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ABDUL LATIF JAMEEL POVERTY ACTION LAB

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ASER
Evidence for Action

Pratham
Every Child in School & Learning Well

PAL NETWORK
People's Action for Learning

TaRL Webinar Series
Session 2: Assessment

October 27, 2017

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ASER: Evolution, Design & Impact

JPAL TaRL Webinar II, October 27, 2017

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Pratham: Every Child in School & Learning Well

- Since 1996, Pratham has worked with children who have been “left out” or “left behind”.
- It was relatively easy to bring children to school. But to add ‘value’, accelerated learning was the only way. We were frustrated by our own ability to accelerate pace of change in children’s learning.

CHALLENGE : At local level in communities & schools… Do we really know our children? *Large families / multi grade classrooms*

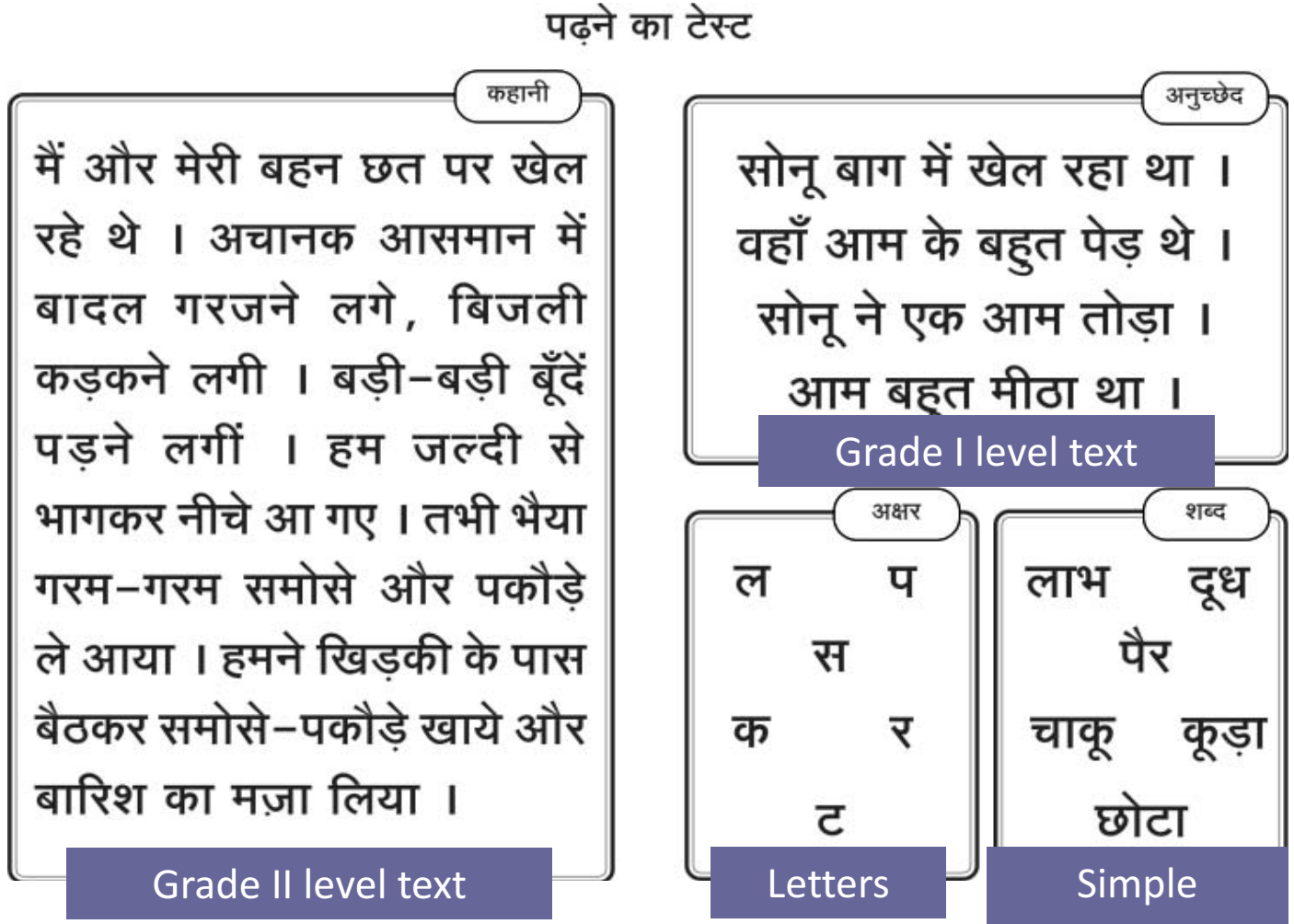
- Parents “send” children to school and are concerned about “inputs”. Parents often over-estimate what children can do (J-PAL study)
- Teachers “teach” the course for the grade level. Teachers often over-estimate what children can do (SchoolTELLS)
- Schools usually not structured to identify or to help those who fall behind

Learning delayed is learning denied. Children need to learn satisfactorily at the right time to make adequate progress through the education system to complete at least the elementary stage.

Can children read?

What can we do at ground level?

Simple assessment tool was useful for instruction. Also for engaging parents and teachers about what to do.



Steps leading to an annual national effort

PRELIMINARY STEPS

- Tools were being used in Pratham network widely in 5 states in almost 120 districts
- In UP, invited a group of 30 NGOs to participate in workshop to see if the tools and process was useful

STEPS LEADING UP TO ASER IN 2005

- New government in power – focus on outlays to outcomes
- Presentation to Planning Commission about rapid assessment
- All states sample based rapid assessment of basic learning done in 1 district in 20 days
- Results presented to Planning Commission

Now the confidence grew to try to replicate what we had done in villages and schools at national level. Bringing **learning** to centre of the stage for policy and action …

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The challenge of measuring learning outcomes

INPUTS ARE EASY TO MEASURE

Measurement of schools, teachers, infrastructure is relatively easy.

These are visible and do not change much over time.

Regular data collection for these variables happen annually and at every level by the government.

OUTCOMES ARE DIFFICULT TO MEASURE, especially LEARNING OUTCOMES

What do you want to know? Why?

- What to measure: basic, grade level
- Who to measure : all or sample
- When to measure: once, periodically
- Where to measure: school, home
- Who will measure: external/internal

What will be done with the data?

How quickly will it be available?

In 2005 there was no data available on learning outcomes in the public domain

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The architecture of ASER

STANDARD LEARNING ASSESSMENTS

- Grade level, subject-wise, pen & paper test
- School based testing
- Done by teachers
- Often not done annually (NAS)
- Data not in the public domain (NAS)

ASER

- Same test to all children.
- Only reading & arithmetic each year.
- Individual one-on-one testing
- Household based

To capture **ALL** children regardless of their ability, school/attendance status

- Done by ordinary citizens
- Done at the same time every year
- Representative sample of each rural district

So that data is accessible by all and can inform policy

ASER was designed to suit the ground realities in India and in many other developing countries

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ASER – Scope & Scale

Annual Status of Education Report
असर ASER 2016 RURAL
Facilitated by PRATHAM

Reach:
- 589 rural districts
- 17473 villages visited
- 350232 households reached
- 562305 children surveyed

Cost:
- ~ 1.3 million USD in 2016

Time Frame:
- August: Kick off
- Sept-Oct-Nov: Field work
- Mid Jan: Report released

People involved:
- 500 + district level organizations
- 1000 + master trainers
- 25000 + volunteers

ASER national survey in India has been done every year - 2005 to 2014 & 2016

Sampling:
- 30 randomly selected villages in each district
- 20 randomly selected households per village
- All children age 3 to 16 in the household

Citizen led assessments in the 6 other countries in Africa & Asia have similar patterns of scope & scale.

ASER Reading Tool

Evidence for Action

कहानी

मैं और मेरी बहन छत पर खेल रहे थे । अचानक आसमान में बादल गरजने लगे, बिजली कड़कने लगी । बड़ी-बड़ी बूँदें पड़ने लगीं । हम जल्दी से भागकर नीचे आ गए । तभी भैया गरम-गरम समोसे और पकौड़े ले आया । हमने खिड़की के पास बैठकर समोसे-पकौड़े खाये और बारिश का मज़ा लिया ।

Grade II level text

अनुच्छेद

सोनू बाग में खेल रहा था ।
वहाँ आम के बहुत पेड़ थे ।
सोनू ने एक आम तोड़ा ।
आम बहुत मीठा था ।

Grade I level text

अक्षर

ल प
स
क र
ट

Letters

शब्द

लाभ दूध
पैर
चाकू कूड़ा
छोटा

Simple common words

Reading is a basic foundational skill. Without learning to read, a child cannot progress meaningfully through the education system.

ASER 2016:All India rural
% Children enrolled in different grades
who can at least read Grade II level text

Grade	%
III	25.2
V	47.8
VIII	73.1

- This tool is in Hindi. In ASER 20 similar regional language tools are used.
- Each child is assessed one on one/individually.
- The highest level that the child can read is recorded.
- Other citizen led assessments in Africa & Asia have similar tools for assessing reading and arithmetic.

After 5 years of schooling only half can read. Not much change since 2005.

ASER Math Tool

ASER
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Grade IV level: Division

$4\overline{)659}$

Grade II level: Subtraction

92	71
− 48	− 35

Number Recognition – 2 digits

91	86
24	79

Number Recognition – single digit

8	4
2	9

ASER assesses children for foundational arithmetic skills that children are expected to learn during elementary education.

ASER 2016:All India rural
% Children enrolled in different grades who can do at least subtraction

Grade	%
III	27.6
V	50.5
VIII	66.5

Children's ability to do basic arithmetic has been declining since 2005, with slight improvement has been seen in 2016.

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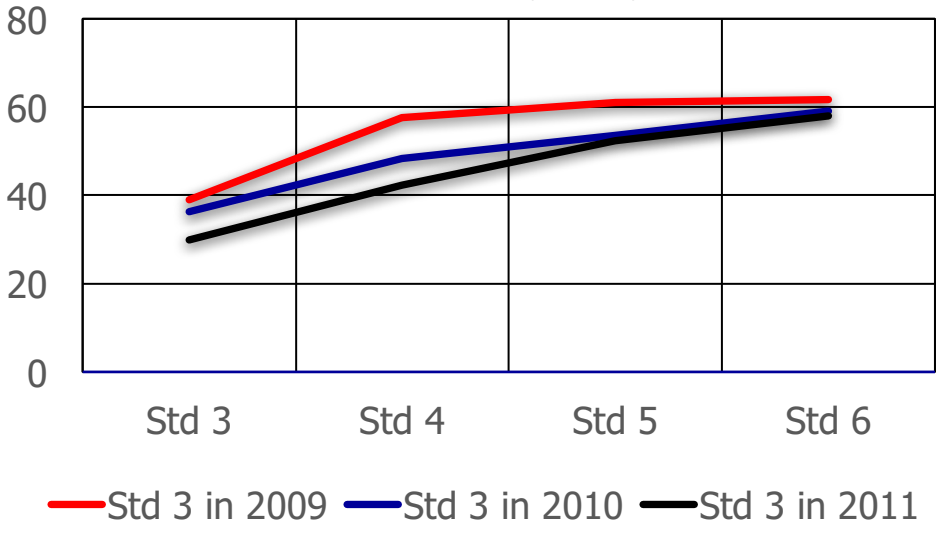
ASER: Impact on Policy

Evidence: % Children who can do subtraction
Cohorts over time: Std III-VI
ASER All India (rural)



Data shows: Learning levels are low. Learning trajectories are flat over time & each subsequent cohort doing worse than previous cohort.

Every year with ASER, there is:

- Widespread media coverage
- Public debate in many forums/levels
- Questions in Parliament

Policy change: National & State

2008: Allocations by central government for district annual work plans in elementary education for "learning enhancement" programs.

2011: 12th Five Year Plan stressed:
-Measuring learning in schools
-Improvement of basic skills

In 2013-14 & 2014-15 almost all states have done state level assessments (some have ASER like tools).

Since 2013: Many states have embarked on remedial programs, learning improvement interventions & a focus on basic skills in early grades.

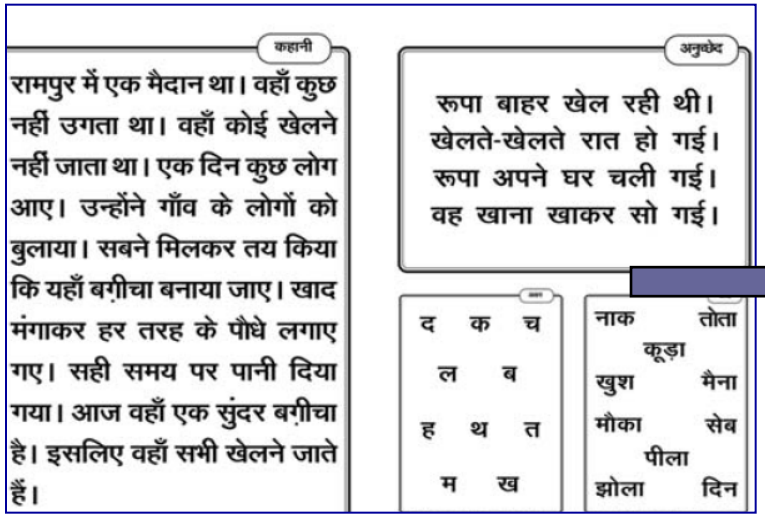
ASER: Impact on Practice

Evidence : ASER data for state of Bihar for Grades 3, 4 and 5

Std	Not even letter	Letter	Word	Level 1 (Std I Text)	Level 2 (Std II Text)	Total
III	26.2	28.3	13.8	10.0	21.8	100
IV	12.7	22.6	15.6	13.4	35.6	100
V	9.7	14.7	13.0	14.6	48.1	100

Acknowledgement/Awareness: State government sees problem & decides to act

Assessment: ASER tool used by schools to assess children in Grade 3, 4 & 5



Similar state wide programs in several states. JPAL evaluations of effectiveness of such programs conducted.

Action: Learning improvement program – Teaching at the Right Level

- Children grouped by level rather than by grade in each school for two hours a day during school day.
- Teachers allocated to group rather than by grade.
- Instruction in each group using appropriate methods & materials
- Quick progress in basic reading & maths

Concluding Thoughts

Learning assessment data for developing countries needs to be relevant & appropriate for bring learning to the center of the stage and for providing information that is **actionable** for improving children's learning.

In order to identify and implement actions to improve children's learning, we need to **assess where children are today** and build from there, rather than assess where we think they ought to be.

- Where are children?

Many are not regularly in school

- Where are they relative to the curriculum?

Many are several grade levels behind

- Where are they with respect to foundational skills?

Many have not acquired basic skills even after several years in school. If a child cannot read, pen-paper tests will not work.

Evidence should be relatively straightforward to generate & to comprehend. Only then can it lend itself to action. Data needs to be **easily understood by those who must act** – whether policy makers, teachers or parents. Start simple. Tools & interventions can evolve over time as children make progress & as capability in the country rises.

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For more information, log on to:

www.pratham.org

www.asercentre.org

Or write to:

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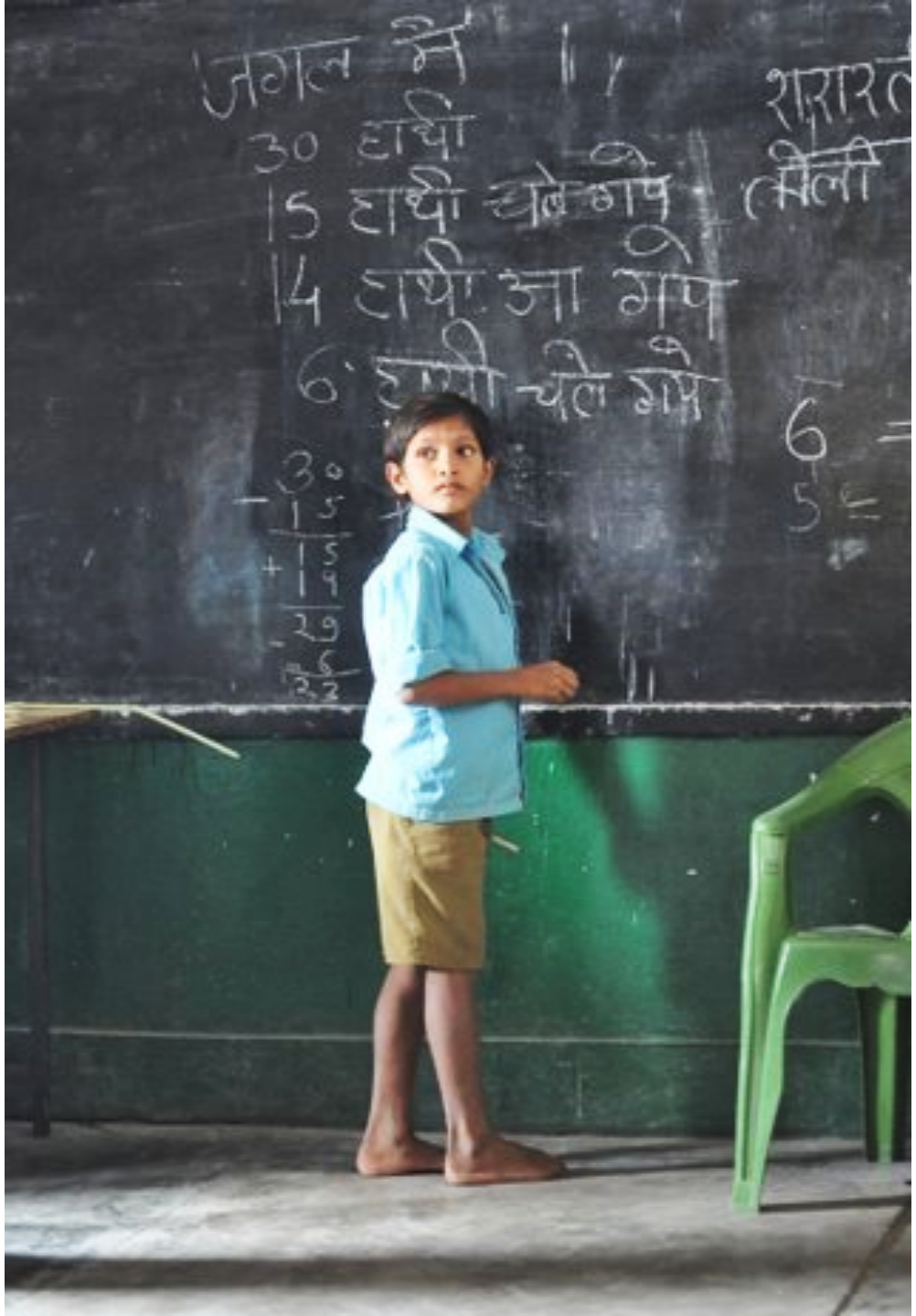


PAL NETWORK
People's Action for Learning

History of Expansion and Contextualization of Citizen-Led Assessments across the PAL Network

JPAL TaRL webinar II: October 27 2017

@PALNetworkHQ

2005

Pratham

Every Child in School & Learning Well

A brief history of PAL Network growth: 2005 - 2017

5 key principles of citizen-led assessments

Our History in numbers

11
years

600,000+
volunteers

14
countries

48
assessments

3
continents

30+
languages

Over 7.5+ million children tested

LEARNigeria

GWAJI 1

HAUSA

Haruffa

d	c
a	y
m	w
s	ɗ
k	gw

- Start here for all children aged 5-15 years
- Let the child choose any **FIVE** letters
- The child should read at least **FOUR** letters correctly
- If the child reads **FOUR** letters correctly ask him to read syllables
- If the child cannot read at least **FOUR** letters mark him at **beginner level**

Gaɗa

su	ra
ko	ka
ha	ru
mur	han
kwa	ɗau

- Give syllables to children who successfully read at least **FOUR** out of **FIVE** letters
- Let the child any **FIVE** syllables
- The child should read at least **FOUR** syllables correctly
- If the child reads **FOUR** syllables correctly ask him to read words
- If the child cannot read at least **FOUR** syllables, mark him at ***letter level***

Kalma

waƙa	rago
ciwo	bi
garma	jaka
wata	ƙofa
uwa	girki

- Give words to children who successfully read at least **FOUR** out of **FIVE** letters
- Let the child choose any **FIVE** words
- The child should read at least **FOUR** words correctly
- If the child reads **FOUR** words correctly ask him to read paragraph
- If the child cannot read at least **FOUR** words, mark him at ***syllable level***

3 important guidelines for creating new tests

1.NATIONAL CURRICULUM

- Designed according to the national curricula expectations of Grade 2 level

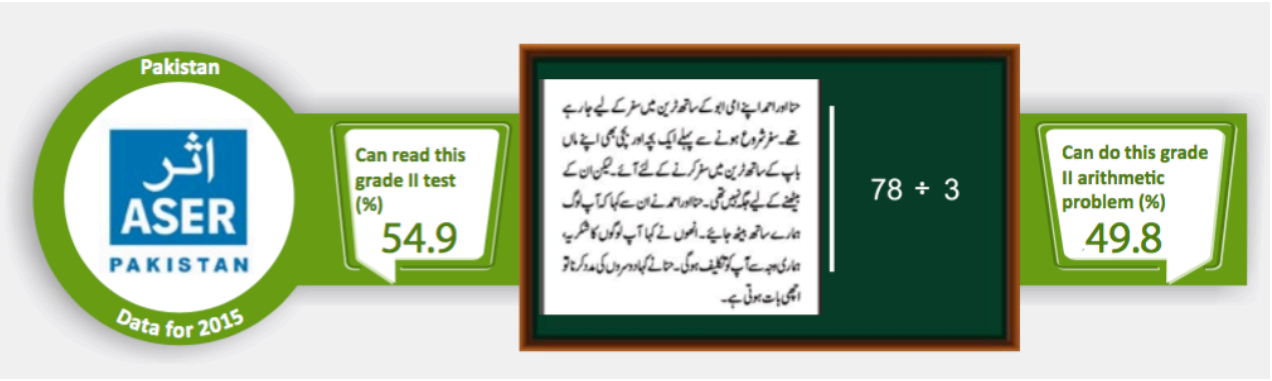
2. LANGUAGE POLICY

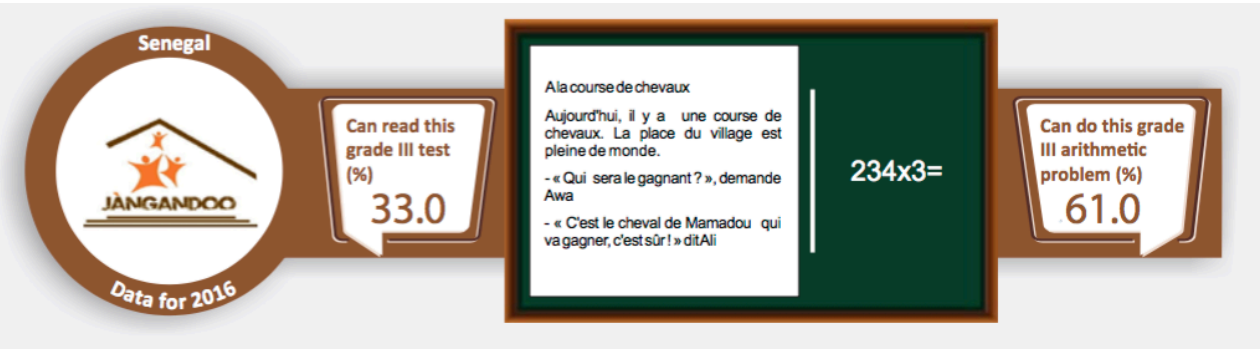
- What does policy say re: Language of instruction? Mother tongue instruction?
- Availability of instructional materials
- Language coverage – how widely is it spoken?

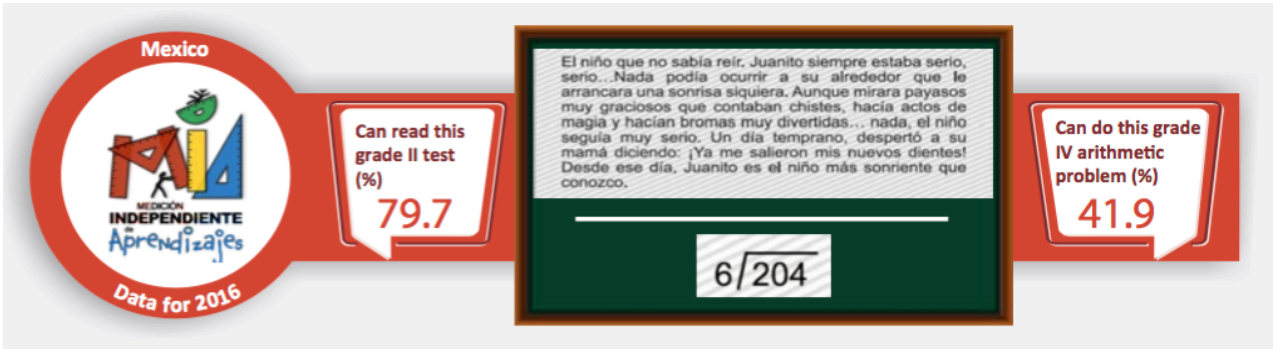
3. CONTEXTUAL RELEVANCE

- Stories and short paragraphs must be familiar to the child

Are children learning?







Moving from Assessment to Action

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Assessment

Dr. Rachel Glennerster
Executive Director, J-PAL
Scientific Director, J-PAL Africa
Co-Chair, J-PAL's Education sector

Part of the problem?

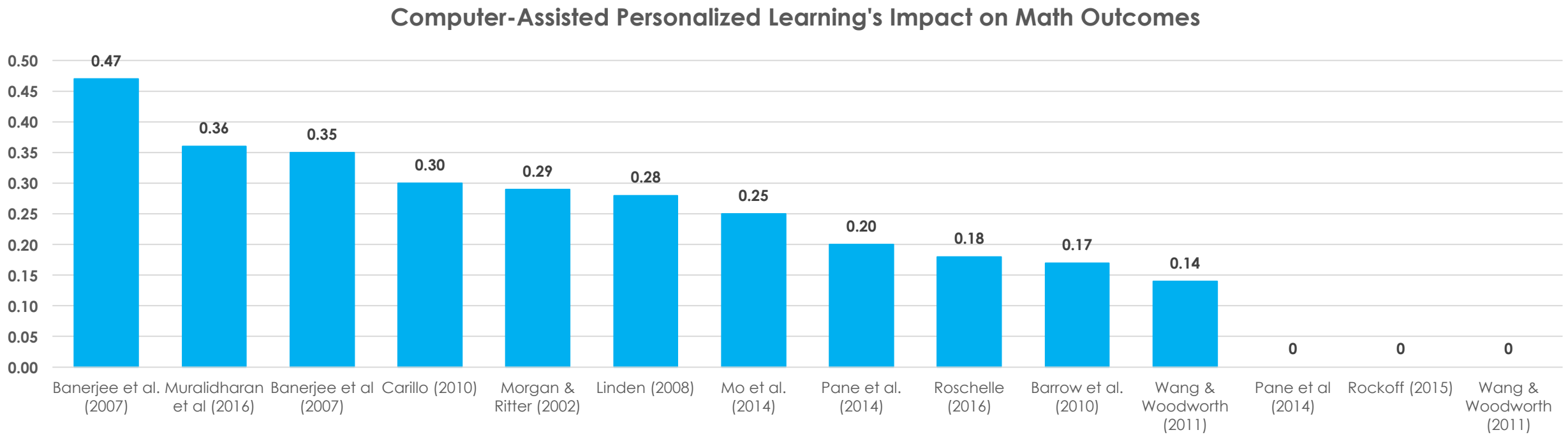
Is assessment part of the problem?

- Many countries use high stakes primary school leaving exams as a measure of school, teacher, and student success which may distort teacher activity.
- High stakes exams usually test for the top of the distribution:
  - The tests do not reward moving from single digit addition to two digit addition or basic subtraction
- Often high stakes exams are coupled with dense and ambitious curricula. This creates a system which incentivizes teachers to:
  - Teach to the top of the class
  - Focus on getting through the curriculum
  - Teach to the test
- Children often falling behind and never acquiring basic skills.

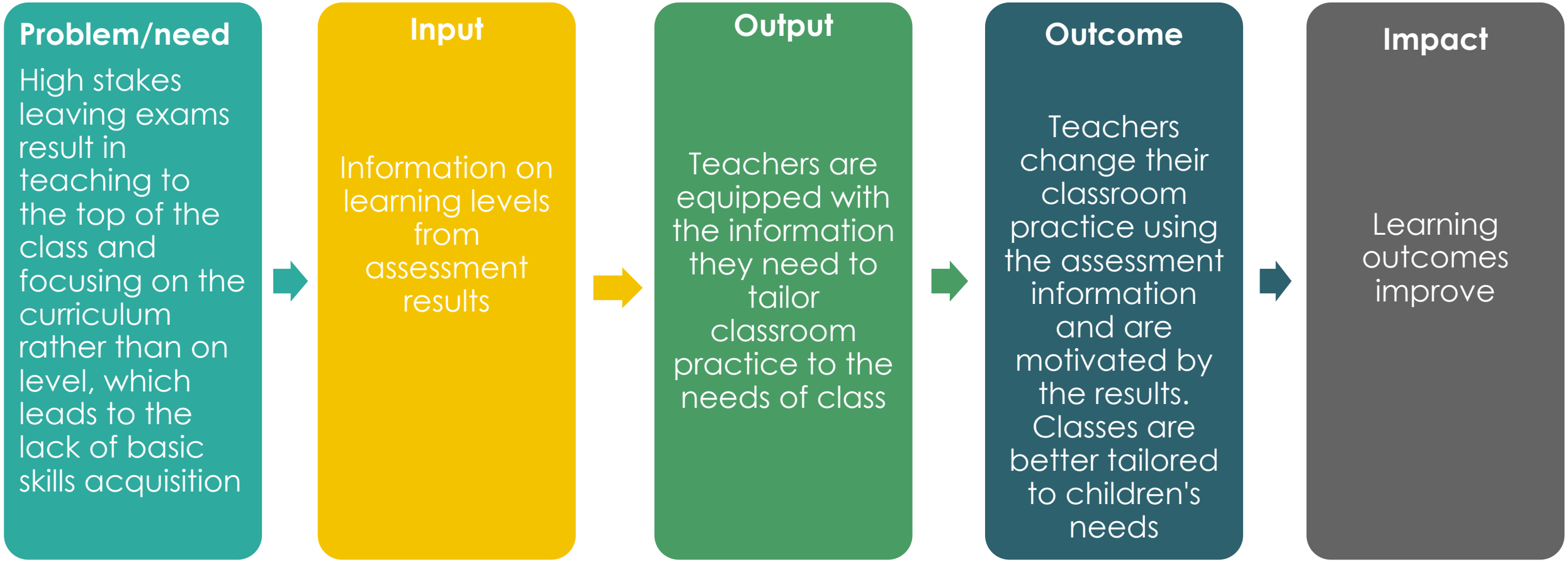

Can assessment be part of the solution?

Across successful ed program, teaching at the right level

- Textbooks only improved learning for those at level of the text book
- Splitting children by learning levels improved learning
- Remedial education for those falling behind improved learning
- Personalized learning computer software highly effective



Could assessment be part of the solution?



Is providing teachers with learning outcome data enough?
Experimental evidence from India

Feedback and light touch monitoring

- Changes in teacher behavior (likely due to being observed).
- No improvement in learning outcomes.

Feedback + light touch monitoring + performance based incentive

- Improvements in learning outcomes .

Lesson: Providing feedback on its own is not enough to improve learning outcomes

- *Muralidharan, Karthik, and Venkatesh Sundararaman. 2010. "The Impact of Diagnostic Feedback to Teachers on Student Learning: Experimental Evidence from India." The Economic Journal 120(546):187–203.*

Is continuous assessment enough?
Experimental evidence from India

Comprehensive continuous assessment (CCE)

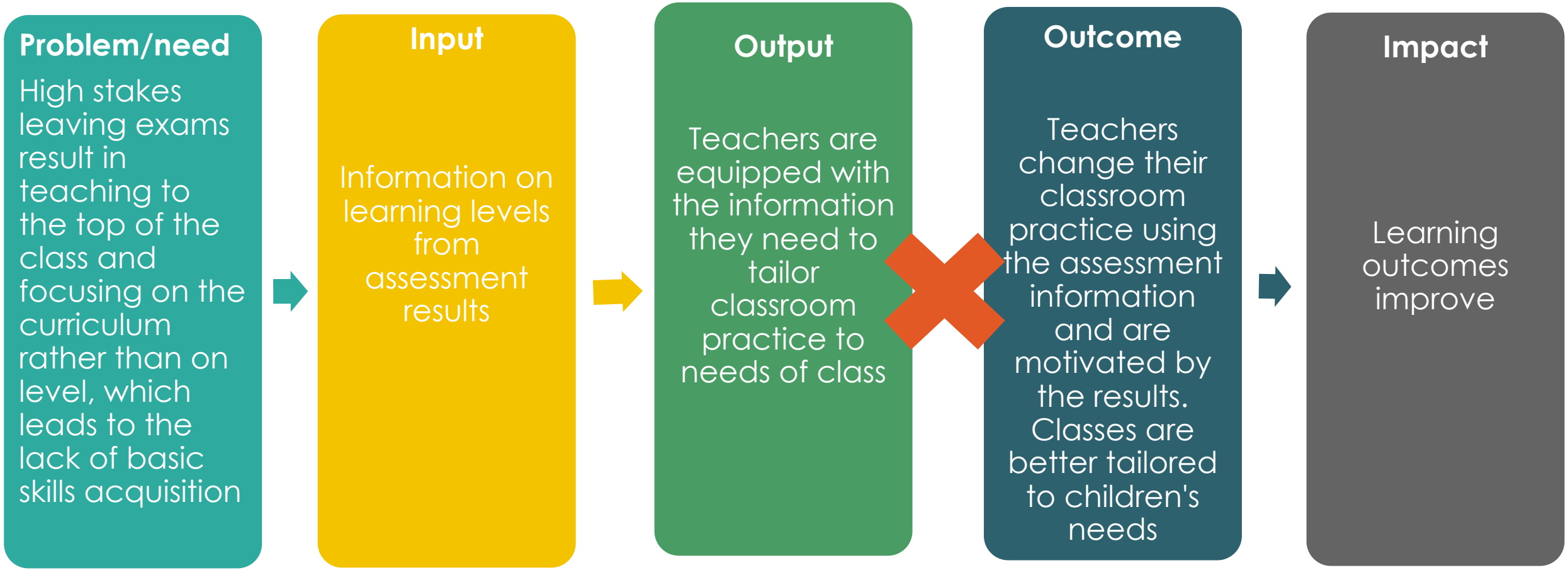
Learning Enhancement Programme (LEP)

LEP and CCE

- Students in CCE schools (primary and upper primary) did no better than students in the comparison group on either oral or written tests for Hindi or math.
- Relative to the comparison group, students in LEP schools scored 0.15 standard deviations higher on the Hindi reading test and 0.135 standard deviations higher on the Hindi written test.
- Combining the LEP and CCE has no significant effect in comparison to the LEP programme alone.

Duflo, Esther, James Berry, Shobhini Mukerji and Marc Shotland. "A Wide Angle View of Learning: Evaluation of the CCE and LEP Programmes in Haryana." Draft Final Report, 3ie, May 2014.

Learning level information on it's own may not be enough



Sorting children by initial learning level improved learning

In Kenya, extra teachers hired for Grade 1 classes

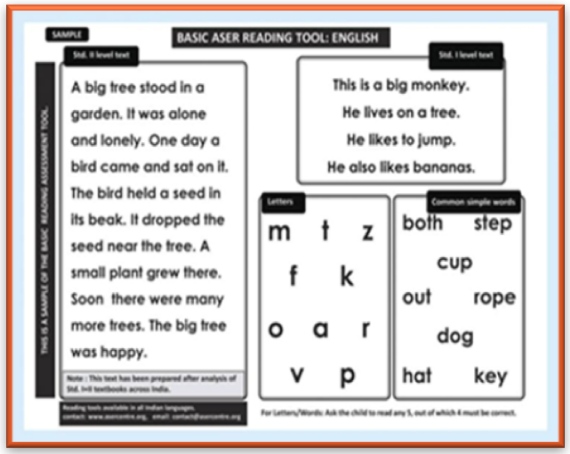
- Some classes split based on past student performance (tracking), others divided randomly
- Tracking improved test scores for both higher and lower-performing students

Duflo, Esther, Pascaline Dupas, and Michael Kremer. 2011. "Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya." American Economic Review 101(5): 1739-74.

Teaching at the Right level

A tool for assessment driven classroom action

1. Quick one on one oral assessment



2. Regroup children according to learning level and focus on basic skills

3. Re-test children throughout the programme allowing them to accelerate through the levels

Testing basic skills signifies to teachers that basic skills matter

The tool is action orientated. This action is reinforced through having a dedicated time and intensive monitoring.

The one on one nature of the test creates an important connection between the teacher and the student

Key Insights

- What children are assessed on, when they are assessed, and how they are assessed creates incentive systems which influences how teachers behave.
- Giving teachers learning level information on its own may not be enough to improve learning outcomes.
- Learning level information when coupled with incentives or commitment and accountability devices (a dedicated hour a day and monitoring) can improve learning outcomes.
- Assessment is an important component of all Teaching at the Right Level programmes
  - Assessing basic skills, regularly, one on one may help promote tailored classroom practices in TaRL programmes.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Thank you