Large-scale Reading Reform In Uganda:
The Importance of Linguistic, Implementation and Socio-economic Factors in Explaining Impact

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USAID/Uganda School Health and Reading Program

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Research questions:

1) Did the program have an impact on reading achievement?

2) How can we explain the variation in reading gains among languages?
USAID/Uganda School Health and Reading Program

- 7 year USAID funded
- Working through MoES systems
- 12 Local Languages
- Large scale - 3,761 schools in 37 Districts

- Early Grade Reading approach expanded through
  - USAID/Uganda LARA
  - GPE UTSEP
  - Build Africa ILeap
USAID/Uganda School Health and Reading Program

- 3 million learners
- 30,000 teachers trained
- Over 3 million reading books and teachers guides
Uganda Map showing Districts covered by the 4 EGR Programs

**SCHOOL HEALTH AND READING PROGRAM**

- 37 Districts
- 3,761 schools

**UGANDA TEACHER AND SCHOOL EFFECTIVENESS PROJECT (UTSEP)**

- 29 Districts
- ~2,644 schools
- GPE FUNDED
- MOESTS IMPLEMENTED

**LITERACY ACHIEVEMENT AND RETENTION ACTIVITY**

- 29 Districts
- 3,197 schools
- USAID FUNDED
- RTI Implemented

Build Africa
USAID/Uganda School Health and Reading Program

Cluster 1
- Ateso
- Leblango
- Luganda
- Runyankore-Rukiga

Cluster 2
- Leb Acoli
- Lugbarati
- Lumasaaba
- Runyooro-Rutooro

Cluster 3
- Ngakarimojong
- Lhukonzo
- Lugwere
- Lusoga
USAID/Uganda School Health and Reading Program

- Systems and policies are strengthened
- P1 to P4 pupil books and teacher guides
- Teachers trained and supported
- Advocacy for local language literacy instruction
- Rigorous assessment of foundational reading skills

Learners read more fluently and understand more of what they are reading in both local language and English
## Early Grades Reading Assessment

<table>
<thead>
<tr>
<th>Subtask &amp; Measure</th>
<th>What is measured</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Letter Sound Fluency</strong></td>
<td>Correct letter sounds per minute (clspm)</td>
</tr>
<tr>
<td><strong>Oral Reading Fluency</strong></td>
<td>Correct words per minute</td>
</tr>
<tr>
<td><strong>Reading comprehension</strong></td>
<td>Percentage correct</td>
</tr>
<tr>
<td><strong>Reading 20+ correct words per minute</strong></td>
<td>Ability to identify sounds of letters</td>
</tr>
<tr>
<td></td>
<td>Ability to read connected text</td>
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<tr>
<td></td>
<td>Ability to comprehend reading passages</td>
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<tr>
<td></td>
<td>Dichotomous: Child read 20+ cwpm or not</td>
</tr>
</tbody>
</table>
Early Grades Reading Assessment

Schools sampled at Coordinating Centre level
14 treatment/ 14 control

30 P1-P4 pupils randomly sampled (alpha cohort)
Boys and Girls equally represented

1 on 1 oral assessment
Approx. 15 minutes per language
Research questions:

1) Did the program have an impact on reading achievement?
SHRP Impact

Cluster 1 Languages
Average Words Read Per Minute (wpm)
Beginning of P1 to end of P4

Luganda Program: 23
Luganda Control: 22
Leblango Program: 15
Leblango Control: 13
Ateso Program: 10
Ateso Control: 6
Run-Rukiga Program: 5
Run-Rukiga Control: 2

Beginning of P1: Feb 2013
End of P1: Oct 2013
End of P2: Oct 2014
End of P3: Oct 2015
End of P4: Oct 2016
Cluster 3 Languages
Percent of P2 learners reading
1-19, and 20 or more Words Per Minute (WPM)

SHRP Impact

<table>
<thead>
<tr>
<th>Language</th>
<th>SHRP</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lhukonzo</td>
<td>3.9</td>
<td>19.6</td>
</tr>
<tr>
<td>Lugwere</td>
<td>0.6</td>
<td>8.2</td>
</tr>
<tr>
<td>Lusoga</td>
<td>0.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Ngakarimojong</td>
<td>11</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>0.9</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>6.4</td>
<td>10.3</td>
</tr>
</tbody>
</table>
Research questions:

2) How can we explain the variation in reading gains among languages?
SHRP Impact

Overall Average Effect Size, by Language

- Lumasaaba: 0.95
- Runyoro-Rutooro: 0.93
- Luganda: 0.82
- Acoli: 0.72
- Lusoga: 0.59
- Ateso: 0.45
- Leblango: 0.39
- Ngakarimojong: 0.3
- Lugwere: 0.28
- Runyankore-Rukiga: 0.21
- Lhukonzo: 0.13
- Lugbarati: 0.09
Modelling variables as predictors

- Language Family
- SHRP rank of language complexity
- Average word length
- Number of non-Latin letters

- Years of Implementation
- % of schools receiving coach visit
- % of teachers trained

- % pupils wearing shoes
- % attended preschool
- Average class enrollment
Language complexity and preschool attendance as significant predictors of effect size

Language Family
- SHRP rank of language complexity
- Average word length
- Number of non-Latin letters

Years of Implementation
- % of schools receiving coach visit
- % of teachers trained

% pupils wearing shoes
% attended preschool
Average class enrollment

Pre-school
- 0.39*

Language Family
- Ranking 0.40*
Three Regression Models (effect sizes as outcome variable)

- **Linguistic Characteristics**
  - Language Family
    - SHRP rank of language complexity
    - Average word length
    - Number of non-Latin letters
  - Predicted 71% of the variation in effect sizes

- **Implementation Issues**
  - Years of Implementation
    - % of schools receiving coach visit
    - % of teachers trained
  - Predicted 23% of the variation

- **Socio economic factors in language and school communities**
  - % pupils wearing shoes
  - % attended preschool
  - Average class enrollment
  - Predicted 41% of the variation
1. This research is the first of its kind to use rigorous evaluation methods in a large-scale, multilingual mother tongue program in sub-Saharan Africa not only to determine the impact of the program on reading outcomes at scale, but also to shed light on the factors that were predictive of the variation in improvement in literacy outcomes.

2. Findings suggest that significant reading gains are possible, in a complex, large-scale mother tongue reading program, but that variation exists in the magnitude of the impacts by language community.

3. With scarce resources at hand, and with the potential for smaller impacts in some languages, countries will need to be thoughtful about what investments make the most sense given the costs and benefits.
Thank You!

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