

WHAT WORKS GLOBAL SUMMIT | OCTOBER 2019 | MEXICO CITY

FROM MOTHER TONGUE TO OTHER TONGUE: EVIDENCE SYNTHESIS ON LANGUAGE IN EDUCATION



Pooja Nakamura | Zelalem Leyew | Thomas de Hoop | Adria Molotsky

MAKING
RESEARCH
RELEVANT

Research Problem

- Global learning crisis (WDR, 2018)
- Role of language in the learning crisis
 - Language inextricably linked to basic literacy, numeracy, SEL skills, and later academic success (Ball, 2011)
 - Language of Instruction (LOI) policies are made arbitrarily and priorities keep shifting (Alidou et al., 2006)
 - Evidence for benefits to teaching in the familiar language first (August & Shanahan, 2006; Ball, 2011)
 - **Also**, evidence for linkage between post-colonial language and socioeconomic mobility (Azam, Chin, Prakash, 2013)

How we propose to address the problem

- Conduct a **systematic review** of **the role of LOI policies on literacy outcomes** in **multilingual contexts**
- Examine role of language transition, language match/mismatch, and simultaneous instruction in more than one language on literacy outcomes
- Mixed methods and multi-disciplinary approach
- Target audience: decision makers and researchers to understand and effectively use the evidence, with a specific focus on Ethiopia

Research Context

- Children across LMIC's learn in multilingual contexts
- Children cannot learn to read with comprehension in a language they do not understand well; although they may acquire some skills
 - Second language reading and learning is qualitatively different from first language reading and learning – and thus, monolingual models may not be applicable
 - Dual language impact and transfer (thresholds)

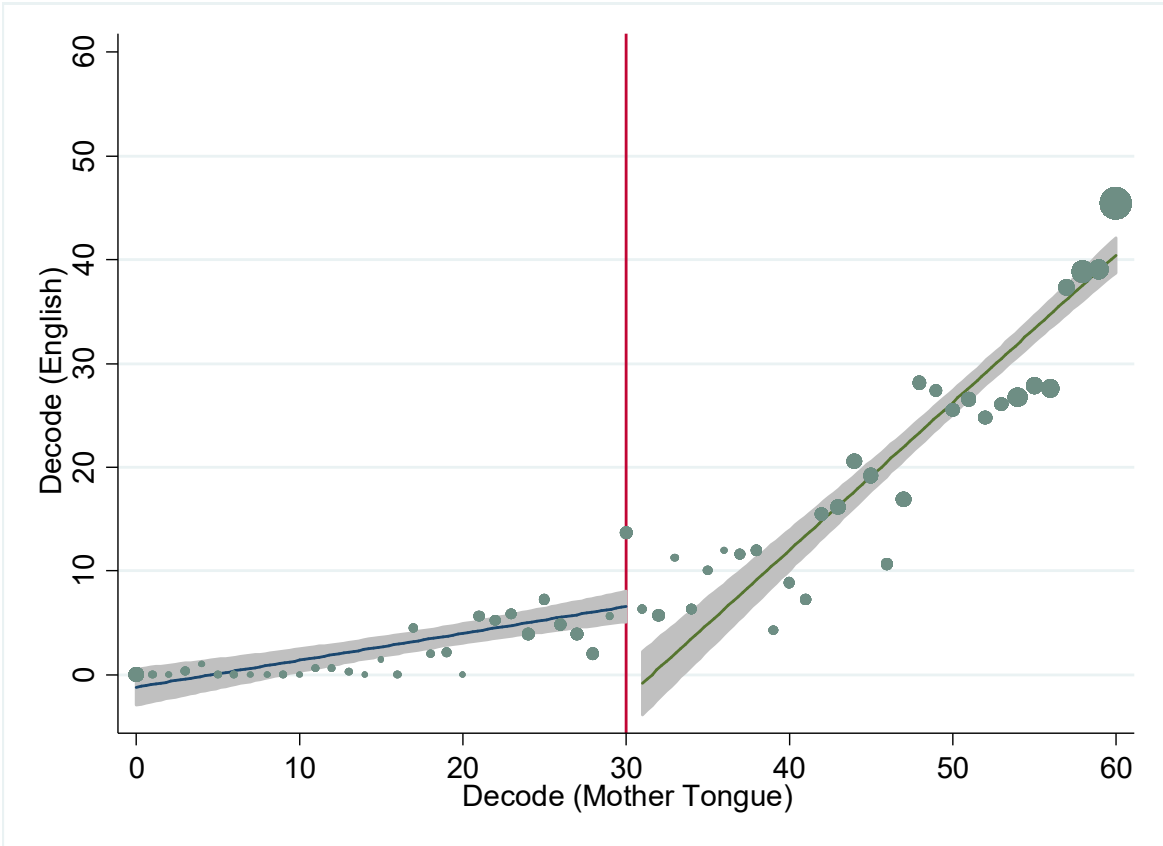
Research to Policy Uptake

- Key component clusters of research to policy uptake (Brown et al., 2018; Castello, 2017):
 - Deep understanding of science and policy landscape, focus on Ethiopia (but across LMICs)
 - Communicating scientific findings through variety of audience-tailored means

Research Questions

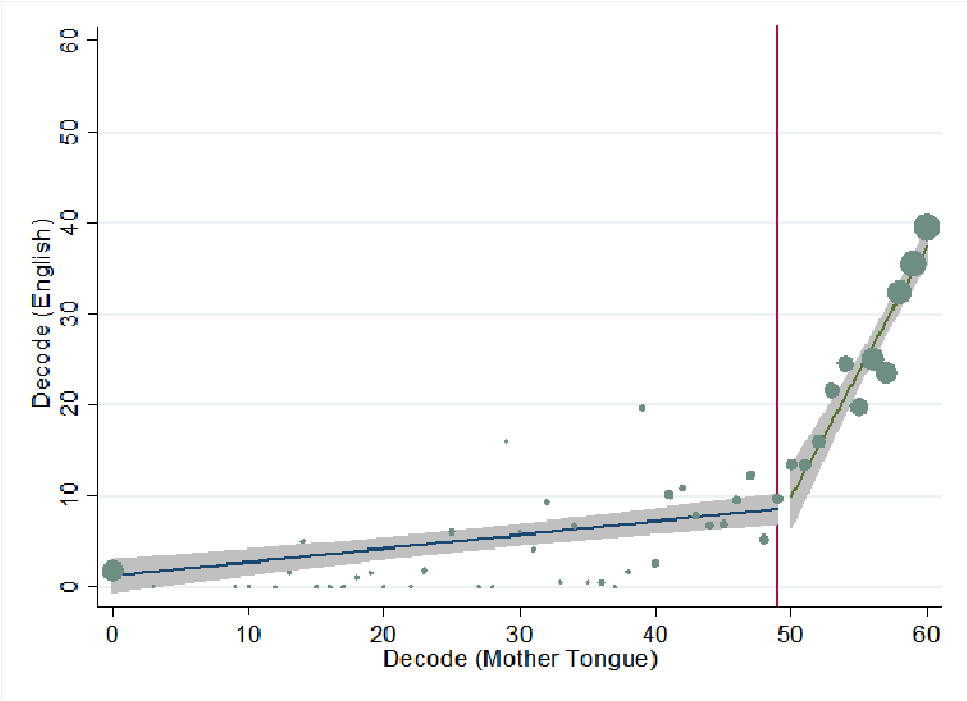
1. What is the quality of the available evidence on the role of LOI policies on literacy outcomes?
2. What are the short- and long-term impacts of LOI policy on literacy outcomes in the MT/local language and on later acquired language?
3. What is the role of the family and community in determining LOI policy?
4. Is there a cognitive or linguistic threshold point at which a child is ready to transfer his or her reading skills from one language to another? And if so, what is the threshold?
5. What are the evidence gaps about implementing successful LOI policies in bilingual and multilingual educational contexts in LMICs

Results from Ethiopia: Afaan Oromo-English



Number of observations	829
Estimated break in decoding MT	30
Null hypothesis (Ho)	No structural break
Test statistic (supremum Wald)	306.2
p-value	0.00

Results from Ethiopia: Amharic-English



Number of observations	1,063
Estimated break in decoding MT	49
Null hypothesis (Ho)	No structural break
Test statistic (supremum Wald)	293.7
p-value	0.00

Research method

- Inclusion criteria (PICO):
 - Official LOI transition policy in grades 1-6
 - Literacy outcomes (pre-literacy skills to grade 6 appropriate reading comprehension skills)
 - Studies made available between 2009 and 2019

Proposed Analysis

- Narrative evidence synthesis through a “learning science” lens
- Meta-analysis
 - If possible, individual person meta-analysis
 - If possible, sub-group analysis

Innovative approaches

- Different kinds of evidence that apply different fields of research
 - Example, applying “learning science” lens to impact results
 - Example, testing for non-linearity of relationships between local language and postcolonial language reading to make policy recommendations LOI transition timings
 - Focusing on a topic that is central to learning, but rarely a focus of the study

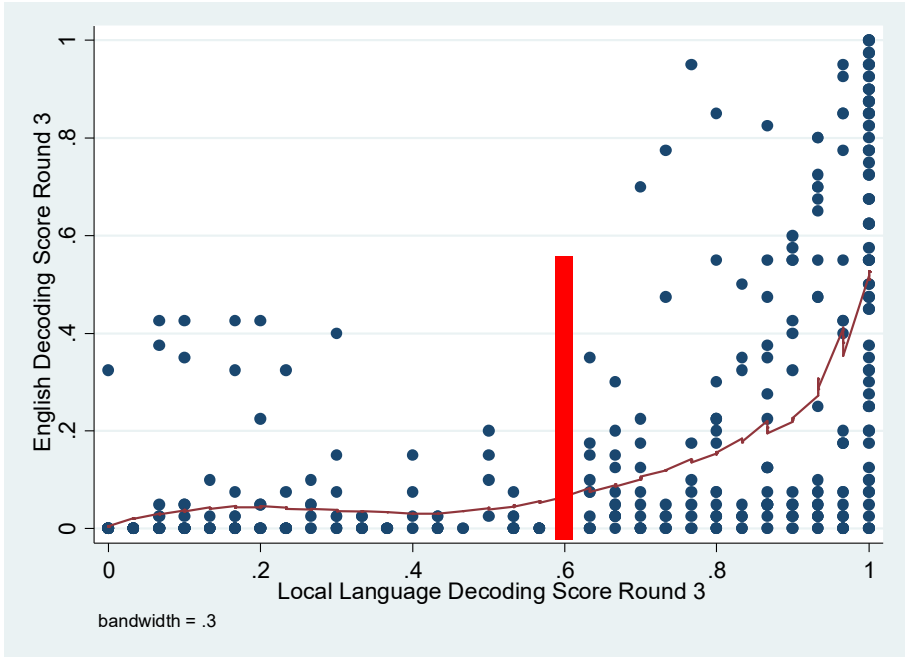
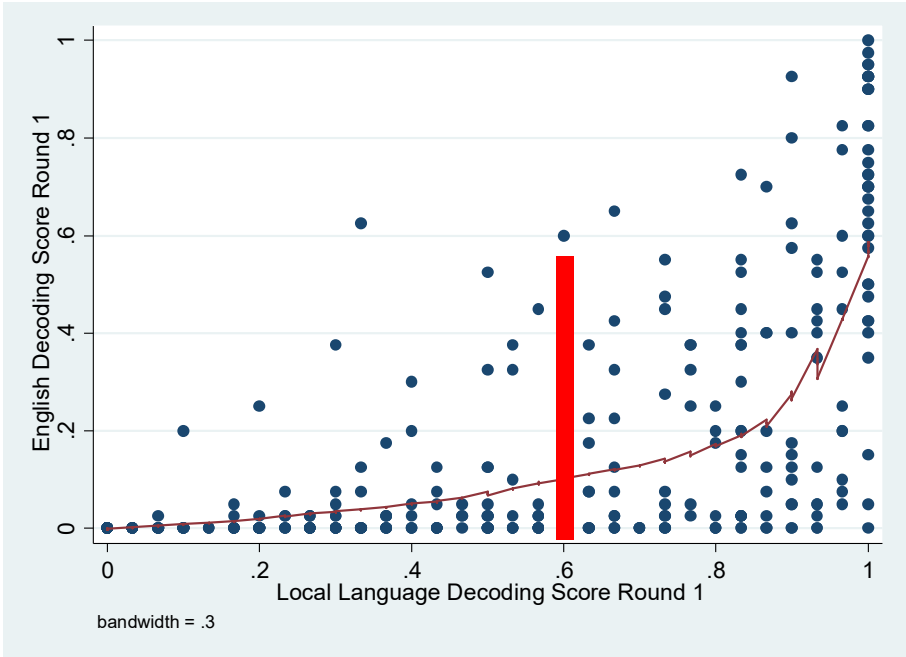
THOMAS DE HOOP
PRINCIPAL ECONOMIC RESEARCHER
202.403.5803
TDEHOOP@AIR.ORG

MAKING
RESEARCH
RELEVANT

THANK YOU

Results from India

Is there a threshold for L1- L2 transfer?



Results from India: L1-L2 Threshold regressions

	Round 1 Score, English, Below Threshold	Round 1 Score, English, Above Threshold	Round 3 Score, English, Below Threshold	Round 3 Score, English, Above Threshold
Local Language Decoding Score, Round 1	0.138** (0.0450)	0.733*** (0.147)		
Local Language Decoding Score, Round 3			-0.00688 (0.0382)	0.847*** (0.135)
Constant	0.298** (0.0934)	0.00555 (0.311)	-0.0356 (0.0709)	-0.205 (0.230)
Control Variables	Yes	Yes	Yes	Yes
Observations	174	162	181	240
R ²	0.357	0.595	0.376	0.575
Adjusted R ²	0.278	0.540	0.302	0.539

Note. Standard errors are presented in parentheses. Observations are below threshold if the local language score is < 0.6. Controlled for age, gender, school, grade, urbanacity, and state.
p* < .05. *p* < .01. ****p* < .001.

Results – Grade levels and Thresholds

