools remained open. It includes the abilities that children have forgotten due to lack of usage, for example, the ability to read with understanding, the ability to write, and the ability to perform basic mathematical operations like addition and multiplication. This regression further compromises new learning since these abilities are foundational to all further learning. This situation must be juxtaposed with the fact that we are already facing a crisis in learning, particularly with respect to foundational literacy and numeracy.[4]

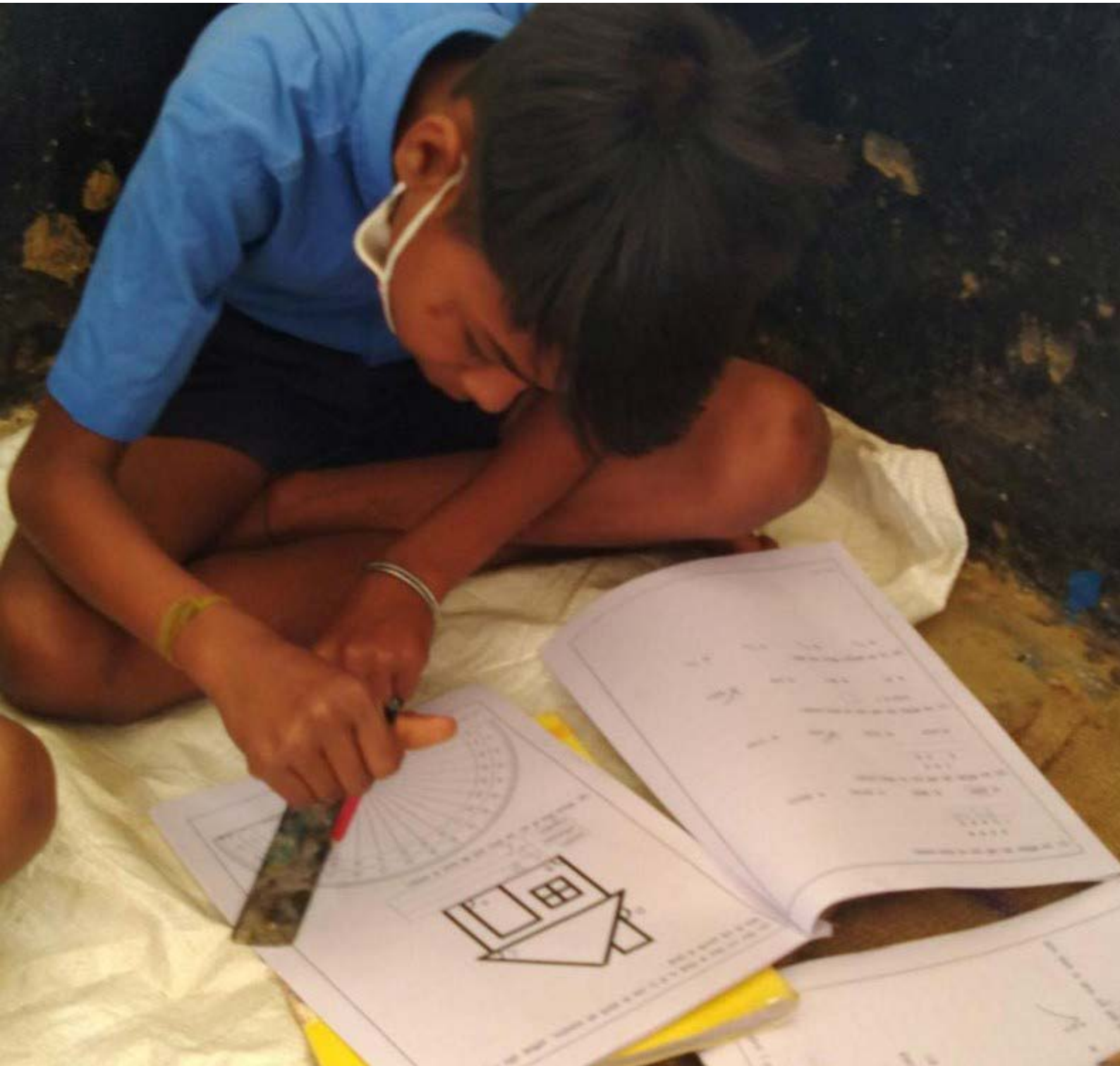
At the time of writing this report, schools have been closed for almost an entire academic year. A child who was in class 1 in March 2020 will move into class 3 in 2021 without having engaged with the curriculum of class 2, except through sporadic online or community-based engagements. Thus, the loss of learning during the pandemic comprises the 'forgetting/regression' of a proportion of abilities children already knew, including the loss of foundational abilities that make it possible for children to take up further learning, and the absence of curricular learning for an entire academic year. Examples of foundational abilities would be the ability to read numbers up to 99 in class 2 that forms the basis of performing more complex mathematical operations in higher classes. Similarly, for children in class 2, the ability to respond to comprehension questions based on a story forms the basis for acquiring higher order abilities related to reading and writing. The absence of any one of these foundational abilities manifests not only in the inability to acquire more complex abilities, but also in a disconnect from learning, peers and schooling, often causing children to drop out of school altogether.

3 The Center for Research on Education Outcomes. (2020). Estimates of Learning Loss in the 2019-2020 School Year. Stanford University. https://credo.stanford.edu/wp-content/uploads/2022/02/press_release_learning_loss.pdf; Kuhfeld, M., Soland, J., Tarasawa, B., Jhonson, A., Ruzek, E., & Liu, J. (2020). Projecting the potential impacts of COVID-19 school closures on academic achievement. Retrieved from Annenberg Institute at Brown University, (EdWorkingPaper: 20-226). https://doi.org/10.26300/cdrv-yw05; World Bank Group. (2020). Simulating the potential impacts of COVID-19 school closures on schooling and learning outcomes: a set of global estimates. https://thedocs.worldbank.org/en/doc/798061592482682799-0090022020/original/covidandeducationJune17r6.pdf

4 MHRD. (2020). National Education Policy 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

The impact of the period of school closure in India has implications for strategies that the public education system and other stakeholders working with this system need to adopt in the coming months. Different school processes, such as defining the academic year, curriculum, pedagogy, teacher training, and assessment, would need to factor in the extent and nature of learning loss that school children have experienced over the period of school closure.

This study, therefore, was undertaken as a field-level empirical study to understand the extent and nature of learning loss among public school children across the primary classes because of school closure during the COVID-19 pandemic. The entire study was conducted in January 2021



2. Methodology of the Study

The study was conducted with 16067 children in 1137 public schools and covered 44 districts across 5 states -- Chhattisgarh, Karnataka, Madhya Pradesh, Rajasthan, and Uttarakhand (see Table 1). Teachers were selected based on prior knowledge of their engagement in school teaching-learning processes and were close collaborators in the field-level assessment of children's learning. Azim Premji Foundation has been consistently working with these very committed and capable teachers over a long period. Only such deeply engaged teachers can have a reliable and consistent understanding of their children's learning levels and progress, and therefore provide an assessment of the learning status of children when schools closed. Consent of all participating teachers was obtained for the study.

Selection of children was based on discussions with teachers and efforts were made to cover children across all primary classes that the teacher had taught in the previous year, both girls and boys. These were children that the concerned teachers were intimately familiar with; hence, they had a very good sense of their learning abilities at the time of school closure in March 2020. A baseline assessment of these children on specific abilities in language and mathematics was done based on a comprehensive analysis by the teachers to understand their learning abilities in the class they were in just before schools closed.

Endline assessment of current learning levels on the same specific abilities was done by administering oral and written tests to the same children. This was done by assessors in collaboration with the teachers. The assessment was generally carried out in the community or in homes. The site was decided based on logistical convenience at the local level.

Table 1: Children and schools covered state-wise

State	Number of Schools*	Number of Students	
		Girls	Boys
Chhattisgarh	215	1623	1313
Karnataka	326	2095	1736
Madhya Pradesh	169	1033	734
Rajasthan	198	2027	1891
Uttarakhand	229	1990	1625
Total	1137	8768	7299

**The assessments were not done for the entire school. The number of schools indicate that the children assessed in the study were enrolled across 1137 schools in total.*

Assessments were done for children on only select foundational abilities being taught in the previous class, across all the primary school classes they were in 2019-20. This is because schools closed soon after students moved to the current class they are presently in (2020-2021) and also because there has not been any significant teaching-learning support during the period of school closure. [5]

Assessment tools were designed in alignment with NCERT's Learning Outcomes for two subject areas, language and mathematics, for classes 1 to 5. Age-appropriate core content domains were identified and mapped to the Learning Outcomes for both subjects. Further, specific abilities for each of the learning outcomes that are the foundation for further learning were carefully identified. These specific abilities were selected from the abilities associated with the previous class because the absence of any one of these would deeply compromise the acquisition of more complex abilities and impact learning across subjects as the child moves through different stages in school. These abilities would need to be in focus once schools reopen. These assessment tools were piloted in four states – Karnataka, Madhya Pradesh, Rajasthan, and Uttarakhand – with a small sample of teachers and children, and then refined further based on the feedback received.

In addition to the assessment data, field-level narratives from the interactions with children, families, and teachers were collated by the assessors.

5 Azim Premji Foundation. 2020. Myths of Online Education. Bangalore: Azim Premji University

3. Findings

3.1 Learning Loss: Children have lost at least one Specific Ability in Language and Mathematics

Learning loss in language

92% of children on an average have lost at least one specific language ability from the previous year across all classes.[6]

- Illustratively, these specific abilities include describing a picture or their experiences orally; reading familiar words; reading with comprehension; and writing simple sentences based on a picture.
- 92% of children in class 2, 89% in class 3, 90% in class 4, 95% in class 5, and 93% in class 6 have lost at least one such specific ability from the previous class.

Learning loss in mathematics

82% of children on an average have lost at least one specific mathematical ability from the previous year across all classes.[7]

- Illustratively, these specific abilities include identifying single- and two-digit numbers; performing arithmetic operations; using basic arithmetic operations for solving problems; describing 2D/3D shapes; and reading and drawing inferences from data.
- 67% of children in class 2, 76% in class 3, 85% in class 4, 89% in class 5, and 89% in class 6 have lost at least one such specific ability from the previous class.

3.2 Language Abilities: Learning Loss

Language assessments included oral expression, reading fluency, listening comprehension, and writing skills for classes 2 and 3, and oral expression, reading fluency, reading comprehension, and writing skills for classes 4, 5, and 6. Figure 1 summarises the analysis of learning loss for these language abilities.

6 This is not the simple average of values for each class but a weighted average where the average of each class is weighted by the number of children in the sample from each class.

7 As in footnote above.

Figure 1: Percentage of children who have lost specific language abilities compared to baseline

Class 2

Oral expression

49% of the children lost the ability to express the events happening in a picture in their own words.

Reading fluency

71% of the children lost the ability to identify a word in print (written or printed).

Writing skill

30% of the children lost the ability to label names of self-created images.

Listening comprehension

23% of the children lost the ability to orally answer questions upon listening to a story.

Class 3

Oral expression

45% of the children lost the ability to orally express views on simple topics like home and school.

Reading fluency

67% of the children lost the ability to complete words given in print format.

Writing skill

46% of the children lost the ability to express views about a given picture in written form.

Listening comprehension

50% of the children lost the ability to orally answer questions after listening to a poem.

Class 4

Oral expression

61% of the children lost the ability to express the gist of a poem in their own words upon listening to it.

Reading fluency

10% of the children lost the ability to read rhyming words fluently.

Writing skill

29% of the children lost the ability to write 4-5 simple sentences on a given picture.

Reading comprehension

23% of the children lost the ability to answer questions upon reading a story.

Class 5

Oral expression

61% of the children lost the ability to orally express the association between read text and personal experiences.

Reading fluency

39% of the children lost the ability to read an unfamiliar poem with fluency.

Writing skill

41% of the children lost the ability to write a story/poem based on their imagination.

Reading comprehension

16% of the children lost the ability to answer questions based on a given text.

Class 6

Reading comprehension

43% of the children lost the ability to answer questions based on a text.

Reading fluency

23% of the children lost the ability to read the contents of a newspaper.

Writing skill

54% of the children lost the ability to write their views on various events happening around them.

Reading comprehension

31% of the children lost the ability to read non-textbook materials with comprehension.

Voices from the field

"Reading has become a bigger problem than before across grades. Students of class 6 could not answer even the story-based questions or get the meaning of the text. In other words, we can say that they can no longer read with comprehension. The situation with writing is even more troublesome – in the writing section, only one student of class 3 could write a sentence without errors." *(Teacher, Madhya Pradesh)*

"Our children of classes 3 and 4 were able to read, but now half of them have forgotten to read, and the condition of writing has become worse. Children are unable to write even two to three sentences in the workbook." *(Teacher, Rajasthan)*

'Many of the children who were learning to read have forgotten the identification of letters (Hindi). Earlier, I used to make them read the newspaper in school, ensuring each child got an opportunity. We had designed our assembly so that primary class students, especially from classes 4 and 5, got a chance to read the newspaper. But now, when they lacked access to interesting resources and no one is around to motivate them, all our efforts have gone in vain.' *(Teacher, Rajasthan)*

3.3 Mathematical Abilities: Learning Loss

Assessment of mathematical abilities included identification of numbers, using basic arithmetic operations for daily life problem solving, and description of 2D/3D shapes for classes 2 and 3, and measurement and data handling operations in addition to place value, fractions, and arithmetic operations in classes 4, 5 and 6. Figure 2 summarises the analysis of learning loss for these mathematical abilities.

Figure 2: Percentage of children who have lost specific math abilities when compared to baseline

Class 2

Numbers

20% of the children lost the ability to identify single-digit numbers.

Operations

33% of the children lost the ability to subtract single-digit numbers using concrete objects.

Problem solving

14% of the children lost the ability to use addition operation to solve problems in daily life situations.

Shapes

27% of the children lost the ability to describe 3D shapes based on their physical features.

Class 3

Numbers

26% of the children lost the ability to read the numeral form of two-digit numbers from 21 to 30.

Operations

37% of the children lost the ability to add two-digit numbers pictorially.

Problem solving

48% of the children lost the ability to solve problems using subtraction operations in daily life situations.

Shapes

44% of the children lost the ability to identify 3D concrete shapes taken from their surroundings.

Class 4

Place value

70% of the children lost the ability to identify greatest/ smallest three-digit number using place value.

Operations

20% of the children lost the ability to subtract two-digit numbers without borrowing.

Measurement

11% of children lost the ability to read the time correctly from a clock.

Shapes

23% of the children lost the ability to describe features of 2D shapes.

Class 5

Place value

25% oof the children lost the ability to find the fractional part of a given picture.

Operations

55% of the children lost the ability to multiply two-digit numbers.

Measurement

39% of children lost the ability to use multiplication to solve problems in daily life situations.

Shapes

67% of the children lost the ability to find the length of an object using a scale.

Class 6

Fractions

52% of the children lost the ability to identify equivalent fraction of a given fraction.

Operations

40% of the children lost the ability to perform division of four-digit numbers by a single-digit number.

Data handling

21% of children lost the ability to represent data in a table using tally marks.

Measurement

60% of the children lost the ability to classify angles into right angle, obtuse angle, and acute angle.

Voices from the field

"Learning loss is greater for students of class 2 because they have forgotten the basic understanding of numbers." *(Teacher, Rajasthan)*

"Earlier, children could add using numbers in their notebooks. Now, they can add numbers when asked to do so verbally but are unable to do the same on paper. This is probably because dealing with numbers as a quantity is a part of their context – they count their goats, cattle, marbles (for playing), and money for buying anything – they have lost the ability to use symbols for numbers." *(Teacher, Madhya Pradesh)*

3.4 Learning Loss: Lived Realities of Teachers, Learners, and Parents

The findings from the analysis of the assessment data reveal only a part of the story related to learning loss among public school children during the period of school closure. The narratives from the field that were generated from families and children while the study was being done provide a snapshot of the context in which these key stakeholders find themselves.

Most of the public school teachers associated with the study were themselves intensely troubled to learn first-hand about the extent of learning loss that their children have experienced during the period of school closure. Some teachers became emotional when they realised that children whom they tagged as 'intelligent' and could earlier 'read so fluently, write so nicely and perform operations so easily' were now struggling with 'such simple questions'. Moreover, they, along with the assessors, could directly experience how children have been totally disconnected from the school.

Voices from the field

'Last year, the child who was in class 3 is now in class 4, and in the current session, very little has happened. So, in this situation, the child will be in class 5 (in the next session). How can that child be brought to class 5 learning level? Worse, mostly the situation is that some children have not even retained learning levels of class 3.' (Teacher, Madhya Pradesh)

"I had a feeling that children will lose the habit of sitting in the classroom, and they would have had some loss of learning as they could not learn new things from their syllabus of class 4. But I never imagined that so many of them will also forget what they had learnt in the previous class." (Teacher, Chhattisgarh)

Teachers surmised that, given that most children in a regular scenario cannot remember what they learnt in the previous class, the long school closure has, in effect, meant that there is a gap of one year between two academic years, and managing this learning gap will be a very difficult task. They also pointed out how this gap is further compounded given that some children were not at the appropriate class level even for the previous class. Teachers shared that they, therefore, are in a 'double dilemma' – whether to start from last year's course work (2020-21) or the syllabus of the new class (2021-22).

During the visits to the communities for the assessment of children, parents were found to be deeply worried about their children's education and constantly wanted to know when schools will open. They kept asking that if children could interact with each other in the community, why could they not do so in school as well? They were worried that children have forgotten all that they had learnt, since they do not 'read anything' at home.

Many of the children thought the assessment signalled the opening of school; numerous children from all classes converged to the assessment site with this hope. Some children did not even want to go back home after the assessment was done. The extent to which children were also looking forward to the school reopening is evident in this remark made by one of them – 'if marriages, processions, and cricket matches are on, why are schools closed?'

The teachers were quite categorical that they wanted the children to come to school as soon as possible so that teaching can start systematically. Many of them have experienced the half-hearted efforts of online education and were aware of the limitations of such efforts to achieve any meaningful learning. They underlined how there is no alternative to physical classroom learning, where students work in groups and their learning process takes place in a collaborative and facilitating environment. Teachers felt even home visits are a poor substitute for school-based learning. The concern of teachers extended beyond academics – they were worried about 'social loss' and also the impact of the learning loss on children's ability to navigate adult life.

Like the assessment data, the narratives from the fieldwork reinforce the urgent need to have a systematic plan to reorient key public school processes so as to compensate for learning loss among children as schools reopen.

Voices from the field

'Schools have been closed for children for 10 months. The most affected due to this are the students of primary classes. Most of the students who study in government schools belong to rural areas. Online classes could not do much to aid the learning of these children. Parents of many of them are not educated at all and could not support them at home.
Now, we can see our children working in fields and tea-stalls, taking care of their younger siblings all day at home, girls cooking all the meals for the family and doing other work in the household all the time. School provided them a platform to learn what they could with minimal requirement. This routine is completely broken down and now we fear that many of them might have lost their interest towards studies.' (Teacher, Rajasthan).

"I was coming to school and meanwhile, I met one of my students on the way. He had started working in a cloth shop. When he met me, he said, 'मैडम सूट ले जाओ बहुत अच्छा अच्छा आया है' *(Buy a salwar kameez set; nice ones have arrived for sale). A similar kind of incident occurred later – one of my students met me and he was working at a shoe shop. He said to me,* 'मैडम, बहुत बढ़िया सैंडडल आये हैं, दुकान पर आना' *(Very nice footwear has arrived; please come to the shop). I was thinking that rather than talking about education, the children have started talking about business." (Teacher, Uttarakhand).*

4. Conclusion

The learning loss due to COVID-19 is indisputable. All children across primary classes have been impacted, with most children who are returning to school not ready, in terms of expected abilities, for further learning at the appropriate class level.

The impact of learning loss due to children forgetting what they had learnt earlier is likely to be further compounded if nothing is done to compensate for this loss when schools reopen. Children will be pushed towards more complex learning abilities of the new class they will move to without having the prerequisite foundational abilities. This compounding of learning loss will expectedly be more for students from disadvantaged backgrounds who access the public school system.

It is critical to understand that this learning loss is not limited to public schools. Learning of significant numbers of children in private schools has also been interrupted by the pandemic. Even where private schools have taken the initiative of reaching children through remote modes, very little actual 'online teaching' has occurred; mostly, instructions and supplemental resources have been shared.[8] Thus, the issue of learning loss must be addressed for all children across all types of schools and across all classes in schools.

The principles of access, equity, and inclusion that must inform school education are likely to be further tested in these circumstances. We must act now to ensure that the lost academic year, as well as the loss of whatever learning children had acquired from the earlier class do not cumulatively impact the long-term prospects of our children. It is reasonable to assume that school closure and no direct teaching learning with children have contributed significantly to the learning loss of children. Reopening of schools and resuming direct teaching learning is key to address this. However, a business as usual approach as schools reopen will not work – the extent and nature of learning loss must be identified to inform policy and processes as children return to schools.

8 Oxfam India. (2020). Status report – government and private schools during COVID-19.https://www.oxfamindia.org/sites/default/files/2020-09/Status%20report%20Government%20and%20private%20schools%20during%20COVID%20-%2019.pdf

While this study gives us a sense of the extent and nature of learning loss, we need more understanding to address this in the classrooms – for example, we need to understand why the loss in some specific abilities is higher than in others. Effective school-level strategies will require to factor in these nuances, and this calls for a finer understanding through more detailed and continuing research in this area over the ensuing academic year.

Supplemental support, whether in the form of bridge courses, extended hours, community-based engagements, or in the form of teaching-learning materials, will be necessary to help children gain lost abilities and to further their learning in the class they return to when schools reopen. While a portfolio of pedagogical approaches based on a finer understanding of the situation can be developed and made available, each teacher will have to address the specific situation in their classroom. It follows that teacher capacity to ensure student learning in these unusual circumstances must be in focus, particularly with respect to pedagogy and assessment needed to deal with students at diverse learning levels.

Paper 3

Open Schools, Focus on Recovering Lost Learning: Clear Voice of Teachers

Research Group, Azim Premji Foundation

1. Introduction

Primary schools have been physically closed across the country since March 2020 – for about 17 months and over 300 working days. Recently, experts have recommended that schools be reopened with due safety protocols in place, with preprimary and primary schools opening first.[1]

Teachers in primary schools are also deeply concerned about the urgency of getting children back to learning in schools and classrooms, and with making up for the loss of learning due to school closure. This is borne out by a field study conducted in August 2021 covering 363 primary school teachers across 18 districts in 5 states by the Azim Premji Foundation.

The key findings of this study across geographies are:

- Children have completely missed out on the regular in-person interaction that is critical for learning, particularly at the primary stage. Even teachers who have interacted with students through different modes during school closure feel that the curriculum of the academic year 2020-21 has not been sufficiently covered, and there has been loss of previous learning including foundational abilities, such as describing a picture, reading with understanding, writing simple sentences based on a picture and the ability to perform basic mathematical operations.
- When schools reopen, teaching should be informed by the learning level of each child in the class and not the regular curriculum. Given the extent of loss of learning, assessment of foundational abilities – as against class-specific abilities – across all classes is necessary once schools reopen.

1 The India Task Force. The Lancet COVID-19 Commission. (2021). Reopening schools after COVID-19 closures. . https://static1.squarespace.com/static/5ef3652ab722df11fcb2ba5d/t/60a3cff2b425ae21a5b49405/1621348340073/India%2BTF%2BReopening%2BSchools%2BApril%2B2021.pdf ; Arakal, R.A. (2021, June 22). Karnataka high-level body recommends reopening schools in staggered manner. Indian Express. https://indianexpress.com/article/cities/bangalore/karnataka-committee-recommends-reopening-schools-in-staggered-manner-7369356/; Ghosh, P. (2021, July 23). Is reopening schools in India risky now? What experts, gov- ernment said. Hindustan Times. https://www.hindustantimes.com/india-news/is-reopening-schools-in-india-risky-now-what- experts-government-said-101627048660031.html

- This in turn would need changes in the curriculum, with a reduction in curricular load to align with foundational abilities, along with a conscious, meticulously planned focus on foundational literacy and numeracy.
- The approach to teaching and learning will need to respond not just to the curriculum change, but also to the socio-emotional issues of students. A variety of teaching-learning materials will be required to cater to learners at different levels in each class.
- Autonomy and support from the administration, and time and patience, will be necessary for teachers to address learning loss. All other steps, including curricular and pedagogical changes, will not be useful unless teachers are given sufficient time to work on recovering learning loss in their respective classrooms.

2. What must happen when schools reopen

To counter the impact of school closure, the following are imperative – one, schools must reopen at the earliest, and two, the person closest to the children in the context of learning, namely the teacher, will need to play a critical role in ensuring children return to and stay in school, while also supporting recovery from learning loss.

The teachers in the sample of the study carried out by Azim Premji Foundation were selected on the basis of prior knowledge of their involvement with their students and teaching-learning processes, as well as their ability to reflect on their own practices. The Foundation has been consistently working with these committed and capable teachers over a long period. The interview schedule used with these purposively selected teachers was designed with a set of important questions around curriculum, pedagogy, learning and socio-emotional needs of children, and support needed by teachers. The objective was to get their inputs on what has happened during school closure and more importantly, what needs to be done once schools reopen. These questions were used to elicit a broader set of responses, which the research group later classified into specific categories.

All the teachers in the sample have interacted with their students throughout school closure. In terms of teaching learning, contact has been through state-mandated programmes or initiatives taken by these teachers independently, through WhatsApp and telephone calls, or interaction with small groups within the community. Besides, they have interacted with students during the distribution of worksheets and dry rations. Most teachers are also in touch with students who have moved away to other villages/cities.

Physical closure of schools has meant that very few children have had access to learning, due to lack of devices and supportive home environments. Even in cases where children had access to devices, constraints have been posed by online learning and the absence of the social interaction critical for learning. The responses of teachers revealed their concern around the damage this has caused and the significant, systematic work that will be needed to recover lost ground when schools reopen.

a. *Recognise the deep impact of school closure on primary school children*

The responses of the teachers revealed that the regular curriculum for the academic year 2020-21 has not been covered in its entirety by any teacher. The fact that this is the case even with a purposively selected sample of teachers who have continued to interact with students during school closures is revealing.

There has been a loss of the learning that would have happened if schools were open and regular curricular learning had taken place. Worse, children have forgotten what they knew earlier due to disconnect from learning during school closure, including foundational abilities, such as reading with understanding, performing addition and multiplication, and so on. These foundational abilities are the bases for further learning – their absence will impact not only learning of more complex abilities, but also conceptual understanding across subjects.[2,3]

2 Oxfam India. (2020). Status report – government and private schools during COVID-19. https://www.oxfamindia.org/knowledgehub/oxfaminaction/status-report-government-and-private-schools-during-covid-19

3 Azim Premji Foundation. (2020). The myths of online education. https://azimpremjiuniversity.edu.in/field-studies-in-education/myths-of-online-education

Voices from the field

'School closure has largely affected students in lower primary schools. Children have forgotten what they have learnt but have been promoted to higher classes. It will be difficult for children to cope with the curriculum of higher classes all of a sudden. It is sad to see children who are now in class 5 struggling to read simple sentences.' (Teacher, Karnataka)

'Children in class 1 who didn't come to school at all will now be promoted to class 3. When children come to school, initially, they take three months just to settle into the routine. Now, we must teach them the class 3 syllabus. How is it possible to attain class 3 learning outcomes when the child cannot even hold a pencil?' (Teacher, Rajasthan)

This is a reinforcement of the insights from the study on 'Loss of Learning During the Pandemic'.[4] That study, undertaken in January 2021 with 16,067 primary school children in 1137 schools in 44 districts across 5 states, revealed that 92 percent and 82 percent of children, on an average, have lost at least one specific foundational ability from the previous year across all classes for language and mathematics respectively. This loss of learning was also reinforced by the recent Parliamentary Standing Committee Report on re-opening of schools (Report 328).[5]

b. *Assessment to determine 'what' and 'how' to teach*

An overwhelming 96 percent of the teachers were cognizant of the need to assess children on abilities from the previous years when schools reopen (2019-20 and 2020-21), rather than just focus on abilities of the current academic year (2021-22).

The awareness of the teachers about the loss of foundational abilities among children was also evident with 56 percent favouring an assessment of children from the primary classes on foundational abilities in language and mathematics, as opposed to class-specific abilities in different subjects.

96% of the teachers want children to be assessed on abilities from the previous classes when schools reopen

Teachers recognise that this assessment must form the basis for planning learning with the intent of helping students recover from the learning loss and bring them up to class-level expectations. Regular, ongoing assessment will be required to keep track of their learning.

4 Azim Premji Foundation. (2021). Loss of learning during the pandemic. https://azimpremjiuniversity.edu.in/field-studies-in-education/learning-loss-during-pandemic

5 Parliamentary Standing Committee On Education, Women, Children, Youth and Sports. (2021). Plans for Bridging the Learning Gap caused due to School Lockdown as well as Review of online and offline Instructions and Examinations and Plans for re-opening of Schools. https://rajyasabha.nic.in/rsnew/Committee_site/Committee_File/ReportFile/16/144/328_2021_8_15.pdf

c. *Reconfigure curriculum to focus on foundational abilities*

A majority of the teachers (96%) favoured changes in the curriculum to be able to deal with the reality of the loss of learning. The need to focus on foundational literacy and numeracy in the daily timetable was emphasised by 61 percent of the teachers. Around 74 percent of the teachers favoured a reduction in the curricular load and the need to map foundational abilities to the curriculum so as to focus only on such abilities that they recognised to have been most affected.

96% of the teachers favour changes in the curriculum

Voices from the field

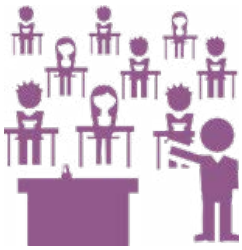
'This year, the curriculum should be reduced, and priority given to foundational abilities. Attaining foundational abilities should be done in a mission mode and completed at the earliest.' (Teacher, Rajasthan)

'We have to focus on basic concepts such as addition, subtraction, etc. to enable children to pursue studies in the current class they have been promoted to. We can extend the academic year and give extra hours to recover what has been lost in the past 18-20 months.' (Teacher, Uttarakhand)

d. Realign teaching-learning processes and materials to put learning back on track

Teachers recognise that there would be different levels of learning loss among their students, which they would need to cater to when schools reopen. In terms of pedagogic changes required when schools reopen, 56 percent of the teachers were categorical that initial teaching learning should focus only on abilities lost by the children with an emphasis on remedial teaching to aid recovery of learning loss.

The need for pedagogical changes to cater to the diversity of learning levels in the classroom was endorsed by 57 percent of the teachers. One such approach could be multi-grade, multi-level teaching, wherein children work independently or in groups according to their learning levels under the overall guidance of the teacher.



56% of teachers felt initial teaching learning should focus only on recovery of learning loss

57% of the teachers felt changes in teaching-learning processes would be needed

48% of the teachers felt the need for diverse teaching-learning materials to cater to students' needs

Around 48 percent of the teachers also stressed the importance of diverse teaching-learning materials, rather than class-specific textbooks, to cater to the diverse learning needs of their students. Illustratively, teachers felt that workbooks containing worksheets for all classes across primary schools will be very useful since they help children learn in an organised and interesting manner. Worksheets typically contain simple exercises that children can do independently, usually accompanied by interesting visuals. These worksheets can be 'graded,' that is, start from basic abilities and progress to higher-order abilities. This is particularly useful with students of different abilities, since a common plan can be developed for the entire class, while allowing all students to participate in similar activities. Such an approach would not only enable learning, but will also help the teacher assess the progress of each child.

Voices from the field

'More and more contextual activities are required, as these make it easier for students to connect school learning to their homes and communities.' *(Teacher, Madhya Pradesh)*

'There will be many variations in the learning levels of children in the same class. We can combine classes 1 and 2, and classes 3 to 5, and treat each of these as a single group.' *(Teacher, Uttarakhand)*

'Books attract children – they love to read stories and look at pictures in the books. I will use the library in the school and set one up in the community. At least we will be able to involve children in reading. We can create 'sets' of books aligned to differing abilities to aid teaching learning, with children exchanging their current 'set' for another, as they progress.' *(Teacher, Rajasthan)*

e. *Enabling mechanisms for teachers*

Teachers indicated the need for orientation and support to cope with the changed circumstances. While 66 percent of the teachers expressed the need for training (including in assessment processes and orientation to a revised curriculum), 68 percent expressed the need to be supported with teaching-learning materials, like workbooks, that can help address this situation.

68% of the teachers expressed the need for support with teaching-learning materials

Teachers were also concerned about the time they will have to focus on for the tasks ahead. They were particularly apprehensive of the various non-academic tasks that they may be pulled into.

Voices from the field

Teachers from Rajasthan pointed out that they have also been away from the formal teaching- learning processes for a long time and are confused and nervous about the upcoming challenges with 'how and where to start' being a big question in everyone's mind.

'We should not be given extra (non-academic) work; primary teachers should especially be allowed to focus only on academic work. Recently, we have been involved in health- and vaccination-related surveys. This kind of work disturbs the academic processes of the school. The time that I should give to my children goes into other work. This work should be given to the village secretary and revenue officer (patwari), so that we can focus on our primary work, that is, teaching learning in school and ensure better learning among children.' (Teacher, Rajasthan)

f. *Maintain continuity of learning*

Teachers recognise that, even after schools reopen, there could be disruptions in the regular teaching-learning processes. This could be due to COVID-19 protocols, which may lead to fewer daily in-person classes (for example, students may come to school only on alternate days), or even intermittent school closures.

Anticipating such uncertainties over the coming months, 81 percent of the teachers were of the view that continuity of learning must be maintained even if schools reopen and close again. The benefit of volunteer- and teacher monitored, home-based learning support systems was emphasised by 49 percent of the teachers.

81% of the teachers were of the view that continuity of learning must be maintained despite continued disruptions that might occur from local outbreaks

g. *Addressing socio-emotional needs of children*

Almost 70 percent of the teachers believed that some or most children would need attention with respect to socio-emotional issues, including disconnect from schools and their peers during school closure, leading to discomfort with the learning processes and the stress that they have forgotten what they knew. Some teachers felt children will face a lack of self-esteem and confidence about their learning abilities, since many of them may return to school after having been part of the workforce and having experienced changes in family circumstances (loss of parental income, loss of loved ones to COVID-19, etc.).

Of the teachers surveyed, 71 percent felt that specific activities and processes to make students comfortable in the initial days of schooling would go a long way to address socio-emotional concerns. Some examples of these activities are sharing their experiences during school closure through dialogue, drawing, writing, drama, and play, and displaying any artifacts or projects

they create. Other examples include creativity workshops, sports activities, and so on. About 53 percent also underlined the importance of counselling.

71% of the teachers felt that specific activities and processes would help address socio-emotional concerns related to children

Voices from the field

'Students who were disconnected from online learning because of not having mobile phones or any other support at home will need special attention.' (Teacher, Madhya Pradesh)

'Children have been disconnected from studies completely due to long school closure, and they may feel that they will not be able to learn now. Before engaging them with studies again, we should create a friendly and delightful atmosphere so that children come to school regularly.' (Teacher, Rajasthan)

'Focus in schools should be more on bridging the emotional needs of children and getting them back to the habit of learning instead of imposing a curriculum with a learning target.' (Teacher, Karnataka)

3. 'Business as usual' after school reopening is not an option

Learning is a social process and happens best through face-to-face interaction in the classroom. Children need mentoring as well as social and emotional support throughout the learning process. Thus, it is important to bring students and teachers together, even if done in a 'different way.'

Given the long period of school closure, a 'business as usual' approach will prove to be deeply detrimental to the educational future of generations of learners. To prevent the gains of the past few decades from being lost, we must respond with appropriate changes in curriculum, school and classroom processes, and materials, while also supporting our teachers.[6]

An ongoing survey of 143 countries[7] reveals that schools were fully closed across all education levels for 79 instruction days on an average (ranging from 53 days in high-income countries to 115 days in lower- and middle-income countries) during the pandemic. Among measures taken to alleviate this loss, 41 percent of countries reported extending the academic year while 42 percent reported prioritising certain curriculum areas or skills. Over two-thirds of countries reported implementing remedial measures to address learning gaps for primary and secondary school students when schools reopened; most of these were high- or upper-middle-income countries. Some countries are increasing investment to support recruitment, including that of counsellors and specialised teachers, planning special measures to support children from socio-economically disadvantaged backgrounds, planning interventions like activities during the summer vacations, extended school days, additional support during and after the school day, and implementing remedial measures to address learning gaps for primary and secondary school students when schools reopen.[8]

6 Azim Premji Foundation. (2021). Re-opening schools in pandemic times. https://bit.ly/School-Reopenings The Wire. (2021, August 9). Schools to face worst crisis ever when they reopen. [Video]. YouTube. https://www.youtube.com/watch?v=6lJj1iaeVGs

7 UNESCO, UNICEF, the World Bank and OECD (2021). What's Next? Lessons on Education Recovery: Findings from a Survey of Minis- tries of Education amid the COVID-19 Pandemic. Paris, New York, Washington D.C.: UNESCO, UNICEF, World Bank. https://unesdoc.unesco.org/ark:/48223/pf0000379117

8 Dorn, E., Hancock, B., Sarakatsannis, J., Viruleg, E. (2021). COVID-19 and education: The lingering effects of unfinished learning. https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-education-the-lingering-effects-of-unfinished-learning; Ehren, M., Turkeli, R. (2020). How to repair learning loss from school closures during COVID-19 pandemic: which interventions and programmes are effective? Learn Research Institute. https://www.researchinstitutelearn.nl/en/professionals-en/how-to-repair-learning-loss-from-school-closures-during-covid-19-pandemic-which-interventions-and-programmes-are-effective/; UNESCO, UNICEF, the World Bank and OECD (2021). What's Next? Lessons on Education Recovery: Findings from a Survey of Ministries of Education amid the COVID-19 Pandemic. Paris, New York, Washington D.C.: UNESCO, UNICEF, World Bank. https://unesdoc.unesco.org/ark:/48223/pf0000379117

The pandemic has, in a sense, starkly brought out the best and the worst in school systems across the world. Some countries are seeing this as an opportunity to 'permanently fix' persisting issues rather than taking a 'quick fix' approach to problems.

In our country, as evidenced by reports that have been shared since the pandemic began, our greatest strength is our teachers and their commitment. This study reaffirms that teachers are best placed to articulate the needs of their students and what to anticipate when schools reopen. Thus, we must make teachers the centre of our trust, and empower them with the resources and support to exercise their autonomy in helping each child in their care to learn. There is no other alternative. we must ensure adequate availability of teachers in each school, make them allies in this situation, and support them in building the capability to help children learn in these changed circumstances.

Paper 4

Learnings from Azim Premji Schools during COVID-19

Research Group, Azim Premji Foundation

Executive Summary

The pandemic forced us to rethink several details of the teaching-learning process. Our school is in a small village, Bamore of Tonk district, with a large proportion of students from underprivileged backgrounds. The school has 247 students in grades 1-8, and this report is based on our work with students of all grades.

During school closure, 60% of our students had no access to digital tools for online learning, and even for those who had access, in our experience, online learning was ineffective. Hence, we started exploring other strategies to engage our students meaningfully. Our end goal was simple – that our students should not forget what they had already learnt and should continue to keep pace with the basic curricular expectations as per the academic year they are currently placed in, despite schools being shut. Therefore, our efforts were organised around – a) ensuring that all our students have a reasonable competency level on all basic capacities for their grade, and foundational literacy and numeracy across grades and b) optimise use of all possible methods, available resources for maximum learning.

Our off-school engagements began in March 2020 when the lockdown was imposed. The entire journey since then can be divided into three phases: phase 1 was the online phase (video calls, sharing assignments on WhatsApp and simple phone calls); phase 2, which began in June 2020, centred around worksheet-based assignments with individual scaffolding through home visits; and phase 3, which began in July 2020, was around organising in-person sessions for community or village-based groups in safe, well-ventilated public spaces.

Each of these phases brought with it its own operational complexities – for example, finding appropriate public spaces for community-based classes, roster for teachers, etc. While some of these are mentioned in this document, we have refrained from dwelling into details of such matters.

We learnt as we progressed through these phases, and our strategies improved, and became more grounded and effective. We see these learnings as useful in making teaching-learning processes more effective not only in the current disrupted educational scenario, but also as normal school functioning is restored. This document, hence, focuses on such insights from this experience which are summarised below:

a. We were faced with a situation where we had to plan for **mixed group of students from various classes (a multi-level, multi-grade class)**. Instead of segregating the group and engaging them on different tasks, we started each session with a common activity – such as discussion around a topic or reading a carefully selected set of library books – which engaged all students. These shared activities, which set a common rhythm for the group - and encouraged peer learning, were followed by activities differentiated based on grade and learning level.

b. Across grades, all of us joined hands in working on foundational literacy and learnt to integrate language learning outcomes in the regular lesson plan for their respective subjects – making the approach of **'language across curriculum'** a reality. For instance, an EVS teacher of grade 5, while teaching her regular subject lessons, also ensured that her students could understand the text, summarise it in their words, and comment on it in a systematic way – these are learning outcomes of language.

c. To help students achieve foundational literacy, we went beyond textbooks and brought library books to the centre of our teaching in the form of one **full session anchored in library books for purposive reading and writing**. Students were free to choose any book to read followed by a range of choices in doing individual or small group assignments, such as drawing, selecting words beginning with a specific alphabet or those where a specific *maatra* was used, rewriting the story in one's own words or narrating it to the entire class, etc.

d. While conducting classes in community spaces brought its own operational challenges, we converted the **situation into a teaching opportunity. Situating lessons within their local context**, and using local resources made lessons more relatable. For instance, students learnt profit-loss by understanding local businesses of their liking, such as selling *chaat*, and so on.

e. We were able to help students **improve their writing skills through open-ended tasks** – writing skills were one of the challenges we faced even when schools were functioning normally. Relevant tasks were given in continuation to the library class or other sessions located within local contexts. Students could choose to write on any books they had read or any observation they would have made while doing their projects, maintain a journal and then share it with peers for feedback, and so on.

f. We understood that a good **relationship with students, their parents and the community directly influences continuity of engagement** and learning and is, hence, essential. During the pandemic, we observed that when people saw that their own house or street could be a place of education, their attitude towards the school and teachers changed – there was more trust, sensitivity in interactions, and cooperation in efforts. All this led to a better learning environment for the students.

g. Similarly, we understood that **keeping our alumni engaged** has its own advantages. They are our resident representatives in the community. Hence, they could help us in mobilising the community and help students directly; also, their success could simply inspire younger students.

Because of all these efforts, learning loss for our students was minimised and they also progressed within their grade, as indicated by our periodic tracking through regular assessments. Notably, student performances for grades 5 and 8 improved marginally for all and significantly for some in August 2021 when compared to similar data from March 2020. Therefore, it makes sense to continue these efforts in our 'normal course' routine.

Hence, in this document, we also discuss our plan to include these efforts in our regular work as the education scenario becomes normal. These insights may seem obvious and sometimes commonsensical, but their operationalisation was complex and not easy to get habituated to. However, we realised their need and importance in these difficult times when circumstances compelled us teachers to think outside the class.

1. Context

COVID-19 sent the world reeling into a vortex of humanitarian and health crises, forcing governments to take severe measures to contain its impact. Closing schools and encouraging alternate modes of learning was one such measure.

At our school also, we tried several modes to ensure continuity of learning for our students. It was not easy. Our school is in a village and serves proximate communities. Some of the obvious choices in the COVID-19 situation, such as digital learning, were not at all viable for our students. This situation forced us to see and do things very differently. We tried to ensure continuity of academic engagement in some form, with whatever medium and resources we had at hand. In the beginning, it was like a big wall had appeared between us and our students, and we needed to push at it on three fronts – first, overcoming our own fear to go out and be with our students; second, seeing beyond our own existing knowledge of teaching-learning processes in a favourable classroom and school environment, and third, ensuring our students do not lag academically due to their more difficult contexts.

Now, one and a half years since the beginning of this experience, it is useful to take stock and reflect on our experiences. We have been able to keep our students engaged academically and minimise learning loss. Additionally, our learnings have helped us make our teaching-learning strategies more resilient and sustainable.

In this document, we attempt to share those learnings which were not only effective during this disrupted academic scenario, but those which we believe can add value in a normal academic year as well.

2. About Azim Premji Schools

Our schools are an integral part of our overall work in school education. The purpose of our work is to contribute to a better society by improving the quality of learning in public (government) schools. The primary purpose of our schools is to demonstrate that good and equitable education is possible even when operating within contexts similar to public schools. We do this to not only contest the generally held belief that children from disadvantaged backgrounds cannot learn, but to also offer specific practices that public schools could adopt to improve equity and quality. Our continuous efforts are towards most of our students achieving grade-level competencies as well as other relevant, age-appropriate skills/abilities (e.g., communication, learning a craft, working with teams) and dispositions/attitudes (e.g., sensitivity to others, resilience).

Currently, we have 8 schools operational in districts of Chhattisgarh, Karnataka, Rajasthan, and Uttarakhand (Table 1) addressing the educational needs of children from nearby villages and towns.

Table 1: Azim Premji Schools – Brief Profile

#	State	District	Location	Grades	Enrolment
1	Chhattisgarh	Dhamtari	Shankardah	K-10	326
2	Karnataka	Kalaburagi	Sawalgi	K-5	146
3	Karnataka	Yadgir	Gulsaram	K-9	266
4	Rajasthan	Barmer	Barmer	1-4	139
5	Rajasthan	Sirohi	Mandwa	1-8	215
6	Rajasthan	Tonk	Bamore	1-8	247
7	Uttarakhand	Udham Singh Nagar	Dineshpur	K-10	416
8	Uttarakhand	Uttarkashi	Matli	K-8	207

Note: Student enrolment figures from March 2021.

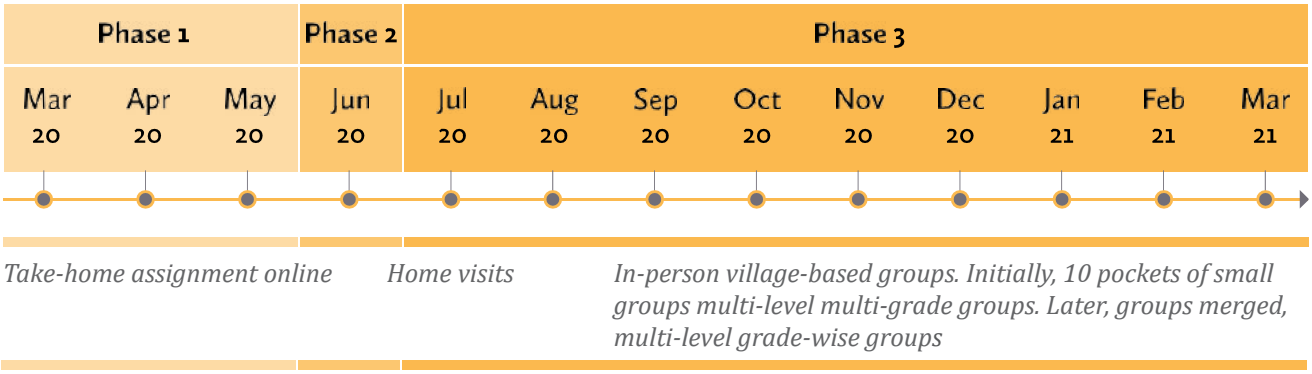
During the pandemic, teachers at all our schools engaged with their students through multiple modes. Experiences across schools during the pandemic are similar in nature. However, this document specifically draws upon experiences from our school at Tonk, Rajasthan.

3. Engaging Learners During COVID-19

At Tonk, our school is located close to Bamore village which is about 7 km from Tonk town, the district headquarters. About 60% of our students come from this village, which has a majority population of people belonging to the Scheduled Caste and Other Backward Classes category. Occupation-wise, they are dependent on agriculture and work as labourers. The remaining 40% students come from Tonk town.

We managed to keep in touch with all 247 students enrolled from Grades 1 to 8 during the entire duration of school closure due to the pandemic.

Figure 1: Timeline of engagement with children from March 2020 to March 2021



Phase 1 of our engagement was in an online mode. In case of students whose families owned smart phones, video calls were made, and assignments shared over WhatsApp. With other children, individual phone calls were made. This brought forth a new set of challenges – a) we ourselves faced problems in adapting to the technology, b) we were able to reach only about 40% of our students, and c) there was very little two-way communication, which made it difficult to know if even the small percentage of students being reached were learning anything. Hence, we thought of developing worksheets and distributing them through weekly visits to the homes of students.

This marked phase 2 of our engagement. We prepared thematic worksheets intended for self-learning, covering several subjects. While in general, we develop worksheets for practice or assessment based on a textbook chapter, these worksheets provided the content as well, along with exercises that students were supposed to carry out, with minimal guidance. Tasks were designed keeping in mind the different learning levels of students. These worksheets were distributed to children on home visits and further scaffolding was provided by weekly follow-up visits. In this mode, we reached around 75% of our students. During each visit, we would give a new worksheet, collect the previous week's worksheet for assessment and give feedback on the one we had assessed from the week before. After doing this for a month, we realised that this too had little efficacy. The returns were very little when compared with our efforts in designing, distributing, and assessing the worksheets.

It was very clear that face-to-face engagements, even if for an hour or so, would be far more effective and the worksheets would also get used effectively. Therefore, July 2020 onwards, we started in-person village-based group engagements. This marks the beginning of phase 3, centred around in-person, small-group engagements.

We mapped our students' residences and realised that we could group them in 10 pockets. We identified a weather-proof, well-ventilated spot in each pocket, where children could sit with sufficient physical distancing. We made a roster; each teacher was assigned the responsibility of conducting 1.5 – 3 hours session daily for each of these groups. These groups were multi-competency-level and multi-grade; hence, lessons had to be carefully planned beforehand. Two teachers taught at two different pockets on the same day, which involved certain amount of travel for us.

A typical day with such small groups of primary and upper primary students included:

- Daily sharing of experiences, diary reading, other local updates, and sharing of the day's plan.
- Common large-group activities – using library books, or discussion on a chosen theme.
- Small-group tasks, which could be based on the common activity or otherwise, as per the competency level of the students.
- Closing with some co-curricular activities, e.g., drawing, craft, etc.

Later, as parents' confidence grew and they allowed their children to go out of their *mohalla*/ community, we clubbed these pockets into 5 groups, and we started conducting grade-wise sessions for longer durations almost like a regular class outside of school.

The choice of community-based in-person engagement was due to its effectiveness in ensuring much better student learning. Here, we would like to highlight some of the operational challenges we faced in this approach. Finding large and ventilated physical spaces with scope for physical distancing, easy accessibility for students, proper light, shade, drinking water and toilet facility, minimal distraction from the surroundings, space for visual display and library books, etc. were some of the issues we faced. A much greater challenge we faced was that we had to not only adapt to a mixed group of students from different classes, but also to integrate foundational literacy and numeracy in our lessons. Since this was a new approach for us, we had to learn almost daily in order to work in this new area. We also had to come out of our comfort zone of teaching through textbooks and in a classroom setting tailor made for teaching. Instead of individual teaching,

we had to collaborate with other teachers on planning and facilitation. It was also hectic as we had to move to different pockets with our bags full of teaching resources, and then travel back to the school premises for daily review and planning. Moreover, there were students who, for various reasons, couldn't make it to community pockets, so individual visits or telephonic classes were held with such groups on a regular basis. It was also difficult to settle into some routine and rhythm as sometimes a change of venue or COVID-19 cases in some nearby community or among our relatives disrupted the process. We had to get tested for COVID-19 regularly, and despite some of us contracting the virus, we avoided any spread among the children.

All this hard work for keeping students academically engaged throughout the pandemic period helped us minimise the learning loss. Our work was focused primarily on enhancing and improving foundational literacy and numeracy at elementary level, and this strategy worked. In fact, when we compared the learning levels of our students in class 5 and 8 in August 2021 with their March 2020 learning level data, the student performances have improved marginally for all and significantly for some.

This success is largely due to the consistency of our efforts and the use of pedagogical approaches and methods that proved effective during this challenging time. The next section is devoted to our reflections and sharing on what we learnt about effective teaching in this period, which we believe is valuable for all times.

4. Pedagogical Insights

As mentioned in the earlier sections, we were required to engage with students in unique scenarios. Every day, there were new challenges that pushed us to look beyond our existing strategies of teaching. Every activity, and every lesson, was planned to interest our learners in a new setting better. For us, the essence was in the details.

Our insights are of different kinds. Some are about core classroom processes, such as planning, while others are about using resources from the environment. Overall, the effect of these strategies was significant. For example, we observed considerable improvement in language skills among children in the primary grades – the ability to listen, imagine, articulate, and express. We are sharing some of these teaching strategies, with details of the nuances that worked for us and how we can use these in normal times in the sections below.

A. *Planning a session for a multi-level, multi-grade class*

Generally, each class has students at multiple levels of learning, and teachers find it difficult to plan for and address the diversity of levels. When you combine students from more than one grade in a single classroom, the diversity increases along with the challenges for teaching.

Generally, teachers segregate a multi-level, multi-grade (MGML) cohort into class-wise groups and assignments are also given accordingly. When we were faced with an MGML situation, we came up with an approach where i) we began with a common topic, new and relevant to everyone, so that all students could participate in the dialogue; and ii) followed up with assignments that were differentiated based on levels (not classes).

An MGML classroom

The class begins with an interesting short story. After a read-aloud or narration by the teacher or a student, discussion happens on various aspects of the story, i.e., some simple recall type questions, what they liked and disliked about the characters and incidents, and personal reflection or analysis of the story. For writing work, customised tasks are given. Students learning alphabets and words are either asked to identify words having a particular alphabet or *maatra* or they are given questions requiring one-word answers. Those who are learning to write simple sentences are given short answer questions either from the text or from their own life experiences. A third group is asked to reflect on or analyse the story, relate it with their own experiences and summarise it in their own words.

A similar, but alternate approach, was to anchor the class in a set of carefully selected library books so that all children find something of interest. A reading session was followed by children choosing from a variety of assignments, i.e., sharing what they have read, and drawing and expressing their responses in writing.

Peer support is an important feature of an MGML class as students seek support from other students, and teachers too can proactively resort to student-led support. This way, there is a common rhythm to the entire class and those who are lagging will eventually catch up with the rest of the class. Large-group work, small-group work, individualised tasks – a variety is quite commonly witnessed in an MGML class.

Before the face-to-face engagements were initiated, we had developed worksheets as self-learning material. Such worksheets were very helpful as a common anchor while teaching MGML groups.

Students who were good at reading and writing worked largely independently, some worked with peer support, and others with assistance from the teacher.

We will continue to use this approach to plan sessions in normal academic years. Having a mix of focussed (level- and student-specific) as well as a common lesson plan for any class works well.

B. *All teachers taking responsibility for foundational literacy – 'language across curriculum'*

We know that, due to various reasons, many students don't acquire foundational literacy skills in the early primary grades, and this seriously affects their learning in all subjects, as well as their self-belief and confidence as they progress through school. During lockdown, all teachers, irrespective of their subject, focussed primarily on improving basic literacy and numeracy skills of students. We used thematic or library books-based approach to help students acquire literacy skills. In this process, we not only learnt how to work on language skillsm but also realised that language, being fundamental to learning of any subject domain, is not the sole responsibility of the language teacher.

Language learning is happening in subject classes across grades – some concrete examples

1. In mathematics classes, teachers give quite a few descriptive problems where students must read and comprehend what is being asked. Students are also encouraged to frame descriptive problems. This way, they get to practice writing.
2. In project-based assignments integrating different subjects, students frame questions, interview people in the villages, prepare reports, edit them, and then prepare a presentation of the same.
3. Prem Chand's selected stories, e.g., *Thakur ka Kuan, Nasha, Mantra, Bade Ghar ki Beti,* etc., were also taken up for discussion and writing assignments in a social science class.
4. Subject teachers not only give sufficient reading and writing opportunities, but also pay attention to the quality of writing in terms of the ideas expressed, choice of words, grammar aspects, etc.
5. Current affairs provide an excellent opportunity for students to read, write, and build a socio-political perspective. Very often, students take them up for writing their daily journal.

We anticipate that we will need to continue this kind of integrated effort on foundational literacy across subjects. Teachers can teach their respective subjects while simultaneously working on the language skills of students. This will not require any extra effort but a consciousness to help children improve their language skills, since they are fundamental for learning across all subjects and also learning outside the classroom.

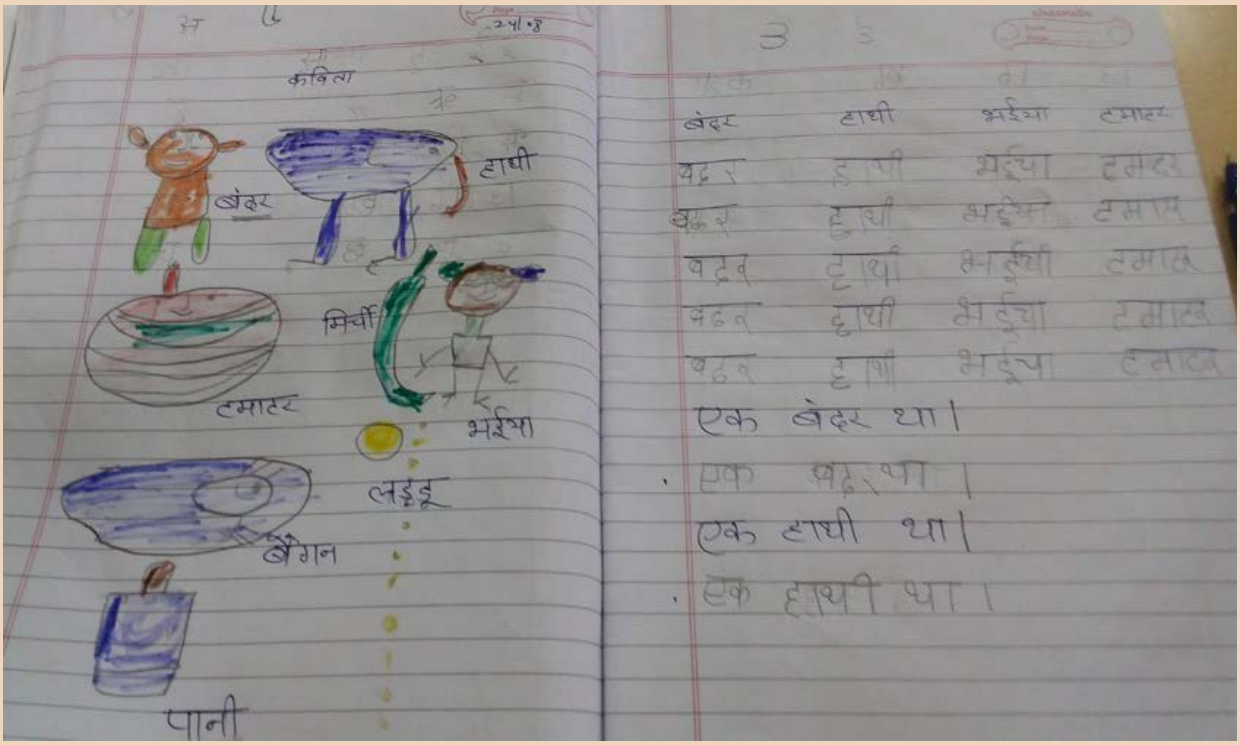
C. *Going beyond 'textbook-centric approach,'creative use of library to develop thought and language*

In an MGML situation, it was difficult to proceed with a textbook-centric approach. We had also decided to focus on foundational literacy and numeracy skills, and hence using library sessions for anchoring the class was tried out. Usually, schools have a library hour as a separate class. Here, we brought the library to the centre of our daily academic engagement. For each student pocket, a set of 100 books was identified and provided. The diversity of students' learning levels and interest areas along with subject diversity were kept in mind while selecting books. Daily teacher reflections and reviews helped in collectively getting a sense of what kind of assignments could be given.

Everyday, students engaged with the books and when they had read most of them, they would exchange this set with a set from another pocket. Within a brief period, they could express orally, draw, or write a few sentences or long descriptions, and enact a skit based on what they had read, or mention it in their daily diary. A record of who was reading what was kept – this also motivated students, and some of them read at least one book each day.

Very soon, we all could see how library books can be used to enhance student learning. Books are not just for learning to read or improving fluency of reading or mere enjoyment, but are a source of exposure to situations and ideas, and help expand the imagination and draw knowledge about various topics of interest to students. In most schools, it is difficult to find active/productive use of the library, but this experience made us realise the importance of the library, and why and how to make it an integral part of the daily curriculum.

We plan to continue this strategy as part of regular academic sessions. We will try to provide a dedicated time for students to read books with a reasonable flexibility in tasks assigned post-reading. Use of library books needs to become more integral to teaching learning and should not be in focus just when students are learning to read, but also when they have learnt to read well. Both classroom and overall school activities (e.g., assembly, *bal sabha*, children's magazine), and spaces (display board, news corner) should provide opportunities for students to share/use their learning from independent library-based readings.



The youngest children also participate in reading books. They do picture reading and later draw what they liked. With the teacher's help, pictures get converted to words and sentences.

D. *Situating lessons within their local context*

The first challenge in running community-based classes was to find a safe, well-ventilated place. For this, we either chose public spaces or used houses of one of our students. But even here, conducting sessions was not easy. There was no blackboard, no print-rich environment, no proper seating, but ample distractions. There was no alternative but to understand how to best utilise this situation. We turned distractions into TLMs for our classrooms, and started utilising locally-available resources to teach lessons.

For instance, in a class run by a pond on the premises of a village temple, students were naturally curious to learn the history of the temple and the pond. We converted this curiosity into a small research assignment. Students interacted with elders of the village, several of whom anyway gathered at this spot to socialise every day. For a mathematics lesson on profit and loss, we asked our students to study the work of a local *chaat* hawker. We asked them to study input costs and sale, and undertake profit analysis of his business. For measurements, we asked them to measure their room, roof, doors, windows, water tank, sacks, and so on. Children found unused pots and other containers which they converted into musical instruments like *tabla*. Plants and their leaves were observed and understood scientifically. We organised strolls through the village to list the kind of objects seen and asked students to write short sentences on what they observed. A class in the panchayat building meant understanding the purpose of such a building and how the local governance system works.

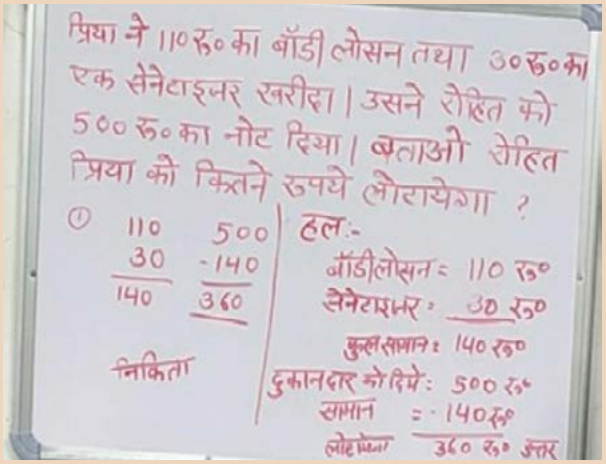
Student drawing based on local context

Identifying and converting local life and objects into learning opportunities made us realise that we were sitting on a gold pot of lessons. Things around children could easily be used to transact the most complex of lessons. This approach made learning relatable for students as well as meaningful and practical, solving the problem of disconnect between school studies and their day-to-day lives. When students saw that education is helping them understand things around them better, their interest and performance also increased. They gained confidence, got to interact with people other than their teachers, and this way the entire village took part in the learning process. Sharing their projects with the community also gave parents the evidence that their children are actually learning, that too something which even they could make sense of.

Operationalising this in a normal academic session would require some effort. We will need to have a good understanding of the villages of our students. For local current affairs, a mechanism like a daily local news board maintained by students can serve the purpose. We should identify and connect with knowledgeable people (farmers, potters, mechanics, people running their small businesses, panchayat members, etc.) living in the local area who could either be invited to school or be available for students to reach out to them under a teacher's guidance. For this to happen, teachers need to know which concepts can be taught by using locally-available resources and other opportunities. They need to consciously plan for using students' prior knowledge, and daily engagement with local environment and events. This also requires leaving the school premises and organising short visits with some planning. Teacher reflections on the quality of teaching learning should also take up this issue regularly.

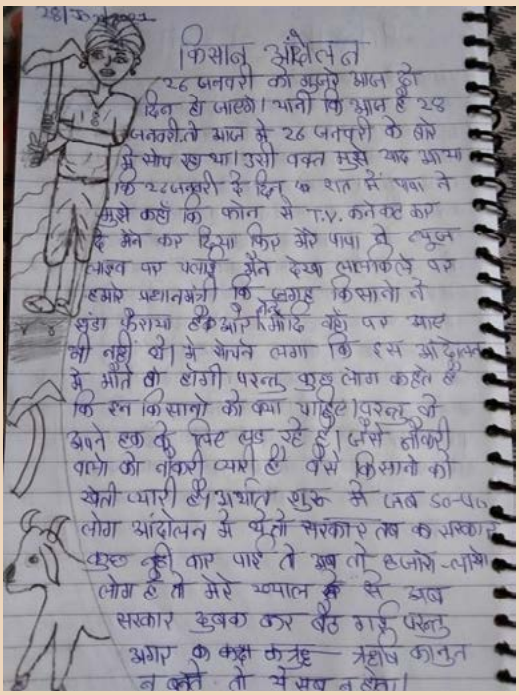
Learning mathematics through local context-based assignments

In one of the classes, a few students were asked to bring some easily available things from home (toy utensils, used cans/bottles and packs of food or beauty products, stationery items) and run shops in the class. Other students became customers. Some printed fake currency notes and a bill book was also made available. Students shopped in turns, and 'shopkeepers' prepared bills. Later, some context-based descriptive problems were also solved on the white board.



E. *'Open-ended' thinking and writing*

Improving writing skills is generally seen as a challenge in our school. Historically, there has been a disproportionate focus on oral sharing by our students. They do it very well too, but when it comes to writing, they fumble. Hence, this was again one of our priorities during school closure.



An example of student diary

A class 4 girl filled the entire whiteboard with her story.

At the beginning of community-based classes, we did not use textbooks. We had multi-level, multi- grade groups, hence we thought of using a set of library books suitable for a range of competency levels instead. We encouraged students to spend a significant time reading, and they responded well. We also encouraged them to write about what they read. These were open-ended tasks, meaning that students could write on anything in any format. Additionally, since so much was happening around them, we encouraged them to maintain a diary. To these tasks, we added certain tasks driven by the local context, and projects wherein students were to write their observations and information that they would have collected.

Each student was encouraged to share what they had written, with their peers for feedback. We ensured that our feedback was focused on ideas, their flow, and organisation, rather than only on grammar, handwriting, etc. They were prompted to think beyond facts and routine descriptions to include their feelings, opinions, and what they thought of a situation. If they had read a story, we would ask them to rewrite in their own words. For older students, we chose Prem Chand's work for a more dedicated reading-writing exercise. We would select a few pieces written by students and publish them in our monthly *'Baal Patrika.'* While using textbooks and attempting questions from them, students were encouraged to answer systematically in their own words.

All this resulted in improvement in their writing skills – both, quantitatively as well as qualitatively. Students could now describe a story they had read or their previous day's engagements in detail. Their feelings and views were also becoming more and more evident in their writing. There was a clear shift from a factual to a thoughtful way of writing.

We plan to continue this strategy in the coming academic session as well. We plan to continue diary writing as a regular practice, with more open-ended questions for writing tasks. We intend that student writing pieces be shared within the class with a process of constructive feedback for improvement in place. Better pieces can be displayed somewhere in the classroom. The monthly magazine could have a large variety of sections, so that students are encouraged to try different forms of writing. We could form pen pals in the Azim Premji Schools across locations. Writing is closely linked with reading, so students need regular independent reading time as well. This can be ensured by having library corners in each class and dedicated library periods.

F. *Better community connect, knowing students better improves attendance and learning*

We have always focussed on maintaining strong teacher-student and teacher-community relationships. The pandemic provided us with the opportunity to further strengthen this bond. Going to villages and spending time with our students' families at their own house changed the entire dynamics of our relationship with them. There is greater trust, more acceptance of our thoughts and ideas, and people are paying attention to what we have to say. Students have started opening up and sharing more. All this brings a different level of clarity in our minds not only about how to plan our teachin, but also on how to plan the entire education process better.

When the lockdown began, we were in touch with each of our students through calls or WhatsApp. When community-based classes began, the groups were small, and hence, it was possible for us to pay attention to each student. This was more than what we could generally do in a normal academic session. We paid additional attention to the social context and emotional health of our students.

As a result, even the shy and reserved ones started sharing more. The venue (students' homes or a spot in the community) also played a role as students seemed more comfortable being 'themselves' in these locations.

Additionally, we ensured a continuous dialogue with the parents as well. We proactively sought their help in conducting classes and ensuring students were spending some time with the tasks assigned at home. And they did participate – some (mostly alumni) volunteered for facilitating classes, while some parents helped in escorting children from the neighbourhood. A number of them let us use their veranda or terrace for conducting these classes, while others allowed us access to facilities such as drinking water, toilets etc.

During the lockdown, parents also supported us in distributing dry ration kits to disadvantaged families and conducting awareness rallies in the village as part of our COVID humanitarian aid. This also helped in strengthening our relationship with them.

From all these experiences, it was evident that better bonding with students and community has direct positive effect on continuity of engagement and learning of students. For instance, their attendance improved; we shared more with parents and children – both academic and personal aspects – which helped in conducting classes better; there was greater sensitivity in our interactions, our conversations were more relevant and, hence, effective. The overall environment was that of mutual respect; hence, feedback and criticism was constructively accepted. To conclude, better relationships with students and their guardians provide the essential bedrock on which teachers' pedagogical efforts bear fruit. Hence, investing time on this front during the normal course of things is also indispensable.

At three pockets, reading clubs that were started during the lockdown period have continued because of community interest and support. Going forward, our school will have a mechanism for working on this front. We also maintain each students' profile, which will again require teachers to closely understand the learner and their context, their needs. This profile helps in planning and following up with students, and therefore facilitates and sustains a close interaction with parents and the community.

For better relationship with the community, there could be regular events where community members participate. Local resources and events could be used for strengthening student learning. Hence, visiting nearby sites should find a place in our regular teacher planning. If possible, we could run community libraries with the help of some volunteers from the village – this will help in continuing our dialogue with them. We could ask our alumni to help as well. Different teachers can take up this responsibility in rotation, so there is always someone from the school who purposively devotes time on this front.

G. *Strong alumni connect has multiple advantages*

During the first lockdown, we reached out to our alumni group for both helping our students to ensure some continuity in their studies and running COVID awareness campaigns in the community.

Our alumni group participated wholeheartedly in organising the campaign – they wrote slogans, songs, prepared skits, and banners, and led the rallies in their villages. They performed skits in public places to encourage people to wear mask, maintain a safe distance, and wash their hands.

In some places, they even assisted in organising community-based classes or provided help to understand assignments, etc. in their neighbourhoods.

Our alumni are our representatives in the community. Hence, it is good to be keep in touch with them to guide and support them to succeed in life. Their success in turn will inspire younger students to do well. All this will require us to have a well thought out plan for them. One teacher can be made responsible for coordinating the alumni program. Monthly review meetings could take up this issue as well. Many of these students need our help in study support or for preparation for entrance exams to enrol for higher education. They may also need career related guidance.

5. Conclusion

Although these insights may seem obvious and sometimes commonsensical, the real effort lies in detailing their implementation. This pandemic created circumstances for us to focus on things that otherwise remain peripheral. For instance, we all know reading books improves language skills, but never thought of anchoring a class on a set of library books, which proved to be more effective than a general reading session. At the same time, all these strategies require a thorough understanding of the learners, their socio-cultural-geographic contexts and the community. In turn, this requires a thinking-outside-the-class mode, which would not have come to us naturally during normal school days.

Because of all these efforts, our students progressed and did not lose their learning, which we tracked periodically through regular assessments. Therefore, it makes sense to continue these strategies in our 'normal course' routine. Using these learnings, we could develop more resilient teaching-learning approaches in the coming days when schools are expected to open and run in a normal way.

Paper 5

Teacher Efforts to Support Learning Recovery after School Reopening

Research Group, Azim Premji Foundation

Executive Summary

During the pandemic, India was among the countries with the longest duration of school closure in the world, resulting in learning loss comprising forgetting of what was learnt and the loss of curricular learning that would have happened if schools had remained open. The impact has been particularly harmful in the early years of learning, when the foundational abilities that are critical for later learning across subjects have been lost or simply not been acquired. As schools reopen, this learning loss must be addressed on priority, otherwise learning gaps will accumulate across school years to unmanageable levels – this situation is a national emergency.

Various initiatives have been taken by the central and state governments for addressing learning loss as schools reopen. While, so far, these efforts have been uneven, many states are preparing long-term plans going ahead. However, whatever initiatives may be taken, it is undeniable that teachers are central to the effort of addressing learning loss. Therefore, this study focusses on efforts of teachers towards learning recovery since schools reopened. The study was conducted in 41 districts across five states and covered 108 teachers, as many schools, and 1644 students in classes 2 to 5.

The Azim Premji Foundation has been working with the teachers included in the study for a long time. While working within the same resource and support constraints as most of our public-school teachers, they are known to make exceptional efforts towards student learning and have consistently demonstrated their commitment and capability. It should be noted that the teachers in this study are a small percentage of the teachers in the school system. The larger objective of the study was, therefore, to determine what is needed for learning recovery at scale from the efforts of these teachers, and their experiences and reflections.

Baseline and endline assessments of students for language and mathematics were done to understand the extent of learning recovery during the duration of the study. It is important to point out that the specific abilities assessed comprised those from two classes below, and not the current class – with the exception of class 2, since it was assumed that these students did not have any formal learning exposure except during class 1 – to understand the recovery of foundational abilities necessary for further learning across classes and subjects.

Key Findings

Teacher efforts: *This subsection indicates key findings from teacher interviews and classroom observations related to efforts teachers are making towards recovery of learning loss.*

- ***Teacher efforts towards engaging students:*** *In the classroom, 89 percent of teachers were observed to make space for students' narratives and experiences in their daily interactions and teaching-learning processes. This was part of a special effort towards getting students into the routine of classrooms and schools, particularly those in Classes 1 and 2, who were coming to school for the first time. 81 percent of teachers reported the use of fun games and activities throughout the day, while 83 percent of teachers reported efforts to convey a sense of the school as a safe space for newly enrolled students through personalised conversations.*
- ***Working with multilevel classrooms:*** *In attending to multilevel classrooms, or even multi-grade, multi-level classrooms – a reality in most public primary schools – 72 percent of teachers were seen to divide students into logical learning groups. They used different materials, activities, and pedagogic techniques to engage with these groups through a differentiated approach within the same classroom session. Other practices reported by teachers included activity-based learning in school (69%) and making learning opportunities available for students beyond school hours through community-based group projects and worksheets (64%). Teachers also reported having undertaken specific efforts to prepare themselves for the anticipated challenging situation once schools reopened, with 95 percent of teachers reporting participation in online forums (seminars, workshops, trainings).*
- ***Classroom practices:*** *81 percent of teachers encouraged and allowed students to use local dialects and made conscious efforts to connect with the home language of the students, which was often different from the medium of instruction in the school. 75 percent of teachers were observed to rely on a variety of teaching-learning resources, including worksheets, library books, contextualised local teaching-learning materials (TLMs) and charts to engage students better with foundational abilities in language and mathematics.*
- ***Student assessment:*** *38 percent of teachers were observed to use multiple tools for assessment, including self and peer assessment in the form of worksheets, group discussions, role play, class work, home assignments, observations, and project work in oral, written and mixed modes. 87 percent of teachers reported using oral assessments with other strategies, including worksheets and observation, with a specific focus on each student after schools reopened. Teachers also reported using games and activities for*

assessment, and conducting assessment after school reopening for determining student learning levels for creating learning groups.

- ***Learning levels and learning recovery:*** *Students were assessed at the beginning of the study period – this assessment indicated the status of learning related to the specific abilities from the previous two classes (with the exception of class 2). Students were assessed again at the end of the study period to understand how learning recovery was progressing, given that the chosen sample of teachers were expected to put in the required efforts.*
- ***Language***
  - *Demonstration of previous class abilities in language at the start of the study period: 53 percent, 70 percent, 58 percent, and 61 percent of students from classes 2, 3, 4 and 5 respectively were not able to demonstrate abilities in language from the previous two classes at the start of the study.*
  - *Improvement in demonstration of previous class abilities in language at the end of the study period: 41 percent, 46 percent, 50 percent, and 41 percent of students from classes 2, 3, 4 and 5 respectively, showed improvement in abilities from the previous two classes in language after the duration of the study.*
- ***Mathematics***
  - *Demonstration of previous class abilities in mathematics at the start of the study period: 29 percent, 57 percent, 52 percent, and 54 percent of students from classes 2, 3, 4 and 5, respectively were not able to demonstrate abilities in mathematics from the previous two classes at the start of the study.*
  - *Improvement in demonstration of previous class abilities in mathematics at the end of the study period: 52 percent, 54 percent, 47 percent, and 63 percent of students from classes 2, 3, 4 and 5 respectively showed improvement in abilities from the previous two classes in mathematics after the duration of the study.*

While in no way attempting to establish a simple causal relationship, it is clear overall that the efforts of teachers included in the study have had some impact on learning recovery, although much work is still required. Also, it may be recalled that the abilities assessed in this study are from the previous two classes (with the exception of class 2) and not class-appropriate abilities. Even as students are now in the process of moving to the next class, they are still not proficient in the abilities of the two previous classes. In other words, hardly anything has been learnt in the past two years, and if we go on with a business-as-usual attitude, the loss in learning will soon be insurmountable.

Thus, there is need for well-coordinated, multi-pronged efforts at the systemic level to address learning recovery. The approach must be holistic and long-term, with teacher capacity and support in focus, as well as dissemination of practices that can be adopted by all teachers. It is critical at this point to refurbish the curriculum – to identify the essential learning outcomes that are critical for further learning. Content must be selected thoughtfully based on these essential learning outcomes. Continuously assessing students is also critical to determine learning levels on which to base plans for providing focused attention, either individually or in groups, as well as to modify teaching learning. This requires time – at least one full year must be provided for these efforts. Needless to say, teachers will also need customised capacity building, both, on-site support as well as orientation to the refurbished curriculum and pedagogical strategies that support multilevel classrooms. The efforts cannot be cosmetic – a consistent effort at this critical juncture is required to not only address the current crisis, but to enable a shift to teaching learning that enables success for each student.

1. Introduction

India has had the longest school closure in the world – schools closed in March 2020 and have opened in a staggered manner across states between September 2021 and January 2022. There is overwhelming evidence of learning loss due to this long school closure, warranting treating the situation as a national emergency.[1] Learning loss comprises, both, regression or forgetting of what was learnt and the loss of curricular learning that would have happened if schools had remained open.

The impact has been particularly harmful in the early years of learning, when the foundational abilities that are critical for later learning across subjects have not been acquired or have been lost. As schools reopen, this learning loss must be addressed on priority, otherwise, learning gaps will accumulate across school years, impacting completion of school education and the preparedness of an entire generation to take up higher learning and meaningful employment.

Initiatives towards learning recovery can be categorised into efforts at the level of the Centre and state-driven efforts. Some examples of the former are the 100-day reading campaign, and the focus on foundational literacy and numeracy through the FLN Mission. States have adopted the initiatives taken by the Centre while also taking other specific measures.

Most states have reduced the content of textbooks, based on either identification of essential learning outcomes or concepts. The curriculum has been systematically refurbished in a couple of states through prioritising learning outcomes, and a few other states are in the process of doing the same.

Bridge courses have been designed from class 2 onwards in a few states, focusing on foundational abilities from the class students would have been in while schools were closed. School readiness programmes have also been designed for classes 1 and 2, for students who enrolled during the pandemic and hence have never attended formal school. A few states have developed programmes for learning recovery, ranging from developing workbooks to tracking student learning, undertaking remedial programmes, and supporting teacher efforts towards teaching ability-based groups of students. Orientation of teachers for school reopening has been done in both face-to-face and digital mode in some states, while a few others have conducted capacity building programmes for specific interventions.

However, thus far, efforts have been uneven across most states. While some states have taken up systematic, long-term efforts, others are still looking at one-time short-term programmes and/or supplementary materials as being sufficient to address this crisis.

However, whatever initiatives may be taken, it is undeniable that teachers are central to the effort of addressing learning loss. Therefore, it is important to understand efforts made by teachers – whether individually or driven by state initiatives – towards learning recovery. This study focuses on teachers who have been known to make exceptional efforts towards student learning over a long period of time, including during school closure. The intent was to study the efforts these teachers were making towards learning recovery after schools reopened.

1 Azim Premji Foundation. (2021). Loss of learning during the pandemic. https://azimpremjiuniversity.edu.in/publications/2021/report/learning-loss-during-pandemic

2. Methodology of the Study

The study was conducted in 41 districts across five states (Chhattisgarh, Karnataka, Madhya Pradesh, Rajasthan, and Uttarakhand) and covered 108 teachers, as many schools, and 1644 students in classes 2 to 5 (see Table 1). As the schools were reopened only for a few months before the end of the academic year, the study was carried out over the brief period of January to April 2022, with around only seven weeks between the baseline and endline assessments conducted with students. The objective of the study was to understand what could be achieved by teachers who have been making continuous efforts to engage with students throughout the period of school closure, and have also specifically focused on learning recovery after schools reopened. Hence, the study was done only with a purposive sample of teachers. These teachers were selected based on prior knowledge of their engagement in school teaching-learning processes; Azim Premji Foundation has been consistently working with these very committed and capable teachers over a long period.

Table 1: State-wise teachers observed and students assessed

	Districts	Number of students assessed*	Number of teachers interviewed and observed
Chhattisgarh	4	424	22
Karnataka	9	463	30
Madhya Pradesh	4	190	08
Rajasthan	11	224	21
Uttarakhand	13	343	27
Total	**41**	**1644**	**108**

**Number of students assessed in language: 820; Number of students assessed in mathematics: 824*

The main focus of the study being efforts of the teachers on recovery of foundational abilities, a briefing of the teachers was done in the initial visit to get their consent and also to provide them an outline of the study. This included a brief teacher interview to understand their opinions, beliefs, and planned practices for enabling learning recovery among their students. In addition, two classroom observations were done with each teacher across the seven-week period with the purpose of identifying specific practices that they were engaging in for recovery of foundational abilities. A debrief interview was also conducted at the end of the seven-week cycle with a subset of teachers, to allow them to reflect on the observation data and also on their practices.

Baseline and endline assessments were done with the same cohort of students for language and mathematics. The assessments focused on foundational abilities in both these subjects. Students were assessed for foundational abilities corresponding to the previous two classes with reference to the class they were currently in, with the exception of class 2. In case of class 2, a decision was taken not to assess abilities related to early childhood care and learning (ECCE) since it cannot be assumed that all students were enrolled in any type of ECCE programme, especially in light of the pandemic. Hence, students enrolled in class 2 were assessed only on abilities from class 1.

Class-appropriate abilities were not assessed as students had returned to school only recently and it was assumed that they had little or no exposure to class-appropriate teaching learning.

3. Findings

Efforts of teachers towards learning recovery were determined through teacher interviews and observation of classrooms. To estimate the effect these efforts are having on learning recovery, students were assessed at the beginning of the study (baseline) and at the end of the study (endline). This was not done to establish any causal relationship between teacher efforts and learning recovery, but to identify whether teacher efforts are aligned towards learning recovery.

3.1 Insights from teacher interviews and classroom observations

3.1.1 Engaging students

- In the classroom, 89 percent of teachers were observed making space for children's narratives, while 62 percent of teachers were observed facilitating inclusive and engaging activities.
- During interviews, 81 percent of teachers reported the use of fun games and activities throughout the day, while 73 percent of teachers reported creating a child-friendly environment wherein students could feel comfortable sharing their anxieties, home situation, incidences of violence or fear, and so on with the teachers. About 50 percent of teachers also reported use of the library, interesting assembly, and developing Covid

related habits.

- 83 percent of teachers reported efforts to convey a sense of the school as a safe space for newly enrolled students (students of classes 1 and 2 who were coming to school for the first time) through conversations, while 74 percent of the teachers reported involving them through games and activities. About 50 percent of teachers reported engagement with each of the following practices: giving students extra time to adjust to the school routine, discussing the everyday routine in different forums with students, and involving parents, Anganwadi workers, MDM cooks, and other staff of the school in making students comfortable.
- Teachers conveyed that their intent was to build a sense of confidence among the students about coming back to school and helping them overcome the anxieties and tribulations they might have faced over the last two years.

Views from classrooms

The language teacher in class 3 continues her 5-day plan to work on rhyme extension. Her focus today is to get students to present their homework on extending the rhyme. They have spent the last two days learning this new rhyme – finger reading, reciting, and writing it in their notebooks. She has asked them to extend the rhyme adding new words they have heard as homework. All have been given the same homework, despite the teacher knowing that many students are not at class level and will not be able to do it. But doing the same homework will make them feel included and encourage them to attempt it. As expected, some students have not done the homework. The teacher writes the rhyme on the board, leaving a few words blank, and asks these students to come forward, recite the rhyme with actions first and then complete the blanks on board with what they have sung. As they write on the board, some make spelling mistakes. The teacher encourages them, saying "yes its OK, just write what you have in mind," instead of correcting the spellings. Once they have all returned to their seats, she corrects the mistakes with the help of the entire class. (Class 3, Language)

When a child in class 2 says that rats are yellow, the teacher does not dismiss the response, asking instead, "Where have you seen the yellow rat?" The child responds by saying that he has seen it on TV. The teacher then asks all students the colour of rats we see in our houses. In this manner, she helps students reflect on their responses while also communicating to them the difference between the TV shows and reality. (Class 2, Language)

Voices from the field

I believe the first step towards getting students ready to learn is to get them comfortable in a fear-free environment. For that, we need to talk with them about their favourite toy, food, their family, stories, charts, etc., and that too in their local language, so they open up. Slowly, we can build their interest towards talking about things present in the textbook. And in no time, we will see that students have started to participate in the planned academic activities. A teacher cannot expect students to speak or answer questions on textbook exercises if the teacher hasn't connected the content with students' experiences. *(Teacher)*

3.1.2 Working with multilevel classrooms

- In attending to multilevel classrooms, 72 percent of teachers were seen to divide students into logical learning groups and use diverse materials, activities, and pedagogic techniques to engage with these groups through a differentiated approach within the same classroom session. 57 percent of teachers were observed to be taking steps to address each child's needs. While most classrooms comprise students at different learning levels, the pandemic has sharpened and deepened these differences, since some students received support during school closure, while others did not.
- Focus on group-based learning (72%) and activity-based learning in school (69%) were approaches that found favour among teachers to help students recover learning loss and reach class-level abilities at the earliest possible. 64 percent of teachers saw the value of making learning opportunities available for students beyond school hours through community-based group projects and worksheets. The intent was to reduce the differences in learning levels by using pedagogical strategies and resources that address multilevel classroom.

Views from classrooms

In a language classroom, the teacher makes groups of students comprising those who are reading at class level and those who are struggling to read respectively. While doing so, the teacher also considers the distance between the homes of these students. She does this to ensure they live close by, so that they can continue learning at home as well. These peer groups are called vishay mitr *(subject friends). Each group is given a story card or word making activity. The teacher also distributes storybooks among the students –each has to read a story and then narrate it to the other group members.* *(Class 2, Language)*

Voices from the field

When I paired students level-wise for a reading task, it not only helped them to understand that they had to respect each other's difficulty, but also learn from each other and read properly. I had read all the books before giving them to the groups, so I knew which book was text-heavy, which had easy words, which covered an easy topic, etc. so that I could distribute them as per the learning level of the group.

Through this approach, I was able to work on language learning outcomes like retelling read story in their own words, reading new words through guessing, and writing the told story. Though my students might have learnt in different capacities, they were able to explore new resources and participate in the same task as their friends. Working in groups also made students sensitive towards each other. When a peer couldn't keep up with their pace of reading, they got frustrated and often complained; this made them realise how difficult it is for some students to learn and how they can help them. *(Teacher)*

3.1.3 Classroom transaction

- 81 percent of teachers were observed to encourage students to use local dialects and make conscious efforts to connect with the home language of the students, which was often different from the medium of instruction in the school. 75 percent went beyond the textbook and brought in the local context, while 72 percent encouraged children to speak and share their experiences.
- Many teachers reported undertaking specific efforts to prepare themselves for the challenging situation they anticipated they would face when schools reopened. 95 percent of teachers reported participation in online forums (seminars, workshops, trainings). 70 percent participated in orientation to bridge courses and the use of worksheets, while 68 percent reported preparing worksheets/TLMs to be used when schools reopen. 54 percent made efforts to acquaint themselves with methods to identify learning loss and learning needs of individual students and 19 percent reported reading articles/blogs on innovative ways of assessing students.
- It is important to point out that these are good classroom practices that must be seen in all classrooms. However, in the current scenario, these good practices have become critical, since they will provide the path to recovery of learning.

Views from classrooms

The teacher asks students to make a sentence of their choice, encouraging them to use words they were comfortable with; this not only paves way for the local language to be part of the classroom, but also for students' existing knowledge. Ashish makes a sentence using dham*, the Garhwali word for sunshine. The sentence he makes is 'We get dham from the sun'. This set off a chain of sentences using dham – e.g., 'Dham gives light'; 'We get heat from dham'; and so on.(Classes 4 and 5, Language)*

In a Class 5 mathematics game on addition and subtraction, students are asked to jump on different numbers marked on the floor. One child makes a slight error in recognising the correct number and jumps on the wrong one. The teacher and other students help him to recognise the right number by saying "Where is the arrow pointing if you are not able to understand where to go, then look at the arrow." In another activity, number cards from 1 to 10 are placed in a line and the teacher asks the students to stand on a given number and then move forward by adding a number he calls out. For example, when a child stands on number 4 and the teacher asks him to add 3, the child moves forward by counting 1, 2, 3 and reaches 7. Some students participate in, both, the activities based on addition-subtraction and counting, and some participate only in counting activities – they can decide. He uses the local dialect as well as the medium of instruction. (Class 4, Mathematics)

Voices from the field

While I use the workbooks given by the state as the main resource, I have learnt many new methods for teaching learning from YouTube. I feel a connect with my students and am also aware of the trust parents place in us when they send their children to school. Because of these things, I feel that it is my responsibility to teach well and work hard. (Teacher)

3.1.4 Resources

- Teachers were observed to rely more on a variety of teaching-learning resources, including worksheets, library books, contextualised local TLMs, and charts to better engage students in foundational abilities in language and mathematics, with 75 percent of teachers doing so.
- However, only 43 percent were observed making meaningful use of resources for teaching learning in terms of age appropriateness, seamless integration into teaching learning, independent use by students, and so on.

Views from classrooms

The teacher in the multigrade mathematics classroom uses resources like pebbles, tree leaves, match sticks, etc. to help students understand the concept of addition, subtraction, and place value in mathematics. While working on the concept of place value (ones and tens), he helps students 'make numbers' using bundles of 10 matchsticks as well as loose sticks. Saying 56, he picks up 5 bundles of ten matchsticks and 6 loose sticks, and then asks students to make various two-digit numbers. Further, students use the workbook developed by the State, wherein they have to write the number name in a blank space next to pictures of bundles and loose sticks. *(Classes 4 and 5, Mathematics)*

3.1.5 Assessment

- Through their pedagogic processes, teachers were observed to use multiple tools for assessment, including self and peer assessment in the form of worksheets, group discussions, role plays, class work, home assignments, observations, and project work, in oral, written, and mixed modes. However, only 38 percent of teachers were found to be undertaking such diverse forms of assessment. 34 percent of teachers used assessment throughout the lesson, while 31 percent were observed to be using the results of assessment to give feedback and support reflection.
- 87 percent of teachers reported the use of oral assessments, 63 percent reported the use of worksheets, and 69 percent reported the use of observation, with a specific focus on each student after schools reopened. 40 percent of teachers also reported assessment through games and activities.
- Assessment must be a part of all classrooms – however, it is particularly relevant in the current scenario since the teacher must be able to understand where each student is placed and also what kind of support each student needs.

Views from classrooms

Each child in Class 5 is teamed with a partner. The teacher provides flash cards with punctuation marks to child A, and flash cards with the names of punctuation marks to child B. Child A shows a flash card of a punctuation mark and child B shows the matching flash card with the name of the punctuation mark. In this manner, the teacher supports students in self and peer assessment. (Class 5, Language)

The teacher is assessing ongoing work on a story in Class 4. Students are reading the story in groups, and the teacher observes the groups by moving around the class. She provides necessary feedback when she feels students are stuck. When she observes students looking confused, she sits with them and helps them read – she first encourages them to read and then helps them herself. During oral assessment, some students get stuck while telling the story, so she probes them with some clues and supports them in completing the story. The students are then asked to write the story as homework, which will be displayed in the classroom. (Class 4, Language)

Table 2 provides an overview of the quantitative analysis of classroom observations of teacher practices.

Table 2: Quantitative analysis of classroom observations of teacher practices

Indicators	Practices	Percentage of each observation
Engaging Students	**Makes space for students' narrative and experiences (e.g., through daily sharing of experiences); respects, encourages, and appreciates each student's inputs**	89%
	Plans engaging and inclusive activities and encourages students to participate in engaging activities in addition to academic learning (e.g., opening/closing class with a song or dance)	62%
Multilevel Classroom	**Divides students in groups according to learning levels, provides different materials/ different activities to each group as needed, and encourages peer learning**	72%
	Identifies and addresses each child's needs to provide individualised support and resources (e.g., worksheets, home assignments based on student's need, children's literature, and so on)	57%
Classroom Transaction	Goes beyond the textbook and refers to/uses the local context to develop lessons	75%
	Encourages students to share thoughts, ideas, and experiences; responds sensitively and thoughtfully; uses these to develop lessons	72%
	Encourages use of local dialect by students and, whenever possible, uses the local dialect in teaching learning	81%
Resources	**Uses a variety of resources to engage students in learning (e.g., worksheets, books, charts, local stories, and materials)**	75%
	Meaningful resources to engage students in learning (e.g., age appropriate, related to concept, used to develop lesson)	43%
Assessment	Conducts formative assessment throughout the lesson	34%
	Uses a variety of modes and tools for assessment (for example the following, but not restricted only to these - worksheet, group discussion, role play, class work, home assignment, observation, project work, and so on)	38%
	Uses result of assessment to give feedback and support reflection (e.g., shares individualised and focussed feedback with students, analyses the responses of students to help them reflect on their understanding)	31%

4. Results of student assessment

Language assessments included oral expression, reading fluency, listening comprehension, reading comprehension, and writing skills from the previous two classes (with the exception of class 2).

Mathematics assessments included identification of numbers, counting, writing and comparing numerals, and use of basic mathematical operations for daily life problem solving from the previous two classes (with the exception of class 2).

Tables 3 and 4 below indicate the percentage of students who did not demonstrate previous class abilities in language and mathematics in the baseline assessment, and the percentage that showed improvement between baseline and endline assessment.

Table 3: Percentage of students who did not demonstrate previous class abilities in Language and Mathematics

Mathematics			Language		
Class	**Total number of students assessed**	**Percentage of students who did not demonstrate previous class abilities in baseline in Mathematics**	**Class**	**Total number of students assessed**	**Percentage of students who did not demonstrate previous class abilities in baseline in language**
2*	173	29%	2	210	53%
3	148	57%	3	190	70%
4	275	52%	4	234	58%
5	232	54%	5	186	61%

Table 3 indicates that, as school reopened, a significant proportion of primary class students were not able to demonstrate abilities from the previous two classes in both mathematics and language. This was as high as 57 percent in mathematics (for class 3) and 70 percent in language (for class 3). These worrying proportions, across classes, themselves indicate the need for immediate, systematic, long-term action.

Table 4: Percentage of students who have shown improvement from baseline to endline

Mathematics		Language	
Class	**Percentage of students who have shown any improvement from baseline to endline in mathematics****	**Class**	**Percentage of students who have shown any improvement from baseline to endline in language****
2*	52%	2	41%
3	54%	3	46%
4	47%	4	50%
5	63%	5	41%

*Note: *Only class 1 abilities were assessed for students in class 2 during the study; **These are the averages of percentage values across abilities in each class with the denominator as students assessed minus those who already have previous class abilities.*

Table 4 indicates that a small but noteworthy proportion of students showed some improvement in demonstrating abilities from the previous two classes over the period of seven weeks between the baseline and endline. This was as high as 63 percent in mathematics (for class 5) and 50 percent in language (for class 4). On the one hand, this suggests that dedicated and well-aligned efforts of the teachers do probably have positive implications for learning recovery even over the short period of seven weeks of this study. On the other hand, a large proportion of students are still not able to demonstrate abilities from the previous two classes. Overall, the findings from the study suggest the need to consolidate structured and dedicated efforts for learning recovery over a long-term period.

5. Conclusion

The teachers in the sample of the study have been purposively chosen based on their understanding of how students learn and their commitment to making necessary efforts for student learning. While they are working in the same conditions as the majority of teachers – they have access to the same infrastructure, resources and professional support, and the size and composition of their classes is the same – they are in no way representative of the majority of teachers who, however well-meaning they may be, lack this understanding.

At the same time, while we are in no way attempting to establish a simple causal relationship, it is clear overall that the efforts of these teachers have had an impact on learning recovery in the short duration of the study (given the few months students spent in the current class when schools reopened before moving to the next). However, it must be pointed out that the abilities that were assessed are from the previous two classes (with the exception of class 2) and not class-appropriate abilities. Also, students are now in the process of moving to the next class – they are doing so while they are still not proficient in the abilities of the previous two classes, thus creating a gap of not just the present, but also the previous two classes – this loss will only keep accumulating. In other words, hardly anything has been learnt in the past two years, and if we go on with a business-as-usual attitude, the loss will soon be insurmountable.

The good news is that the narrative of the need for learning recovery has entered educational discourse in the country. States are making plans to address this crisis. However, these efforts must not be cosmetic. Cosmetic changes will only give the appearance of recovery for a short period, hiding the graver gaps that must be treated with urgency.

Thus, there is need for all states across the country to take up systematic efforts to address learning recovery. The approach must be holistic and long-term. As often happens, multiple programmes are being implemented in all sincerity by states. These often end up confusing teachers, with a best-case scenario being that teachers then choose what they want from the various resources and strategies offered, and a worst-case scenario wherein teachers get confused and are unable to effect change in their practice. Thus, a policy for learning recovery must be developed at the state level, which may be reviewed often, but must set a consistent course for the next few years in terms of approach and priorities.

The curriculum must be refurbished – with a systematic prioritisation of learning outcomes and selection of content based on this exercise across classes. This refurbished curriculum must be implemented over the next few years to ensure all students have comprehensively acquired the foundational abilities necessary for them to achieve the goals of school education.

The study shows that even the committed and capable teachers who formed the sample of the study are in need of help where assessment is concerned. This is consistent with field observations, which have repeatedly indicated the need for capacity building of teachers in the area of assessment, particularly ongoing formative assessment in the classroom. Another critical area is to enable teaching learning in multilevel classrooms. A systematic plan for capacity building of teachers – both face-to-face and online – and for on-site support must be developed immediately and implemented with due contextualisation at the level of districts and blocks, if not clusters and schools. Teacher learning communities must be formed for sharing and learning, comprising teachers within close geographical proximity.

One part of supporting teachers to enable recovery of learning loss is to ensure that the best possible material is available to teachers; states are already making efforts in this direction. However, the main focus of these efforts must be to capacitate teachers to exercise autonomy in classroom processes – this would require a change in the current culture of 'monitoring' by educational administrators.

It is important to note that the indicators described above are not observed in isolation – they have been emphasised to illustrate teachers' efforts in these extraordinary circumstances. It is also important to note that these are good practices that should be observed in every classroom at all times, not just during the pandemic. A consistent effort at this critical juncture is required to not only address the current crisis, but to enable a shift in teaching learning that enables success for each student.

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