Assessment to Action: Using Data for Improving Children's Learning
The Case of Pratham's Teaching at the Right Level

Background

For several decades, school systems, especially countries in sub-Saharan Africa and South Asia have focused on providing schooling for all and moving towards universal enrolment. Consequently, measurement and data systems in these countries have focused on tracking expenditure on inputs and on enumerating schools, teachers and children. But as education systems begin to pay attention to issues of teaching and learning, there will need to be significant changes in objectives and outcomes, priorities and processes of data collection and use.

In India, like in many other developing countries, current knowledge of and experience with measuring student learning is largely based on models, metrics and methods that have evolved over time in developed countries. Not surprisingly, such measurements respond to the needs and capabilities of the contexts in which they originated. Developed country contexts have characteristics that are often very different from those in developing countries. For example, many western countries have had universal enrolment for several decades. Child populations and age-grade distributions have stabilized over time. All schools are registered in national records. Also, these countries have large numbers of parents who have themselves have had several years of education and so have a relatively better understanding of what it takes to progress through school. In these education systems, assessment is usually an integral part of the overall teaching-learning framework that guides instruction. These factors ensure that data on students' progress feeds into decisions and plans for improvements in the education system.

Problem

Today, India has reached close to universal enrolment, at least at the elementary stage. This is an impressive achievement. The Right to Education Law in India lays down that schooling is free and compulsory up to the age of fourteen. By this age, children usually reach Grade 8. Until now, children were not "held back" in any class; they moved each year into the next higher grade till the end of the elementary stage. This results in more and more children coming into school and staying for more years.

Over the last ten years, evidence from research studies and achievement surveys in India suggest that children's learning levels even in primary school are far from satisfactory.[1] This is not surprising given that many children in school in India today are the first generation in their families to go to school and stay in school for as long as they have. The big challenge of India is how ensure that every year that a child spends in school generates sufficient "value added" in terms of student learning for.

[1] Most recent student achievement surveys in India indicate that there is cause for concern. These include the government's national achievement surveys as well as those by other organizations such as ASER, Education Initiatives as well as research studies. More worrying is the evidence of declining learning levels over time. This trend is seen in ASER data, in data from the longitudinal study in Andhra Pradesh called Young Lives, as well as in the India Human Development Survey. More recently, the government's latest round of the National Achievement Survey also indicates this pattern.

Possible Solution

For over twenty years, Pratham has worked with primary school age children in India. For a variety of reasons, a large proportion of children are not able to acquire foundational skills in their first few years in school. This severely limits their educational progress in subsequent years. Pratham's efforts to find an effective solution to this problem has led to evolution of the "Teaching-at-the-Right-Level (TaRL)" approach.[2] Pratham's teaching-learning approach is significantly different from that followed in typical Indian schools. A typical Indian school is organized by age and grade; teaching is geared to completing the syllabus/textbook as prescribed for the grade. If a child has progressed through the school system at the pace expected of her in each grade level, she benefits from the usual practice of grade level teaching. But if a child is below grade level, then it is extremely difficult for her to make much headway. This problem in Indian schools has been referred to as "teaching to the top" and is often attributed to "negative consequences of overambitious curricula",[3] and is at least partly responsible for why so many children reach fifth grade without basic foundational skills.

In Pratham's "Teaching-at-the-Right-Level" model, children are grouped by level rather than by grade. Each group uses activities and materials appropriate to their learning level. Quick progress is visible; high impact at low cost. A large scale "boost" for learning in the later years of primary school can change the entire educational landscape in India in a substantial and significant way. By the time children reach Grade 3 and are at least seven or eight years old, they can be helped in a short period of time and at relatively low cost.

The aim of developing this teaching-learning method was to help children acquire durable foundational skills like reading and arithmetic in a short period of time. The TaRL approach has been repeatedly and rigorously evaluated and found to be effective for both school based programs as well as interventions implemented in community settings.

Assessment to Assist Action

One of the main objectives of any student assessment system is to provide timely and useful inputs that can enable schools to help children learn. As India experiments with measuring student outcomes, we need to consider how much of the available assessment approaches and models are appropriate, relevant or useful for our current context. Should we modify or adapt existing paradigms? Or do we need to develop different indicators, tasks and processes that better serve our current needs and are more aligned to existing capabilities? The big question is around how assessment can be an integral part of ongoing teaching-learning efforts so that appropriate decisions can be made about how to better help children learn.

Any measurement effort should be clear about the purpose for which data is being collected. If the aim is to design interventions to solve the problem of poor learning, then it is important to align and integrate

[2] Pratham's method is commonly referred to "Teaching-at-the-Right-Level" in English. However in India, it is called CAMaL (Combined Activities for Maximized Learning). The word "CAMaL" in Hindi means magic.

[3] The economist Lant Pritchett (and co-author Amanda Beatty) have a 2012 paper with this title. See: http://www.cgdev.org/publication/negative-consequences-overambitious-curricula-developing-countries-working-paper-293. Economists Abhijit Banerjee and Esther Duflo in the education chapter in their 2012 book "Poor Economics" characterize teaching in India as "teaching to the top of the class".

the assessment with the action that is planned. Further, ground realities need to be taken into consideration if assessment data is to translate easily to into effective interventions.

This note is based on Pratham's learning improvement programs – Teaching-at-the-Right-Level. The note outlines and explains some of the key decisions that underlie how assessments are used in this approach. Key questions and important choices discussed below include:

1. What should children be assessed on? Grade level curriculum or foundational skills?
2. How should children be assessed? Pen and paper testing or one-on-one oral assessments?
3. How can assessment data be used for improving instruction?
4. How can assessment data be reported, discussed and disseminated?
5. Who is the data for? Policymakers and planners, practitioners and parents?

For each question, we lay out what is usually practiced in the school system and compare it to what is done in Pratham's Teaching-at-the-Right-Level approach and why.

1. WHAT: What should children be assessed on? Grade level curriculum or foundational skills?

What is usually done: Usual tests of student achievement are anchored on curriculum expectations. In developed countries, the average gap between curriculum expectations and children's actual levels is not very large; hence it is reasonable to conduct grade level-based assessments in the subjects taught for that grade.[4,5] But in our context, learning levels are far below grade level for many children currently enrolled in school. For example, recent data from India suggests that depending on the state, the proportion of children in Grade 3 who are at "grade level" may range from 50% in a state like Himachal Pradesh to less than 10% in a state like Uttar Pradesh.[6] This suggests that administering a grade level test in Himachal Pradesh may make sense because most children can read; but in Uttar Pradesh, where nine out of ten children in Grade 3 are struggling to read simple sentences, it will not provide useful information either to teachers or to other decision makers. Even in upper primary grades, significant proportions of children still struggle with basic tasks like reading, comprehension, basic number knowledge or operations.[7] Ground realities need to be considered when designing assessments and while thinking through the purpose and use of measurement.

[4] Recent available evidence from data like the Annual Status of Education Report (ASER) for India shows that even after five years of schooling, less than half the children in grade 5 in schools in India can read fluently. Just about the same proportion can at least to subtraction in Grade 5 (ASER 2016). This suggests that for at least 50% of children who are about to finish primary school and for a higher proportion in grades 3 and 4 it cannot be assumed that they can read or do basic arithmetic. All ASER reports for every state in India from 2005 to 2016 are available on asercentre.org.

[5] International student achievement efforts like PISA target students in older age groups (PISA is designed for 15-year olds). By this age, the issue of not being able to read does not arise.

[6] For more details of ASER 2016, see www.asercentre.org.

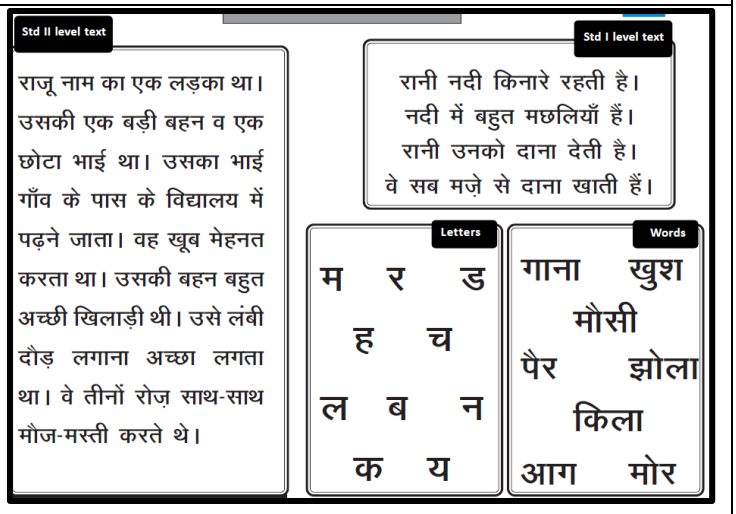
[7] ASER 2016 indicates that even in Grade 8, close to 25% of enrolled children are unable to read fluently at Grade 2 level. Similarly, less than half of all children in Grade 8 can correctly solve a simple numerical division problem (3-digit number divided by 1-digit number).

What we do and why: Before starting a learning improvement intervention in any primary school, Pratham quickly checks to see whether and to what extent children have acquired basic skills. This exercise helps in deciding whether the program should focus on foundational skills or higher level learning goals.

To understand the level of basic skills we use a simple, short test of reading which is administered one-on-one with each child. The Pratham assessment tool (which is the same as the well-known ASER tool) has five levels. The highest level, "story" level is a short story (about 8-10 sentences) roughly at the level of Grade 2 texts in Indian textbooks. The level just below "story" is "para" level – 4 or 5 connected sentences using common words that are used in everyday language.[8] This "para" is at the level of difficulty of texts usually found in the language textbook for Grade 1 in Indian states. If a child cannot read the "para", she is shown a set of words (common daily-use words whose spellings are also easy).[9] Finally, if a child cannot read words, then she is shown a set of common letters to recognize. If a child cannot recognize letters correctly, then she is placed at "beginner" level. Each child is marked at the level which she can comfortably achieve. The levels are progressive, which implies that if a child reaches a particular level, she is able to do all the lower level tasks. Each child is recorded at the highest level that he/she can comfortably achieve. The assessment is done in the language of instruction used in the child's school.[10]

The math assessment follows a similar progressive logic. The child is shown a simple numerical subtraction problem (two-digit problem with borrowing). Before starting on the operation, she is asked to name each of the two-digit numbers in the problem. If she can name both two digit numbers correctly then she is asked to look at the sign/symbol (the minus sign) and to say what she is supposed to do with the two numbers. Once she has correctly said "subtract" or "take away", then she proceeds to do the computation, using pen and paper or any other method. When she is done, she writes or says the answer. The advantage of this one-on-one method is that in addition to actual computation ability, the teacher/instructor gets a sense of whether the child has number sense, and

Figure 1: Reading tool in Hindi [11]



[8] The sentences are laid out in such a way that there is only one sentence on each line, i.e. sentences do not wrap around from one line to the next. This format makes "reading" easy for children who are learning to read.

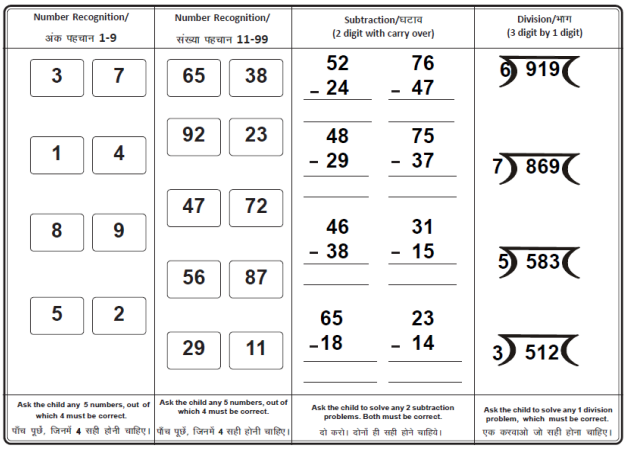
[9] In most Indian languages, these words have two letters (usually consonants) combined with one or two vowel symbols (matras).

[10] Pratham's Teaching-at-the-Right-Level approach in India is used in 11 Indian languages.

[11] The English translations are as follows: The word list contains the words *Song. Happy. Aunt. Foot. Bag. Fort. Fire. Peacock*. The paragraph (Grade 1 level text) is as follows: *Rani lives by the river. There are many fish in the river. Rani feeds the fish. The fish have fun eating the food.* The story (Grade 2 level text) reads: *There is a boy called Raju. He has a big sister and a younger brother. His brother goes to school near the village. He works very hard. His sister is good in sports. She likes to run a lot. All three of them have fun every day.*

whether she knows what operation to use. If the child is not able to do the subtraction problem correctly, she is taken to a set of two-digit numbers and asked to name them. If she cannot name two-digit numbers correctly, she is shown a set of one-digit numbers. If she has difficulty in recognizing the one-digit numbers then she is recorded as a "beginner" level child.[12]

Figure 2: Arithmetic tool



The assessment used to initiate instruction in Pratham's Teaching-at-the-Right-Level model should be seen as a "floor" test. This measurement is not meant to evaluate how high a child can go but rather to ensure that every child progresses past a basic level.

In a typical Indian school, teaching is done at grade level using textbooks that have been prescribed by the government for that grade. As stated earlier, one of the "negative consequences of over-ambitious curriculum" is that children start getting "left behind" even in first few grades in primary school.[13] If basic data on children's foundational skills in early grades becomes available, it can easily lead to quick corrective action. Decisions taken at the right time and at the appropriate level can save the educational futures of millions of children.

Realistic and achievable learning goals can only be set by taking into account realities on the ground. At least for primary schools in India, it makes sense to anchor learning goals and assessments on foundational skills for all children, rather than implement grade wise and subject wise tests. If a large proportion of children are found to be struggling with reading and arithmetic, then steps have to be taken to enable children to build these fundamental skills. With this foundation in place, it becomes possible for children to participate much more meaningfully in teaching-learning activities with all other subjects.

2. HOW: How should children be assessed? Pen and paper testing or one-on-one oral assessment?

What is usually done: The most common "test" in school systems around the world is a pen-paper assessment done by individual children. The "test" paper is given to a child who is expected to read, understand and then do the specified tasks. This format assumes that a child can not only read but also

[12] The math tool has four additional levels other than "beginner". These are one-digit level, two-digit level number recognition, subtraction and division. In India, children are expected to be able to do a two-digit subtraction problem by end of Grade 2. Division is usually taught in Grade 4. The tool has been developed to be progressive in nature, and the child marked at the highest level that she can reach. A lot of preparatory work was done in developing the basic arithmetic tool. For example, well over 90% children who can do the two-digit subtraction problem with borrowing can do two-digit addition problems. Hence if a child can do the subtraction task, it is safe to assume that she can do addition. Thus, a child who can do the division task in the tool (3 digit by 1-digit numerical division problem) can also do multiplication, subtraction and addition tasks at least with two-digit numbers.

[13] Beatty and Pritchett 2012 paper titled "Negative Consequences of Overambitious Curriculum"

comprehend. This assumption may be justified in developed countries but in many developing countries even after three or four years of schooling, large numbers of children cannot read or understand basic text. For such children, a pen-paper test is not appropriate. Children who cannot read cannot be meaningfully assessed using written tests.

What we do and why: Reading is a foundational skill. Without being able to read and understand, a child cannot make progress in school. To understand if a child can read (or to understand where she is getting stuck or struggling), she has to read aloud and the teacher/instructor/assessor has to listen and make a judgement. This can only be done orally and one-on-one. So, if we want to understand whether children can read and at what level, and if we want to help them to do better, then the oral and one-on-one way is the only way.

The situation with basic arithmetic is similar. It is important to know if a child has knowledge of numbers, whether she or he knows what operations are to be done in a specific situation and then whether the child can compute correctly. Here too, one-on-one assessment is the most efficient way to know exactly what a child can do comfortably and confidently.

Clearly, there are challenges in assessing children orally and one-on-one especially in contexts where there are very large numbers of children in school. It takes time to deal individually with each child. A standard process for administration and grading is required. On the other hand, there are substantial benefits. . The one-on-one assessment approach ensures that before starting to teach any individual or group of children, the teacher knows every child's level of foundational reading and arithmetic. By doing this simple assessment with every child, the teacher also gets to know the entire class as well as the distribution of all children across different reading levels.[14]

3. HOW: How can assessment be effectively used for improving instruction? Grouping, tracking and review

What is usually done: Teaching in any grade in India is guided by the prescribed curriculum and textbooks for that grade. The assumption is that children will be familiar with and even have mastered the curriculum of the previous grade; hence the focus of the teacher and her teaching is on the content for the current grade. To the extent that there is any classroom assessment, it is usually geared to the current grade level content and curriculum. However, as discussed earlier, available empirical data points to the fact that a significant majority of children are well below grade level and so are not able to benefit meaningfully from the usual practice of classroom instruction. For example, the periodic national sample based student achievement surveys are pen-paper tests which do not capture what a child can do vis-à-vis foundational skills; instead they provide a quantitative picture of where children are vis-à-vis their grade level expectations.

[14] As the children begin to progress, the teacher often takes ownership of the progress of individual children. It is not uncommon in review meetings to hear teachers recount the story of how a specific child has progressed.

What do we do and why: The Pratham reading and arithmetic assessment tool is central to the Teaching-at-the-Right-Level instructional model. It is used for several purposes and in a variety of ways.

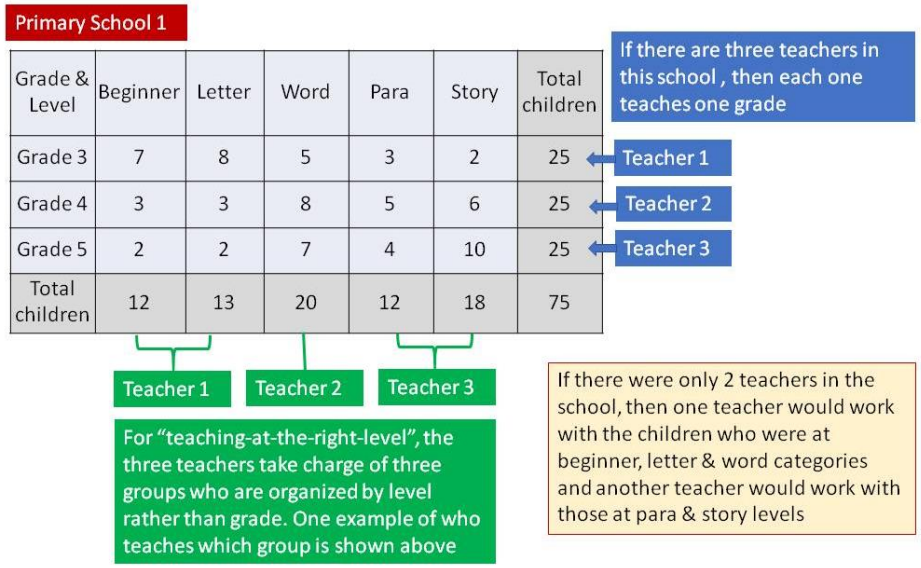
- Assessment to make the problem of learning "visible": In a context where the focus has been on provision, access and enrollment, the common assumption is that if children are going to school, they must be learning. Children who are out of school are visible and so attention can be focused on them. But children who are in school and not learning are "invisible". Increasingly data available at national or regional level indicates that learning levels are low, yet policy-makers, planners, teachers, elected representatives and others do not clearly see the gaps between assumptions and reality. The best way to bring attention to the problem of low learning is to have people test children themselves. The simplicity of the Pratham assessment tool enables this process. We use "testing" as an activity early in training workshops of teachers or instructors. The first-hand experience of testing children usually convinces them that this is indeed an urgent problem.

- Assessment tool indicates goals: Pratham's simple tool allows teachers, parents and children to understand the goals of the learning improvement program. For reading and for arithmetic, the highest level visible on the tool is the goal of the program. This helps everyone know where they are headed. Even illiterate parents can understand the goal of the effort. The comparison of the baseline and the end line indicates how much progress has been made towards achieving the specified learning objectives.[15]

- Assessment for grouping: In most states in India, Pratham usually works with children from several grades simultaneously (e.g. Grades 3, 4 and 5). The assessment only takes a few minutes to carry out but it enables the teacher/instructor to know not only the level of each child but also the distribution by level of all children in the target population. The "right level" element of the "Teaching-at-the-Right-Level" model is established at baseline through the assessment; and as the first step in the instructional practice, children are grouped according to their level rather than their grade. While all children participate in some common activities, each group has activities and materials that help them progress to the next level. Assessment linked to immediate action by the teacher is an important distinguishing feature of testing in the TaRL approach.

[15] It is worth thinking about how and whether assessment can shift incentive mechanisms that exist within the education system. Testing basic skills can provide the incentive to focus on them.

Figure 3: Using assessment data for grouping children



- Assessment for understanding Individual versus group performance: For a good teacher, progress of each child matters. Therefore, it is important that the teacher knows the current level of each child. But at the same time, she teaches a group of children and so she needs to know not just the composition of the group but also their distribution in terms of what they can do but also the progress of the entire group in her class or camp. In a Pratham class or camp, a simple chart is used to track both individuals and the group as a whole. (Figure 4 below shows how this is done).

- Assessment for designing instruction: Think about two groups of children (see figure 5 below). In one group, at baseline most children are at the lowest end of the distribution – they can either not recognize even letters or just about recognize letters. In another group, children are evenly spread out over the different levels. The instructional challenge facing those who will teach these two groups is quite different. In some ways, the first group is homogenous. To begin with, the teacher will do a variety of letter recognition and decoding activities with all children.

Figure 4: Progress Tracking Chart for a class

TRACKING CHILDRENS' PROGRESS: SAMPLE			
Level/Group	Baseline	Mid line	End line
Story Level	Madhav, Usha, Farida = 3	Madhav, Usha, Farida, Meera = 4	Madhav, Usha, Farida, Meera, Shailendra, Devyani, Faiyaz = 7
Para Level	Meera = 1	Shailendra, Devyani = 2	Wilima, Suman = 2
Word Level	Wilima, Shailendra, Devyani = 3	Wilima, Suman, Faiyaz = 3	Rukmini = 1
Letter Level	Suman, Faiyaz = 2	Rukmini = 1	
Beginner Level	Rukmini = 1		
TOTAL	10	10	10

However, for the second group, the teacher must do a variety of activities and then refine the activities by level for each group, making sure that all groups are progressing.

- Assessment for tracking progress: In the TaRL intervention, children are assessed periodically through the program to track their progress. Equivalent tools are used each time.[16] At each measurement point, children are regrouped as needed; those who have made progress can move into a higher-level group. The last assessment - end line gives a full picture of the change that has taken place during the intervention. This end line data can be used for planning for the next stage, as it provides inputs about what these children can or will be able to do in terms of the next set of activities. Thus at the aggregate level (for a district or a sub-district unit), the end line provides information about how the next intervention should be designed.

Figure 5: Different distribution of learning levels need different instructional strategies

School 1	
Baseline reading levels	
Story	0
Para	0
Word	0
Letter	15
Beginner	25
Total children	40

School 2	
Baseline reading levels	
Story	0
Para	9
Word	10
Letter	10
Beginner	11
Total children	40

4. HOW: How can assessment data be reported, discussed and disseminated?

What is usually done: The culture of measurement is relatively well developed in many western countries, not just in education but in other fields as well. This implies that there is capacity within the system for collecting, analyzing, absorbing and using complex data on student achievement. Further, in such systems, not only is there is good alignment between curricular expectations and learning trajectories of children, but also children's progress is measured in a variety of ways through their school life. Thus, there is continuous Information about children's academic performance and capability available to teachers, parents and to the school system.

In India, due to the compulsory education law and no-detention policy, children move automatically from one grade to the next until they reach grade 8 – the last year in elementary school.[17] Across the country, the grade 10 examinations (at age 16) are the first "external" measurements of student learning. These exams are run by state and national examination authorities. Not much common benchmarking of student

[16] When Pratham works with children directly using the Learning Camp model, children are assessed at the end of each Learning Camp. If there are three camps of ten days each, then there are four assessments – baseline and then a measurement at the end of each camp. The last camp's end line is the end line of the entire intervention. When Pratham works in partnership with government school systems, teachers teach children daily for a designated period of several months. In this situation, usually there is a baseline which leads to grouping, a midline and then a final end line.

[17] Many states in India are currently framing legislation to do away with the no-detention policy.

progress takes place prior to this. For a student who has taken the examination, "results" are usually reported as "pass" or "fail" and information on percentage of marks scored by the child is available.

By and large, the culture of measurement is not well developed in India. The capacity to analyze data and the ability to link assessment results to action on the ground is still not common or widespread. To have data for action, it is essential to have measures and methods that are easy to implement and interpret, thus providing appropriate inputs to relevant people at different levels to improve children's learning.

What do we do and why: The Pratham Teaching-at-the-Right-Level model is largely used in primary school settings. Easy to understand evidence is generated for primary school children. Given that children are often far behind grade level even in early grades, it is essential to implement a system to track children's progress in primary school itself and to do this in ways that respond to the needs of teachers and parents.[18]

There are at least three features of assessment data in the Pratham approach that are worth highlighting:

- Scores/marks versus levels: In a typical school setting, children's academic performance, especially in student report cards, is summarized and reported as marks or percentage scores. (In some cases, letter grades are also given). While this provides a sense of how a child is doing as compared to a given norm, it does not capture what a child can or cannot do and exactly where she may need extra support or attention. In Pratham's approach, the current level of a child is expressed as whether the child can or cannot do a certain kind of task. For example, saying that a child or a group of children are at "para" level suggests that they are able to read words and sets of simple sentences but there is still work to be done to help them to read longer text (like stories) fluently. The levels have names – "story level", "para" level or "subtraction" level; this helps the process come "alive" and helps teachers and other to think about the actions that can take children to the next level.

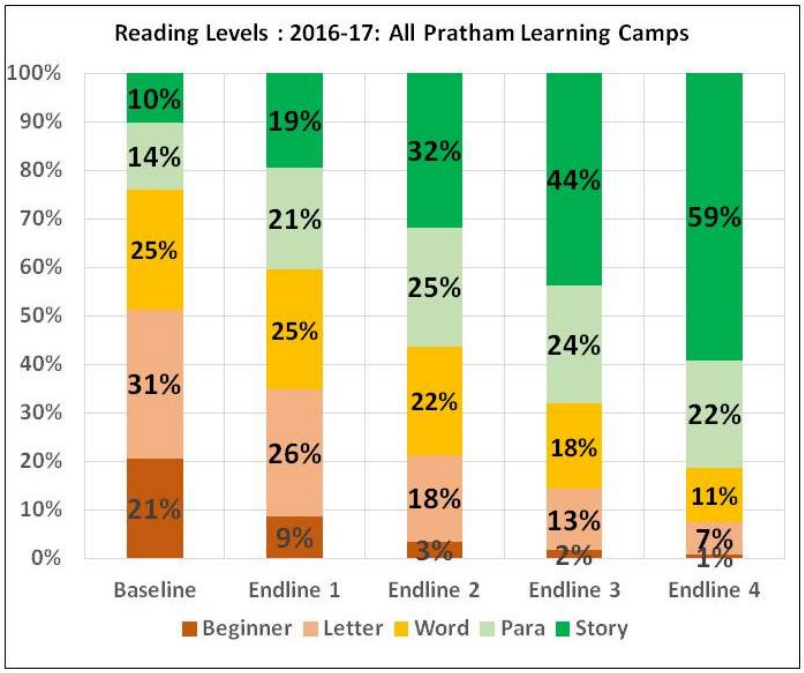
- Child level data versus aggregate data: Since every child is assessed, it is often thought that each child's data needs to be available at all levels. Data entry, uploading, managing large quantities of data takes time and is cumbersome. Further, in most school systems or programs, there is little capacity for doing fine-grained analysis of child level data. In this context, the key question to be addressed is who needs what kind of data and at what periodicity.

  Over the years, as Teaching-at-the-Right-Level programs evolved and were implemented on scale, we have learned some important lessons.
  - Child wise data is needed for those who are involved in instruction. The teacher or the instructor needs to know about each child's level and progress as well as that of the group. During the class, school or camp, decisions about instruction, grouping or special attention are

[18] This is another reason why in the initial years of building assessments, the focus should be on a few subjects. As the system becomes increasingly capable of implementing, analysing and effectively using data, more subjects and more levels can be incrementally incorporated.

taken at the level of the child; therefore the assessment records of individual children's performance need to be easily available in these locations.

Figure 6: Data showing Children's Progress from Pratham's Learning Camps



Data is from 2016-17 Pratham Learning Camps (nationally). ~ 200,000 children in Grades 3 to 5. (Source: Pratham MME data)

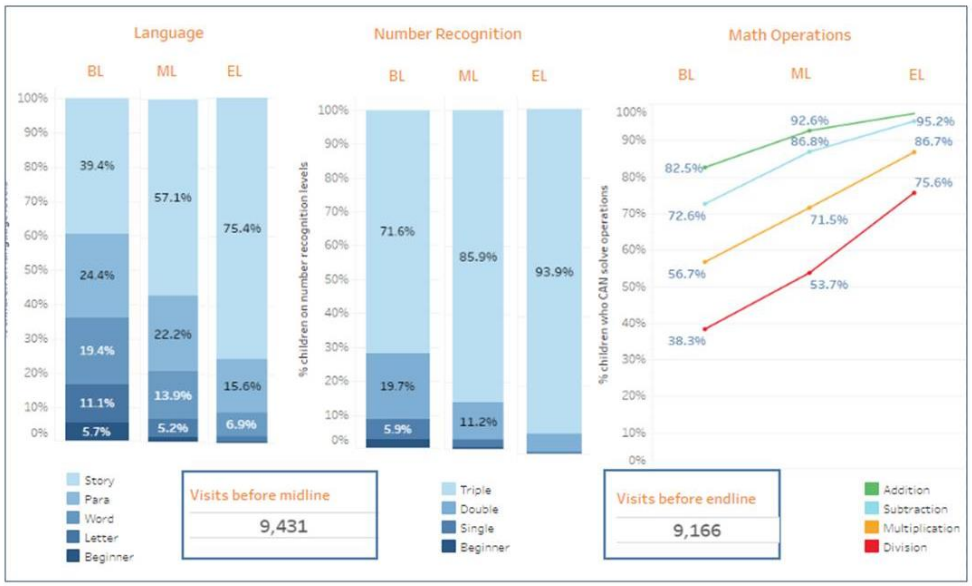
- For any level beyond the school, most decisions will be taken on aggregate trends. In Pratham programs, for any level higher than that of the class or school, only aggregate data is uploaded. This means that the school or camp only sends a few lines of data to the next level (either in hard copy or via SMS or uploaded). This reduces work and makes data available easily and quickly. Since the structure of the data is simple and easy to understand, quick reviews are possible and course corrections and decisions can be done quickly. The progressive nature of the assessment tool greatly facilitates this process.

- Assessment data to guide monitoring of program and mentoring of schools: Over time, Pratham's assessment to action process has been used in different ways both within the school system and outside. Apart from the ways that have already been outlined above, Pratham has created data dashboards that make it possible for instructors, teachers and others in the system to view not only the progress of individual schools but also compare progress across locations and regions.

  Within Pratham programs, children's progress data has been extremely helpful in providing academic support to units at different levels. Similar practices are also visible when Pratham partners with

government systems. For example, figure 7 below shows how government officials in Karnataka used the data dashboard to guide their monitoring visits to schools. Officials looked at the baseline data from the set of schools in their charge and made more visits to those that had the weakest baselines.

Figure 7: Dashboard from Pratham-government partnership program



Data from Pratham-Govt. of Karnataka partnership 2016-17: 3 districts 4500 schools.

5. WHO: Who is data for? Policymakers and planners, practitioners and parents?

What is usually done: Student achievement data collected in any education system (such as achievement surveys or examinations) feed into decision making in a variety of ways. At a macro level, trends and patterns are analyzed to refine curricular expectations and modify instructional practice. At a micro level, student report cards are shared with parents so that progress in school (or lack of it) can be understood by those at home. Teachers and administrators compare the performance of their school to others in their area. In developed countries, teachers are relatively capable of interpreting data, and data on the aggregate performance of children can be useful for modifying teaching-learning activities. In addition, parents are educated and are therefore able to relate to, and participate in, discussions related to children's learning. Therefore, complex assessments and sophisticated analyses can be understood by many of the stakeholders in the education system.

In India, despite a much less developed culture of measurement, teachers are expected to conduct complicated student assessments.[19] Further, the normal flow of data is upwards - to higher levels in the administration. Rarely are efforts made to communicate findings or implications back to the classroom

[19] The past five or six years of CCE (continuous, comprehensive evaluation) is a good example of well-intentioned but complicated assessment that was very hard to carry out.

level. Even some of the mandated school level or grade levels assessments are time-intensive and not designed for immediate feedback. This makes it difficult for teachers to use available data to guide their own instructional practice.

What we do and why: To develop a culture of evidence based decision-making, serious efforts have to be made to reach out to diverse set of decision-makers with data that is meaningful to them. Pratham has used assessment data in different ways for different audiences. Here are some examples.

Assessment data to influence education policy: Facilitated by Pratham, each year from 2005 to 2014, and then again in 2016, the Annual Status of Education Report (ASER) has generated estimates for basic reading and arithmetic for a nationally representative sample of rural children in India.[20] The ASER exercise has been carried out in almost every rural district in the country. Over 600,000 children are reached every year in more than 16,000 villages. In each district, a local institution or organization carries out ASER. Pratham has carried out this massive effort repeatedly for over a decade, for two main reasons. The first objective was to put the issue of children's learning at the centre of discussions of education at policy at every level in the country. The second was to facilitate large numbers of ordinary people to engage with the issue of children's learning. Understanding children's current level of learning is a first step in further involvement and participation of citizens. By all accounts, the ASER effort has gone a long way towards influencing policy and has contributed in a major way to ensuring that the question of children's learning receives high priority at least in policy making.[21,22]

Figure 8: National Report Card - ASER 2016

Table 4: % Children by grade and reading level
All children 2016

Std	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	46.1	31.7	12.4	5.0	4.8	100
II	23.5	31.5	19.8	11.8	13.4	100
III	13.6	24.1	19.9	17.3	25.1	100
IV	8.5	17.2	17.7	19.2	37.4	100
V	6.0	13.3	14.2	18.6	47.8	100
VI	4.0	9.6	11.6	18.0	56.9	100
VII	2.8	7.2	8.9	15.1	66.1	100
VIII	2.0	5.4	6.5	13.0	73.0	100

Each row shows the variation in children's reading levels within a given grade. For example, among children in Std III, 13.6% cannot even read letters, 24.1% can read letters but not words or higher, 19.9% can read words but not Std I level text or higher, 17.3% can read Std I level text but not Std II level text, and 25.1% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Assessment data and teachers: The Pratham assessment tool and the data that is generates is also useful for teachers. It shows clearly what the learning goals are for the intervention. And it also provides guidance for what to do in the classroom. Since assessment is part of the process of training teachers for the process, understanding and interpreting data is part of any review meeting. Based on the baseline and mid line data,

[20] Within the Pratham family, ASER is the responsibility of ASER Centre, the autonomous research and assessment unit of Pratham.

[21] See ASER Centre's website (www.asercentre.org) for details of how ASER has influenced education policy in India as well as how ASER like measurement, now called citizen led assessment has spread to over 10 countries in the world.

[22] Interestingly, the assessment work especially ASER came out of Pratham's many years of experience of working with children in communities and schools. The 2013 paper "Birth of ASER" outlines the origins of ASER in Pratham's instructional work. See *The Birth of ASER* in **Learning Curve.** Issue XX. Publication of Azim Premji University. http://azimpremjifoundation.org/sites/default/files/userfiles/files/Issue%20XX%20Section%20C.pdf

teachers and others gain experience in how to effectively use data for improving children's learning. Compared to other forms of assessment, the Pratham tool is straightforward to use. Teachers can use the information immediately in their classroom or in their school to group children, support their learning and guide their progress.

Assessment data to demystify "learning" for parents: In India, parents of many school-going children especially in rural areas do not have much education. They understand the importance of schooling but often do not understand how they can support children's "learning". Hence, there is a need to de-mystify "learning"; to involve parents it is essential that the business of learning is "unpacked" in ways that they can understand and engage in.

The Pratham assessment tool is simple to understand even for illiterate parents; the "story" or "para" or list of "words" are like visual images that can be grasped even by those who cannot themselves read. There is a "name" for each progressive level that is useful in discussions of data and instruction. Whether in terms of using the tool with a child or for interpreting group data that the testing process generates, the simplicity of the tools is an important piece of the process for engaging parents and others in understanding, supporting and participating in their children's learning. Taking parents along is very important in the journey that most Indian families must make, from focusing on schooling to supporting learning. This is even more so where parents themselves have not had much learning. On this journey, simple assessment tools can play a major facilitating role.[23]

Assessment data to raise awareness in the community: The Pratham approach to assessment has also been used effectively to raise awareness about children's learning levels in the community so that volunteers can come forward to help children who need additional support. Community members assess children and report data in 'village report cards', which provide an easy way to discuss this local level data in a village setting. Some examples are shown below. The format of how data is to be displayed can be changed depending on the context where it is to be used.[24]

[23] See Chapter 6 in The Right to Learn. Community Participation in Improving Learning. Save the Children publication. 2013. http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/THE_RIGHT_TO_LEARN.PDF

[24] In November-December 2015, Pratham launched a campaign called Lakhon mein Ek. Literally translated it means "one in a hundred thousand" but the phrase is more like saying "one in a million". The aim of the campaign was to mobilize people in 100,000 communities around India to take a look at their own children's learning. Close to 10 million children were reached by local volunteers in a period of less than 60 days. Figure 10 shows an English version of the village report cards that were pasted on the walls in the communities which participated.

Figure 9: Village Report Card

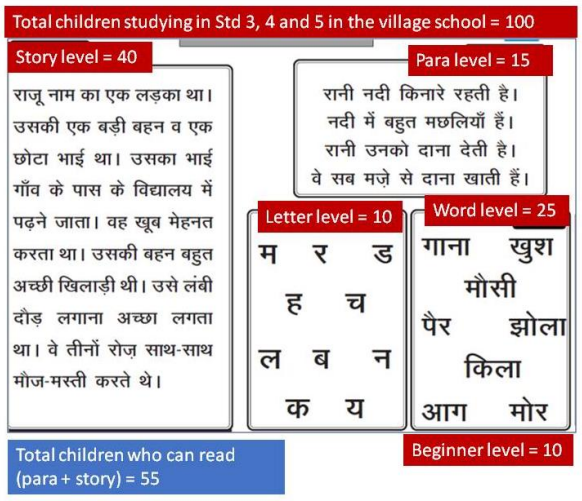
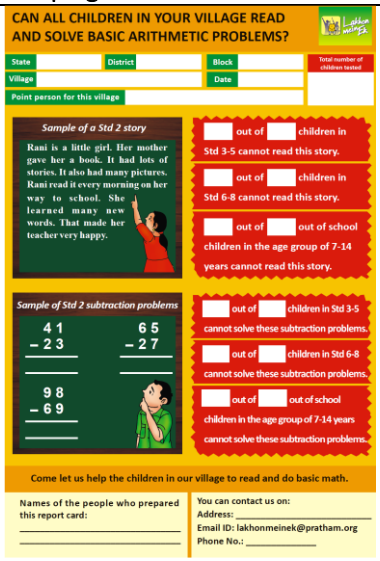


Figure 10: Village report card/poster from a campaign called Lakhon mein Ek



Concluding Thoughts

The different elements of Pratham's Teaching-at-the-Right-Level model have evolved over time. We have learned a great deal from working with millions of children. The effectiveness of the Pratham approach in enabling children to acquire basic skills in a short period of time is due in large part to the fact that we start where the children are and are able to help them to progress towards where they need to be. This is done in their own context with the resources that are available locally. Simplicity has been a key feature in this entire process, as has been the ability to make others such as parents and teachers understand that they are an important part of the change. Connecting assessment to action is not only a data exercise. For us it is the fundamental piece that fuels the process of transformation.

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