

## Teaching at the Right Level: Summary of Interventions<sup>i</sup>

**Summary:** Evaluations of Teaching at the Right Level (TaRL) programs consistently demonstrate substantial impacts on student learning outcomes across varied contexts and through multiple implementation models. TaRL requires a shift of focus away from grade-level curriculum completion to ensure that children are taught from the level at which they are, regardless of their grade in which they are currently enrolled and are allowed to progress at their own pace. This approach is based on the understanding that children in countries like India, are often several grade levels below where they are expected to be. Pratham has used the TaRL approach in India for working with children in grades 3 to 5 to enable them to reach basic reading fluency and the ability to recognize numbers and do basic arithmetic operations. At its core, the approach involves identifying children's current learning levels, grouping them by level, assigning teachers to different groups after providing them with level appropriate learning materials (as well as training on their use), and monitoring student progress. TaRL has been shown to work through a range of implementation models, such as: through community volunteers either during or outside of school (i.e., remedial pull-out programs and after-school reading camps), and with government teachers within the regular school day or in an out-of-school context (i.e., the integrated classroom model and summer camps). Evidence from TaRL evaluations has contributed to the [scale-up of Pratham's Read India Program](#) in 19 states in India.

Intervention	Intervention Year(s) & Location	Delivered through	Duration	Subject/Grade <sup>ii</sup>	Results	(Select) Policy Lessons
<b>Interventions by Pratham in India</b>						
<a href="#">Balsakhi</a> Local youth as instructors (often female) who have completed secondary education and are paid a small monthly stipend to work separately with children identified as academically weak in pull-out classes during the school day	2001-2003 Maharashtra and Gujarat (urban, cities of Mumbai and Vadodara)	Paid community instructors	2 hours per day within school, but outside the regular classroom (over the course of the school year)	Language <sup>iii</sup> (Gujarati in Gujarat; Hindi and Marathi in Mumbai), Math  Grades II - IV	- Average test scores (overall) increased by 0.14 sd in first year, 0.28 sd in second year  - <i>Children who were sent to the balsakhi gained the most (0.6 sd on overall test score in the second year)</i>	Instruction tailored to a child's learning level and delivered through community instructors during school is an effective and low-cost way to improve learning outcomes.
<a href="#">Community-based classes for improving reading and arithmetic</a> <sup>iv</sup> Unpaid village volunteers trained on how to teach basic reading skills and encouraged to hold reading classes	2005-2006 Uttar Pradesh (rural, Jaunpur district)	Community volunteers (unpaid)	2 hours per day, outside of school hours (2-3 months of the school year)	Reading (Hindi), Math  Children aged 7-14, irrespective of grade	- At endline, children in treatment who could not read at baseline were 7.9 percent more likely to read at least letters  - At endline those who could read only letters at baseline were 3.3 percent more likely to read stories	The study shows that this pedagogy is effective when used by community volunteers. Results led to the idea that reaching the maximum number of children may require scaling-up via in-school interventions given that attendance at classes was low (less than 1/5 <sup>th</sup> of targeted children attended) <sup>v</sup> . In addition, community-based interventions did not lead to any changes in school attendance or better school functioning.
<a href="#">Read India I</a> Unpaid village volunteers trained to provide extra instruction to children who need help outside of school as well as training and monitoring for government school teachers in appropriate	2008-2010 Bihar <sup>vi</sup> (rural, West Champaran district)	Community volunteers	Around 60 teaching days, outside of school hours (over the course of each school year)	Reading (Hindi), Writing (Hindi), Math  Grades I-V	- No overall impact of 'material only' and 'material plus teacher training'  - The intervention with teacher training, materials and volunteers improved overall average test score by 0.11 sd  - Improvement on all tests	The only intervention that significantly improved test scores was a combination of teacher training, materials and village volunteers (who taught target children outside of school hours).

methods and materials to be used during school hours	2008-2010 Uttarakhand <sup>vii</sup> (rural, Dehradun and Haridwar)	Community volunteers	Around 50 teaching days ,during school hours (over the course of the school year)	Reading (Hindi), Writing (Hindi), Math  Grades I-V	None of the interventions had an impact on average overall score	This model was not effective probably because teachers exerted less effort (and volunteers became substitutes rather than supplements), or volunteers were asked to perform other tasks rather than support teaching. There were also teacher strikes during this time .
<b><u>Read India I – Summer camp</u></b> As part of the intervention described above, remedial education was provided to children in a one-month summer camp led by government teachers	2008 Bihar(rural, West Champaran district)	Gov't teachers and para teachers supported by unpaid community volunteers	3-4 hours a day, 5 days a week, for 1 month (during the summer)	Reading (Hindi), Writing (Hindi), Math,  Grades III-V	- Reading score increased by 0.08 sd, Math score by 0.08 sd - Effects on reading concentrated on children at letter-reading level or below at baseline	Government-led teachers can deliver when they do not have to complete the curriculum and are given specific learning goals to achieve. Results also add to evidence base that short learning camps can work.
<b><u>Learning Enhancement Programme</u></b> Children in Grade 3-5 were re-grouped according to learning level and then taught by trained teachers within the regular school day	2012-13 Haryana (rural, Mahendragarh and Kurukshetra districts)	Gov't teachers ,monitored by Gov't Assistant Block Resource Coordinators	1 hour per day,within the regular classroom (over the course of the school year)	Reading (Hindi)  Grades III-V	- Basic oral Hindi score <sup>viii</sup> increased by 0.15 sd -Basic written Hindi increased by 0.135sd - No spill-overs from Reading to Math	This is the first instance where the TaRL approach was delivered and evaluated through an <i>Integrated Classroom Model</i> , showing that positive learning outcomes can be achieved through government school teachers within the school day.
<b><u>Learning Camps</u></b> <sup>ix</sup> Short-intensive bursts of instructional activity based on children grouped by level. Children taught by Pratham team members and village volunteers	2013-14 Uttar Pradesh (rural, Sitapur and Unnao districts)	Pratham staff + Village volunteers	3 hours per day within school, but outside the regular classroom. 10 or 20 day camps (50 days total instruction) occurring in 1-2 month intervals.	Reading (Hindi), Math  Grades III-V	Both 10 and 20 days programs had a strong effect - Endline Hindi scores: - 10 day: 0.71 SDs higher; 20 day: 0.61 SDs higher - 20 – 22 percentage point increase - Endline Math scores: - 10 day: 0.69 SDs higher; 20 day: 0.61 SDs higher - 17 – 18 percentage point increase Students in the camps moved up roughly 0.9 to 1.3 learning levels	Both the 10 and 20 day camps had a strong positive impact on basic learning outcomes. These findings complement results from other evaluations, though the magnitude is larger. The gains in Hindi and Math are more than double the normal yearly gain in learning.
<b><i>Interventions done by other organizations outside India</i></b>						
<b><u>Teacher Community Assistant Initiative</u></b> <sup>x</sup> Teachers and community assistants trained to teach basic skills to children lagging behind	2011-13 Ghana	Community volunteers	2 hours per day within school, during the regular school day or after school	Language (Local, English), Math  Grades I-III	- Preliminary results <sup>xi</sup> suggest that the after-school remedial TCAs improved average test scores by 0.09 sd	Tailoring education to the learning level of children improves their basic skills.
<b><u>Extra Teacher Program</u></b> Schools were randomly allocated an extra contract teacher (with same qualification level as civil service teachers, at a lower pay). Half the ETP schools split classes by initial test scores and the	2005-07 West Kenya	Civil service teachers and locally-hired contract teachers	Within school, within the regular classroom (over the course of the school year)	Language, Math  Grade I	- Tracking by initial achievement increased test scores at all ability levels; students in tracking schools scored 0.14 sd more <sup>xii</sup> . - Effects of tracking persist even after the program ended - Civil-service teachers are 11 percentage	- Structuring classes to target instruction to students' initial achievement level can increase learning outcomes at all levels. - Contract teachers may face stronger incentives to exert high effort irrespective of the ability level of students, as opposed to civil service teachers (who here focused

other half did so randomly. Contract and civil-service teachers were randomly assigned to each new class					points more likely to be in class and teaching when they are assigned to the top section in tracking schools than when they are assigned to non-tracking schools.	on the high-ability students to boost overall test scores).
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<sup>i</sup> All results reported in this table are significant at the 10% level and below, and ITT estimates (except for italicized text, which is ToT)

<sup>ii</sup> ASER Reading and Math tools were used after 2005

<sup>iii</sup> Since the ASER reading tool did not exist at the time of this evaluation, language includes reading, writing and activities such as choosing the right spelling etc.

<sup>iv</sup> Treatment 1: facilitating village meetings, discussions, information gathering; Treatment 2: Treatment 1 + training community members to test children on reading and math and create 'report cards' on enrolment status and learning in the village; Treatment 3: Treatment 2 +training village volunteers to conduct classes outside school hours

<sup>v</sup> 12% of the children attended the camps, and this group saw an increase in ASER reading score by 0.6 sd. The impact on treated villages was one-tenth of this (Kapusinski lecture by Esther Duflo, 24 September 2013)

<sup>vi</sup> Treatment 1: CAMaL material only (M); Treatment 2: Treatment 1+ teacher training and monitoring (TM); Treatment 3: Treatment 2+ unpaid village volunteers (TMV)

<sup>vii</sup> Treatment 1:CAMaL material + teacher training and monitoring (TM); Treatment 2: Treatment 1+ unpaid village volunteers (TMV)

<sup>viii</sup> Preliminary results

<sup>ix</sup> Treatment 1: Only material delivered periodically to the village; Treatment 2: Treatment 1+ 20-day learning camp every 2 months; Treatment 3: Treatment 1+ 10-day learning camp every month

<sup>x</sup> Treatment 1: TCAs provide remedial curriculum during school; Treatment 2: TCAs teach remedial curriculum after school; Treatment 3: TCAs randomly split class with teacher to review the teacher's lessons for a few hours; Treatment 4: civil service teachers are trained to provide small-group instruction targeted at pupils' actual learning levels

<sup>xi</sup> Other results that are not so significant are not reported here (see presentation by Jessica Kiessel "Research to Practice", Kenya, 8 February 2013)

<sup>xii</sup> And 0.18 sd more after controlling for baseline scores and individual-level covariates

#### References (for each intervention)

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Banerjee, Abhijit, Shawn Cole, Esther Duflo and Leigh Linden (2007): "[Remedying Education: Evidence from Two Randomized Experiments in India](#)", *The Quarterly Journal of Economics*, August.

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Banerji, Rukmini and Michael Walton (2011): "[What helps children to learn? Evaluation of Pratham's Read India program in Bihar & Uttarakhand](#)"

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##### Learning Camps

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Kiessel, Jessica (2013): "Research to Practice", Presentation, 8 February (Kenya).

**Extra Teacher Program (ETP):**

Duflo, Esther, Pascaline Dupas, and Michael Kremer (2011): "[Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya](#)", *AER*, August.