Assessing Early Grade Reading: Results from Pilots in English, French and Spanish

Amber Gove, PhD

RTI International

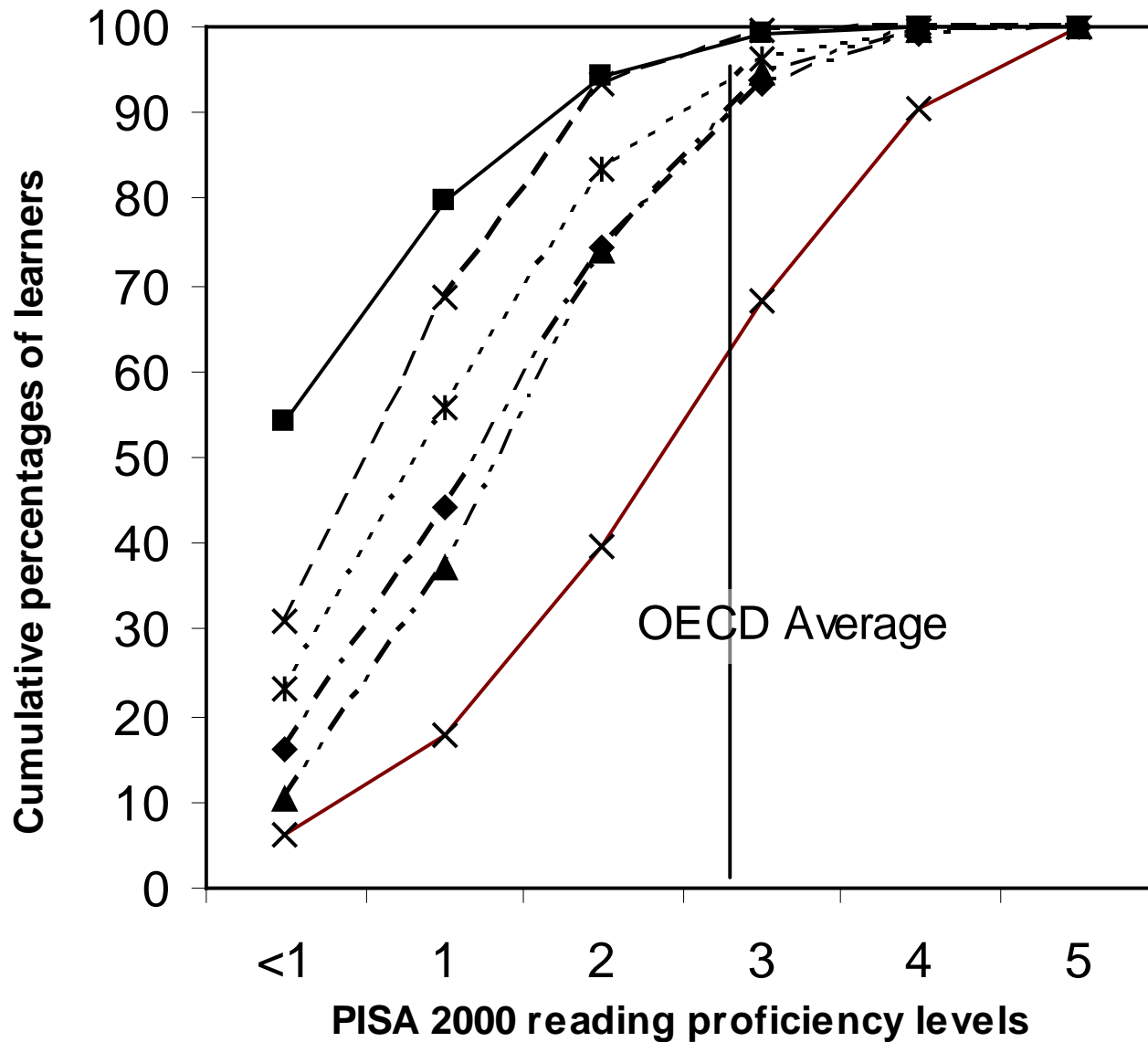agove@rti.org

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The Why and How of EGRA: Overview

- Why an Early Grade Reading Assessment (EGRA)?

- How has EGRA been developed?

- How is EGRA administered?

- What do the results look like so far?
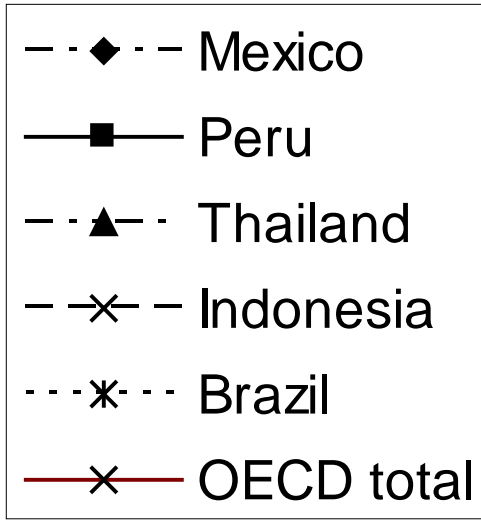
- How can EGRA results be used?

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Why an Early Grade Reading Assessment?

Why an Early Grade Reading Assessment (EGRA)?

- USAID interest in a simple, reliable and valid indicator of early reading progress ("dipstick" on quality, GAO statement on measuring outcomes) GAO Report

- Growing concern that "Education for All" has led to increased enrollment, but quality has not kept pace

- Current international assessments assume students can read and write (e.g. TIMSS, PIRLS, PISA)

- Most national assessments also measure late (in terms of ability to remediate)

- Students in low income countries perform at about the 3rd percentile of a developed country distribution

Only top 5% of Peru's kids are at OECD average. In Africa it is maybe 1%?

Cumulative percentages of learners (y-axis: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100)

OECD Average

PISA 2000 reading proficiency levels (x-axis: <1, 1, 2, 3, 4, 5)

Legend:
- Mexico
- Peru
- Thailand
- Indonesia
- Brazil
- OECD total

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Why EGRA: Word Recognition

EGRA Conceptual
Framework Inputs
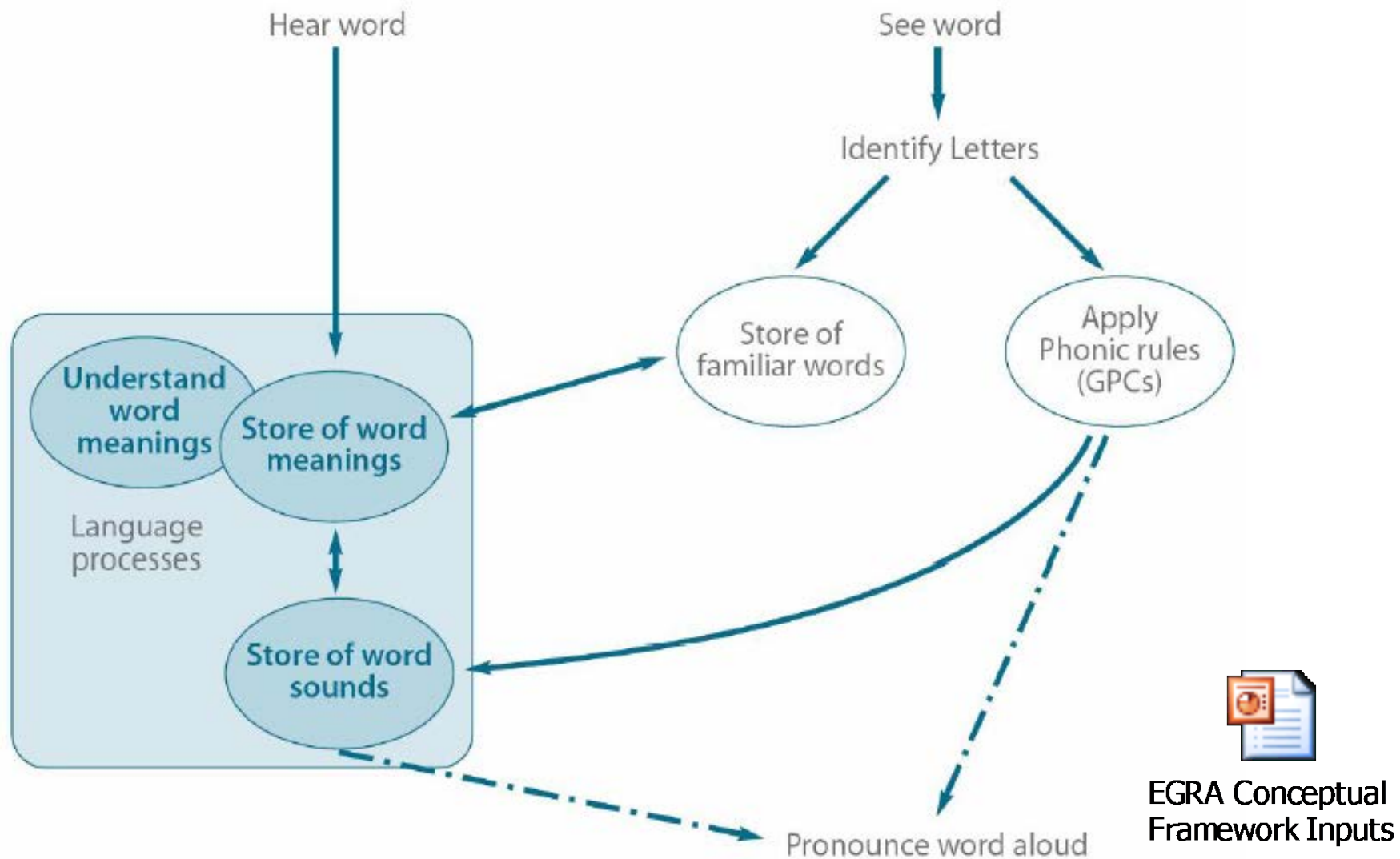
Why EGRA?: Potential Purpose(s)

1. <u>How is the system doing?</u> Raise government/public awareness of a national or regional problem

2. <u>How is the project doing?</u> Evaluate discrete interventions

3. <u>How are students doing?</u> Help teachers track student progress in the lowest primary levels, before students have problems and drop out

In all cases, the end goal is to <u>provide resources for interventions that clearly address the problem</u>.

How has EGRA been developed?

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1. <u>Literature Review</u>: Substantial and rigorous research base (in high income countries) from bilingual reading acquisition and children with reading difficulties.

    - 5 Key Strategies (Phonemic Awareness, Phonics, Fluency, Vocabulary, Comprehension)

    - Foundation skills:
        1. Are an important predictor of later reading ability
        2. Can be improved through instruction
        3. Proper intervention can change the trajectory of the student's predicted learning outcomes

    - "Matthew Effect": Learn to read well and early, or else
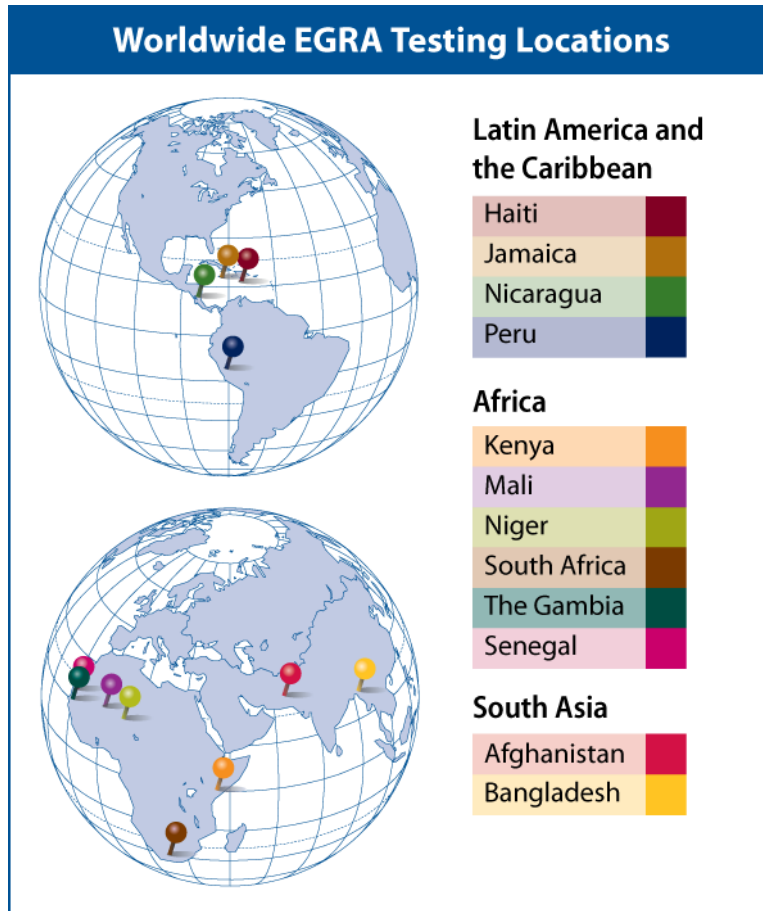
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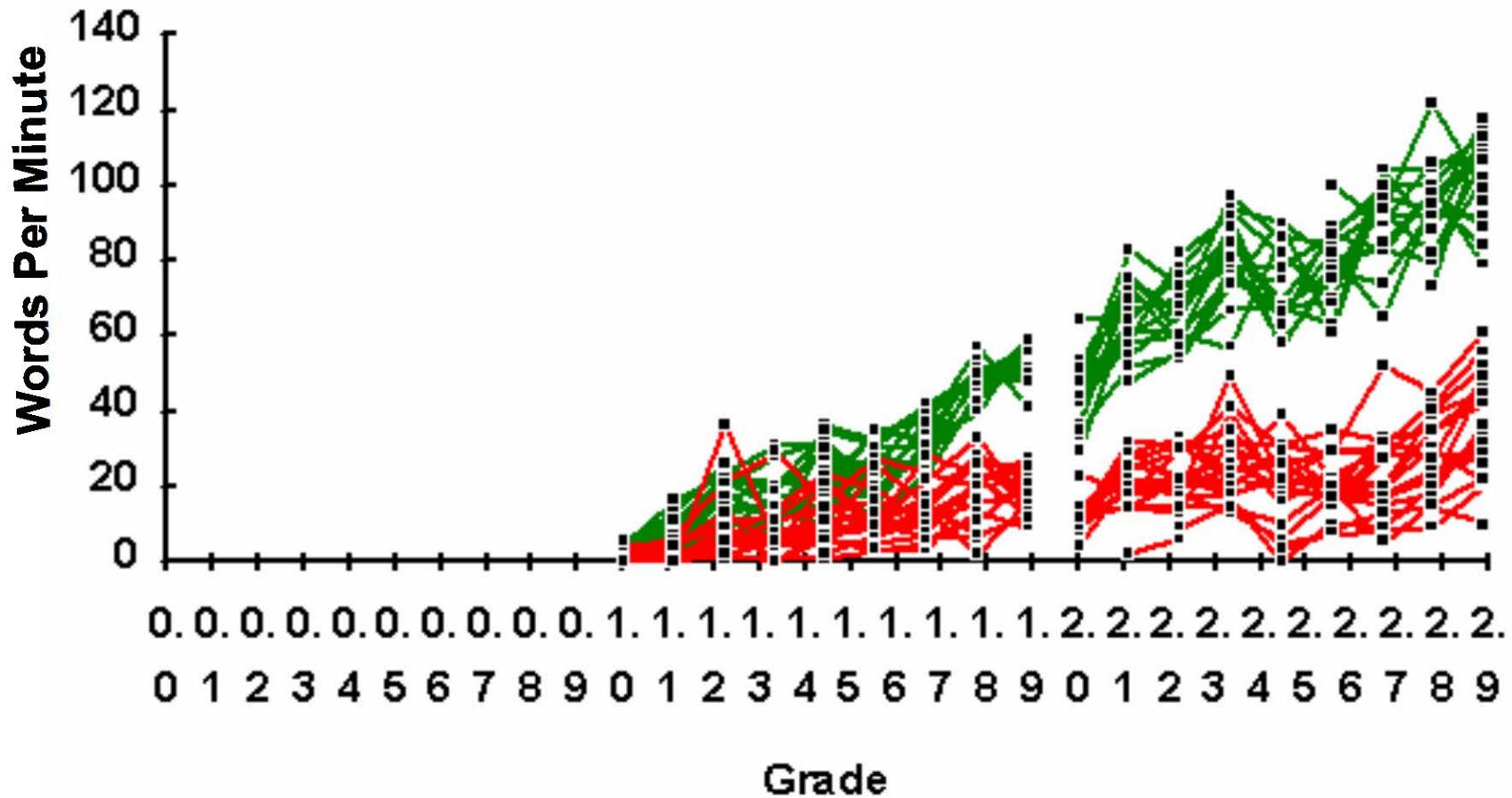
How has EGRA been developed?

2. <u>Expert Consultation Workshop</u> November 2006 (funded by USAID with cost share from WB)

   - 30+ participants from universities, country partners, NGOs, WB and USAID

   - Discussed L1 vs. L2, language comparisons, technology, reliability and validity issues

   - English intrinsically more difficult to acquire than French or Spanish (takes longer to "crack the code")

   - Reviewed research and agreed on proposed instrument components and skills to be tested

How has EGRA been developed?

3. Piloting: Many pilots with various sources of funding

Worldwide EGRA Testing Locations

Latin America and the Caribbean
- Haiti
- Jamaica
- Nicaragua
- Peru

Africa
- Kenya
- Mali
- Niger
- South Africa
- The Gambia
- Senegal

South Asia
- Afghanistan
- Bangladesh

Country	Languages	Funder
Haiti	Creole	Save the Children
Jamaica	English	USAID
Nicaragua	Spanish, Miskitu	USAID
Peru	Spanish	USAID, DFID, WB
Kenya	Kiswahili, English	USAID
Mali	Bamanakan	Plan Intl
Niger	Zarma	Plan Intl
South Africa	English and 5 L1	USAID
The Gambia	English	World Bank
Senegal	French, Wolof	World Bank
Afghanistan	Dari, Pashtu	USAID
Bangladesh	Bangla	BRAC

How is EGRA administered?

How is EGRA administered?

- Individual Oral Assessment, ~10 min per child, ~15 min with context questionnaire (translation of instructions to L1 adds time)

- Same test for first few grades (ceiling/floor issues)

- 4 Main phases to baseline EGRA application

  1. Adaptation and Pre-testing: 1 week workshop

  2. Training: 1-2 weeks, intensive practice with stopwatches

  3. Data Collection: Sample of about 30 schools per group of interest (15-20 students per grade)

  4. Analysis and Feedback with local counterparts

EGRA Instrument Components

1. Engagement/Relationship to Print

2. Letter Naming

3. Phoneme Segmentation

4. Familiar Word Reading

5. Nonsense Word Decoding

6. Paragraph Reading and Comprehension Questions

7. Listening Comprehension

8. Dictation

Components and Skills Tested

What do the results look like so far?

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| Country	Language	Grades	Schools	Students
The Gambia	English	1-3	40	1200
Senegal	French	1-3	36	501
	Wolof	1, 3	36	186
Nicaragua	Spanish	1-3	41	1924
	Miskitu	1-3	6	282

Summary of EGRA results: The Gambia

- At standard of 45 cwpm for paragraph reading, percent of tested students who "can read":

    - G1: 1.4% (Mean=68, Comp. 96%)

    - G2: 2.6% (Mean=66, Comp. 96%)

    - G3: 6.1% (Mean=73, Comp. 92%)

- Characteristics of "Readers" (N=40) (NR=Non-readers)

    - 90% have reading books at home (NR: 24%)

    - 57% say mother is literate in English (NR: 22%)

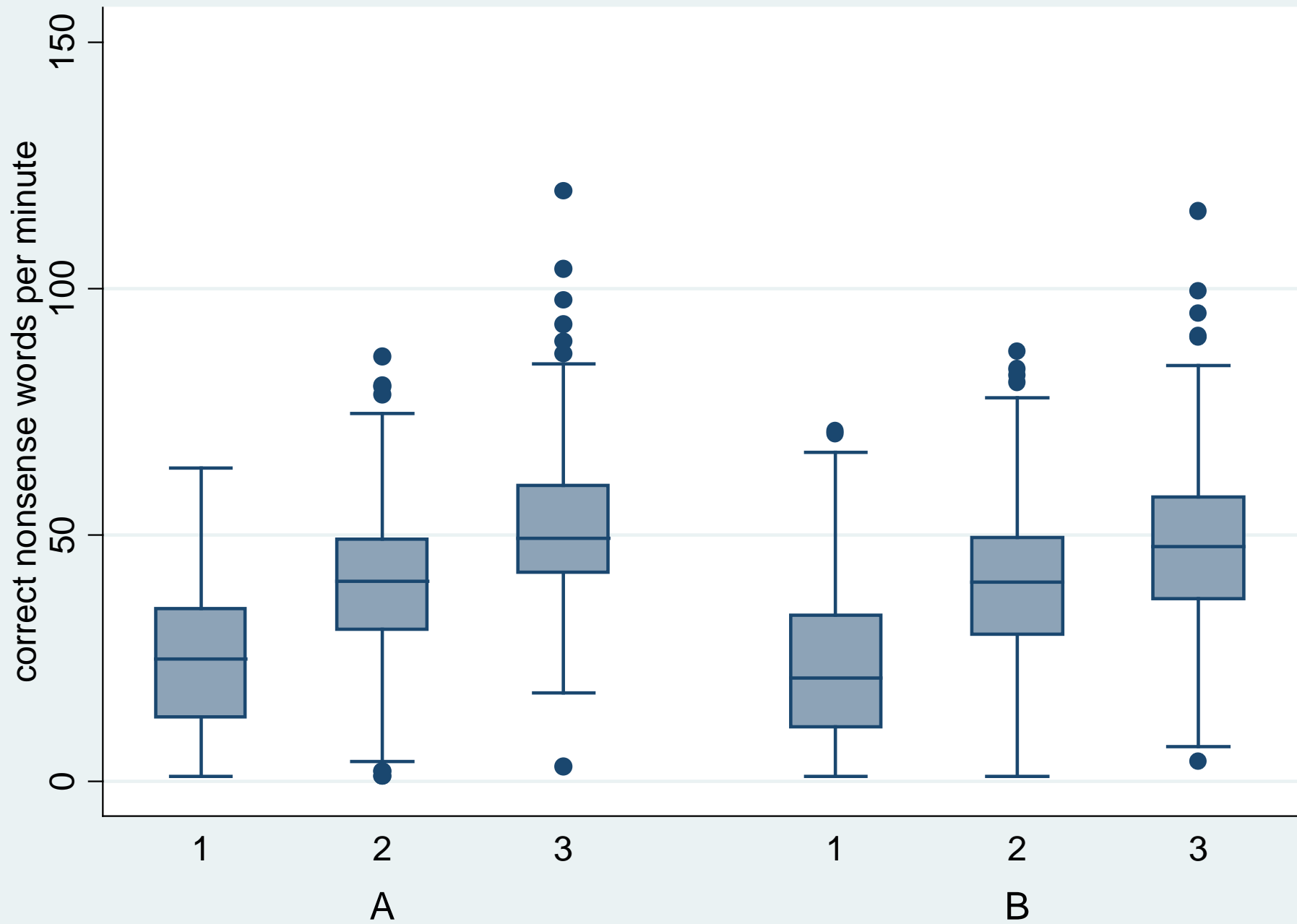   - 88% attended pre-school (NR: 63%)
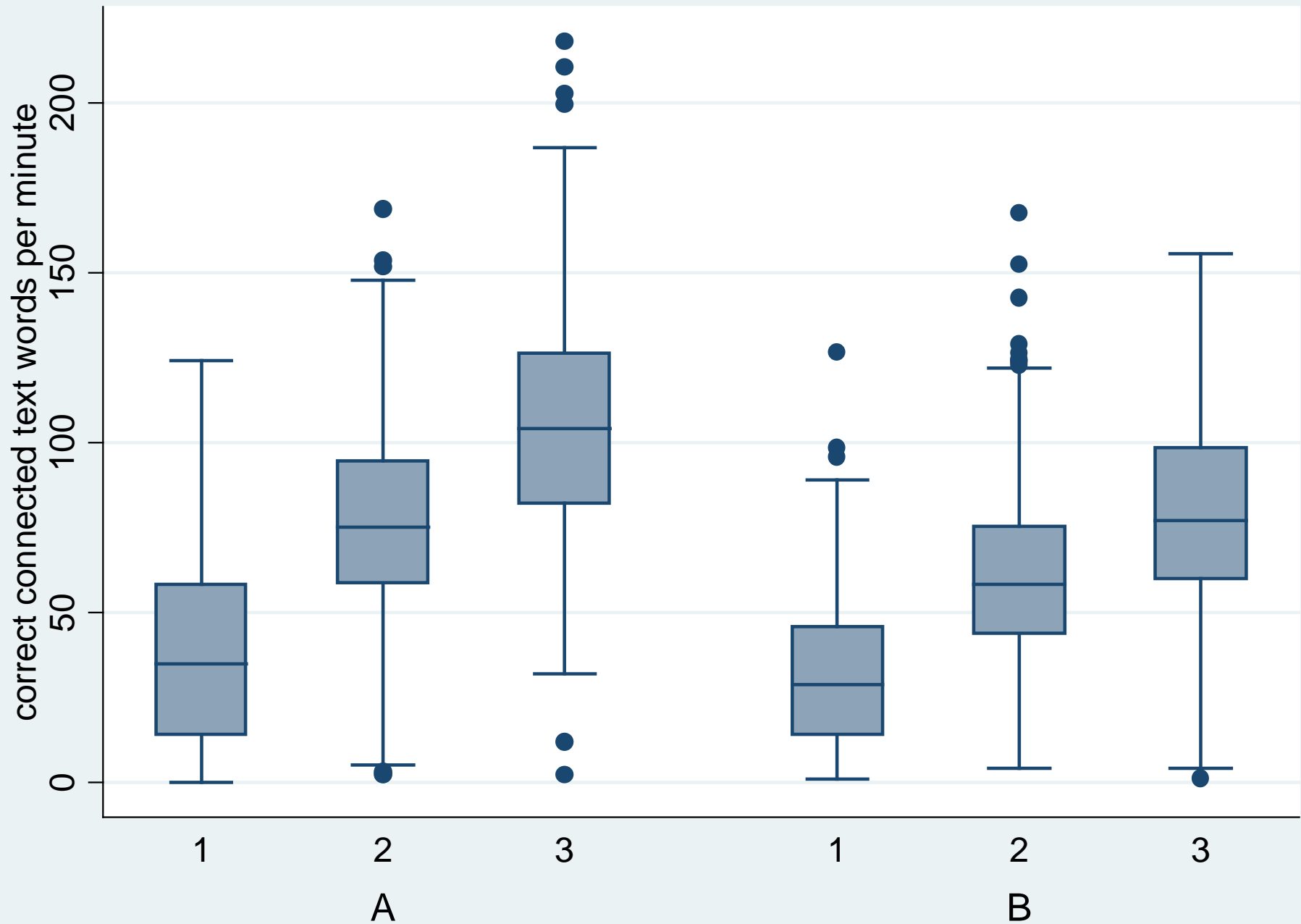
Summary of EGRA results: Senegal

- At standard of 45 cwpm for paragraph reading, percent of tested students who "can read":

  - G2 French: 11% (Mean=56.8, Comp. 62%)

  - G3 French: 48% (Mean=58.1, Comp. 66%)

  - G3 Wolof: 28% (Mean=56.8, Comp. 77%)

- Characteristics of French "readers" (NR=Non-readers)

  - 64% have reading books at home (NR: 47%)

  - 85% attended pre-school (NR: 77%)

- Characteristics of Wolof "readers" (NR=Non-readers)

  - 45% have reading books at home (NR: 44%)

  - 76% attended pre-school (NR: 72%)

Nicaragua Results
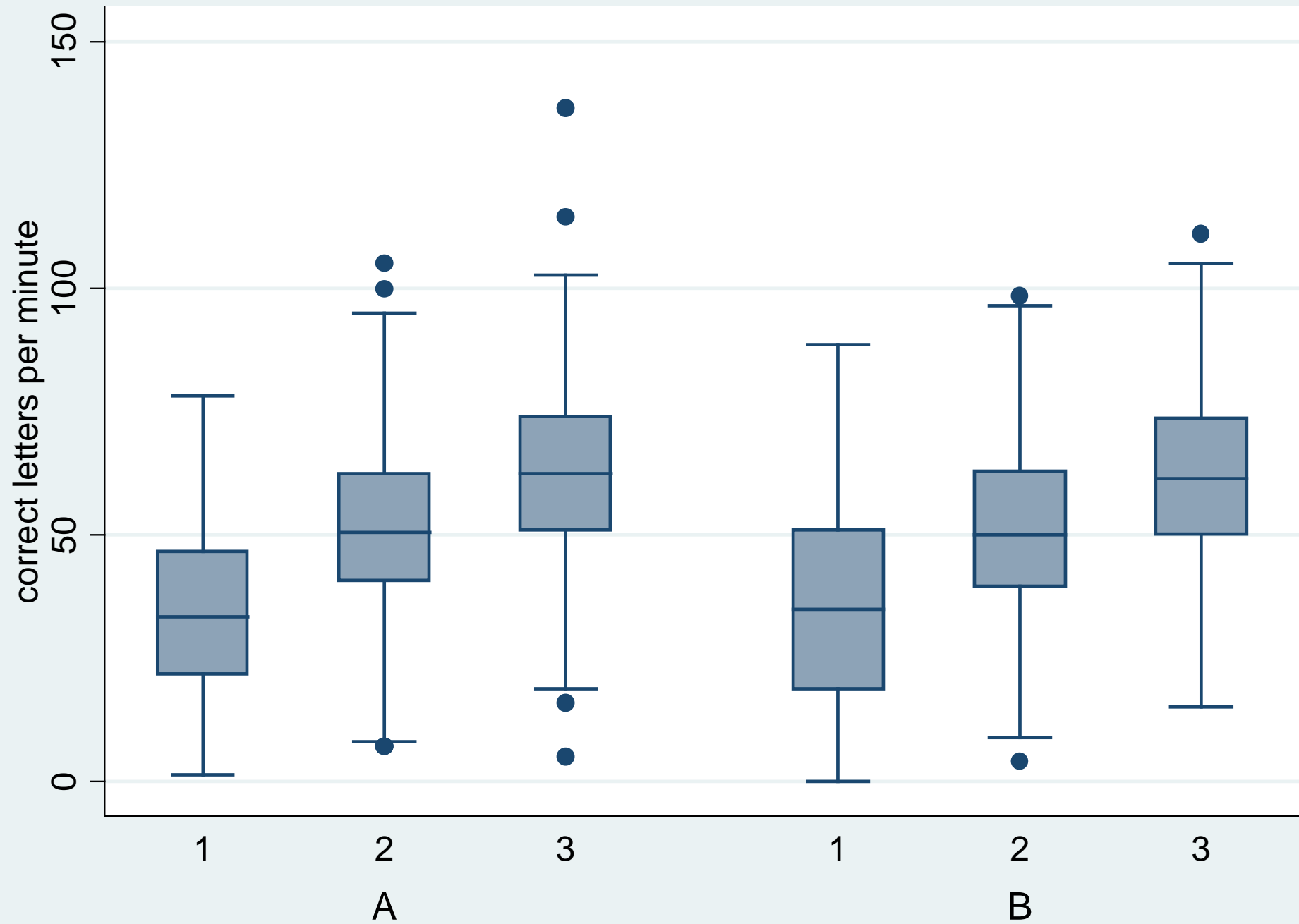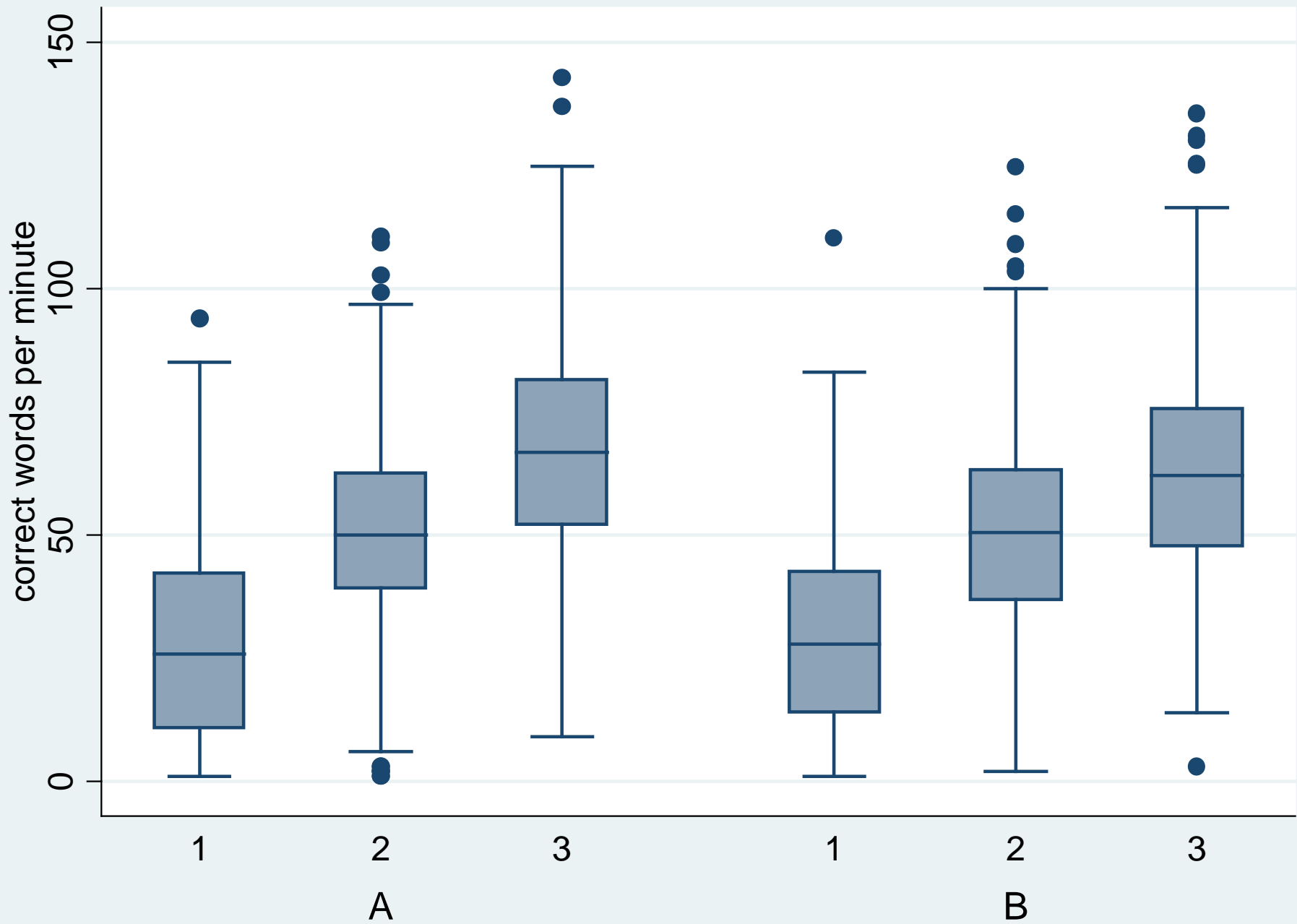
Summary of EGRA results: Nicaragua

- At standard of 60 cwpm for paragraph reading, percent of tested students who "can read" in Spanish:

  - G1 : 17%, Mean=77 cwpm Comp, 87%

  - G2 : 60%, Mean=85 cwpm Comp, 87%

  - G3 : 85%, Mean = 101 cwpm, Comp, 87%

Format A and B Descriptives

Results: Reliability and Validity

- Reliability—Accuracy and internal consistency

  - Cronbach's Alpha all above 0.8

- Validity—Ability of a measure to report outcomes we know to be true

  - Face: Policy makers, parents view EGRA as related to their "sense" of reading

  - Concurrent/External: Requires external measure

  - Predictive: Requires longitudinal data, multiple measures

- IRT Analysis (to be conducted with Nicaragua data)

How can EGRA results be used?

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- Tighter specification and sequencing of teacher training and curriculum delivery, standardized and heightened expectations

- Can inform areas of teacher support and training for diagnosing problems

- One indicator among many: system gas or temperature gauge ("dipstick")

- Only doing large scale paper/pencil tests is like taking your car to the mechanic every month because it has run out of gas

How can EGRA results be used?

- Within language groups, compare effectiveness of teaching and learning strategies

- Gather information on first and second language teaching strategies

- Develop regional approaches and to teacher training

- With proper sampling and psychometric checks, could be used to inform project indicators, aid decisions

- Use as part of EFA, MDGs, FTI as general reading indicator (plans for this)

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How should EGRA *NOT* be used?

- Punitive accountability tool for teachers, schools or districts

- Sole assessment of student performance (not meant to replace more comprehensive tools)

- Direct use of EGRA <u>content</u> for teacher training (i.e. teach this) (rather, components can inspire/inform pedagogical strategies)

- Basis for development of firm cut-offs or standards (rather should provide an indication of trouble spots for teacher support and interventions)

I take it you already know
Of tough and bough and cough and dough?
Others may stumble but not you,
On hiccough, thorough, laugh and through.
Well done! And now you wish, perhaps,
To learn of less familiar traps?
Beware of heard, a dreadful word
That looks like beard and sounds like bird,
And dead: it's said like bed, not bead—
For goodness' sake don't call it "deed"!
Watch out for meat and great and threat
(They rhyme with suite and straight and debt).
A moth is not a moth in mother
Nor both in bother, broth in brother,
And here is not a match for there
Nor dear and fear for bear and pear
And then there's dose and rose and lose—
Just look them up—and goose and choose,
And cork and work and card and ward,
And font and front and word and sword,
And do and go and thwart and cart—
Come, come I've hardly made a start!
A dreadful language? Man alive.
I'd mastered it when I was five.

Letter in London Times, 1965, cited by Chomsky 1970 and quoted in <u>*Beginning to Read*</u>*,*
Marilyn Jager Adams.

Additional Reading/Information

- [Read Aloud Handbook](#) (Trelease 2006)

- USAID: EdDataII Website: www.eddataglobal.org

- [Accelerating Early Grade Reading in High Priority EFA Countries](#) (Chabbott 2006)

- [National Reading Panel Report](#) (2000)

- [Teaching reading IS rocket science: what expert teachers of reading should know and be able to do](#) (Moats 1999)

- [Reading Comprehension Requires Knowledge: of Words and the World](#) (Hirsch 2003)

- [Efficient Learning for the Poor](#) (Abadzi 2006)

- [Preventing Reading Difficulties in Young Children](#) (Snow et al. 1998)

- [Handbook of Early Literacy Research](#), [Vol. 1 & 2](#) (Dickinson & Neuman 2001 and 2006)

- [Reading Acquisition and Developmental Dyslexia](#) (Sprenger-Charolles et al. 2007)

- [Beginning to Read](#) (Adams 1990)

- Contact Information: agove@rti.org   Instruments: www.eddataglobal.org

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