CHAPTER

27   Using Evidence to Scale Up India's Most Promising Education Intervention: The Case of Pratham 🔓

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Abstract

This chapter outlines how Pratham, one of India's best-known organizations working in primary education, went from designing methods to understand the contours of the "learning crisis" to developing solutions that were then used at scale across the country for raising children's ability to read and do arithmetic. Evidence has played a significant role in this journey. First, the Annual Status of Education Report (ASER) highlighted the "invisible problem" of children's learning across the country. Second, Pratham's own internal measurement systems, along with a series of randomized controlled trials, evaluated Pratham's evolving solution for raising children's reading and arithmetic scores. Additionally, the chapter highlights the critical role of partnerships at various levels of government, as well as community engagement, including parents and volunteers. Essential elements to Pratham's success have been the focus on raising awareness of the problem and demonstrating simple and actionable solutions.

Keywords: scaling-up, primary education, learning level, learning crisis, foundational skill, reading, arithmetic, learning model, government partnership, randomized control trials

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Introduction

This paper traces the evolution of Pratham's approach to improve children's basic reading and arithmetic at scale. This journey is summarized in five phases, each with its own challenges for assessment and action. In each phase, the narrative weaves together how Pratham's internal measurement efforts guided the development and direction of learning interventions along with the use of evidence from randomized controlled trials.

Looking back, it is clear that persistence and serious commitment to the issue of children's learning, along with a deep investment in experimentation, measurement, and learning, have been essential features of the pathway to developing a successful approach. Whether as an integral part of instruction and implementation or as an external research study, learning what works and building on that has been critical. Pratham's cycle of experimentation, demonstration, and then scaling up has been done continuously over a period of 20 years, during which Pratham has constantly striven to reduce costs and time. In fine-tuning a "learning for all" strategy, Pratham's belief that all stakeholders—parents, community volunteers, and teachers—can play a role has been repeatedly reinforced.

Many lessons have been learned from Pratham's 25-year journey. In an era where universal enrollment was the highest priority for school education, the issue of ↳ poor learning needed to be made visible, and it was important to articulate the new problem in easy-to-understand ways. Developing effective solutions requires constant experimenting at the ground level by many people, and decisions need to be made based on evidence and experience. Once a promising solution is worked out, spreading awareness of the problem and demonstrating actionable solutions is key. Partnering with every layer in the government has proven to be a sensible strategy. Being frugal makes solutions sustainable. Finally, the biggest overall learning is that simplicity is key to large-scale change.

1 The Early Years (1994–2002)

Initiated in 1994 in Mumbai, India, Pratham, a nongovernmental organization, focused its efforts on elementary education. The mission was simply stated as "every child in school and learning well." Even as early as 1996, school enrollment figures in Mumbai were high and rising. Thus, the goal of having every child in school by the turn of the century did not seem wholly impossible. However, at the time, the understanding of what a journey of learning well would entail was at a very preliminary stage. Beginning steps were being taken in exploring basic questions: What exactly is meant by "learning"? What does learning "well" imply? Is it the ability to score well in curriculum-based examinations, or does it mean that the child is strong and capable in terms of basic skills? Academically, were most children keeping up with what was expected of them?

Through more than 1,200 schools, the municipal school system in Mumbai provided public primary education to the city's population. As in other school systems, schools were organized by age-grade curriculum with curricular expectations rising in a linear way as children progressed to higher grades each year. Pratham's first attempt to systematically measure "learning" was done in 1996 in a few schools in one ward (or administrative zone), Andheri-East. The focus was mathematics in grades 3 and 4; the aim was to understand if children were able to do basic arithmetic tasks. The results were startling and unexpected. Thirty-five percent were unable to demonstrate numeracy skills expected from first-graders, and hardly 10 percent achieved the level of expected of them at their grade level (Shatak Zhep 1997).

The Andheri-East school assessment report was immediately discussed with senior officials in the municipal corporation. Shocked by the findings, the municipal authorities took an immediate decision to run a math campaign across the city. A seven week-long program called *Shatak Zhep* (roughly translated as "leap to hundred") was designed. The campaign was meant to improve the arithmetic skills of students in grades 2, 3, and 4. Teachers devoted two hours a day to foundational skills in arithmetic—learning to count, recognizing numbers, moving from units to tens, decomposition of numbers, addition, and subtraction— and all of this with numbers up to 100.

The decision to launch the citywide math campaign was extremely unusual for several reasons. First, most efforts at the time were still geared to universalizing access and ↳ the quantitative spread of inputs and provisions. This was one of the first attempts to systematically focus not just on the quality of education,

but more specifically on building foundational skills. Second, the use of evidence in guiding action was also not a common element of decision-making in large systems. Third, there were no pilots or phased rollout plans. The Andheri-East results were so striking that municipal authorities decided to do a full-system campaign right from the get-go.

The citywide Shatak Zhep program was successful with second-graders. While municipal authorities, with Pratham's assistance, put in place metrics and mechanisms for quantitative tracking of outcome improvement, Pratham's small research team put in place a quick qualitative study that observed a sample of classrooms across the system. Pratham's internal process evaluation suggested that grade 2 teachers were comfortable with using games and material to make children interested in math. But teachers of grades 3 and 4 were concerned that the textbook content and grade-level curriculum were getting sidelined because of the campaign, and that they were losing precious instructional time (Shatak Zhep 1997).

The Shatak Zhep campaign brought Pratham and the municipal corporation and its many layers into close contact with each other across the system. Formally and informally, trust and friendship grew between the government functionaries and Pratham team members at every level. Through review meetings to track the progress of the campaign, discussions started about how to deal with the chronic issue of children falling behind in primary grades. In the next few years, a variety of interventions were tried jointly that included efforts for "mainstreaming" out-of-school children into school, as well as a variety of supplemental learning support initiatives. Eventually, an in-school, during-school-hours, learning support program evolved. Fueled by community support, the Balsakhi program was developed, in which a young community volunteer *balsakhi* (literally translated as "child's friend") helped the school teacher during school hours in working with children who were lagging behind.

The Pratham–Municipal Corporation partnership for the Balsakhi program was quite unique in the context of India in the late 1990s: collaborations between a school system and an NGO on a citywide scale for supporting in-school activities related to teaching and learning were rare. The balsakhi was paid a small stipend to spend several hours with primary school children in "pull-out" classes to provide extra support to children who were academically lagging behind. There were at least two reasons for adopting this model across all schools in the city. The first was the recognition that a significant proportion of children in grades 3 and 4 needed additional help (not with the grade-level work but in building foundational skills that should have been in place several years earlier). A second reason was that this was also the time when a major effort was being made to mainstream out-of-school children into the education system. This meant that extra help would also be needed inside the school for the children who were newly entering or reentering the school system.

Started first in Mumbai in 1998, and later in other cities such as Vadodara, the Balsakhi program was the first large-scale remedial intervention in India, and hence it attracted the attention of researchers interested in primary education in India. In 2000, Professors ↳ Abhijit Banerjee and Esther Duflo from MIT approached Pratham to discuss the possibility of an evaluation using randomized controlled trials. This method of inquiry was new to Indian social science research. So far, Pratham's internal measurements had shown that children were benefiting from the extra help given by the balsakhis. But until then there had been no external evaluation of the impact. Hence the senior Pratham leadership agreed to participate in the evaluation (Banerji 2019), believing that the intervention was ready for an in-depth measurement of impact conducted by researchers:

> The Balsakhi program appears to be successful: in all years, for both subjects, in both cities, and for all subgroups, the difference in post-test scores between treatment and comparison groups is positive and, in most instances, significant.
>
> (Banerjee et al. 2007, 1248)

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Starting in the 2001–2002 school year, the study was designed in a phased manner. In one set of schools, in the first year of the study, the balsakhi worked with children in grade 3, and in the next year with children in grade 4. In another set of schools, this order was flipped. These treatments were randomly assigned in the two sets of schools (Banerjee et al. 2007). Although the Balsakhi program covered the entire city, the evaluation was conducted in one ward in Mumbai and in all municipal schools in Vadodara. The end-line results showed substantial positive learning gains for children in both cities, and that the weakest students gained the most.

Although the evaluation results were promising, there was also evidence of decay in learning gains once the program ended. The Balsakhi program in its original form did not continue for too many years beyond the study. There were discussions within the school system about why children were falling behind academically in the first place, and whether they should be held back so that later remediation was not needed. The success (and popularity) of the balsakhis (relatively untrained and inexperienced instructors) also threatened the status of the regular teachers in the system. This concern was voiced by the teachers' unions from time to time in public forums and in the media.

But from Pratham's point of view, there were two other issues that led to a change in overall strategy. One reason was that many teachers were abdicating their responsibility toward the academically more needy students to the balsakhis and preferring to focus on students who were closer to grade-level capabilities. The intent of the balsakhi effort was to supplement rather than supplant the work of teachers. Growing dependence on balsakhis to carry the heavier load did not seem to be a desirable way forward. The other reason was Pratham's growing internal frustration with the progress that they were able to help children make. It was clear that there were overall learning gains and that children's basic skills were improving, but these increases were either not large enough and fast enough, or sufficient to enable children to catch up to grade level in a reasonable period of time. This led to a period of introspection and innovation and to the next steps in Pratham's journey toward "every child learning well."

The initial years working with the Mumbai municipal system (and later the Vadodara municipal schools) taught Pratham important early lessons of partnering ↳ with governments. Among the key elements was the use of measurement in understanding and articulating the problem that had to be addressed. Until the mid-1990s, the major focus of school systems like Mumbai's had been on mainstreaming out-of-school children. "Left out" children were visible and their problems were known. But "left behind" children were less visible (as they were coming to school). This was a new problem. Therefore, making these children's challenges visible was an important part of how Pratham was able to distinguish itself from other organizations in the education space. Easy-to-use tools and methods, simple ways of discussing evidence, and discussions at every level all helped to create the platform for action. Openness on the government side —administratively and politically—also helped.[1] A second key element was Pratham's ability to interact at all levels of the system. While Pratham leaders collaborated at the city level, balsakhis built relationships at the school level. Other Pratham team members partnered with government officials at different levels of the administration. Thus, the Pratham collaboration was visible and active throughout the system. In a hierarchical bureaucracy, interactions between different levels of the government machinery can be slow and formal. The presence of the Pratham layer sped up communication and discussions. A third element was that, as a key partner of the government, Pratham also helped in enabling the municipal authorities in working toward other objectives, such as mainstreaming out-of-school children and strengthening access to school via a network of preschool centers (Chavan 2000). Pratham worked with parents, community volunteers, and the school system to support the enrollment of preschool children as well as mainstream out-of-school children.

2 Innovations in Assessment and Action (2002–2005)

By the turn of the new century, it was clear that acceleration in children's learning was essential if children were to have a reasonable chance of "catching up." This was especially true for students who had been in school for a few years and had still not acquired the skills that would enable them to move successfully through the education system. Whether in school or outside of school, it was also evident that a method had to be devised that would ensure strong, durable, and predictable learning that could be achieved relatively quickly under diverse circumstances. Teaching-learning experiments began in different locations using a variety of methods and materials that were similar but not exactly the same. Some of these showed the potential of a possible breakthrough in accelerating learning. Table 27.1 describes the evolution of this journey.

Reading was the focus of Pratham's new set of experiments. If children could read fluently with understanding, then they would be able to navigate through the world of texts and books on their own. The question was how long it would take to help children aged eight or older to start reading fluently in their p. 546 own language. By 2002, Pratham's ↳ work had spread to a number of cities, including Mumbai, Pune, Delhi, Patna, Jaipur, Lucknow, Ahmedabad, and Vadodara. In some locations, Pratham's work was part of governmental efforts and Pratham was invited as a partner in the government's program.

In early December 2002, a more systematic pilot was undertaken in order to better organize the pedagogical technique and also measure children's progress in a systematic manner. Before starting any instruction, there had to be a way to understand each child's current level of reading. A set of basic tasks was prepared to determine if a child could recognize letters and read words and if she could negotiate a simple paragraph and then a short story. Interestingly, these were the steps that were emerging in the instructional practice as well. There really was no difference between the activity and the assessment. To understand a child's reading level, it was essential that the child was asked to read. A typical pen-and-paper task was not appropriate. A few minutes with each child was all that was needed. Not only was the instructor quickly able to figure out the level at which the child could read comfortably, but in that brief period of a few minutes, the one-on-one time spent with the child was extremely valuable in terms of the instructor getting to know the individual child and not just for collecting data.

The set of reading tasks soon began to be called a "tool." It served several intended purposes, but there were also some unintended benefits. First, it helped the instructor group children by their current level. In itself, this was very useful for instruction. Next, the tool was used to assess and track progress. Periodic progress checks were done with different samples of activity levels within the tool. The tool was also useful in communicating the objective of this effort to parents. When parents asked what was happening with their children, it was easy to point to the highest level on the tool ("story" level) or read it out aloud in order to explain that their child had to reach that level (Figure 27.1). The tool was extremely handy for demystifying "learning." This helped greatly in carrying parents along on the journey.

> The intense process started and lasted about twenty-one days of actual class time. The results of this experiment in the Mustafabad area of East Delhi can be seen in the film—"And Now I Can Read." The experiment was validated by a market research agency. There were many shortcomings, which were corrected later, and a cold wave struck Delhi right in the middle of the experiment. Yet, the video record of the progress made by children startled everyone who saw it.
>
> (Banerji, Chavan, and Rane 2004)

In the next few months, in different locations around the country, Pratham teams tried out the "learning to read," or "L2R" for short. The simple assessment was followed by grouping children for instruction based on the level of the child as seen in the initial assessment and was not linked to the child's grade. Activities

appropriate to the level of the group were done using relevant materials. Regardless of language, location, and mode of delivery (in school, in the community, during school, after school), every pilot showed that significant and substantial improvement was possible (Banerji, Chavan, and Rane 2014). ↳

Figure 27.1

Basic reading tool.

Source: ASER Survey Tools (www.asercentre.org).

In February 2003, Pratham persuaded the Maharashtra government to try the reading technique with the government schoolteachers. Two tribal blocks with low learning levels were chosen for pilots. At baseline in both locations, only 50 percent of children in government schools from grade 2 to grade 5 could read stories. The simple assessment tool used in the reading program helped to concretely diagnose the problem in the schools. The simplicity of the tool and quick categorization of children into basic groups helped the schools understand the problem. The ready availability of the Pratham accelerated learning package meant that schools could quickly move from assessment to action. By mid-April, before schools closed for the summer, over 85 percent of children in these schools were reading fluently. Teachers, parents, and children were thrilled with the visible and fast progress.

Pratham's confidence in this method of accelerated basic learning grew as the combination of experience and evidence accumulated and propelled the work forward. Initial work included interventions in Pratham's own active laboratory/demonstration sites (mostly urban locations) and working with government systems, as in the rural Maharashtra case. Evidence was collected in the form of data in two critical projects (Mustafabad in urban Delhi and Mokhada in rural Maharashtra), as well as with video documentation. Together, the quantitative metrics and visual evidence of children learning were useful for compellingly communicating the potential of the L2R method for accelerating children's learning. In the Mustafabad-Delhi case, a market-research ↳ company was invited to verify baseline and end-line reading levels of children in the intervention (Mode Report 2002).

By 2003–2004, discussions had started with different state governments to see how much school systems could be catalyzed for improving foundational skills of children. These included urban and rural areas. Simultaneously, Pratham's "direct" work spread from cities to villages in many states. The challenge in rural areas was to figure out whether and which villages needed learning support, and how communities

could be galvanized to support and strengthen their own children's learning. To figure out whether a village needed learning support, Pratham used the simple assessment of reading and arithmetic that was developed as part of instructional practice to do a census of the schooling and learning of all primary school–age children in villages. "Village report cards" were developed with the help of local volunteers. In each village, the process of assessing children one on one, household by household, led to a lot of discussion. Neighborhood by neighborhood, there were debates about why the situation was the way it was, who needed basic help to learn to read or do arithmetic, and who would help and how they would help. Volunteers then came forward or were selected by their communities to learn the L2R method and use it with children in their localities.

This seemed to be an opportune time for another impact evaluation with the MIT researchers who had now started J-PAL (the Abdul Latif Jameel Poverty Action Lab). The project site chosen was a district, Jaunpur, in the eastern part of Uttar Pradesh, a large state with very low learning levels in the center of India. Two questions were at the core of the new randomized controlled trial (RCT): did availability of information lead communities to action? Do demonstrations of promising action catalyze local people to do something about improving their children's learning levels?

Three treatment arms were designed. In the first set of villages, there were village meetings focused on children's education, but no new information was shared. In the second set, village report cards were done and village-level meetings were held to discuss the data and to plan next steps. In the third set, in addition to the activities of the second set of villages, demonstration classes were conducted by Pratham teams to show activities that improved children's learning, and then volunteers were mobilized to work with children (Banerji 2019).

The findings from the Jaunpur study were mixed (Banerjee et al. 2010). The RCT showed that information alone did not make a difference, whereas impacts on children's learning were observed in the third set of villages, which had the full gamut of activities. It was only where village volunteers came forward and took action that children's learning levels changed. And local volunteers were inspired to "act" only when there was a demonstration that actual change was possible. Pratham team members' demonstration of effective teaching-and-learning activities and games with children using local materials helped mobilize and inspire village youth to try similar interventions.

Pratham learned many valuable lessons from the successes and failures up to this point. One big lesson was that both within school systems and more broadly in society, a much wider awareness of the learning crisis was needed. Without an understanding ↳ of the problem, it was difficult for schools or communities to try and solve the problem. At the same time, it was also crucial to have an implementable, effective, and affordable strategy for moving toward a solution.

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The decision to launch a nationwide assessment effort called ASER (Annual Status of Education Report) was taken in mid-2005. The simple reading and math tools that had already been used in thousands of village report cards in communities across the country were used as the basic assessment tools. Once the ASER findings were out, for those states that were looking for an instructional solution, the L2R model was available.

3 Scaling Up: Partnerships with Communities and Governments (2006–2012)

From mid-January 2006 onward, the Pratham-facilitated ASER was released like clockwork at the same time every year. The release of the report and subsequent debates on the findings from the national level down to the district level brought a sharp focus on issues of children's learning, especially on basic skills such as reading and arithmetic (ASER Reports 2005–2020).

Even in 2007–2008, school enrollment for children (age 6 to 14) was high across many states in India. India's flagship program for universalizing elementary education, Sarva Shiksha Abhiyan, clearly articulated what had to be done about the provision of schooling, but reference to children's learning was embedded in a broader statement about "quality education" (Sarva Shiksha Abhiyan 2010, 2).

The ASER's assertions that years of schooling were not translating effectively into years of learning, and that the current learning levels of children were woefully inadequate, led to heated debates in education circles as well as in the media. Although no one disagreed about the fact that many improvements were needed to improve teaching and learning in schools, there was reluctance and disbelief about the scale and depth of the problem. As a country, India had made impressive strides toward achieving schooling for all, but within the education establishment it was difficult to immediately gain acceptance for the fact that achieving "every child learning well" would need major changes in how the education system was structured.

An essential element of the ASER process was the dissemination and discussion of the ASER Report with state governments immediately after the launch. The report was released in mid-January every year; the timing was planned such that inputs from the report could be incorporated into the government's annual planning and budgeting process.

In the initial years (2007–2010), these discussions usually moved in one of two directions. One reaction was to debate the findings by finding fault with the method of measurement. Common in this discourse were criticisms of the sampling process; ↳ of the fact that the assessment had been done in the household rather than in school; and of the tools, which were often termed "minimalist" (Kumar 2015). The second reaction from state governments was to discuss how solutions could be implemented by the school system on a large scale with the objective of solving the learning crisis. Several partnerships with state governments evolved out of such discussions. For example, from 2006 to 2009, the collaboration between Pratham and the governments in Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Bihar, Himachal, and Punjab were all part of these developments.

The need to search for a solution to the deep and widespread learning crisis was obvious. Across India, if 50 percent of all children enrolled in grade 5 could not read a simple text, it was clear that massive efforts were needed across all primary grades to improve the situation. Pratham's experience of success in helping children was growing from programs they conducted in rural communities and urban slums across the country. Early versions of Pratham's L2R approach, which was later called Teaching-at-the-Right-Level (TaRL), had been used and rigorously studied by external evaluators both in school settings (Mumbai-Vadodara Balsakhi programs) and in rural communities (Jaunpur, Uttar Pradesh). Could this approach be tried on a much bigger scale? Did instructional approaches have to be limited to work inside the school? Or could change be fueled from activities carried out in the community as well?

To push forward the national agenda on the learning crisis, the Pratham leadership announced the Read India campaign in January 2008 (at the launch of the 2007 ASER). Whether by the government or by others, four basic elements were outlined and considered necessary for action. First, focused time needed to be allocated for building basic skills. Second, an adult was required to work with children during this time.

Third, for children to learn to read, affordable and easily available reading materials at the children's level were essential. Fourth, simple measurement could help everyone to understand the problem (depth and scale), to set goals, and to track progress toward goals. Pratham's announcement of the national Read India campaign was also a public call to action to citizens and communities. While governments decided on their own school-based action plans, people could move ahead and experiment with solutions.

A massive mobilization of people, especially community youth, was launched by Pratham immediately after the Read India announcement in January. The aim was to have a nationwide summer camp effort to build basic skills. A village volunteer working with a group of children over a period of two months should be able to significantly push up reading and arithmetic levels. By the summer of 2008, approximately 300,000 volunteers had helped children learn in their own communities. The summer camp was a huge learning experience for Pratham's teams in different states. The fact that, with systematic work over six months, volunteers could be mobilized in almost half of all villages in India was an amazing achievement. However, the scale of the campaign also posed major challenges in terms of ensuring basic quality or of guaranteeing a minimum duration of continuous engagement with children as well as consistent adherence to the main

principles of Pratham's instructional method. ↳ Further, any measurement or assessment of change proved to be a huge challenge for a campaign of this magnitude.

On the government side, the period 2008 to 2012 saw several major partnerships between Pratham and state governments for learning improvement interventions. Two of these partnerships that lasted several years are worth a mention here. The first was two-and-a-half-year partnership between Pratham and the Government of Punjab called Padho Punjab. The other was an ongoing partnership between the Government of Bihar and Pratham.

Several important lessons emerged from how these two programs evolved that influenced the future path of working with large systems:

- **Tyranny of the curriculum:** In the two-year intervention in Bihar, children's progress during the school year was minimal, but a short one-month summer camp in 2008 showed very promising results. The same teachers taught the same children, so why did the summer camp produce higher results than the full-year instruction? The answer was straightforward. During the school year, despite best efforts to carve out time for foundational skills, the grade-level curriculum dominated instructional efforts, whereas in the summer camp, grade-level textbooks were put aside and the only goal was to build fluent reading and basic arithmetic skills. Teaching was done at the level of the child and not at that of the grade-level curriculum.

- **System alignment:** Focus group interviews with different layers in the government system revealed that although teachers were involved in the Read India work, the existing supervisory layers above them in the system had not been integrated into the action plan. These government officials at the sub-district level complained of task overload and of having to chase goals in different programs. In contrast, in Punjab there was a clear alignment from top to bottom. The goals of the program were clear and well disseminated throughout the system. Further, instead of depending on the existing cadres at the district level and below, the government created a new team of about 700 people from the teacher level (these were called the Padho Punjab coordinators) to lead the work to be done by teachers in approximately 14,000 government primary schools.

- **Duration:** If leadership is resolute and consistent, camps and campaigns can be carried out with vigor even by the school system. But for key elements of instructional change to be embedded in the system, more time is needed. The Padho Punjab was done in all schools of the state and for a period of two consecutive years (2009 and 2010). The results are visible even in the ASER for that period, as shown in figure 27.2.

The data from figure 27.2 also show that whenever there is focused action on improving learning levels (2009–2010, 2015 and 2017 onward), levels rise substantially.

Looking back on the experiences of this period, there were also deeper insights from the Pratham team. First, from the point of view of classroom processes and the organization of teaching and learning, there was the growing realization of how orthogonal the Pratham approach was to the "business as usual" approach. Schools were typically ↳ organized by age and grade; each grade had a curriculum more difficult than that in the previous year. Given the large learning deficits that had already accumulated in the system by grade 3, Pratham's success at building foundational skills was because grade-level textbooks were put aside, basic goals were stated, and teaching and learning were anchored on starting from the child's current level rather than the grade-level curriculum. Based on simple one-on-one assessments, children were grouped for instruction by their current level rather than their current grade. These groupings could cut across grades. This "teaching-at-the-right-level" approach showed quick and strong results.

Figure 27.2
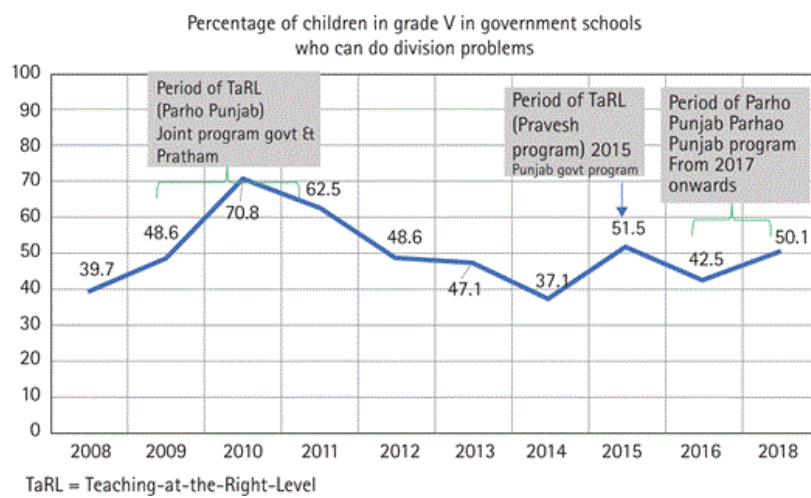
Trends over time in math performance in primary schools in Punjab.

Source: ASER data for Punjab from 2008–2018.

On the community side, the large volunteer campaigns also had important lessons. On the one hand, involvement of community members provided strong support to children's learning improvement. All RCTs on Pratham work show volunteers having a positive and significant effect on children's learning. On the other hand, it is difficult to sustain volunteer engagement (at least from the same volunteer) for a long period of time. Volunteers can best contribute in short, high-energy campaigns.

4 Consolidating Effort and Maximizing Impact (2013–2018)

4.1 Change in Strategy: External Factors and Internal Needs

The Right to Education (RTE) Act was passed in the Indian Parliament in 2009 and came into effect in 2010 (Government of India, 2010). The thrust of the law was to ensure ↳ that inputs of a given quality (teachers with a specific level of qualifications, schools with infrastructure that met specific norms) were in place. Over the next few years, the government's attention shifted to meeting RTE Act norms and complying with the stipulations in the act. Interestingly, ASER data for the years immediately following 2010 showed a declining trend in basic learning levels for primary school years, especially for government schools. These trends were also visible in other sources of data. Although the causal factors underlying this decline are difficult to pinpoint, it is possible that the RTE Act's de-emphasis of assessment and examinations may have contributed to this pattern. As state governments' focus moved increasingly to RTE Act compliance, attention to children's learning issues was put on the back burner.

Another phenomenon needs mentioning here, in the context of India's primary education landscape in the period around 2010. Inspired by instructional experiments in different south Indian education programs, the Government of Tamil Nadu pioneered the Activity Based Learning (ABL) program. Initially piloted in 2003 in Chennai, the approach was rolled out in phases, and by 2007–2008 it covered most schools in Tamil Nadu. The approach recognized that different children learned in different ways and at their own pace. The teaching-learning practices and classroom environments were reorganized accordingly. Grade-wise distinctions were removed for curriculum or assessment. Children could pace their own progress and navigate their path via learning ladders that were constructed by levels rather than grades. Material-rich classrooms enabled children and teachers to use myriad stimuli for learning, and teachers' facilitated children's learning rather than direct instruction (Anandalakshmy 2007; Akila 2009; Singal et al. 2017).

Although Pratham's approach was originally designed to enable children (in grades 3 and above) to "catch up," the architecture of ABL was largely focused on building strong foundations from an early age. That the ABL program was initiated and promoted widely by the government and backed by aid agencies meant governments that were still interested in learning improvement often chose to use ABL to deal with children's learning issues. Given that governments were either preoccupied with RTE Act compliance or leaning toward government-supported, process-oriented approaches like ABL, this was not the appropriate time for Pratham to advocate for statewide action through the school system, even though the ASER data pointed to a deepening learning deficit. Further, the global financial crisis also placed constraints on Pratham's ability to work at scale. These external factors and the pushback from governments led Pratham to consolidate available resources and work toward refining the TaRL model and improving efficiency/effectiveness of delivering outcomes.

4.2 Developing the Learning Camp Model for TaRL

From 2013 to 2016, Pratham worked to demonstrate that the learning crisis could be solved in a short period of time using few additional resources, and that these gains are long-lasting. By embedding knowledge from past interventions and evaluations into the ↳ current model, Pratham established that interventions like Teaching-at-the-Right-Level (TaRL) can be successfully implemented by government school systems, with significant and substantial learning gains. The new and refined versions of work in Pratham's active laboratories of "direct" work (where Pratham team members led the instructional work, often supported by village volunteers or government school teachers) as well as models of "partnership" work were both accompanied by a fresh set of randomized controlled trials conducted by the J-PAL teams. New rounds of experimentation and evidence generation helped strengthen implementation of the Pratham model and create a deeper evidence base for its validation.

The main idea underlying the original design of Pratham's L2R model was to enable children who had been lagging behind to "catch up" quickly. This instructional approach was particularly appropriate for children who had been in school for a few years (e.g., were at least seven or eight years old already), and thus were developmentally ready for rapid progress, but had not, for various reasons, acquired the ability to read simple text. Without the ability to read fluently and with understanding, children could not make meaningful progress through school. Similar logic could be applied for children who had not as yet picked up basic numeracy skills. Figure 27.3 outlines the key elements of the TaRL process as it unfolds in the classroom.

In early implementation models by Pratham during 2008–2010, it took children 45 to 60 days to become fluent readers. As more volunteers began to participate in the Read India campaign, and as the campaign expanded in scale, the time required for progress increased. During 2010–2013, volunteer-based models of delivery dominated Pratham's direct work and volunteers would often work with children for three to four months. Therefore, an important goal in refining the model was to see how to maximize outcomes in a minimum amount of time.

Evidence from the Read India RCT in Bihar (2008–2010) had shown that a short-duration, intensive, and focused burst of activity (as seen during the summer camp) with children grouped by current level rather than grade could have a bigger effect on learning outcomes than the year-long model where children were organized by grade. Hence the "camp" idea was already evolving in Pratham's thinking about design (Walton and Banerji, 2011).

A new round of intervention evaluation was initiated with J-PAL. Using the lessons learned from the Bihar RCT, the next set of efforts was anchored on the need to maximize outcomes in a minimum period of time, with little additional resources or cost. It was also important to be able to show evidence for durability of the learning gains. The idea in 2012–2013 was to put together the lessons learned from the various rigorous evaluations into the latest version of the evolved model and evaluate that. In that sense, it was not a new model; it had all the elements that to date had shown promise in Pratham's experiences and for which evidence showed promise.

A fresh location comprising two districts with exceedingly low learning levels in central Uttar Pradesh was selected as the intervention-evaluation site. With the permission of the local authorities, it was decided that Pratham team members would carry out teaching-learning activities in school during the normal school day.[2] During the camp ↳ period, one to one-and-a-half hours would be put aside for reading and math, respectively. All children in grades 3 to 5 were assessed using the simple ASER tools and then grouped for instruction during the camp duration by their current learning level rather than grade. Each camp began with a baseline assessment and ended with a similar end-line assessment.

Schools were randomly assigned to one of three possible treatment arms or to a control group. In the first treatment group there would be 10-day learning camps (four or five rounds as needed, with a total of 40 to 50 instructional days and approximately three hours of activity per day). The second treatment arm had a set of two or more 20-day learning camps. In the third treatment arm, schools were given all the materials that the other groups had but no instructional guidance. The learning camp instructor was a full-time Pratham team member who would rotate through five schools carrying out the intensive bursts of camp activity in each school during the school year.

The year of experimentation proved to be hugely successful. The shorter camps (10 days) were more effective than the longer 20-day camps. This fact went against the usual belief that to be successful instruction needed to be continuous and of long duration. Most children moved up one level with almost every camp. At baseline, close to 75 percent of all children had been unable to read even words. But by the end of the set of camps, most children were reading paragraphs and stories fluently. The third treatment was no different from the control group; without the level-wise grouping and the appropriate activities for each group, the materials did not make any difference to children's learning levels. The results from the Learning Camp RCT showed among the largest effect sizes of any primary school learning improvement program globally (Banerjee et al. 2016). The intervention had a strong positive impact on basic learning outcomes, with end-line reading and arithmetic scores increasing by up to 0.71 and 0.69 standard deviations, respectively. These findings complemented results from other evaluations, though the magnitude was much larger. In fact, the gains in reading and arithmetic were more than double the normal yearly gains in learning.

The study established convincingly that a local person with training and not much additional resources can help to substantially and significantly change the course of a child's educational life in the short period of 50 days. Follow-up studies done by J-PAL with a sample of the same children showed that most of reading and arithmetic gains were sustained.

4.3 New Round of Partnerships with Government

It is often argued that civil society organizations or nongovernmental organizations with their dedicated staff can be quite different from government staff in terms of commitment and fidelity to design. This is often cited as a reason why effective pilots don't succeed at scale. The Learning Camp RCT showed that Pratham teams could do this "magic" in a period of 50 days. In contrast, what could government schoolteachers achieve in terms of reading and math improvement, and in what time duration? ↳

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Table 27.1 Evolution of the Teaching-at-the-Right-Level Model

Time frame	Developments
1997–2001	Out-of-school children were taught in community classes and then mainstreamed into school. In-school children who were lagging were taught in school in pull-out classes by community volunteers.
2002	Evolution of the Learning to Read (L2R) method—first versions of the assessment tool developed.
2003	First experiment in partnership with the government school system.
2004–2008	Pratham team created village report cards. Community volunteers mobilized who would teach in the community (three- to four-month program). Pratham monitored.
2005	ASER (Annual Status of Education Report) launched. Household survey across the country.
2008	Massive mobilization of volunteers across the country—summer camps.
2008–2012	Variety of partnerships with different state governments. Volunteer model continued.
2013–present	Current model of Learning Camps—"camp" mode with three to four camps (30–40 days). Current model of government partnership programs.
2015–present	Expansion of government-led, volunteer-led, and direct models to different international contexts.

Several opportunities for working with government systems opened up in 2012–2013, notably in the districts of Bihar and Haryana. Energized by recent success in Uttar Pradesh and equipped with a refined set of processes, Pratham was keen to partner with government systems to test what was possible.

An experiment was designed with the Haryana government to be studied in a new RCT by J-PAL. In this study, a finding from the Bihar Read India RCT—that the government layer of supervisors and monitors not being involved in the new teaching–learning program weakens the effort—was explored. The design of the Haryana RCT had the supervisory level of the government firmly at the center of the action, and they were to be the "leaders of practice" who would lead and drive the intervention (Duflo et al. 2015).

Cluster coordinators (government officials who were to be leaders of the practice) were placed for at least 20–21 days in a school of their choice, where they gained firsthand knowledge of TaRL activities and experienced how children made progress even in this short period of time. This exposure prepared the officials to orient, train, mentor, monitor, and provide ongoing, on-site guidance to teachers under their jurisdiction.

In Bihar and in Haryana, we found that teachers adapted well to the TaRL process. But their confidence was bolstered when those in the system above them also supported the effort. The effectiveness of TaRL hinged on putting aside grade-level curriculum and focusing on basic skills. This is a big "ask" in a rigid, structured, and linear system in which ↳ curriculum and textbooks dominate teaching and learning. For an individual teacher to put aside textbooks is difficult unless she or he is supported by those in the system who are at higher levels of the education administration.
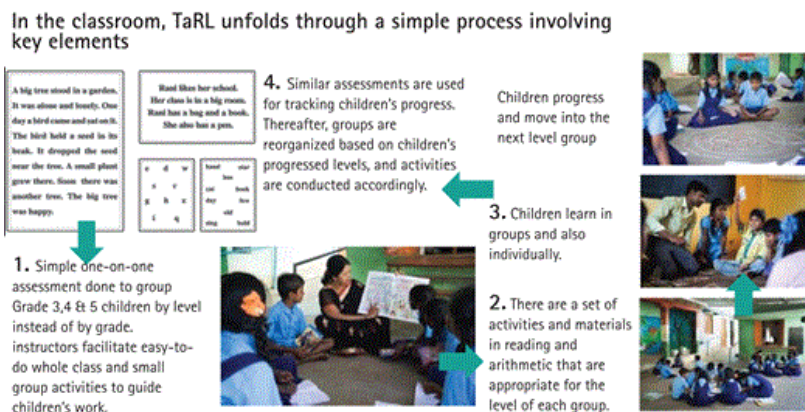
Table 27.2 TaRL Model versus Current Teaching-Learning Model

	Model	
	Business as usual	Teaching-at-the-Right-Level (TaRL)
Goal and assessment	Goal is to complete the grade-level textbook or curriculum. Assessments aligned with curriculum and often complex—not suitable for classroom use.	Goal is to ensure basic foundational skills for all, with clearly articulated goals for basic reading and math. Simple one-on-one assessments of every student used for starting, grouping, and tracking progress.
Training and mentoring	Minimal continuous professional development or targeted coaching for teachers; traditionally nonpractitioner trainers.	Practical training of leaders and instructors on the approach with practice periods of at least 20–25 days. Create "leaders of practice."
Grouping	Full class assembled together by grade level. Whole-class teaching with little room for adjusting teaching to suit children's needs.	Children grouped by learning level rather than by grade. Children move quickly from one group to the next as their learning progresses.
Teaching and activities	Teachers focus mainly on whole-class instruction ("Chalk and Talk" or textbook-driven). Focus on curriculum leads to teaching to "top of the class."	Teachers use simple and engaging daily learning activities that can be adapted as children progress. Students engage in activities in large groups, small groups, and individually.
Measurement, monitoring, and review	Pen-and-paper assessment done at the beginning and end of a learning unit. Minimal data analysis to understand student learning or adjust teaching before moving to the next learning unit.	Simple assessment to plan, and similar assessment used periodically to track student progress, review data, and make decisions on child progress and program design. Quick decision-making to inform program delivery and future course.

The Haryana results also showed strong progress in children's learning outcomes (0.15 SD higher in Hindi reading and 0.135 standard deviations higher in Hindi written was possible in a few months). Pratham was able to articulate the features of TaRL that show how distinctly different it is from the "business as usual" approach. Table 27.2 illustrates how TaRL transforms practice in many ways and helps shift the system from schooling for all toward learning for all.

By 2016, the TaRL approach had been refined, tried, and freshly tested in several modes of delivery, both in terms of direct work and in partnerships with government. Internal processes and materials had been strengthened, and external fresh evidence had been generated both through the Haryana and Uttar Pradesh RCTs. It was time now for going at scale again (J–PAL n.d.a. and J–PAL n.d.b.). ↵

Figure 27.3

In the classroom, TaRL unfolds through a simple process involving key elements

1. Simple one-on-one assessment done to group Grade 3,4 & 5 children by level instead of by grade. instructors facilitate easy-to-do whole class and small group activities to guide children's work.

2. There are a set of activities and materials in reading and arithmetic that are appropriate for the level of each group.

3. Children learn in groups and also individually.

4. Similar assessments are used for tracking children's progress. Thereafter, groups are reorganized based on children's progressed levels, and activities are conducted accordingly.

Children progress and move into the next level group

Key elements of TaRL process.

4.3.1 Sustaining Partnerships with Government to Improve Learning Outcomes

Armed with the RCT evidence and also accumulating experience, Pratham worked at scale with several state governments. In each case, for the school year in which the program was jointly implemented, the partnerships had to be negotiated for each year, given the government planning budget cycle. Overall, in each of these partnerships, anywhere between 15 and 25 percentage points improvement in basic reading and arithmetic was observed (using administrative data as well as verified data). In the absence of any intervention, children's learning improvements was 10 percentage points or lower.

Further, there is little alignment between the timing of government planning and budgeting processes and the timing of the school year, so that by the time government allocations for learning improvements reach the states, it is well into the school year. The central government usually presents its budget to the Parliament by the end of February, after which each state starts its own budgeting activity. The school year begins in April, and appropriate approvals and sanctions and the subsequent flow of funds often takes several months. Hence most states cannot start implementing any additional learning support interventions until half the school year is over. Invariably, each year the Pratham-government TaRL partnership in state after state could only get three months maximum in the field before the end of the school year. Ideally, the "catch up" push should come in the beginning of the school year, with the remaining time used for further rounds of remedial action where needed. The realities of the Indian funding–approval–planning–implementation cycle thus limited the possibility of higher learning gains in government programs. System reforms focused on multiyear planning and allocations, along with enabling mechanisms for providing funds at the right time, would allow state governments to institutionalize "catch up" mechanisms within the school system in a way that they could be activated every year as a normal part

p. 559 of ↳ the school calendar. Figure 27.4 summarizes data on TaRL learning gains from recent Pratham government partnership programs.

Figure 27.4

	STATE	PROGRAM NAME	FOCUS GRADES	DISTRICTS COVERED in program out of TOTAL DISTRICTS	DURATION *Approx. number of teaching days*	COVERAGE		LEARNING IMPROVEMENT *(pc pt change) Std III-V (only schools which entered both baseline and endline data)*	
						SCHOOLS	CHILDREN TESTED AT BASELINE	CHANGE IN READING LEVELS Std II LEVEL TEXT ('story-level')	CHANGE IN MATH 2by2 SUBTRACTION with BORROWING
2018–19	Uttar Pradesh*	Graded Learning Program (GLP)	I–II & III–V	75/75	50–70 Days	110,442	8,922,000	15 pc pt increase	23 pc pt increase
2019–20	Karnataka	Odu Karnataka	IV–V	20/30	60 days	21,635	524,000	31 pc pt increase	21 pc pt increase
	Maharashtra** *Nagpur division*	Learning Improvement Program (LIP)	II–V & VI–VIII	6/35	35–40 days	6,977	365,000	15 pc pts (midline)	12 pc pts (midline)
	Chhattisgarh *Bastar division*	SARAL Program	III–V	7/27	80–90 days	6,435	141,000	31 pc pt increase	37 pc pt increase
	Maharashtra *Mumbai-MCGM*	Chala Shikuya Program (CSP)	I–II & III–V	1/35	80–90 days	868	129,000	34 pc pt increase	24 pc pt increase

UP: *As the endline was done in the new academic year 2019–20, endline data is only available for Std III & IV children as Std V children had graduated to upper primary schools
MH: **While teaching continued till March 2020, teachers were unable to conduct endline, hence midline improvement has been shown which is after 35–40 teaching days
Note: Increases refer to change between baseline and endline testing data for Story level reading and 2 by 2 subtraction with borrowing

Data from TaRL government partnerships.

4.3.2 New Challenges in Communities

By 2015–2016, the evidence base clearly indicated that Pratham's TaRL approach was able to deliver significant gains in reading levels both in schools and communities. In the context of TaRL being done in communities, the challenge is related to sustaining the learning gains and preventing learning deficits in the first place.

Pratham began to experiment with a longer-term approach to the community-level work by developing deeper engagement with communities around 2018, with the *Hamara Gaon* (Our Village) intervention. Most of the direct demonstration sites across India (approximately 5,000 communities), which Pratham considered to be their active laboratories, began to experiment with a three-year approach. The approach was to stay involved and engaged in communities by supporting children's learning in small groups over a three-year period, with the active involvement of parents. In each of these villages, the goal was to ensure that children in grades 3–5 can achieve a basic level of reading and arithmetic fluency. In addition, there was also a focus on working with younger children (ages 5–8) and their mothers to support school readiness activities, begin school with a strong foundation, and thereby prevent children from falling behind. In three years, the objective was to demonstrate that all children in grades 1–5 would acquire and sustain foundational skills of reading and arithmetic and that the community and parents could track their progress and maintain or improve children's learning status.

Initial results from an RCT evaluating the impact of a community-led study group program in conjunction with an in-school program show that the combined ↳ program significantly improved both language and mathematics learning levels of primary school children. The share of children that achieved minimum standards increased by 13 percent and 20 percent over a period of 18 months for language and mathematics, respectively. Moreover, the study highlights that in the context of an expansion of the in-school programs, including the community component is highly cost-effective.

4.3.3 Introduction of Technology through a Hybrid Learning Model

The past several years have seen increased attention globally to education technology and how it might be able to address some of the learning challenges. As part of its efforts to sustain and strengthen children's learning as they went beyond basics, Pratham started its own set of experiments. These experiments hinged on building children's ability for collaborative work and leveraging of technology (devices and content). Starting with a set of 400 villages across three states, Pratham started testing a hybrid learning model that involved forming groups or learning pods of five children ages 10−14 and providing them access to a tablet and offline content outside of school. Each learning pod was supported by an adult in the community, who could be a parent or sibling of one of the children and who would be the custodian of the tablet. These pods would typically meet daily at a time chosen by the group and do hands-on projects together, such as using digital content and devices. The key distinguishing characteristics of this intervention were that there was no instruction, children had choice, and all work was done as a group. A plan to test and measure this hybrid learning model through an RCT was in place in early 2020. However, COVID-19 has pushed back the timelines on this study.

5 Looking Ahead

As Pratham looks forward, it is important to reflect on the changing education scenario and the opportunities that Pratham can leverage to spread its approach, to sustain learning gains, and to embed key aspects of the overall direction in broader education systems. Three main factors are shaping Pratham's future strategy: (1) the recognition that the learning crisis needs to be tackled in many other countries, (2) India's National Education Policy 2020, and (3) the deep impact of the COVID-19 crisis on all aspects of education in India and globally.

5.1 Spreading the Work in Parts of Africa

For the past few years, Pratham's TaRL work and its evidence has been getting increasingly quoted, not just in India but across the globe. In 2016, a team of government education officials from Zambia visited the

p. 561 Pratham program in Gujarat to understand how ↳ TaRL worked and if it could be replicated in their country. Over the next 12−18 months, a number of things evolved in Africa, including a partnership with Pratham and J-PAL to replicate the TaRL model in a few countries. This was done by working with both local governments and also nongovernmental players in some countries. In Zambia, the national government launched the "catch up" program in two provinces in 2018 to address the challenge of reading and math for children in grades 3−5. Evidence from government testing in late 2019 showed promising results that led to the expansion of the program in Zambia. Similarly, early evidence from the TaRL work in Nigeria and Côte d'Ivoire show learning gains of 15 to 20 percent in the areas where the intervention was being adopted.

5.2 New Education Policy and a Path Forward

In 2014, a new national government assumed office in India, and there were talks of reprioritizing its focus on education. The government eventually released the National Education Policy 2020. Although the policy proposed overarching reforms in structure and content, it gives the highest national priority to foundational learning:

> *2. Foundational Literacy and Numeracy: An Urgent & Necessary Prerequisite to Learning*
>
> *2.1. The ability to read and write, and perform basic operations with numbers, is a necessary foundation and an indispensable prerequisite for all future schooling and lifelong learning. However, various*

> *governmental, as well as non-governmental surveys, indicate that we are currently in a learning crisis: a large proportion of students currently in elementary school—estimated to be over 5 crore in number—have not attained foundational literacy and numeracy, i.e., the ability to read and comprehend basic text and the ability to carry out basic addition and subtraction with Indian numerals.*

(Government of India 2020, 8)

The policy document states emphatically that if children do not achieve foundational literacy and numeracy by the time they reach grade 3, then the rest of the proposed education policy will not have any relevance. A 15-year stretch of evidence gathering and dissemination, such as through the ASER, as well as other studies done by the ASER Centre, has certainly contributed to the policy shift in India.

5.3 COVID-19 and Its Impact on the Education Sector

Starting in early 2020, the world was overtaken and overwhelmed by the COVID-19 pandemic. Across the world, schools closed for an indefinite period of time. Schools in India remained locked for over a year. In this period, Pratham launched a variety of activities to keep children engaged and learning, most of which were done remotely (via phone messages and phone calls). Governments also tried online methods of reaching ↳ children. Overall, there have been many lessons learned, a primary one being that parents, neighbors, siblings, and village volunteers have played a major role in engaging children. Pratham's prior experience in community-level work was very useful at this time. In fact, in periods where movement was possible, promising work was done by community volunteers in rebuilding basic reading and math skills.

A combination of school closures and the launch of the National Education Policy 2020 in August 2020, which advocated strongly for foundational learning, led to a potentially favorable environment for leveraging Pratham's past experiences and evidence. We can look at year-on-year trends from ASER data between 2005 and 2019 on learning gains for a normal year and compare it with what was possible if the state carried out a focused learning improvement intervention over a shorter duration. In all cases from evaluations before the pandemic, the focused program (version of TaRL) showed substantial and significant learning gains in a much shorter period of time as compared to a normal school year (Banerji 2019).

If education decision-making in India could really be guided by data, then it would be apparent that evidence, experience, and knowhow of the TaRL "magic" exist in India and even within different state education systems, and that the challenge is how to do the magic better and for longer.

Once schools open, it is likely that the world will see paradigm shifts in how education is conceived and delivered. But until then, Pratham's vast experience in helping children "catch up" will be invaluable, both in India and abroad (Global Education Evidence Advisory Panel 2020).[3]

Notes

1   In this period, the municipal corporation had a set of open-minded leaders both in the administration and in the political side. The governance structure also was such that the multiparty "education committee" of elected representatives could play an active role in decision-making.

2   The Jaunpur RCT had indicated that community-based volunteer-led interventions, though effective in raising learning outcomes, had no impact on school functioning. Therefore, in the new RCT it was decided to place the intervention inside the school and during school hours so that it would be possible that teachers could observe, participate, and hopefully pick up the methods and model for the future.

3   Listed as a "good buy" by the World Bank and Foreign, Commonwealth and Development Office, TaRL can help a lot in these difficult times.

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