



LESSONS FROM THE PANDEMIC

From teaching children to engaging families: Lessons from Pratham's experiences during the pandemic January 2022

Compared to other countries, India has had one of the longest duration school closures during the pandemic. In some states, schools have remained shut for a period of almost two years. The entire education sector had to scramble to design strategies for staying connected to children. Looking back at our own education efforts in Pratham during this time, it seems clear that our focus moved from "teaching" children to "reaching" families so that they in turn could engage with their children on learning activities. Although developed directly in response to pandemic induced school closures, the lessons learned from these efforts is influencing our operating strategies even as we head towards non-pandemic times.¹

With the sudden imposition of lockdown in March 2020, like many others, we had to transition abruptly and without preparation from face-to-face daily interactions with children to connecting from a distance. Initially, we focused on reaching families and trying to engage children rather than on learning. Families were facing many kinds of difficulties – economic disruptions, uncertainties over livelihoods and fear about getting sick. We felt that it was important to engage children and provide them with fun activities that took their mind off problems around them. The message campaign in the initial months was called "Karona Thodi Masti Thodi Padhai".² In focusing on engagement, we learned a lot about how to facilitate and sustain continued participation of not only children but also parents and family members. We began to understand how motivation can be kept high despite challenges. We saw how important it was to constantly adjust, adapt and improve content and keep working on how to improve delivery and feedback.

For much of the period - April 2020 to July 2021, we sent messages for children to families in approximately 11,000 rural and urban communities where there had been a direct Pratham connect in pre-COVID times. On average, about 300,000 messages went out every day. At the peak of the "reach out" and "staying in touch" campaigns the daily numbers were close to 475,000.

Learnings from the pandemic period can be put into three broad buckets:

- (a) Using remote means to stay in touch with children and their families
- (b) Designing useful content for the family as well as the child
- (c) Leveraging social structures to engage families and through them their children

A. Using remote means to stay in touch with children and their families

Engaging communities and networks to find children: Constantly expanding and updating lists of active phone numbers was central to maximizing the reach of our programs: Prior to the pandemic, especially where we were meeting children daily in communities and schools, there was no need for phone numbers. When the pandemic suddenly hit and lockdown was imposed, we hardly had anyone's numbers. However, a fast, determined and systematic push to "reach out" brought in many phone numbers quickly into our network. Each Pratham person called anyone they could, in the communities in which they had been working. School teachers, local elected officials, anganwadi

¹ This note focusses on processes and strategies that were used by Pratham to remain connected to children during this long period of school closure. At the end of the note, there is a section on data that links possible impact of these efforts on children's learning.

² "Karona Thodi Masti Thodi Padhai" literally meant "let's do some fun and some study". The word "karona" in several Indian languages means "to do". It is also used as a play on the word "corona".

workers – all were useful in this reaching-out process. In the early days of the lockdown, the effort was structured in the following way: contact at least one person in each community (family member or youth) and through them reach out to at least one person in each hamlet in the village. And using the same principle of cascading, maximize the reach in every hamlet. In the education programs, Pratham's internal tracking system shows that there were 56,800 active numbers on April 12, 2021; this figure increased to 207,400 by June 12, 2021 and kept growing as days went on.³ Having a list of active phone numbers (and information about the type of phone) of children's families and keeping this list updated is a key learning that has to be part of the preparedness for future disruptions. The broad numbers (10,000 + communities and a steady figure of 300,000 phone numbers) suggest that at least 25-30 families were directly reached in each community. However, it was also often the case that messages got forwarded from receivers to more people within the same communities and to friends and families.⁴

Narrowing the unit of operation: Prior to the pandemic, the usual unit of operation for Pratham's education programs was the local government primary school and the village in which the school was situated (and the equivalent in urban areas). However, as the lockdown proceeded, for reaching out, tracking and other activities, the sub-village unit – usually the hamlet was the most useful. Even as schools are re-opening, the hamlet wise tracking of re-enrollment and attendance is proving to be very useful for targeted attention. The mohalla or hamlet is likely to remain the basic unit of planning and operation for Pratham's field programs in the future.⁵

Maximizing reach required knowing what kinds of phones families had : Early in the pandemic, it became clear that smartphones were available only in some families. The incidence of the families who had access to smartphones ranged from 30% to 60+% depending on the location and the type of family. However close to 90% had access to some kind of phone (either a basic phone or a smart phone). ⁶ Together the aggregate data and the anecdotal ground level experiences indicated that we needed to connect also to basic phones. Over time, about 40-45% of all Pratham messages were SMS messages and the rest were WhatsApp. Depending on the social structures into which messages were being sent, combinations of messaging (SMS and WhatsApp) were also sent. For example, in 2021, there was large-scale formation of "mother's groups" by neighbourhood (hamlet/mohalla). Mothers of young children (usually in pre-school or Grade 1 and 2) in the same neighbourhood came together to share experiences and activities. Individual mothers got SMS messages on a daily basis but once a week the mothers' group leader (often referred to as SmartMata) would receive digital content for group activities. With a large section of the population not being able to access smartphones, it is critical that both SMS and WhatsApp options are used equally; delivery and content needs to be continually adapted to these conditions.

Tracking access and usage patterns : In the first few weeks of lockdown, where literally all family members were at home, children's access to the available smartphones was high. However, as lockdown restrictions loosened up, adults in the family began to go out for work, we noticed declines and delays in children's responses to messages. Further, as the economic disruptions continued, some households had difficulty in buying internet time. Changing external conditions influence access; how and when children get to use the phone for educational purposes can vary on these conditions – access is dynamic and constantly changing. Therefore, regular tracking of access and analysis of usage patterns is essential if remote learning mechanisms are to be used for a long period of time.

³ See <u>Pratham Pandemic Report 1 (MME 2020-2021)</u>

⁴ We know that a significant amount of "forwarding" happened. However accurately estimating the extent of such activity has been hard to do.

⁵ See slide no. 6 in <u>Pratham Pandemic Report 1</u>

⁶ Pratham Pandemic Report 1

Having a smartphone at home does not necessarily mean that children have access: Time and again, children and teachers have complained that just because there is smartphone in the household does not automatically ensure that children have access to it. Usually the smartphone belongs to an adult (parent or other family member) who is at work all day. When s/he returns home at night, it is often not possible to use the phone at that time to access learning opportunities.⁷ In fact, ASER 2021 data shows that on average 30+% of children in households with smartphones do not have access to the digital device and that access varies considerably by age and grade.⁸ The key lesson is that simply having a smartphone in household does not guarantee ongoing and continuous access. Any distance education program should not only use figures of smartphone penetration but also build in information about usage patterns in order to effectively plan online lessons or any other form of remote education.

B. Designing useful content for use by the family as well as the child

Before COVID, in most of Pratham's education programs, instruction was largely carried out in a class-room or group setting, where an instructor/teacher did actual activities with children. The direct and daily connect between the "teacher" and the "learner" shaped how activities were organized. The "delivery" of teaching-learning was direct; oral instructions and interactions, physical materials, whether print or actual objects, were used. As part of Pratham's instructional practice, children did large group activity, small group practice and then individual work as well. Other than cost constraints, there were no limitations on what kinds of materials or activities were to be utilized and feedback and response to activities and materials was instantly available.

The sudden arrival of the pandemic fundamentally changed the very basis on which instruction was organized. "Delivery" depended on device availability and accessibility and only digital content could be sent. Two interconnected elements had to be considered:

- (a) Delivery depended on the mechanism by which activities or tasks could be sent. While WhatApp messages could have videos, audio or text files, SMS was limited to 160 characters. It was a challenge to see how to maximize what a 160 character limit could unleash.⁹
- (b) Digital content in the form of engagement activities arrived in the family via a device belonging to someone in the family. The receiver then had to take the activity to the child. In many cases, the child could not as yet read so a family member had to explain and demonstrate what had to be done with specific activities. This implied that content that was being sent needed to be adapted for use in the family.

A few illustrations will help to make these points clearer.

Using creativity to customize content to meet the requirement of the platform used: Videos can help to demonstrate activities. For example, to encourage counting, short clips were made of how to count spokes of bicycles or teeth of family members. (Dental Math

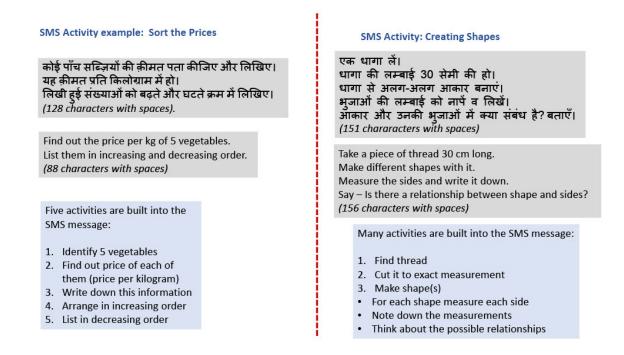
⁷ Here is an anecdote: A father of three children in Chandigarh explained the difficulties to me very clearly. He is an auto-rickshaw driver. During the day, the phone is with him and he needs it for a variety of reasons for work and otherwise. He comes home late at night. All day on his phone he has received pdf worksheets and other assignments for his three children. He is not able to understand (and often neither are his children) as to what has come from whom. Often the younger children are asleep when he gets back. He is also reluctant to hand over his phone to the children for too long.

⁸ ASER 2021 (nationally representative household sample phone survey). See <u>www.asercentre.org</u>

⁹ See SIT (Staying in Touch) Activity <u>Round 1 report</u> and <u>Round 2 report</u> from May-June 2020.

<u>https://www.youtube.com/watch?v=wFa8hbS4VB8</u> or Counting with household objects). Similarly, math games are easy to communicate in the form of a pdf file, but much more creativity is required to make a SMS to be as engaging as possible.¹⁰

Here are two examples of SMS that illustrate how several steps can be embedded within an SMS text message.



Making content contextually relevant to engage families of children

Since sending activity messages was a new activity, Pratham team members called families once a week or once a fortnight to understand how the family and how the children were responding to the inputs they were being sent. There is more discussion on two-way communication in the next section, however for now it is sufficient to say that feedback and response from families was invaluable for understanding which kinds of tasks or activities garnered greater participation from family members than others.

Here are some examples for primary school age children:

For example: consider the following task sent on an SMS message:

"Draw a triangle with three equal sides. Name a triangle such as this? Draw a triangle which has two equal sides. What is the name of a triangle like this?" By and large, parents felt this was a "school-like" task and left children to do it on their own.

In contrast, look at the following task:

"How much water was used in your household yesterday. Can you estimate – how many buckets? How much for cooking, cleaning, washing, bathing, etc"

¹⁰ See the internal studies on SIT (Staying in Touch) <u>Round 1</u> and <u>Round 2</u> reports.

This one led to many calls from family members and parents with questions and clarifications. Comments like, "Yesterday was not a good day for water supply so can we provide details for today?", "Why should the estimate be in buckets and not in drums or tanks?" and so on.

For parents and family members, "reaching at the right level" was the clue for their continued engagement. If activities were sent that were too school-like, family members passed them on to their children to do on their own. If activities were connected to real life then there was greater involvement of those in the household. In designing content for remote activities, it is worth remembering that the interest and motivation of family members will drive their interactions with children. Hence their responses are as important as those of children. "Real life" based learning had wide appeal for all. For younger children, the entire set of engagement activities is designed for parents or family members to do with their children.¹¹

"Why" something is worth learning, "who" can help and in "what way" can learning happen effectively are all matters as important as "what" to learn and "at what" level. The pandemic forced us to go behind the "what" and explore many interconnected aspects of motivation, interest and choice. Content and activities act as "triggers" rather than the end in itself. The central role of "mediators" (mothers, parents, family members) of learning, their own interests and motivation are issues that we had never paid close attention to. In re-working our approach to children's learning, these are important lessons from the pandemic experience that will have to be factored into future plans.

C. Leveraging social structures for children's learning: Engaging families and through them their children

In much of the current discussions on the role of educational technology in children's education, the focus is on the nature and type of digital content, access to devices and to connectivity. In Pratham's remote work during COVID, we have found that social structures (existing ones like friendships in the community or new ones like children's groups and mothers' groups) can play a big part in deepening engagement. Group activities and individual contact are both important in terms of keeping continuous participation at a high level and so is continuous two-way communication. As Pratham's work moved during the pandemic from direct interactions with children to facilitating engagement through family members, it became clear that strengthening social structures around children is an effective investment for the present but also for the future.

Two-way communication emerged as an essential ingredient for improving content and delivery in remote learning contexts; ongoing interactions and continuing conversations help in keeping children's engagement and family participation high. Genuine feedback and in depth follow-up are constantly needed for tailoring and adjusting activities to fit the needs and interests of children and their families.

Dealing with a known person gets more engagement than receiving bulk messages:

¹¹ Learnings from what happens with messages within the household were used very effectively in designing and delivering a 6-week health awareness and prevention campaign at the height of the devastating second wave of the pandemic – Karona Apni Suraksha (KAS). In this campaign, thematic messages went out every week (daily or on alternate days) to heighten awareness about what to do with COVID. Details of this campaign have been published in Delhi Government's DCPCR journal

⁽https://www.prathamyouthnet.org/prathamorg/Children First.pdf). Also see Final KAS Presentation August 2021.

Early in the initial lockdown period decisions had to be taken on how phone messages would go out. While WhatsApp technology enables distribution to groups to happen easily and two-way channels of communication are built in, that is not the case with SMS. Thus, it was felt that given the limitations of content delivery in text form and the weaker economic background of these households, SMS families would need more actual handholding and discussions. Instead of using bulk messaging, it was decided that each Pratham team member would send out SMS messages to communities where they were known before COVID struck. It would be the same person who would call once a week or once a fortnight to understand the current status of the family and feedback on the activities being sent. The ongoing interaction also encouraged children to send back their responses either in the form of video, audio, photographs, or text to the same known person. For example, even if the child did not have a smartphone at home, it was not uncommon for children to be sending their responses to the activity prompts via neighbours' or friends' phones. Whether children or parents, motivation to share and to respond to content that was being sent was important in terms of maintaining high engagement over a period of time.

Improving uptake and absorption of messages requires a two-way communication process

Clear evidence of how human interaction leads to better traction was visible in the six-week large scale phone message COVID awareness campaign that was carried out by Pratham in May-June 2021.¹²

Uptake of phone messages - SMS and WhatsApp were similar, with nearly 2/3rd of the recipients reading these messages (this also means that a third of all messages received are not read). In a tracking study conducted as part of this campaign, a set of contacts were spoken to only once during the week (spot check contacts), while the rest were spoken to every day of the week. The data shows that ongoing communication on a daily basis made a difference, especially in the interaction with messages, and sharing of information with other family members. For families with basic phones, those who were contacted regularly shared COVID-related information and messages with other family members much more (10-40 percentage points higher) than those called only once a week.

As technology makes it increasingly easier to widen access, and do it with lower cost and lower intensity, there is a tendency to prioritize reach over interaction and eventual message absorption and use. While human interaction is effective, this may limit our ability to scale or control costs. Balancing reach with interaction, ensuring that appropriate feedback is being received is important. Such balance may require constant experimenting with how much interaction is required for improving delivery and outcomes.

Determining who in the household helps children with learning activities received through the phone:

If there is one smart phone in the family, it is usually in the hands of the adult male (father or brother). A few "deep dives" with a small number of families was done in May-June 2020 to understand who receives the message and who does the activity with children in the family.¹³ Based on these studies, it seems that more fathers receive messages but more mothers are engaged in helping children. These patterns of engagement and participation vary by the child's grade. While the focus of the "deep dive" was in tracking parental engagement, we did not sufficiently explore how siblings help each other in studying. In future studies, this fact needs to be investigated further.

Understanding the implications of who helps whom within families is important for planning future action. Clearly more work is needed to involve fathers in engagement activities with children.

¹² See Pratham report 2 KAS (MME 2020-21).

¹³ See Staying in touch reports <u>Round 1</u> and <u>Round 2</u> (MME 2020-21).

Perhaps more explicit "role modelling" will be needed.¹⁴ Design of content and activities with a view to bringing in fathers may also be needed. At the same time, increasing mothers' access to digital content/devices may also help in strengthening what they can do with children.

An interesting point about parent perceptions has emerged in a tracking study done with early graders in Satna, Madhya Pradesh. In this program, a baseline was done with children and their families in late 2019. A year later, when movement was possible, Pratham team members visited children's homes, chatted with parents and also did one-on-one reading and math tasks with children. Parents were asked if they thought "phone messages had made a difference to their child's learning". Analysis of responses from over 1200 families suggests a strong correlation between parent's positive perception and children's learning gains. Parents who believed that messages helped also had children who had improved. While it is difficult to disentangle causation from correlation, it is probably true that parental beliefs can strengthen their effort to access learning opportunities for their children.¹⁵

In the last year, Pratham's efforts with young mothers has intensified. In all rural and urban communities where we have a direct presence, mothers' groups have been formed in the mohalla or neighbourhood. These mothers get activity messages on their phones directly (daily or every other day) and the group meets periodically to discuss what they have been doing with their children. An in-house study tracking pre-school age indicated that young children learn more if there is engagement from family members.¹⁶ Another "deep dive" with mothers' groups in Banaskantha district in Gujarat shows that understanding of foundational learning and importance of early childhood education is higher among mothers who had their own phones and had some years of schooling, but some of these advantages are evened out when mothers without cell phones or without much education are part of mothers' groups.¹⁷

Hamlet or Mohalla learning camps with youth volunteers

During the first few months of the pandemic Pratham team members listed potential volunteers who were willing to help with children in their neighbourhood. More than 17,000 young volunteers ran mini-learning camps in hamlets in 2020 and ~25,000 volunteers conducted neighbourhood/mohalla learning camps during the two-month catch-up campaign in the August-October 2021 period just before schools began to open in much of India. These young volunteers continue to be an important pillar in the social structure that support engagement with and learning of children.

HOW HAVE THE DIFFERENT INPUTS IMPACTED CHILDREN'S LEARNING IN PRATHAM PROGRAMS?

Without a proper control or comparison group, it is not possible to understand what would have happened if there had been no efforts from Pratham. It was also not possible to collect data on what inputs children were receiving from school sources, from their own sources and how consistently these types of learning opportunities were available. There were a few cases during the lockdown

¹⁴ An interesting example emerged, unintentionally, from one of the early years videos.

<u>https://www.youtube.com/watch?v=9Fj4ztn50eg</u>. The video clip from Pratham showed a young father and his son playing a pattern game with household utensils. In response to the video, many families sent back video similar clips in which young fathers were seen doing that activity in their own homes.

¹⁵ Pratham Pandemic Report 3 EY Satna 2020

¹⁶ Pratham Pandemic Report 2 ECE SBA 2020-21. Slide no. 17

¹⁷ Pratham Pandemic <u>Report 2</u> and <u>Report 3</u>

where it was possible to track whether the "staying in touch" efforts were reaping results by using some of the internal variations within the program data:

- Early Years program in Satna, Madhya Pradesh: This is a community-based intervention for improving basic reading and math for children in Grades 1 to 3 that had started in October 2019. However, the pandemic struck less than six months after the program began. Comparing basic learning levels in December 2020 with that in 2019, we see that overall the percentage of children who can at least read words increased from 26% to 50%. Over half of all children improved their reading. While it is difficult to exactly attribute what led to the increase (or the lack of decline), evidence suggests that for children who received phone messages learning gains were higher than those who did not receive messages.¹⁸
- **Pratham direct programs**: In February 2021, Pratham teams conducted what was called the "Reach and Learning Exercise". At the time, the incidence of COVID seemed to be abating and it was important to carry out structured visits to a sample of Pratham communities to understand how children had fared in the past year in terms of their schooling status and learning levels. A sample of 270 villages and communities were visited across the country. These were locations where Pratham had been running programs in the pre-COVID time. Overall 37,000 children were surveyed in this exercise. For approximately 20,000 children data was collected about whether they had received any inputs from Pratham since lockdown began in March 2020. Inputs included phone messages, participation in any Pratham-facilitated children's group activities including classes. For younger children it included involvement of their mothers in mothers' group activities.¹⁹ Data suggests that children who received more inputs (messages, neighbourhood activities) gained slightly more in terms of basic learning than those who received fewer inputs. Also, children who were part of Pratham's volunteer classes in the community had overall better learning levels than children who did not participate.

CONCLUDING THOUGHTS:

For Pratham, like for many other organizations, the pandemic period has been a very fertile one – new challenges, new experiments, new capacities and new learnings. All across the organization, Pratham teams learned to use digital devices and content in a way that enabled them to reach children, youth and families. We learned how to function in a flexible way and how to change gears as per the lockdown restrictions and COVID situation in the communities. The last two years have also highlighted how different types of people (mothers, parents, youth) can participate and contribute to their children's learning. They have taught us how existing social structures can be leveraged for deeper engagement and continued connections for learning. Many of the lessons learned (successes and failures) will be adapted for longer run use and for strengthening our efforts to enable every child to learn.

¹⁸ Pratham Pandemic Report 3 EY Satna. In November 2019, of the children who did not receive phone messages later, 14% could read words or more. A year later, the proportion of these children who could read words went up to 30%. Among children who later received messages, 28% were able to read words or more in 2019 and this level went up to 54% a year later. (In terms of percentage point improvement, the "message children" gained 10 percentage points more than the "no-message children".) See slide no. 14 and 22.
¹⁹ Pratham Pandemic Report 4: Reach & Learning Exercise Feb 2021. See slide no. 28-29-30.

ENDNOTES: Some other interventions worth highlighting

(1) QUIZ:

An initiative that was first tried in Bihar in late 2020 and then taken to scale during the KAS- Karona Apni Suraksha campaign during May-July 2021 was the web-link based 'Quiz' exercise. A simple, relevant, and engaging multi-choice quiz linked to the content shared via SMS & WhatsApp was an effective way of engaging with our key stakeholders – children, parents, volunteers, and youth. While the quiz could be taken by anyone who had a smartphone, we developed a feature where a maximum of 10 participants could be linked to one device/ phone number. This enabled us to reach those children and parents who did not have smartphones as well. State teams shared this link with all their contacts for a specific time duration and encouraged them to share it further in their community. Through a real-time dashboard, teams could track participation in the quiz at a district & block level. This information created healthy competition within and among states and districts across Pratham.

In the second quiz of Karona Apni Suraksha (KAS) – the corona awareness campaign in May-June 2021 - the quiz was taken by almost 1 million participants over a 7-day period. A prescheduled 'recall-based' activity helped promote engagement, participation, and excitement. Having questions for both children as well as adults increased participation. Since the KAS campaign, the web-linked Quiz platform (which has been developed completely in-house by the MME team) has been used in the Math Mohalla Learning Camps and now is regularly being used in Bihar's government partnership programs which are focused on government appointed education volunteers and mothers in Self-help Groups.

(2) BROADCAST MEDIA:

Pratham teams in different states also collaborated with State Governments to share educational content via different broadcast media such as TV and Radio. Two of the most prominent programs were the *Shale-baherchi-Shala* (school out of school) radio program in Maharashtra and the *Mera Doordarshan, Mera Vidyalaya* campaign on DD Bihar in Bihar. The TV program was designed to focus on the foundation skills of reading (in Hindi) and basic math. Designed to be for one hour, Pratham produced 3-4 capsules of concept pieces per episode of 6-7 minutes each, interspersed with fun learning activities for the students to do at home. Having anchors, breaks, characters, and fun activities in between ensured that the children engaged with the content like a TV program as opposed to an instructional video. The Radio program used a transmedia approach by combining the use of SMS/WhatsApp and radio broadcast. Using multiple mechanisms for reaching children made the experience of engagement and learning experience hybrid and unique. Daily engagement activities for children were sent through WhatsApp/SMS to each parent. Designed for learners of pre-primary and primary age groups, the messages were written in Marathi and were focused on age-appropriate learning activities. Activities were designed to be simple and easy for parents especially mothers to do with their children.

For both modes, as Pratham learnt from message sharing, establishing a two-way communication was important to ensure regular engagement and hence Pratham members and government teachers would regularly conduct follow-up/ feedback calls to discuss content previously shown on TV or heard on the radio program.

In a sample survey (2,100 households) conducted by the Bihar team, it was found that 38% of the households said that they watched the TV program every day and a similar percentage (40%) watched it sometimes in the week. 21% did not watch the TV program, however 88% of the households who

didn't watch the TV program gave lack of access to a device as the primary reason. Families with Std 1-2 and Std 3-5 children reported that siblings are the 'people at home' who help the child solve the activities done in the TV program. Mothers tend to help more than Fathers for both groups. 2/3rd of households with Std 1-2 children reported that the child required help to the solve activities on the TV program, while little more than half (56%) of Std 3-5 children required help from family members.