Lessons from the Teaching at the Right Level
Evidence
What we know and what we still need to learn

Ashleigh Morrell
Senior Policy Manager
Outline

1. Schooling for all and learning for few
   1. The learning crisis
   2. Evidence on inputs
   3. Education Systems

2. Schooling for all and learning for all
   1. Teaching at the Right Level evidence
   2. Supporting evidence
   3. Is Teaching at the Right Level right for new contexts?

3. Outstanding questions
Schooling for all and learning for few
Focus on increasing schooling has led to high enrollment rates across Africa

"By 2008, the average low-income country was enrolling students in primary school at nearly the same rate as the average high-income country." – World Development Report, 2018

Note: Excludes high income countries in Sub-Saharan Africa; Gross primary or secondary school enrolment ratio is the number of children enrolled in a level (primary or secondary), regardless of age, divided by the population of the age group that officially corresponds to the same level.


In 2014, 98% of children in SSA were enrolled in primary school.
But learning levels remain shockingly low

The PAL Network’s ASER-type assessments find that a substantial portion of Grade 5 students across Africa are not able to do basic arithmetic tasks.

Inputs alone are not sufficient

Evidence suggests “business as usual inputs” are not enough to increase learning outcomes

- Flipcharts in Kenya, flexible grants in Niger, libraries in India, text books in Kenya and anticipated grants in Zambia and India all had no impact on test scores

- Extra teachers in Kenya which reduced the class size has no impact on test scores

- Providing extra computers in Columbia and Peru had no impact on test scores
Input study reveals that education systems tend to serve top performing learners

- Textbook provision did not increase **average test scores**, or reduce repetition rates or dropout rates
- Textbook provision did increase test scores for those in **top 40% of the class**
Education systems tend to serve top performing learners

- Systems serve top performing learners
  - High stakes primary leaving exams
  - Teachers must target their lessons to large classes with wide range of learning levels
  - Emphasis on covering official material rather than learning basic competencies
- Top students receive the attention
  - Parents and teachers focus effort on top students
  - Self-fulfilling prophecy: kids who miss something early on never catch up
Schooling for all is on its way to being achieved, but what about every child learning?

Small fraction of the student population is being well served

All children learning well

This change seems obvious but is incredibly hard to bring to fruition in schools and systems across the world.

Note: Diagram of students (orange & gray) is illustrative
Source: For detailed figures on SSA student proficiency, see: UNESCO Institute for Statistics: Fact Sheet No. 46 September 2017 UIS/FS/2017/ED/46
Schooling for all and learning for all
The Teaching at the Right Level Approach

**TaRL Support Pieces**

- Implementation Teams
- Assessment
- Classroom Methodology
- Monitoring

**In a TaRL classroom**

**STEP 1: Assessment**
Test children on the basics using simple tools

**STEP 2: Grouping**
Create homogeneous learning level groups

**STEP 3: Foundational Skills**
Focus on basic skills for a period of the day or year

Children are reassessed and moved through the levels as they progress.

Learn more at tarl.info
For 15+ years, J-PAL and Pratham have collaborated to evolve a strong TaRL approach through experimentation and learning.

2000

2001-2003
“Balsakhi” program; Pratham community volunteer “pull out” remedial program in urban schools

2005

2005-2006
Village volunteers conducted community classes for rural primary school children

2008

2008-2010
In-school gov’t teacher-led learning improvement program & support by Pratham volunteers (rural)

2010

2010-2013
Teacher-led model; onsite mentoring by gov’t academic officials

2012-2013
Ghana trials of teacher-led vs. tutor-led in school and out of school

2013-2014
“Learning Camps” in gov’t primary schools; led by Pratham teams supported by village volunteers

2015
Proof of Concept

• Idea of targeted instruction found to be effective in different contexts through different implementation models.

• Challenges of “take-up” running the program out of school

Aim to develop a model that can be implemented through government school system
Scalable Solutions: Teacher led, during & after school
Bihar and Uttarakhand, India (2008 -2010)

• Teachers provided with TaRL Material (Bihar & Uttarakhand)
  – Results: No impact
• Teachers provided with TaRL training and material (Bihar & Uttarakhand)
  – Results: No impact
• Teachers provided with training, material and volunteers for two hours a day
  – Uttarakhand: adopted in school → no impact
  – Bihar: adopted afterschool → 0.13 sd

*Teaching at the Right Level is not just a teacher training program.*
**Scalable Solutions**: Teacher led holiday camp
Summer Camps –Bihar, India (2008)

• One-month holiday camp for children grades 3-5, organised by initial learning levels ([Duflo et al 2010](https://www.nber.org/papers/w15719))

• Approximately 40 hours of instruction

• Special characteristics :
  • Teachers free from normal curriculum
  • Dedicated time and space
  • However, low take-up

• Result: 0.09 s.d. increase in Hindi despite only 23% student attendance
Scalable Solutions: Teacher led, during school
Regrouping by ability not age –Haryana, India (2012-2013)

• For one hour a day students in grades 3-5 were re-grouped according to ability level not age and taught Hindi at their ability level. (Duflo et al 2013)

• 130 hours of instruction for language

• Special characteristics:
  • Intensive monitor training
  • Dedicated time
  • Grouping across grades 3-5
  • Pratham provides training and additional monitoring

• Results:
  - 0.15 standard deviation increase in Hindi reading test scores
  - Gains were the largest for the weakest students
Scalable Solutions: Tutor/Volunteer Approach
Pratham Volunteers provide short burst of TaRL tuition –Uttar Pradesh, India (2013-2014)

• The programmes took place for bursts of time (two sets of 20 day bursts or 4 sets of 10 day bursts for 3 hours a day during school time.)
• 75 hours of instruction for reading and 75 hours of instruction for maths
• Results:
  – Huge gains (0.7 s.d. in Hindi and math for 10 day camp and 0.6 s.d. for 20 day camp)
  – Effect of “pure” TaRL model
  – Cost effective (driven by huge gains)
• Special characteristics:
  – Intensive camp model
  – Dedicated time
  – Grouping across grade 3-5
Sustainable & Scalable Models

• Teacher can be effective implementers
  – if provided with a dedicated time for TaRL lesson and a lot of mentoring and monitoring support
  – Material and teacher training is not enough
  – You may need to build in more time

• Bursts of TaRL focused time throughout the year provided by volunteers and experienced staff can have a large impact on learning outcomes
Supporting Evidence

<table>
<thead>
<tr>
<th>Program</th>
<th>Standard deviation improvement in test scores* (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TaRL Balsakhi year 1 (India)</td>
<td>0.14</td>
</tr>
<tr>
<td>TaRL Balsakhi year 2 (India)</td>
<td>0.28</td>
</tr>
<tr>
<td>Computer-assisted learning (India)</td>
<td>0.47</td>
</tr>
<tr>
<td>One-month summer camps (India)</td>
<td>0.08</td>
</tr>
<tr>
<td>TaRL in-school (India)</td>
<td>0.12</td>
</tr>
<tr>
<td>TaRL in-school (India)</td>
<td>0.15</td>
</tr>
<tr>
<td>10-day TaRL camps (India)</td>
<td>0.70</td>
</tr>
<tr>
<td>20-day TaRL camps (India)</td>
<td>0.62</td>
</tr>
<tr>
<td>Mindspark (India)</td>
<td>0.29</td>
</tr>
<tr>
<td>Tracking (Kenya)</td>
<td>0.18</td>
</tr>
<tr>
<td>March tutoring (Chicago)</td>
<td>0.65</td>
</tr>
<tr>
<td>STRIPES (India)</td>
<td>0.75</td>
</tr>
<tr>
<td>Tutoring (Chile)</td>
<td>0.08</td>
</tr>
<tr>
<td>In-school with assistants (Ghana)</td>
<td>0.15</td>
</tr>
<tr>
<td>In-school with teachers (Ghana)</td>
<td>0.08</td>
</tr>
</tbody>
</table>

*Pratham TaRL programs
New Contexts
TaRL’s applicability to new contexts

2. High variation of learning.
3. Teachers focus on completing curricula.
4. Many children far below curricula.

Local Conditions and Failures

1. Children learn faster when the level of instruction is at their level.
2. Teachers find it hard to teach across many levels in one class.

Generalized Lessons on Behavior

1. Children grouped by learning levels for part of day or year.
2. Teachers teach to the level of group.
3. Children are assessed and move to new group when mastered a skill.

Local Implementation

2. High variation of learning.
3. Teachers focus on completing curricula.
4. Many children far below curricula.

Learning Levels Rise

1. Children learn faster when the level of instruction is at their level.
2. Teachers find it hard to teach across many levels in one class.

TaRL’s applicability to new contexts
There is always more to learn
There is always more to learn

- How do you successfully embed measurement and monitoring systems into government at scale?
- What technology innovations including pedagogical experiments, measurement systems, training and capacity building mechanisms work?
- What low-cost technology solutions and innovations work well to support TaRL?
- What technical support is useful for governments? Which pieces of support sustain or fade over time?
- What is the long-term impact of TaRL on children’s outcome?
Thank you!
Measuring Learning: Standard Deviations

- Changes in test scores often reported in standard deviations
- Impacts of effective programs typically range from 0.1 – 0.5 s.d. over one academic year