

# Is generalized impact of learning outcomes explained by positive deviance?

The challenge of social norms on the scaling of early grade reading programs

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# Response to Educational Change — Guess the country?

“

*Trouble was in the initial stages no-one knew how the whole thing would work out in practice.*

*It was like jumping into the unknown, and suddenly everything you knew and did was wrong. It demoralized teachers, so they got defensive.*

*I was running training days without really knowing what was going to happen.*

*Every school had to find its way through, which took \*\*\*\*\*  
— a bit like COVID.*

”

**Regional early grade literacy advisor**

# Background I — Purpose of this Study

Study implementation effectiveness of Early Grade Reading Programs:

- Over time
- Across schools

Align a **behavioral science lens** with systems thinking to develop a deeper understanding of variation in implementation:

- Specifically, how **different** teachers respond to **change** within an education system.



# Background II – Early Grade Reading Programs

USAID supports numerous Early Grade Reading (EGR) Programs in LMICs. These program work through local education ministry systems.

Typical program components include (but not limited to):

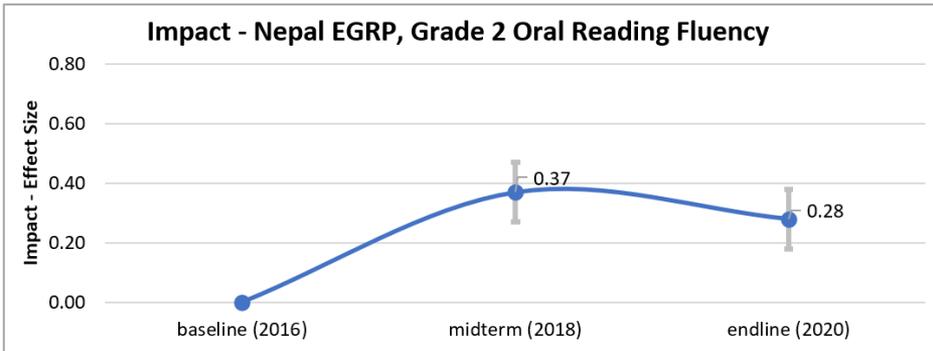
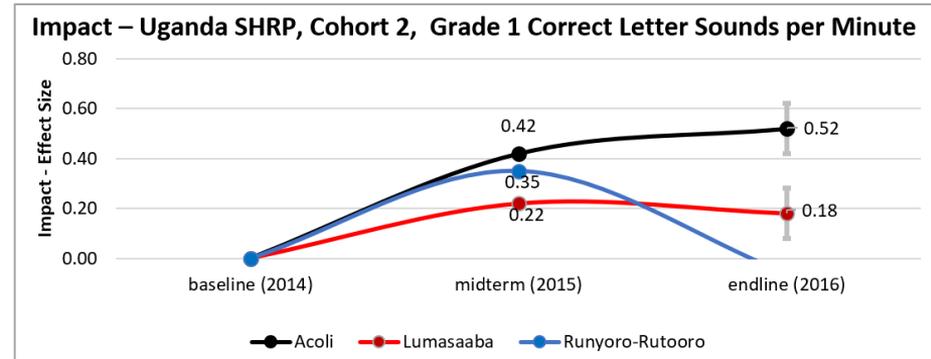
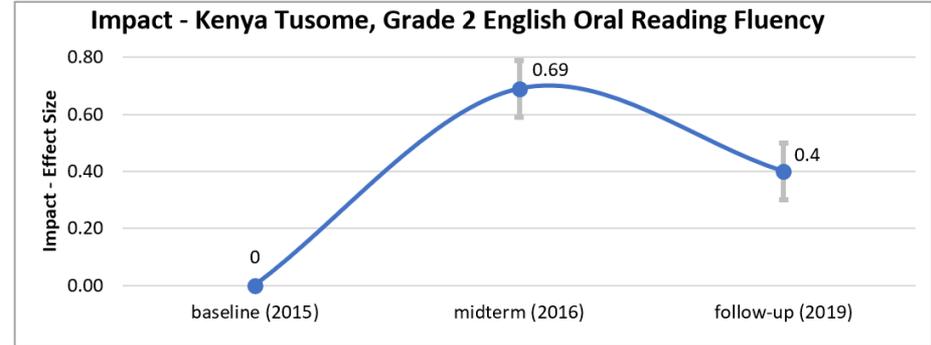
- the development and distribution of classroom teaching and learning materials
- teacher training
- follow-up teacher support

These programs range in size from small pilots to national scale.



# Impact Over Time

No case of an EGR program with demonstrated improved impact multiple time points.



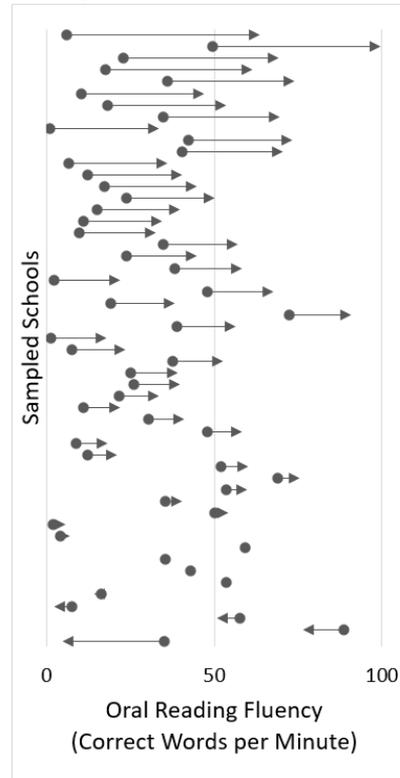
# Impact Evaluation – Variation Across Schools

## School-level Average Gains

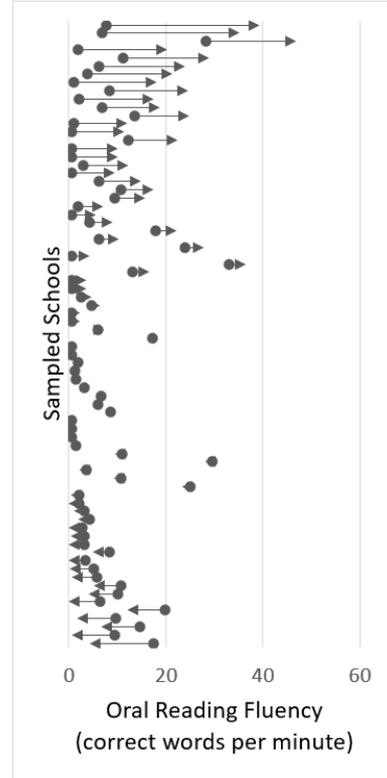
80% of impact is explained 13% to 34% of schools.

How do these **different** teachers respond to **change** within an education system?

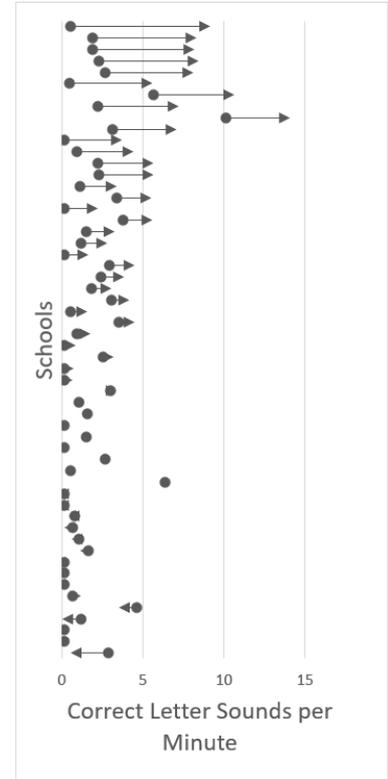
Kenya Tusome, Grade 2, 2015-2016



Nepal EGRP, Grade 2, 2016-2020



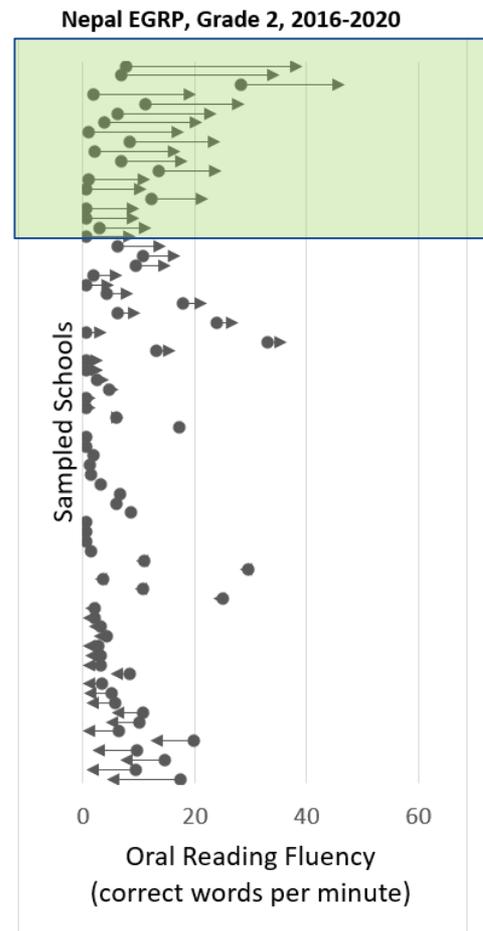
Uganda SHRP, Grade 1, 2014



# We studied the Positive Deviants in Nepal

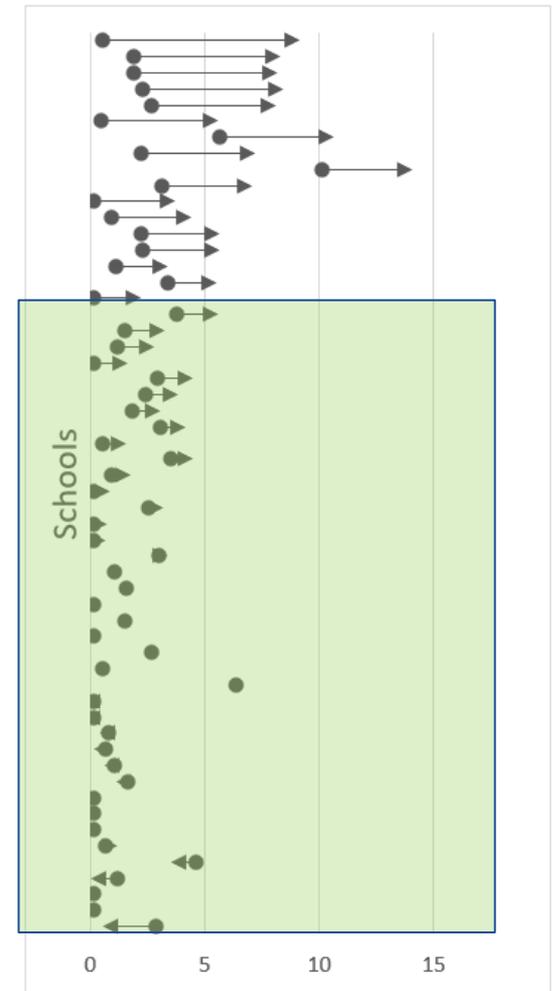
- Limited qualitative study in eight schools in Nepal
- The positive deviant(s) varied – teacher, head teacher, community member.
- All had positive personality characteristics similar to Rogers' early implementors (2003)
- e.g., communication behavior, rational, empathy, ability to deal with abstraction, etc.

**Next, we studied the schools in Tanzania with low impact on student learning...**



# Qualitative Data Collection — Jifunze Ulewe EGR Program in Tanzania

- Research framework **blends a systems approach** with **behavioral science** that focuses on educational change
- Selected 12 schools based on mostly **low performing schools** in rural Iringa and Morogoro – 17 teachers (grades 1 & 2)
- **Classroom observations** of teachers used to inquire about teaching approach during Teacher interview
- **Teacher interview**



# Findings I — teacher perception of the program

After six years of implementation all the teachers had a **positive perception** of the EGR Program.



Superior to their prior approach



Easy enough to understand and implement



Mandatory



Observed others teaching program



Compatible with prior approach & adaptable for context

# Findings II — Education Systems

The majority of teachers...



...could describe the **student learning expectations**.



...felt they had **support**.



...described their **learning** process for improving their classroom instructional practice.

# Findings III — Teachers . . .



## Reflection on practice

...believed their students participated in an interactive classroom environment.



## Achieving expectations

...believed that the majority of their students would achieve the academic expectations by the end of the year.



## Modifying or adapting program

...were all observed modifying the program in the same way.

# Conclusions I — Contradictions

- Positive education system characteristics
- Poor learning outcomes



Teachers are unaware of their actual level of achievement of their students



Teachers were focused on curriculum delivery, but not pedagogy



Student learning was not focused on **results**



Teacher learning was not focused on **results**

## Conclusions II — Behavioral Science

- **Social Norm** – all the teachers observed adopted the phonics-based reading content, but kept their **default** ineffective pedagogy
- Teachers applied a **heuristic** short-cut that requires a much lower **mental effort**
- Suggestion of teacher **cognitive dissonance**
- Consequently, the teachers are now content

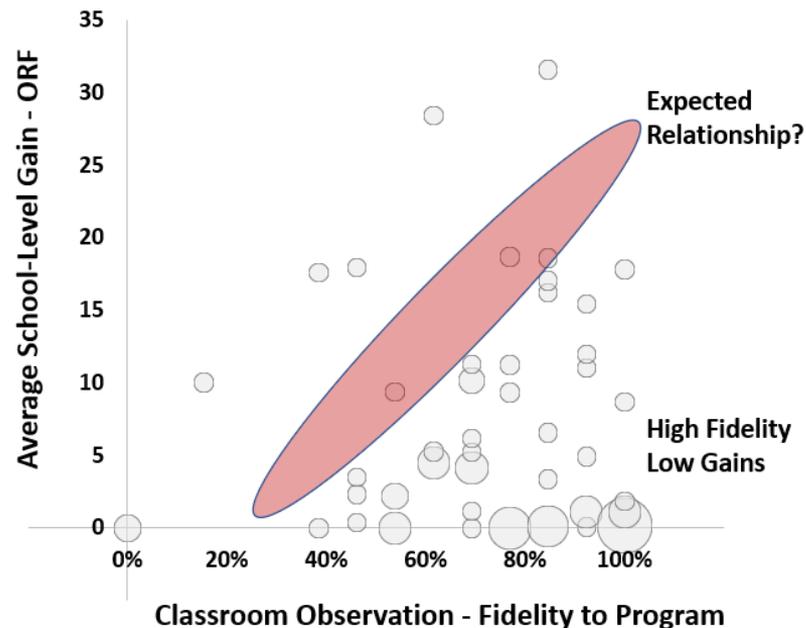


# External Coach - Classroom observations in Nepal

The teachers in this study would score adequately using a typical fidelity classroom observation.

- ✓ Lesson plan
- ✓ Classroom management
- ✓ Classroom environment (e.g., print rich)
- ✓ Supportive learning environment
- ✓ Student participation
- ✓ Teacher checking for student understanding
- ✓ Student feedback given

**School-Level Analysis**  
**Nepal Early Grade Reading Program, 2018**



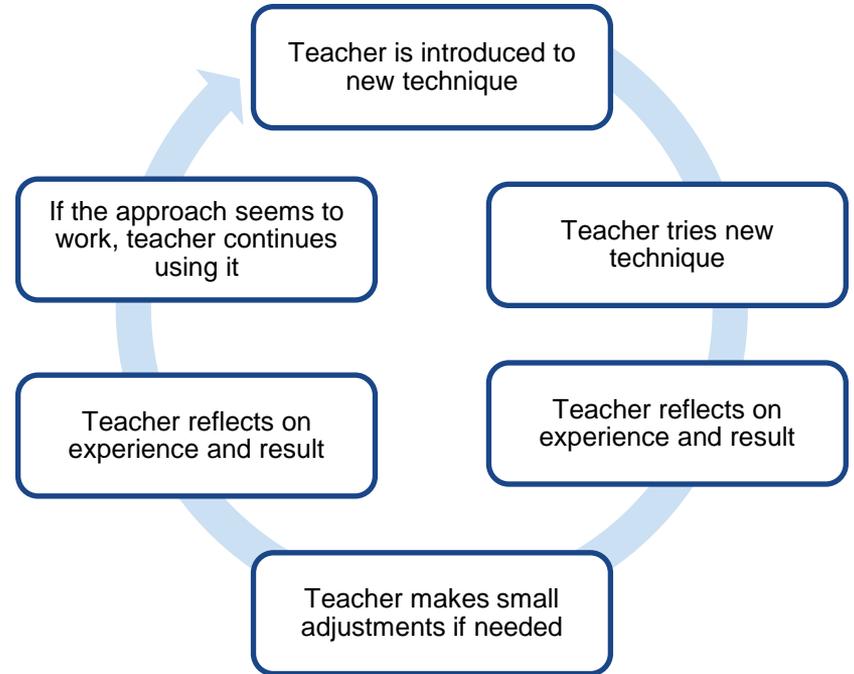
$N=78, r=0.285 (p=0.02)$

# Recommendation: The role of statistics is to describe variation

**Then, our understanding of variation of teacher response to change should be applied to intervention designs.**

**Example:** Guskey's (1986) model of teacher change

- Guskey's model of change suits rational personality types in certain environments.
- For most teachers, educational change is emotional, messy, and disruptive.



## Next Steps for Research — Behavioral Science

“

Lewin (1997) suggested that to achieve behavior change; there is a good way and bad way to do it.

The bad way is to increase the driving forces, such as incentives and implementation components, while the good way is to **diminish the restraining forces**.

This approach, according to Kahneman (2011), is profoundly counter-intuitive.

”

Anon

# Next Steps for Research — Educational Change

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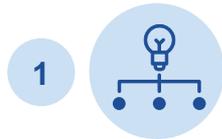
*The problem is that no nation has improved by focusing on individual teachers as the driver.*

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**Michael Fullan**, *The New Meaning of Educational Change*, 2015, p.43

# Next Steps for Research — Social Network Analysis

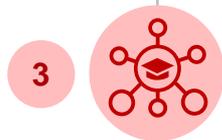
Top-down  
introduction of EGR  
Programming



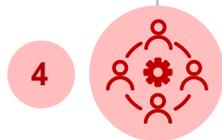
1 Centralized introduction of effective pedagogy



2 Effective pedagogy adopted by small percentage of positive deviant teachers



3 Strengthen and support networks within and across school to diffuse effective pedagogy



4 System facilitates a focus on collaboration



5 System facilitates a focus on learning for results

Diffuse effective  
pedagogy from  
the ground-up

# Thank You!

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