EMERGE: Storybooks for Promoting Early Literacy in Kenya

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20 January 2016
Motivation: Standard 3 literacy is low in East Africa.

**Figure 1:** Test pass rates for children enrolled in Standard 3, East Africa

- Numeracy: 29
- Literacy: 25
- Combined: 16

Notes: “combined” refers to passes on both the numeracy test and at least one of the literacy tests in the survey.
Source: calculated from the Uwezo 3 data.
Motivation: Low literacy among primary school children

• In Kenya, 7 out of 10 students in Class 3 cannot read at a Class 2 level
• In Kenya, more than 60% of students in Class 1 cannot read a single word
• This partially explains why a textbook distribution in Kenya had little effect. (Glewwe, Kremer, Moulin 2009)

Why?

• Weak service delivery
• Low levels of school readiness
Existing Evidence

• In South Africa, book distribution to mothers led to increase in child’s vocabulary development (Cooper et al., 2014)
• In Bangladesh, dialogic reading intervention had immediate positive effects on preschoolers’ vocabulary (Opel, Ameer, and Aboud, 2009)
• Home visiting programs in Jamaica and Colombia improved cognitive outcomes in preschool aged children (Gertler et al., 2014; Attanasio et al., in progress)
• Center-based program in Mozambique is promising, but reaches only a fraction of the catchment area population (Martinez, Naudeau, and Pereira 2013)
Storybooks for Promoting Early Literacy

Theory of Change

- Increase in home reading resources
- Improvement in child school readiness
- More effective classroom environment once in school
Phase 1 Study

• Distribution of multilingual children’s storybooks to households with children ages 2-6 years in 10 villages in rural Nyanza

• Four treatment arms (randomized at HH level):
  – Books only
  – Books + caregiver reading training
  – Books + training + booster & SMS reminder
  – Books + training + booster & SMS + home visit
  – Comparison (books distributed post-endline)
The Intervention: storybooks

- Produced in collaboration with Moran Publishers (Nairobi)
- Each eligible household receives set of six (2 English, 2 Kiswahili, 2 Dholuo)
- Highlight key vocabulary and questions to engage child
- Substantially adapted from original for both linguistic and pedagogical purpose.
The Intervention: caregiver training

- 2-hour dialogic reading training for caregivers – 1st week post-baseline
- Booster training follow up – 3rd week post-baseline

READ, TALK, LISTEN and EXPAND
The Intervention: Home visits and SMS reminders

• Home visit by member of implementation team to review key points from training and answer caregiver questions – 2\textsuperscript{nd} week post-baseline

• SMS follow up messages on engagement and process – 3\textsuperscript{rd} week post-baseline

“Reading together prepares children for starting school. Which book does your child like most? Text 12345 to reply, and receive 20KSh airtime.”
Phase 1 Baseline Measures

• Child
  – Global abilities and cognition (MDAT, Kaufman)
  – Height
  – Expressive and receptive vocabulary (BPVS)
  – Social/emotional development (SDQ)
  – Advanced literacy/numeracy (EGRA/EGMA subset)

• Caregiver
  – Standard welfare, livelihood, and demographics
  – Home resources and parenting (FCI)

• Caregiver-Child Picture Observation
Phase 1 Endline Measures

• Child
  – Global abilities and cognition (MDAT, Kaufman)
  – Height
  – Expressive and receptive vocabulary (BPVS)
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Phase 2 Design

- “EMERGE” – Encouraging Multilingual Early Reading as the Groundwork for Education
- Based on what we learn about how to effectively deliver the intervention in Phase 1
- Long-term impacts of intervention on human development and school readiness outcomes
- Test whether the language of the books matters: whether books are in mother tongue

| 38 villages Official Languages Treatment | 38 villages Official Languages + Mother Tongue Treatment | 38 villages Comparison Arm |
Timeline

• **Summer 2012**: first community storybook pilot
• **Summer 2014**: second pilot with commercially available books
• **Fall 2014 – Summer 2015**: map sample frame of villages; pre-test potential instruments for inclusion and adaptation
• **Summer – Fall 2015**: instrument adaptation and programming
• **November-December 2015**: Phase 1 “dry run” to “debug” census, baseline, intervention, endline process in one village
• **January – June 2016**: Phase 1 roll-out in ten villages
• **June 2016 onward**: launch of large-scale Phase 2 RCT informed by Phase 1 results
Acknowledgements

The EMERGE storybooks work is a collaborative effort with contributions from many across the globe including:

- Our IPA field team based in Kisumu
- **Experts:** Patricia Kariger (measurement) and Frances Aboud (storybook/training content)
- **Donors:**
  - World Bank SIEF
  - World Bank ELP
  - World Bank RSB
  - Echidna Giving

Thanks to all!
Questions?