

Banerjee and Duflo's journey with Pratham

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This year's economics Nobel laureates Abhijit Banerjee and Esther Duflo have worked closely with education NGO Pratham in India for more than 20 years. Over time, this unique partnership of research and practice had led to the evolution of an instructional approach that can solve one of the main challenges in education today. In this post, Pratham's CEO Rukmini Banerji, provides a professional and personal glimpse into that journey.

Becoming partners

We first met Abhijit and Esther sometime in 1999. Our office in Nana Chowk near Grant Road in Mumbai was small and cramped. We met in a room on the first floor overlooking the noisy bustling street below. I was sceptical, almost suspicious. Why was this economics professor from MIT interested in us? With him was a woman who looked like a schoolgirl. It was hard to believe that she had a Ph.D. and was also a professor. Who were these people? Why were they here? This was before the days of Wikipedia or cell phones. There was no way to quickly check them out. Madhav¹ was, and continues to be, far more open-minded than I am. He was intrigued. As the conversation deepened, we could see Madhav get more and more interested in what the two professors were saying. On the other hand, I was having a hard time even understanding what was going on. Abhijit mumbled. Esther had a very strong French accent. I was not even sure what we were agreeing to do. After a round of discussions, it was clear that they were interested in studying the work that we were doing at the time in the municipal schools of Mumbai and Vadodara. School enrolment was already high and rising. However, despite being in school for several years, many children still struggled to read or do basic arithmetic. In collaboration with the municipal schools, we had been running a volunteer-based remedial education programme in all the municipal schools in both cities. From our side, I would be the person that would work with them most closely. Little did any of us know at the time what a journey we were embarking on.

The "Balsakhi" programme was designed around a few key elements. A local community volunteer – *balsakhi* (the word literally mean's child's friend) – would work with children in the neighbourhood school. They were paid a small stipend for their efforts. The *balsakhi*'s main task was to teach children who had been in school for a few years already but were still struggling to do basic math or read simple text. We would provide some basic training and ongoing hand-holding support to make sure that children came to school and participated in appropriate teaching-learning activities. At the time, very few primary school systems had any form of remedial help. In that sense, Mumbai was ahead of its time. The municipal school system allowed our volunteers to conduct a 'pull-out' class for the children who were lagging. The aim was to help children 'catch up'. The programme was already functional in all of Mumbai's municipal schools. We were convinced that the remedial effort was making a difference. However, we had never had a third party take a closer look at what was going on.

In thinking about it, the principle of randomised allocation of 'treatment' (intervention) was not hard to understand. We had all heard of it from medical research. But the actual doing of randomisation on the ground was hard work. Schools were used to programmes that were universally applied. To make sure that everyone got to participate in the programme and hopefully reap benefits as well, it was decided that half the schools would get the intervention for third grade in the first year. In the same school, fourth grade would participate in the second year. In the other schools, the order was reversed, with fourth grade joining in year one and third grade in the second year. The **phased design** would ensure that all schools participated in the intervention (Banerjee *et al.* 2007). In Mumbai, the study covered schools in one municipal ward (L-Ward) and in Vadodara it covered the entire city.

I have vivid memories of the baseline assessment in municipal primary schools in Kurla in L-Ward in Mumbai. Large school buildings and crowded classrooms bursting at the seams, noisy children bouncing up and down, very excited by the presence of outsiders. The test was a pen-and-paper one. Some simple tasks (matching words with pictures, writing words which began with a given letter, and so on) and some harder tasks (fill in the blanks with an appropriate word, make sentences using a given word, and so on). As the test papers were given out, children clamoured us with questions. Some wanted to discuss what should be written. Others sat blankly looking at the paper not knowing what to do. Most leaned over their desks to look at what their friends were writing and discussed with their neighbours what to do. Abhijit and Esther's research assistants were also young and new to India. I remember shaking my head in exasperation after one of the testing days. But it was clear that this data collection had to be stopped. I called Abhijit and Esther. In those days we had landlines and cordless phones. We had a short conversation. They listened to me carefully. It was clear that this baseline data could not be used. The current baseline was rejected in its entirety and a new effort, more appropriate method for the context was designed and implemented in the next few weeks.

The endline results showed substantial positive learning gains for children in both cities. The weakest students gained the most. The **summary report** states that:

“Researchers estimate that the entire effect of the program was due to a very large (0.6 standard deviations) improvement in average test scores among the children who were sent for remedial education. In contrast, there was no measurable impact for their classroom peers, who did not receive remedial tutoring, but were "treated" with smaller class sizes and a more homogenous classroom.”

In the next few years, we experimented a lot with how to work with children so that they picked up reading and math quickly. If a child has already been in school for a few years and has still not acquired foundational skills of reading and arithmetic, it was important to help the child pick up these capabilities quickly so that they could catch up and get to where they were expected to be in terms of their grade. By 2003, we had developed our “learning-to-read” approach which was showing promising results. Using a simple assessment – asking the child to recognise alphabets, read words, paragraphs or a simple story – we could figure out the child's level. Children were then grouped by their current level rather than their grade. Each group got activities and materials that were suitable for their current level and that helped them move to the next level. Very quickly children moved from their group to the next group. In a short period of a month or so, many children were reading fluently. At the time we referred to the method as “learning to read” or L2R. A few years later, in Hindi, we called this method “CAMaL”, which means amazing or wonderful.² Armed with this new innovation, we were keen to see if others would adopt it or not and whether it was as effective when other people used it.

From the cities where we had been working till now, we began to travel and explore villages. In new locations especially in rural areas, it made sense to try and figure out if children needed our help with learning to read or for basic arithmetic. We began to work with local villagers and community people to create what we called “village report cards”. Every child in the village was asked if they were in school and then given a simple story to read and some basic arithmetic tasks.³ This was done hamlet by hamlet, neighbourhood by neighbourhood. Neighbours, friends, siblings – all helped. The assessment activity was accompanied by a lot of heated discussion and debate, especially if children could not read or do sums. This exercise covered all children in the village. In addition to guiding the report card making process, every day the Pratham team (1-2 people) would do some activities in some open place in the village to demonstrate games and how to help children learn. At the end of a few days there would be a village meeting to discuss the report card. More discussions, arguments, debates – some calm and some heated. Why was it that children were going to school but not learning? Who was to blame? What could be done? Finally, the conversation would move towards thinking about solutions. We would offer to help. If someone in the village wanted to help children learn to read and do math, we could train them and then support them. Sometimes volunteers would come forward on their own. At other times, the *Sarpanch* or *Pradhan* (village head) or other older or influential local people would suggest names. Eventually, one or two or more village volunteers would start teaching children. The volunteers were truly “volunteers” – people who gave time to work with children and were not paid in return.

By 2005, Abhijit, Esther and others had formed a research centre called Poverty Action Lab (JPAL). Originally housed in MIT's economics department, they continued to do impact evaluations to provide rigorous evidence for how poverty could be tackled. By this time, we embarked on a new conversation based on where our work had reached. Now that in many parts of India, enrolment levels were high and rising, what would it take to make people demand better learning for their children? What would it take for schools to respond to these demands?

Abhijit and Esther's research on our *balsakhi* programme had been based on an ongoing, popular, and successful intervention. Having worked with them and seen how productive the process could be, we had become confident and even ambitious. From

the Pratham side, we were willing to start a new intervention and were happy for JPAL to evaluate it even as it moved from inception to implementation.

Mobilising villages for improving children's learning: The role of information

Jaunpur district in eastern Uttar Pradesh was picked for our next adventure.⁴ It was an educationally backward area, with high population density and poorly functioning government schools. We focussed on two major questions on how community action could potentially push for improving learning. First, is information enough to fuel action? If so what kind of information? Second, do people need to see a convincing solution before they are willing to take up action themselves? We put our heads together: three treatment arms were conceptualised. In one set of villages, there would be general discussions on the status of education; information about how to improve education would be elicited from people in the village itself. In the second set of villages, we would work with local people to do village report cards (of reading and arithmetic) and then bring groups together to understand the status report and discuss what could be done. In a third set, activities from the first two treatments would be undertaken and in addition village volunteers would be mobilised to start teaching children. We tried to find as many volunteers as the village report card suggested were needed. (Each volunteer worked with at least 15 children.) We trained the volunteers and helped them in the field as well. The volunteers taught children in after-school classes that ran for 3-4 months. The three treatment arms were randomly assigned to different villages and of course there were a set of control villages too where we did nothing. The JPAL team recorded children's learning levels before the intervention started. The endline measurement was done several months after the classes were completed.

Sometime in 2005 or 2006, the JPAL team visited Jaunpur. Our local team was very worried. There were hardly any decent hotels, ever in Jaunpur town. Where would they stay? We had rented houses for our teams in different parts of the district. In the hot summer, we would sleep on the terrace with mosquito nets. How would we arrange proper stay for Abhijit and Esther and their team? As it turned out, we need not have worried.

I have clear memories of Esther going from village to village with me. We talked to mothers and others. Some conversations were one on one and some were with women in a group. We were trying to understand what parents wanted for their children. In one village, an elderly lady, someone's grandmother, called me aside. She started scolding me and pointed to Esther. Esther's churidar had a split from her knee to her calf. Grandma wanted us to stop wandering about and stitch up Esther's torn pants before going on to the next village.

The **results from the Jaunpur study** were very revealing (Banerjee et al. 2010). Only one of the three interventions led to improvements in children's learning. Nothing happened in villages where only meetings were held even though large numbers of people would come to the meetings and spend a lot of time discussing what was the problem and what should be done. Disappointingly, even the freshly generated data on schooling and learning in the report card villages did not lead to any direct action. It was only in the villages where activities were demonstrated and where volunteers came forward that children's learning improved. Even if there was extensive participation, debates and discussions did not lead to collective action. Simply airing opinions, pushing viewpoints or heated discussions did not translate into progress for children. But even in cases where there was significant rise in children's learning level due to the work of volunteers, there were no significant changes in classroom teaching or in the functioning of the school. Schools seemed immune to large-scale community action.⁵

Clearly, the actual instructional design was effective, even when done in less structured environments (like after school community-based classes) and by instructors that were not highly qualified (like the *balsakhis* in urban areas or village volunteers in rural areas). The *Balsakhi* study and now the impact evaluation in Jaunpur had reinforced our faith in ordinary people working to improve their neighbourhood. We continued our work in many states with village volunteers since that path seemed clear and impactful. By 2005, a scaled-up and modified version of our village report process had been taken forward in the ASER exercise.⁶ But the question was how we could insert our approach, which was still being called L2R, into large poorly functioning government school systems.

Raising learning inside schools: Working with teachers

The earliest foray with collaborating with state governments was in rural Maharashtra in 2002-2003. The government agreed to try out our teaching-learning approach in two educationally backward blocks in Thane district – Mokhada and Jawhar.⁷ A small team from Pratham worked with teachers and others in these blocks and in a short period of time were able to show very promising results. In 2004, an opportunity arose in Bihar. The government was about to recruit 75,000 new para-teachers. In preparation for this big inflow, the government was getting a team of 6,000 master trainers together. A big team of over 300 people from different Pratham programmes went to Bihar to demonstrate this approach and insert it in the preparation of master trainers for a massive teacher-training programme for para-teachers.⁸ Subsequent collaborations for learning improvement were

with state governments of Madhya Pradesh and Chhattisgarh. In Bihar, with the coming of the Nitish Kumar administration, school education was given high priority. Within this agenda, bringing children to school and mainstreaming them into appropriate classes was the activity in which Pratham teams worked closely with their government counterparts.

By the middle of 2008, we were gearing up to do a massive L2R campaign in the summer holidays. It would be largely fuelled by volunteers but in some cases state governments were joining in too. Since Jaunpur, we had been concerned about what activity in schools would lead to learning improvements. Our ongoing conversations with Abhijit and Esther reflected this concern. Together, we worked on a plan – a set of school and community activities that would be undertaken by Pratham and the state government together. By now all these efforts were being called “Read India”. The location was to be West Champaran district in the north west corner of Bihar. JPAL would evaluate whether and how much this effort would lead to improved reading and arithmetic skills of children in grades 3, 4 and 5.

Michael Walton, a professor at Harvard’s Kennedy School, joined the JPAL team for the Read India research study in Bihar. Michael lived in Delhi during this time. One summer evening, Abhijit, Michael, and I were discussing the upcoming project in a leisurely manner. I mentioned that the Bihar government had decided to join the summer camp effort and that they would appoint two teachers in each school during the summer months to work on basic reading and arithmetic skills of children in grades 3 to 5. Suddenly, we realised that our carefully laid out research design would get messed up. If the summer camp was universal, then there would be no control group! Almost instantly, Michael and I went to Bihar and rushed to Bettiah. It was the end of May. Schools were just closing for the summer holidays. Arrangements were being made for the summer camps that were to roll out in June.

It was terribly hot and humid weather just before the monsoons arrived. Michael and I went from cluster to cluster addressing groups of cluster coordinators and teachers in Lauriya, Majhulia, and Narkatiyaganj. Over endless cups of tea, everyone would listen attentively to Michael, marvelling at his precise English accent and his patience and poise. I would translate painstakingly to explain the research design – why randomisation of the treatment groups was important and why it was crucial to have a control group. And why it was important not to hold summer camps in the control group villages. I remember one teacher’s wry humorous comment: “Usually the government gets after us to do something and here you are trying to tell us to stop”. To this day, I am convinced that it was Michael’s English accent that saved the day! If it had not been for this meticulous effort to protect the control villages from the one-month camp, we would have lost a key learning from this study.

Starting with the 2008 summer camp, the Read India impact study ran for two years. In July 2008, two government schoolteachers were made in charge in every government primary school. Regardless of grade-level curriculum, for that month they focused exclusively on building the basic reading and arithmetic skills of students in grades 3 to 5. During the school year, they taught from the textbooks prescribed for that grade using more interactive methods learned during the Pratham trainings. At the same time, the teachers selected children who needed extra help and handed them for additional inputs after school to local village volunteers. Pratham trained and supported the teachers and the volunteers. This was all done during the school year.⁹

The data from the study was analysed by the researchers in phases as activities rolled out. Four major findings emerged which have shaped the evolution of the approach. First, the summer camp, despite being less than four weeks long, showed significant learning gains for children. Although attendance was sometimes a problem, those who attended gained substantially. From this we learned that even short bursts of activity can be effective for building foundational skills for children of this age. Secondly, the learning gains from the summer camp were larger than what the children could acquire during the entire school year. This underlined the fact that teaching the curriculum well does not lead to significant gains if what you are teaching is far above the current level of the child. Thirdly, while teachers were trained in very hands-on workshops by Pratham and came together several times in the two years, others in the government system (like cluster coordinators, block resource persons, district-level master trainers, etc.) were not involved and did not play any role in providing mentoring or academic support to teachers. Fourth, one of the treatment arms had materials only that were provided to schools. In this set of schools, there was no difference as compared to the control schools. We realised that simply providing materials to teachers but with no hand-holding support does not lead to any change. Finally, as with the previous Balsakhi study results and those from Jaunpur, volunteers were crucial in helping children make progress.

Being able to communicate research results to policymakers and practitioners is an essential part of the entire process. That is what ‘evidence-based decision making’ is all about. The question is how to do it in a way that makes everyone think hard and question the assumptions that they have been working on. As results became available from the Read India study, together with JPAL, we would bring out short notes in Hindi that could be presented and discussed easily at district and state levels.

The main findings were in our hands. Accompanied by Sanjay Kumar (Pratham’s team leader in Bihar) and Yamini Aiyar (who did some of the qualitative work for the study), Michael and I walked into the secretariat building in Patna. Everyone of consequence was sitting in the Education Minister’s chamber – the minister, the principal secretary of education, and key members of his team were all

there. It was already early evening. The crowds in the corridors had thinned out. No harried peons were bringing files into the room. No applicants were barging into the room to plead for transfers. It was unusually peaceful. Tea was brought in. The Education Minister, Mr. P.K. Shahi had been the advocate-general of the state before he became the Education Minister. A lawyer by profession and keen analytical mind, he had keenly followed the education reforms that had been tried in the state. Mr. Shahi turned to Michael and said “Doctor, what is diagnosis?” Without batting an eyelid, Michael responded. “There is good news. And there is bad news”. In the next hour or so, we were able to discuss the four main findings from the study. Interestingly, in conversations with some of the people attending the meeting years later, I could see that the main findings had been absorbed.

Developing leaders of practice: Working in government schools

We were walking along the river in Cambridge. It was a lovely afternoon. Esther had a pouch with her baby tied in front of her. She walked more purposefully and faster than me. We were talking about the work that we had done together and what we should think about for the future. I remember her saying: “the Bihar summer camps have restored my faith in teachers”. We started talking about how to implement “Teaching at the Right Level” more effectively in government schools. By this time, we were all referring to the approach as TaRL.¹⁰

In Bihar, in Jehanabad district, we had just started working with a young district magistrate. In the new version of TaRL, we insisted that the level above the teacher within the government system, called cluster coordinators in Bihar, should first ‘practice’ our method for 15-20 days. But this process had already started in Bihar and so putting in place a rigorous impact evaluation was not possible. The question was how to implement and evaluate the new version of TaRL within government schools in a location with the “leaders of practice” element in place. JPAL and Haryana government were in discussion about evaluating several policy initiatives in the state. TaRL was included in that list. By the time we returned from our walk, this decision had been made. Esther and I were in complete agreement. Warming up in the cosy kitchen in their upstairs flat, now we could enjoy the sumptuous meal that Abhijit had cooked in our absence.

The two sites chosen in Haryana were quite far apart – Mahendragarh and Kurukshetra. One period in the school day was put aside for improving reading. The cluster-level cadre in the government education system in Haryana were called ABRCs. Typically, each ABRC had 12-15 schools that they supported. The idea was the this set of people would first use the TaRL method themselves daily in a school for a period of 15-20 days. Once they were conversant with the teaching-learning method, they would train the teachers in the schools in their care and provide ongoing, on-site support. The ‘practice class’ would also give them first-hand a sense of how quickly children can progress if the instructional activity starts based on the child’s current level rather from their current grade.

The research showed that schools using the TaRL method had a large and statistically significant effect on students’ Hindi scores.¹¹ Relative to the comparison group, students in LEP¹² schools scored 0.15 standard deviations higher on the Hindi reading test and 0.135 standard deviations higher on the Hindi written test. The largest gains were concentrated among students who could only recognise letters at baseline.” (Duflo et al. 2014, Banerjee et al. 2016) Our learnings from the earlier intervention and evaluation in Bihar were further reinforced in Haryana. Government schoolteachers who used TaRL during school hours, during the school year were able to help children make substantial gains in basic reading. Their performance was supported by their cluster-level officers – a cadre that had not been included in the earlier intervention in Bihar. The Haryana intervention-impact evaluation provided further evidence for strengthening the TaRL approach.

Learning camps and beyond

The Right to Education Act was passed in Parliament and came into effect in 2010. For the next few years, most state governments were pre-occupied with ensuring compliance. The Act laid emphasis on inputs-related issues like school infrastructure, teacher qualifications, and student-teacher ratios. Much of the focus was to make sure that all children had access to a school with a minimum set of stipulated inputs.

Given the overall environment, our strategy had two parts: first, we were already in a partnership with Haryana government which was being evaluated by JPAL and second, it seemed to make sense to simultaneously focus on improving our own teaching-learning practice by working directly with children in schools and communities.

After several years of relying entirely on volunteers for raising children’s learning levels, we were also perhaps reaching the limits of our volunteer-based strategy. So far, partnering with volunteers had been a way of working on scale, albeit locally. However, it was also to re-look at how effectively and in what period we could help children start reading fluently. The research based on our previous work in Bihar had shown that even short bursts of intensive activity can lead to durable results. So, the question we were tackling was the following: if one Pratham person had to work in several villages, how much time should s/he spend in each village to bring about significant and durable change in children’s basic learning?

By 2012, across Pratham, team members began to work directly in government schools. In a few months, the “Learning Camp” model began to emerge. While some of the elements were the same (simple assessment, grouping children by level rather than grade), in each school we spent a period of 6-10 days at a time. This duration was called a “learning camp”. Two or three schools were taken up at the same time, so that the Pratham team member could rotate through these set of schools, doing one camp after another. Interestingly, the fact that the camps were not continuous seemed to help rather than hinder learning gains. We were excited with how the Learning Camps were evolving and also keen to study it.

At this time, USAID Development Innovation Ventures put out a request for proposals where ideas that were on scale could be evaluated. It seemed to be the perfect fit for a Pratham-JPAL joint project. Two districts, Sitapur and Unnao in Uttar Pradesh, one of India’s most educationally backward states, were picked and the intervention was carried out in government primary schools in the 2013-2014 school year.

Schools in Sitapur and Unnao were randomly assigned to one of four groups, with approximately 120 schools in each group. Ten-day camps were carried out in the first treatment group. These schools received four 10-day rounds of camp plus an additional 10-day camp during summer. In another treatment arm, 20-day learning camps were carried out. These schools received two 20-day rounds plus an additional 10-day camp during summer. In a third case, we had materials-only”. Pratham provided schools with the TaRL learning materials but no additional academic support. And finally, there was the comparison group where schools did not receive camps or materials.

Sarvendra Vikram Singh, a senior government officer in the Uttar Pradesh education department visited the Learning Camps during this year. His comments after he returned from visiting schools was very telling. He said that the usual situation in the primary schools in UP like a triangle – many children in the bottom levels and only few towards the top. But in the Learning Camps, after a long time, he was able to see an inverted triangle – in which there were very few children at the bottom of the pyramid. Most children were at the top – all reading and having fun.

The JPAL summary of the evaluation states that “The impact of Pratham’s learning camp model is the largest measured of any TaRL model evaluated.” (Banerjee *et al.* 2010) The 10-day camp and 20-day camp had similar impacts reinforcing the idea that discontinuous bursts of intensive activity can be very productive for improving children’s learning. In the gap days between camps, both teachers and parents, and probably children themselves continued some of the activities and games. As the researchers explain,

“At baseline, 39 percent of children could not recognize letters, and 15 percent could read a paragraph or story. At end line, there was little progress in the control group: 24 percent of children could not recognize letters, and 24 percent could read a paragraph or a story. In contrast, 8 percent of students who participated in the learning camps could not recognize letters, and 49 percent could read a paragraph or a story. This means that the learning camps were twice as effective as regular instruction at teaching students to read a paragraph. To put this into context, learning levels in the camp schools went from close to the lowest achievement levels in India to the learning level of the third highest achieving state in the country (Haryana).” (Banerjee *et al.* 2010)

Looking back

Looking back over the last 20 years¹³, it is clear to me, how tightly intertwined the twin threads of doing and learning have been throughout this period. The evolution of our approach has benefitted enormously from our joint efforts to combine ideas and implementation and study impact. Abhijit, Esther, and the JPAL team have come in from time to time and helped us to take a closer, harder and more focused look at our work. Our own belief in the key elements of what makes our current TaRL approach effective has grown and been reinforced by the results of the series of randomised controlled trials that they have done. It is these critical ingredients that have enabled us to remain flexible and adaptive as we explore new contexts and terrains, both in India and elsewhere.

JPAL has a presence all over the globe. Their researchers and affiliates study all kinds of programmes and projects in many sectors in different parts of the world. But wherever they are asked about ‘what works’ to improve children’s learning, they talk about the effectiveness of Pratham’s TaRL approach. These discussions and disseminations in countries outside India have led to a new partnership between the two organisations in sub-Saharan Africa. Today, Pratham and JPAL are working together and in collaboration with governments and organisations including those in Zambia, Nigeria, Botswana, Madagascar, Niger, Cote D’Ivoire.¹⁴

But going back to Esther and Abhijit, for me personally and for Pratham as an organisation, the experience of working with them has been even more valuable than the results generated by any of the studies. For me, two distinct features of our partnership stand out that have been consistently different as compared to working with anyone else. One, right from the initial *Balsakhi* study, we have truly been equal partners. It is only after working with other researchers and other partners that I have come to

understand and value what it means to be genuinely equal and a true partner. The respect that we feel for each other and the trust that has grown, all cement the core of the collaboration. Two, underlying our relationship there has always been a sharp intellectual curiosity which also has a practical dimension. Our work together has been fuelled not only by the need to know 'what works' but also guided by what is the new question that we need to explore to make the current work even stronger.

Stepping back and reflecting, I can see many learnings. We learned discipline not only of thought but also of practice. We learned how to ask questions and how to look for answers. While every study answered some questions, we began to understand the importance of looking at new questions. We learned that experimenting is a continuous effort. Understanding what works and what does not work is an ongoing activity. At a human level too, we learned important lessons: how to be equal partners in thinking, learning and doing; how to trust each other; how to be truthful; how to deal with failure; how to cope with ups and downs in life. At the core of it all, are the friendships which have only deepened with time.

Will going to school, learning to read, being able to do basic arithmetic fundamentally change the lives of children? The answer is an emphatic 'yes'. Will all this lead to poverty alleviation? The answer is not as straightforward. We believe that without building strong foundations, no child will be able to reach their full potential. Therefore, it is so important to make the process of helping children acquire basic skills as fast, as durable and as frugal as possible. Endless patience, persistence, and practicality have brought us to where we are today. This journey would have been far less productive and certainly less exciting if Abhijit and Esther had not travelled with us the whole way.

Notes:

1. Madhav Chavan and Farida Lambay are the co-founders of Pratham.
2. The letters in CAMaL also stand for Combined Activities for Maximized Learning. Along with the instructional approach, the name for the method has also evolved over time. The overall approach to improve children's foundational skills like reading and arithmetic that Pratham has pioneered and developed over the last two decades is now called "Teaching at the Right Level". This includes not only the instructional practice but also the way in which the effort is designed, organised, supported, and delivered. The name "TaRL" has been in use for about 7-8 years now. The original method was born in the latter half of 2002 and tested for effectiveness in December 2002-January 2003. At that time, the method was called "Learning to Read" or L2R. For details of the evolution of the teaching methodology during 2001-2004 see <https://www.india-seminar.com/semframe.html>. A video of this test is available at <https://www.youtube.com/watch?v=xerHw5NskZc&t=22s>, including a certificate of the supervisors towards the end. "Read India" was the name given to Pratham's entire effort to improve children's learning when we launched the campaign in 2007-2008 as our response to the learning crisis shown by the Annual Status of Education Reports (ASER). In India, we continue to refer to the teaching-learning set of activities as CAMaL.
3. This tool later came to be known as the ASER tool. It was used widely and for many years in the ASER exercise.
4. Dan Keniston, the JPAL research assistant on this project, may remember several other criteria for why Jaunpur was chosen.
5. A short film "Bhor" showing the Jaunpur experience is available here: <https://youtu.be/TJpBIEhcPEU>
6. To understand how the learnings from the village report card process led to ASER see: http://img.asercentre.org/docs/Publications/External%20publications/banerji_p85_birhofaser_learningcurvexxaug2013.pdf
7. See the Mokhada Tale - a short film on this experience at <https://youtu.be/lhEJZGWTaBc>.
8. See "Chalo Bihar" - an illustrated graphic documentation of this adventure (available on request).
9. A similar intervention-impact evaluation was also carried out in Uttarakhand with Pratham and the government working together.
10. It has never been very clear when TaRL caught on as a term. We think JPAL coined the phrase but we are not sure when or who did it.
11. The version of the TaRL intervention in Haryana was called LEP - Learning Enhancement program.
12. See footnote 8.
13. See editorial page article in Indian Express, January 22, 2015 by Esther Duflo and Rukmini Banerji on the effectiveness of teaching at the right level: <https://indianexpress.com/article/opinion/columns/lets-remake-the-classroom/>. For more

academic pieces see Banerjee et al. (2016, 2017).

14. In January 2019, Pratham and JPAL received support from a new collaborative funding effort called Co-Impact for taking TaRL to sub-Saharan Africa. See <https://co-impact.org/program-partners/teaching-at-the-right-level-africa/>

Further Reading

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