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Overview of the Early Grade Reading Assessment (EGRA)

Prepared for the USAID workshop
"Designing and Implementing Early Grade Reading Assessments: Understanding the Basics"

March 2015

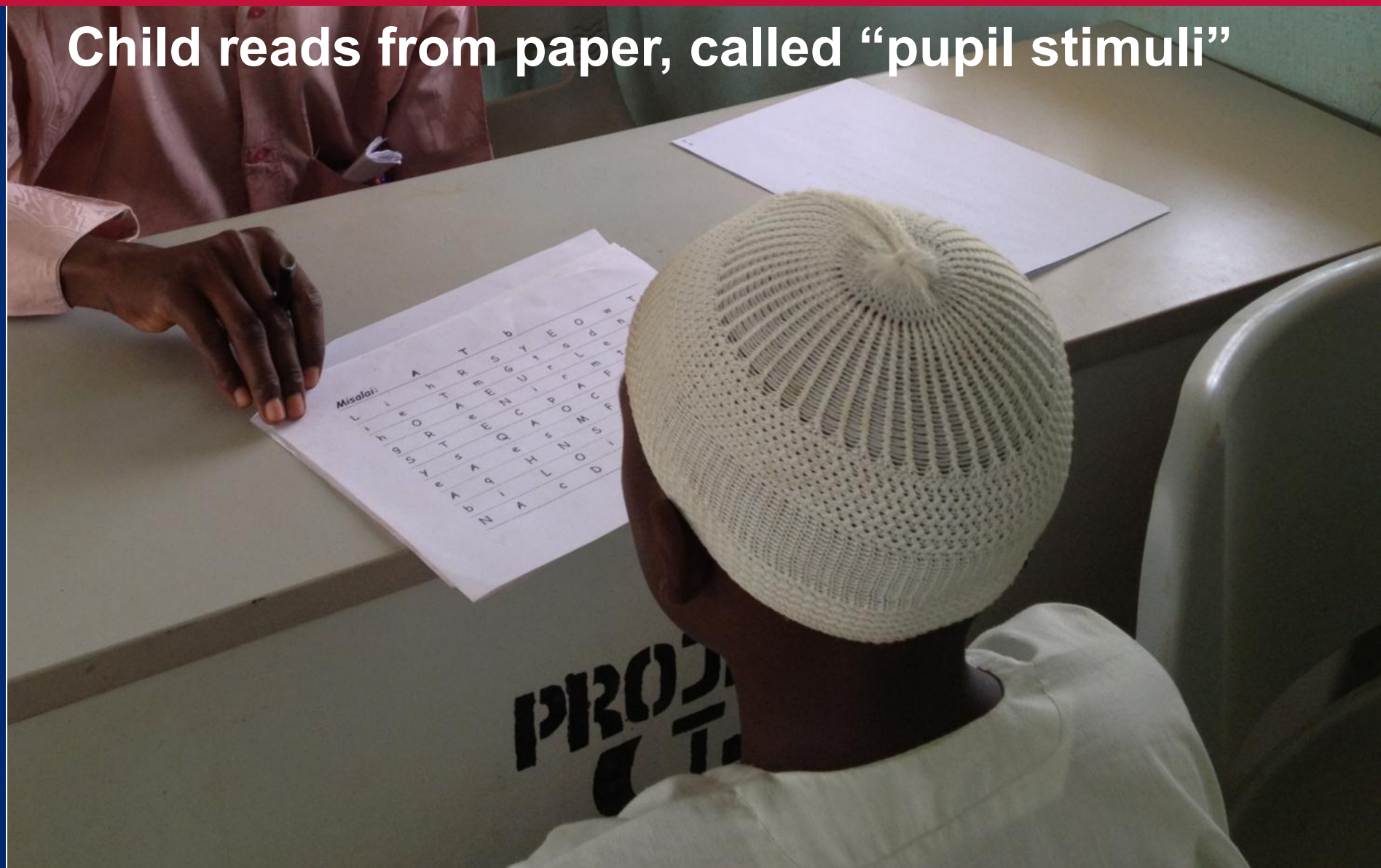
Session Objectives

- Know what EGRA is and what it measures
- Be aware of the research-based rationale for EGRA content and design
- Understand different purposes of EGRA and current usage

What Is EGRA?

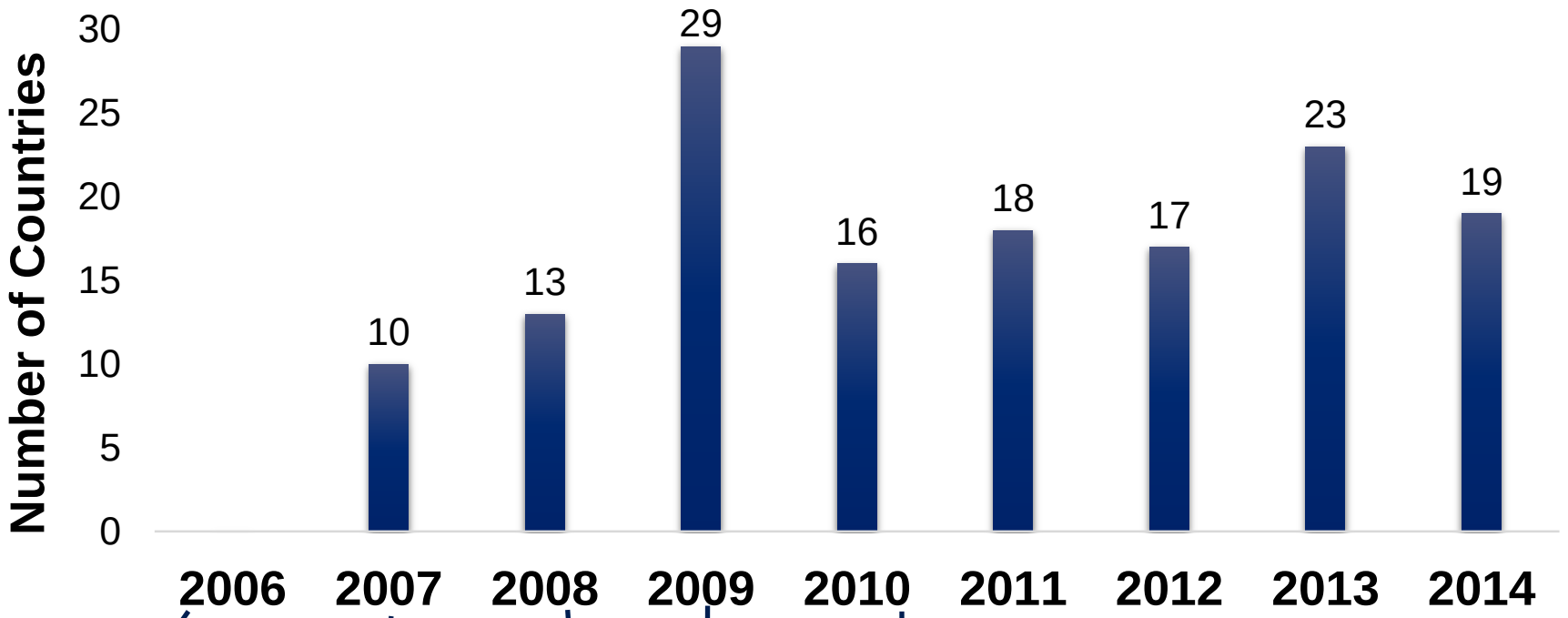
- EGRA stands for "Early Grade Reading Assessment."
- The assessment is used to measure children's progress toward learning to read.
- EGRA is administered orally by an assessor, one-on-one with a child.

Child reads from paper, called “pupil stimuli”



Assessor Records Results on Tablet [Video 1.1]

EGRA History



Developed by RTI with USAID support; Review by expert panel

Piloted/validated with USAID & World Bank support

1st EGRA workshop hosted by USAID & World Bank

EGRA Toolkit

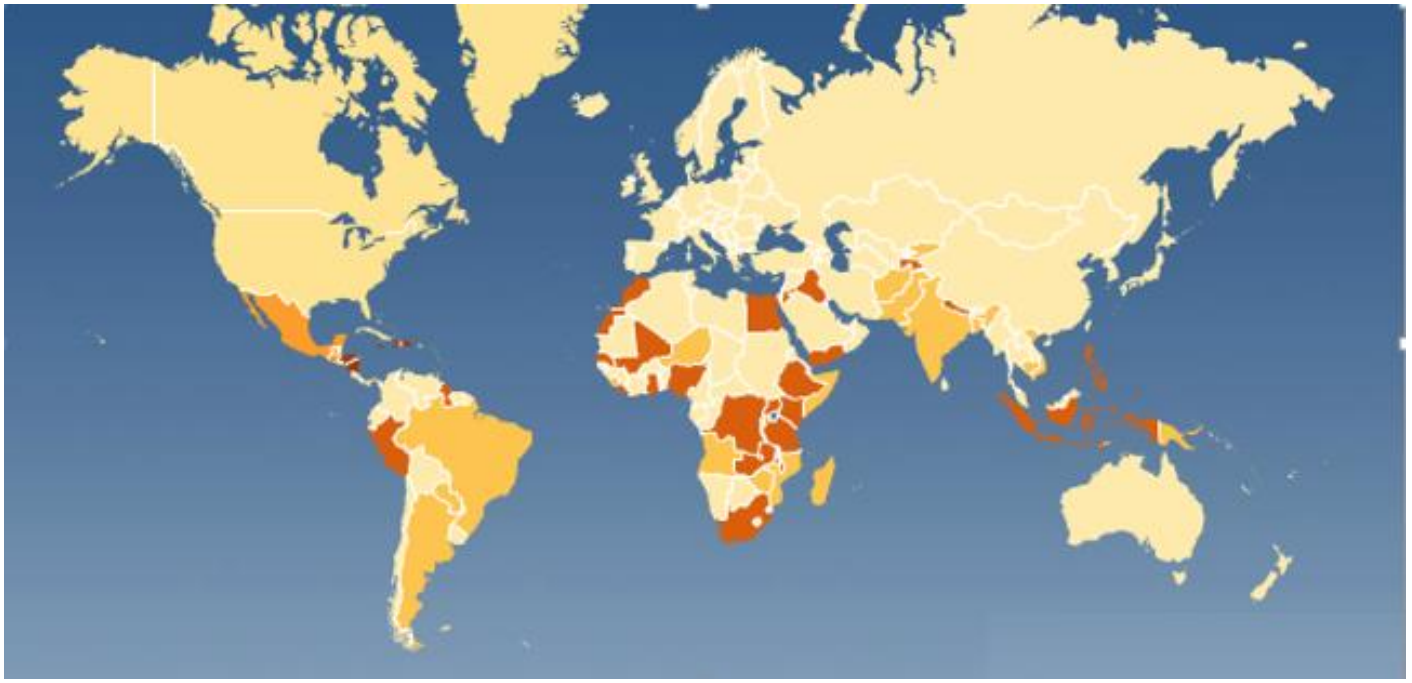
2nd EGRA workshop by USAID & World Bank; Igniting Report launched

USAID Education Strategy; EGRA Guidance Notes

ABE-ACR

Source: www.eddataglobal.org

Where in the World Has EGRA Been Used?



Used by
30+
organizations

Used in
60+
countries

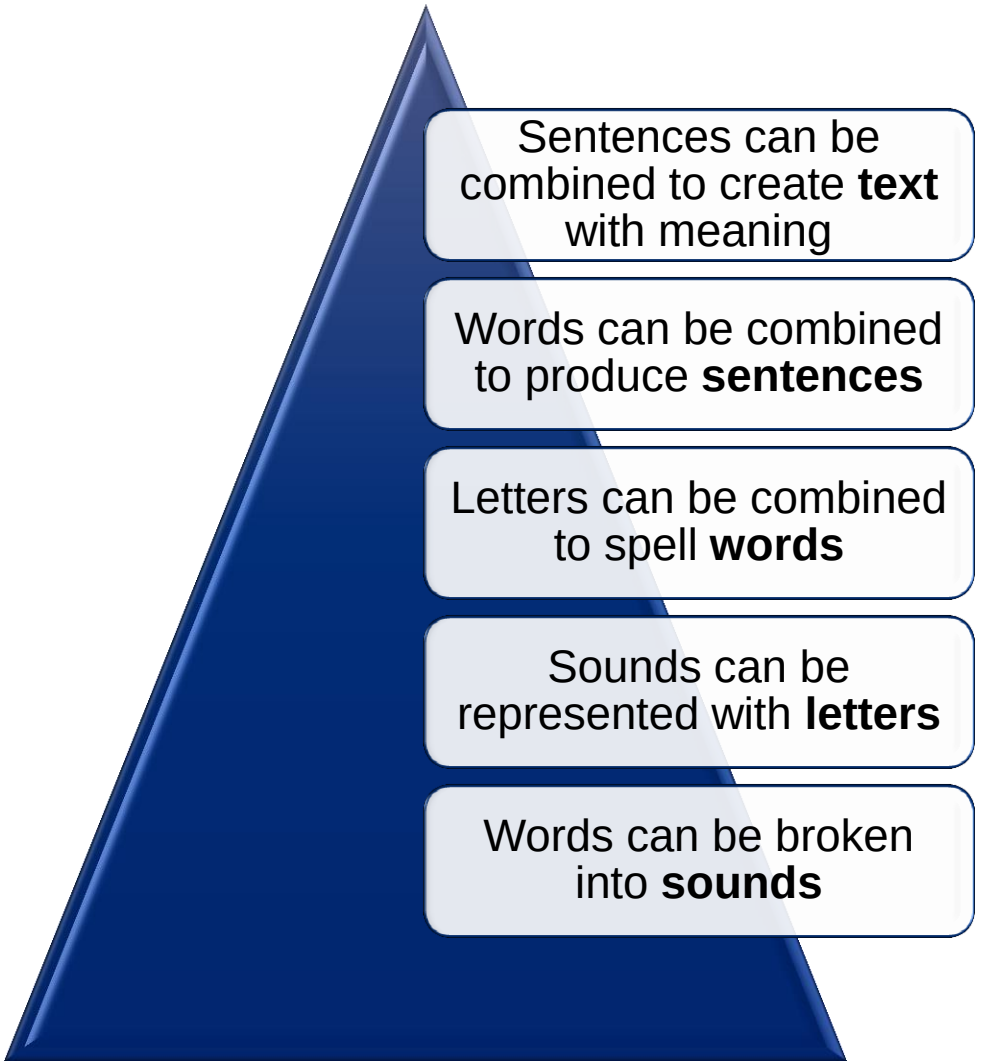
Adapted for
100+
languages

Source: www.eddataglobal.org

What Does EGRA Measure?

- EGRA assesses critical skills that early primary-age pupils (~ grades 1-3) need in order to read with understanding—and to be successful in other subjects and later grades.

- Components are aligned with essential and teachable reading skills that research shows children can and should acquire in the early grades.



Source: Dubeck & Gove, 2015

Why EGRA?

- While the Education For All (EFA) goals were successful in increasing enrollments, little information was available on learning outcomes.
- International assessments were not necessarily being used in many low-income countries.
- In places where learning assessments were available, did not know if children were not performing well because they didn't know content, or because they couldn't read the test.
- Its theoretical foundation supports quick adaption to meet demand for early assessments

Source: Crouch & Gove, 2011; Gove & Wetterberg, 2011; Wagner et al., 2012

Why Assess Reading?

- The ability to read and understand a simple text is one of the most fundamental skills a child can learn.

- Measurements of how quickly and accurately children can read a text out loud, and how well they understand it, align with both scientific and a popular understanding of what it means to be able to read.

Source: Fuchs et al., 2001; Kim et al., 2011

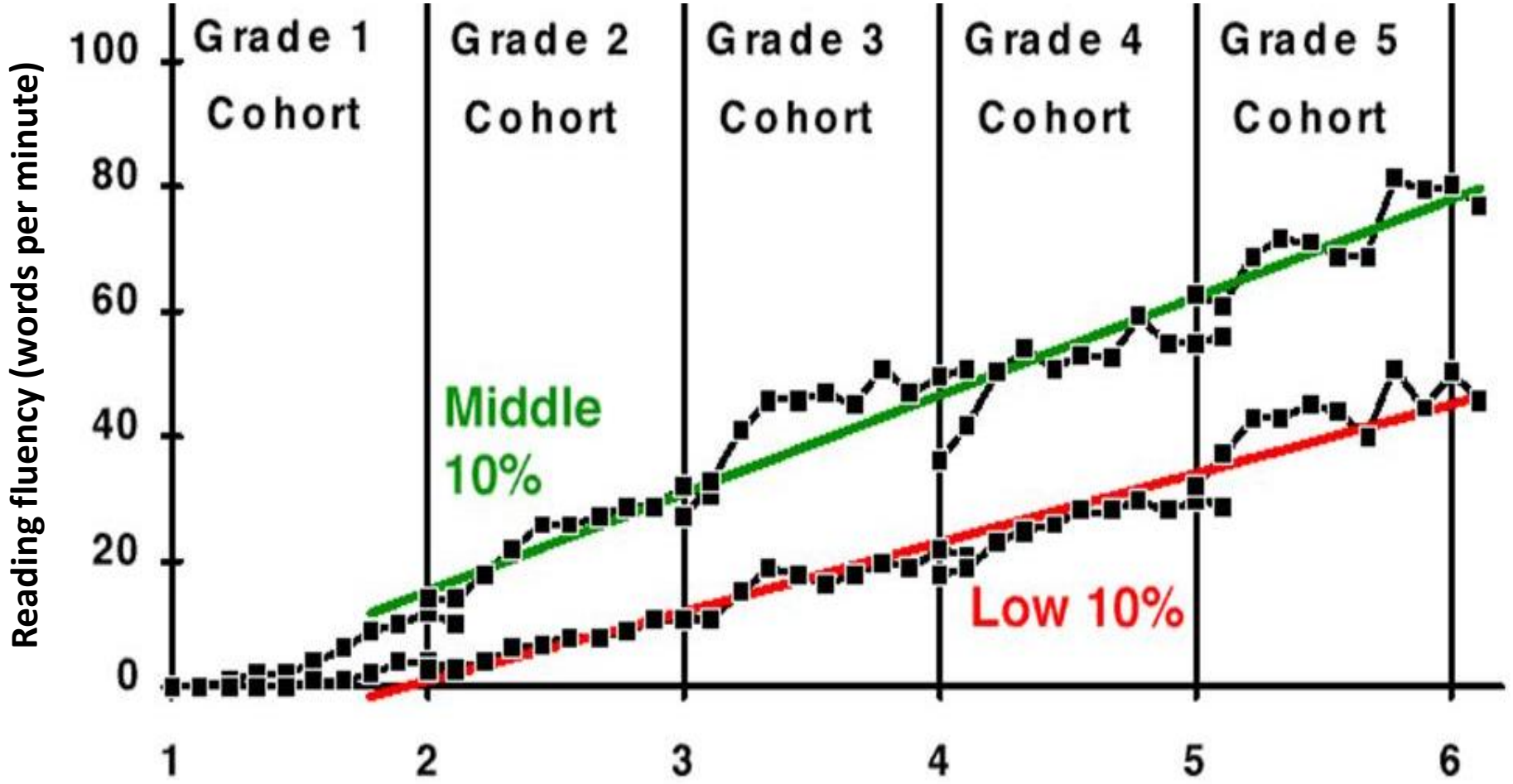
Why Assess Early?

- Children who learn to read within the first few grades of primary education have a greater chance of succeeding in and completing primary school.
- Evidence indicates that learning to read both *early* and at a sufficient *rate* are essential for learning to read well.
- Learning to read becomes more difficult as children grow older
- Children who do not learn to read in the first few grades are more likely to repeat and eventually drop out.

Source: Adolf et al., 2010; Daniel et al., 2006; Darney et al., 2013; Scanlon et al., 2008; Torgesen, 2002

Why "Early" Matters

Reading Trajectories of Low and Middle Readers



Source: Good, Simmons, & Smith,1998

Why Assess Orally?

- Child-centered
- Assessor and child interact one-on-one
- Rapport is established
- Timing begins when child speaks
- Administered in a language the child understands
- Oral tests of basic skills help us better measure which foundational skills children have—or do not have.

Different Types of Assessments: A Continuum

Examinations

- Completion/promotion exams
- Matriculation exams
- "A levels"

Assessment surveys

- SACMEQ
- PASEC
- PISA
- PIRLS/Pre-PIRLS
- TIMSS
- Early Grade Reading Assessments

Classroom assessment

- Class tests
- Homework
- Projects/presentations
- Mastery/monitoring checks

Formal
High cost
More time
High stakes

Informal
Lost cost
Less time
Low stakes

Source: Kanjee, 2009

How Can EGRA Results Be Used?

- Examine gaps in reading competencies to raise awareness, improve policy, curriculum, etc. (country or regional level)
- Identify key skills, or areas of instruction, that need to be improved in order to target interventions (teacher training, materials, etc.)
- Inform education sector strategic planning, resource allocation and budgeting
- Identify changes over time
- Evaluate outcomes of program designed to improve specific early grade reading skills
- Develop reading indicators and benchmarks

Source: Gove & Cvelich, 2011, Gove et al., 2013

Using EGRA Results: System Diagnostic

Example: EGRA in Northern Nigeria

Since 2011, EGRAs conducted in two states have been used to:

- Provide policy makers and other stakeholders with information to inform state-level planning
- Identify areas for which instruction needs to be improved
- Measure improvements over time at the state level

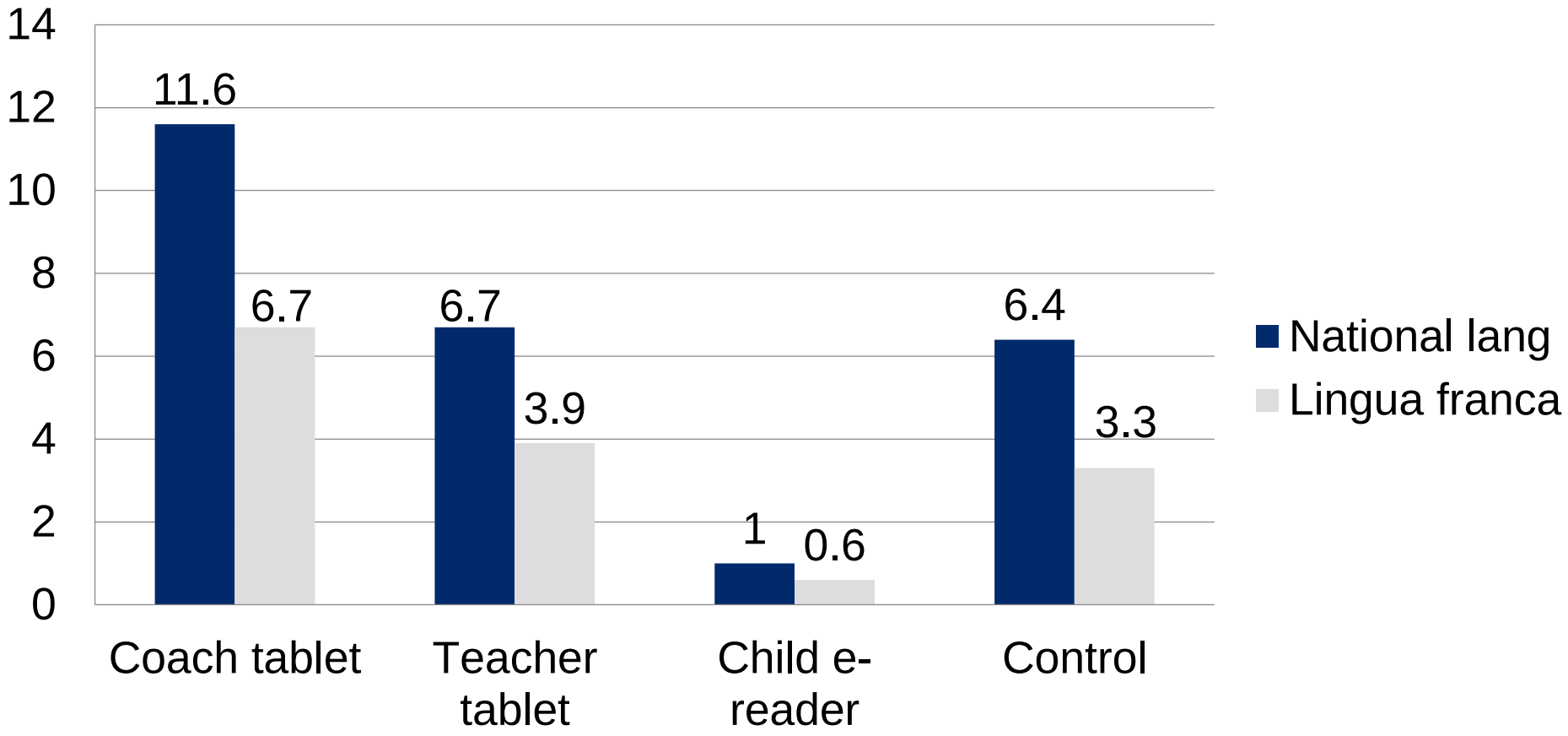
Using EGRA Results: Impact Evaluation

- EGRAs conducted in Kenya have been used to evaluate the impact of an early grade reading program.
- The proportion of pupils reading English at benchmark by the time of the endline assessment was more than twice as high in the treatment group (28.3%) than control schools (12.6%).
- Growth in Kiswahili comprehension levels: 0.3% of Class 1 at baseline and 5.2% at endline were able to answer at least four out of five comprehension questions correctly. In Class 2, the percentage improved from 6.9% to 22.2%.

Source: Kenya PRIMR, 2014

Using EGRA Results: Explore Costs of Design

Oral reading fluency gains over baseline per dollar spent



Source: Kenya PRIMR, 2014

Other Data Collected with EGRA

- EGRA is often administered with other instruments to collect contextual information to inform data analysis and recommendations. These include:
  - Pupil questionnaire
  - Teacher questionnaire
  - Head teacher/Principal questionnaire
  - School and classroom inventory
  - Reading lesson observation

- The Snapshot of School Management Effectiveness (SSME) is one package of instruments sometimes used in conjunction with EGRA to obtain a broader picture of school-related factors affecting student performance in math and reading.

Using EGRA Results: Inform Teacher Training

Category	Referent	Words Faster
Exercise book **all** completed & marked	No pages	17.3*
Exercise book **most** completed & marked	No pages	8.4*
Pupil work on the wall	None	6.2*
Has library, pupils **do not** use it	No library	6.4*
Has library, pupils **use it**	No library	14*
Majority of class time reading aloud	No time spent	-1.22
Corrects pupil, **does not** scold	Does nothing	8.1*
Repeat / clarify	Does nothing	7.9**
Checks for pupil **understanding** with assistance	No questions	13*

Source: Indonesia EGRA/SSME National Policy Dialogue Workshop, 2014

Using EGRA Results: Inform Policy Discussions

Characteristics	Indicator	Words Faster
Language	Home Language=School	5.22*
Gender	Female	6.54*
Preschool	Attended	15.18*
Age	Of-Age (7-8yr)	9.31*
School Location	Remote	-7.32*
Socioeconomic Status	Low	-
	Medium Low	4.46
	Medium High	9.61**
	High	13.81***

Source: Indonesia EGRA/SSME National Policy Dialogue Workshop, 2014

Limitations of EGRA and Its Results

- EGRA measures a *specific set* of critical early grade reading skills, not necessarily *all* important literacy skills.

- Individual nature of assessment administration and size of a typical sample means it is usually used to report results at a regional, national or program level, not district, school, or student level.

- EGRA is not a high-stakes accountability tool.

- The assessment is not suited for direct cross-language comparisons, but could be used to report on percentage of children meeting grade-level expectations.

Source: Dubeck & Gove, 2015

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EGRA Content

Key Components of Early Reading that EGRA Measures

- Alphabetic principle
- Phonemic awareness
- Vocabulary
- Fluency
- Comprehension

Why these areas?

Predictive of later reading acquisition
Reliably and easily measured
Can be improved through effective instruction

Source: August & Shanahan, 2006; Caravolas et al., 2012; NICHD, 2000; Vaessen et al., 2010; Ziegler et al., 2010

EGRA Subtasks

- EGRA subtasks measure the key components of early grade reading
- Content and administration rules are based on the skill measured, assessment principles, purpose of EGRA, and experience
- Items (i.e., letters and words) are specific to the language tested
- Order of items does not progress from easier to more difficult
- Level of difficulty is controlled

Source: RTI International, 2009; RTI International & International Rescue Committee, 2011; Dubeck & Gove, 2015

Timed Versus Untimed Subtasks

- Untimed subtasks allow us to measure accuracy (i.e., listening and reading comprehension)

- Timed tasks assess skills that become more accurate *and* automatic (i.e., faster) as the skill develops
  - Same items (letters or words) can be used with readers at different levels (within and between grades)

- Results based on time can inform intervention and instructional design

Source: Dubeck & Gove, 2015

Reading Components and EGRA Subtasks

Alphabetic Principle

- To learn to read, children need to be familiar with the alphabet and written spelling systems

- Alphabetic principle is the knowledge that letters and letter sequences represent the sounds of spoken language

- EGRA subtasks that measure this skill:
  - Letter name identification
  - Letter sound identification
  - Syllable reading
  - Nonword decoding
  - Dictation

Example Measure of Alphabetic Principle: Nonword Decoding

- Measures children's ability to apply the knowledge of letter-sound relationships to decode unfamiliar words.

- There is no meaning to a nonword.

- Example: "kiz" has no meaning in English. It follows a legal orthographic structure for the language (consonant – vowel – consonant). The arrangement "zukc" would not be legal.

Reading Components and EGRA Subtasks

Phonemic Awareness

- Phonemic awareness is the ability to hear, manipulate, and break apart the smallest units of sounds (phonemes) in words

- EGRA subtasks that measure this skill:
  - Initial sound identification
  - Phoneme segmentation

Reading Components and EGRA Subtasks

Fluency

- Fluency measures assess not only whether a child knows something (accuracy), but whether s/he has integrated the knowledge and can process the information automatically (quickly)
- Oral reading fluency is the ability to read text out loud with speed, accuracy, and expression*
- Being able to comprehend text requires being able to read words correctly at some minimal speed per minute

- EGRA subtasks that measure this skill:
  - Oral reading fluency

*EGRA does not typically measure expression.

Reading Components and EGRA Subtasks

Vocabulary

- Knowledge of the meaning of words
- **Expressive vocabulary:** The ability to put words that we understand into use when we speak or write
- **Receptive vocabulary:** The ability to understand the meanings of words that we hear or read

- EGRA subtasks that measure this skill:
  - Oral vocabulary
  - Reading comprehension
  - Listening comprehension

Reading Components and EGRA Subtasks

Comprehension

- The ability to understand, interpret, and use what has been read
- Dependent on all other components of reading
- EGRA subtasks that measure this skill:
  - Reading comprehension
  - Listening comprehension

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Planning for EGRA

Key Steps in the EGRA Process

- Identify purpose and research design
  - Identify and on-board planning and implementation team (organizations, individuals)
    - Identify sampling framework and schools
      - Develop instruments (adapt, approve and pilot)
        - Conduct assessor training (recruit trainees, train trainers, as applicable)
          - Collect data
            - Clean and process data
              - Analyze data and write report
                - Disseminate, discuss and use results

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