

# Lessons from TCAI and lessons to come from STARS



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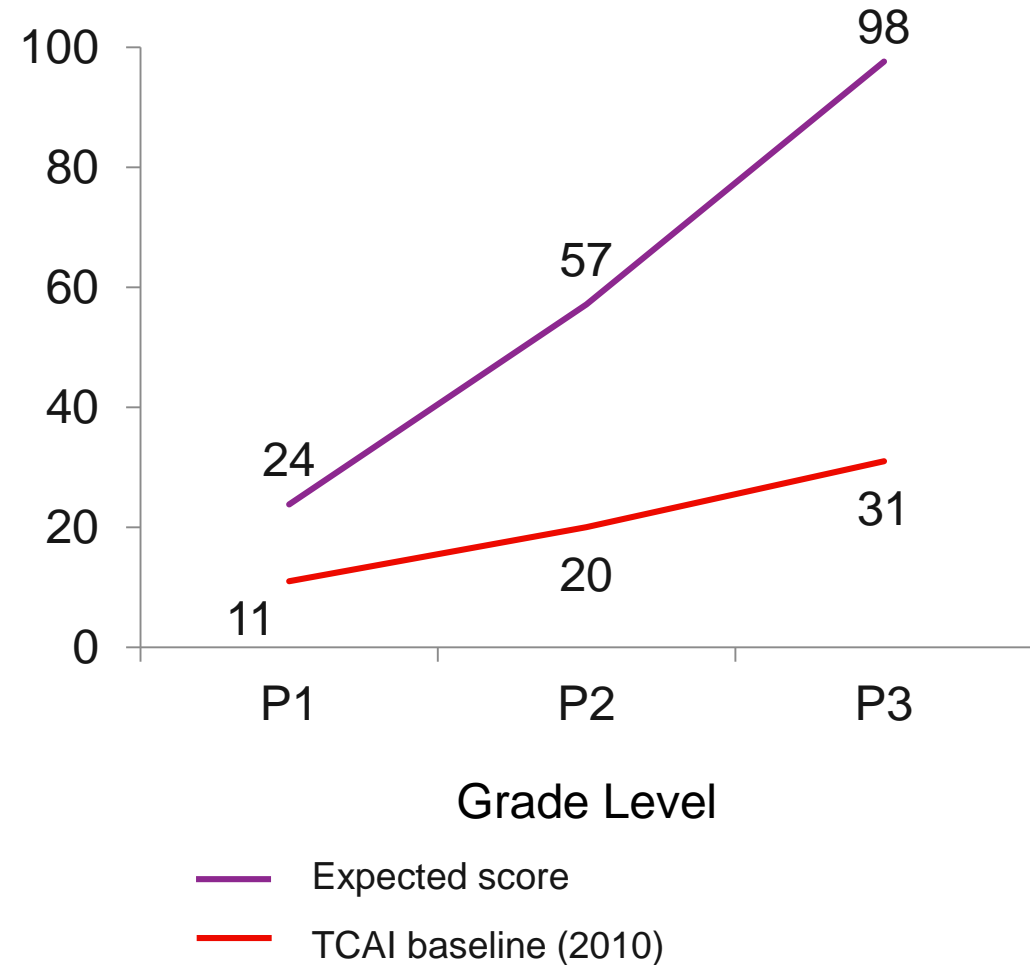
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# Motivation I: Learning Gaps

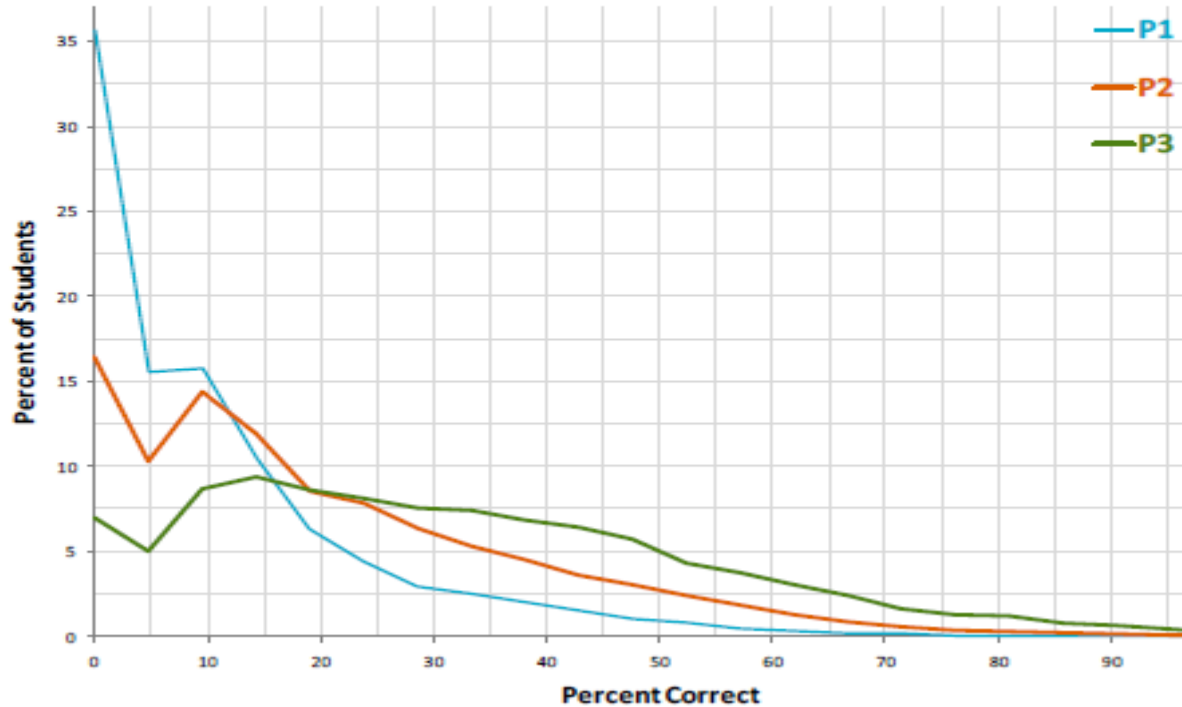
Dede and Hawa like flowers.  
They plant seeds.  
They water the seeds.  
Plants begin to grow.

## English Test Scores

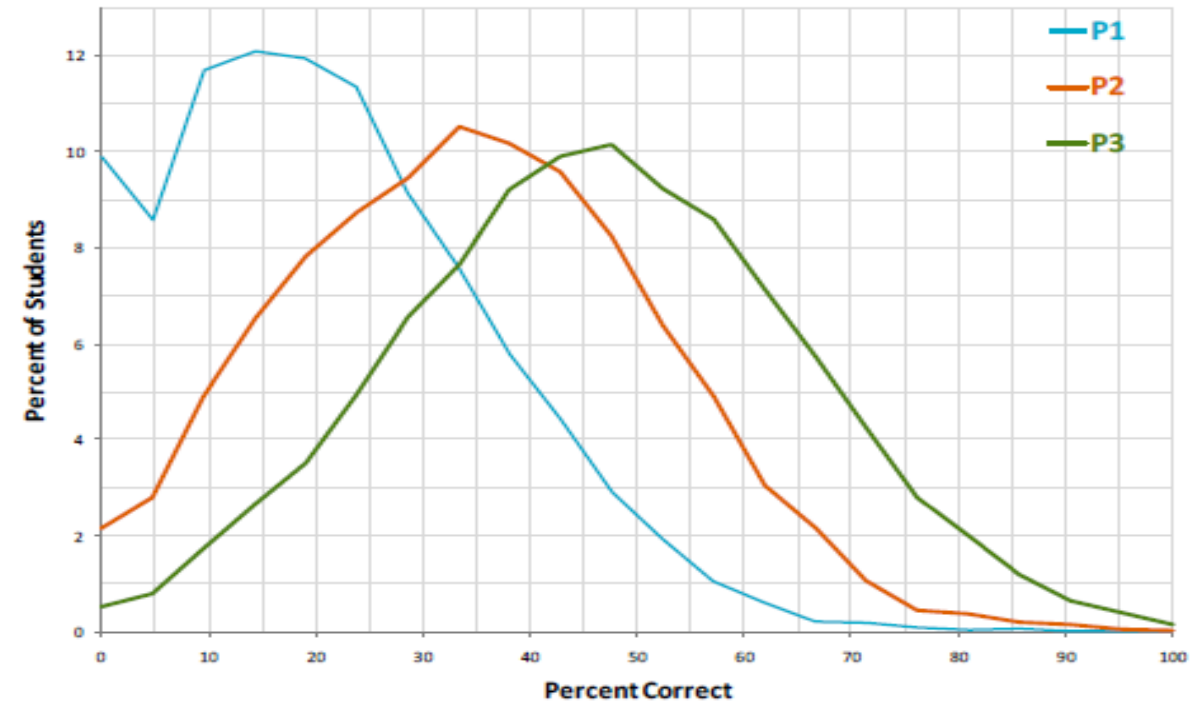


# Motivation 2: Heterogeneous Learning Levels

English

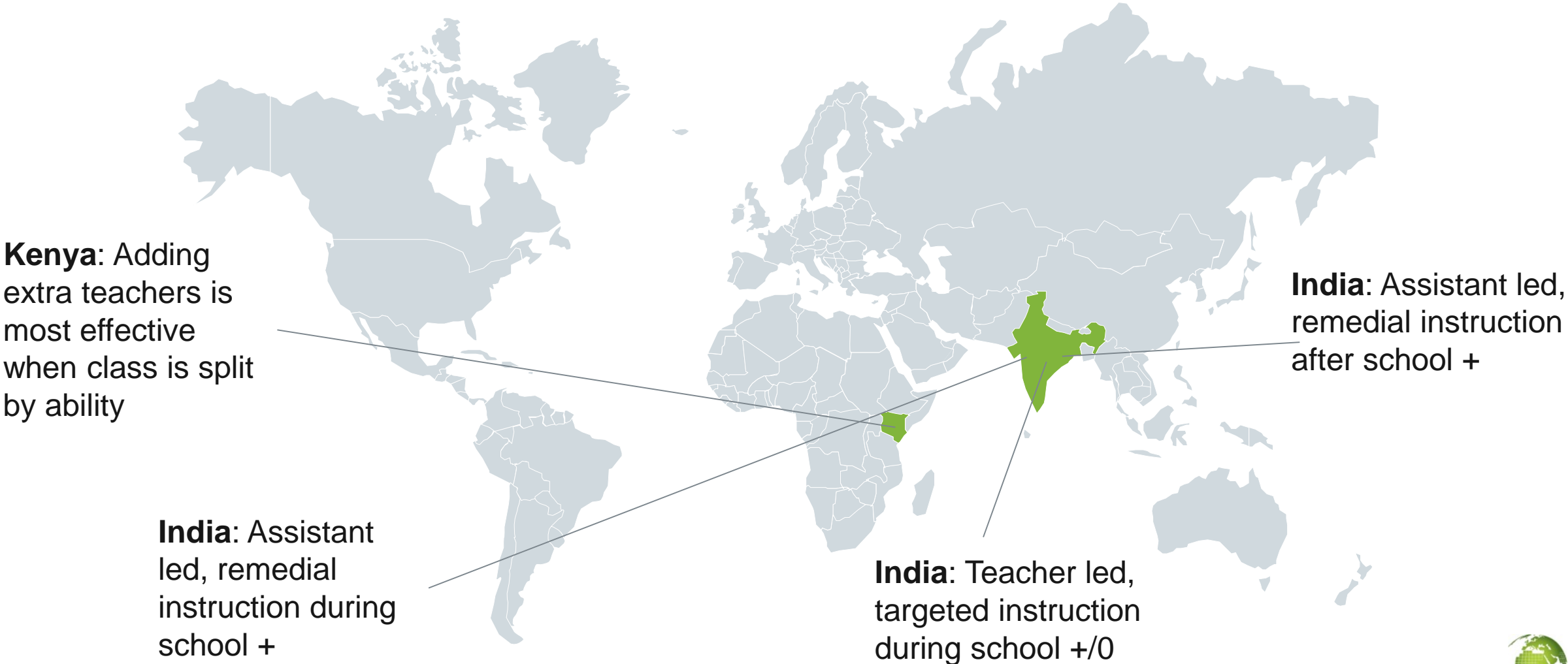


Math



# Motivation 3: Existing Evidence on Targeted Instruction

Focusing Instruction at the Right Level is Key



# TCAI

## Teacher Community Assistant Initiative

- Partnership with government stakeholders—GES, NYEP, GNAT
- Focus on lower primary school learners—P1-P3
- Math, English, and local language
- Employ National Youth Employment Program as assistants
- Minimal monitoring and supervision
- Use a randomized controlled trial throughout Ghana to test 4 models



# TCAI – the Models

## Teacher Community Assistant Initiative

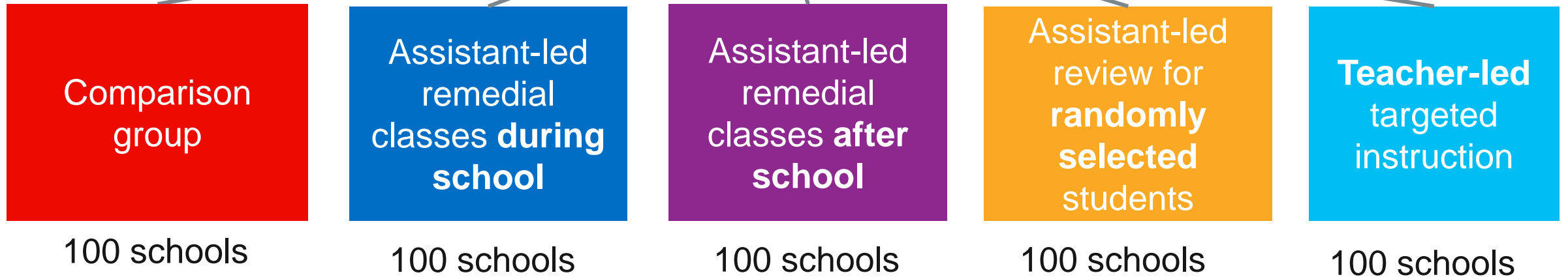
- All 4 models receive
  - 5 day training
  - Teaching materials and techniques—not scripted
- **Who** (assistant vs. teacher), **when** (during vs. after school), and **for whom** (random split vs. remedial vs. everyone) **varies** by model.



# Evaluation Design

500 schools  
across 42 districts  
in all 10 regions

Randomly allocated to :



9 rounds of data collection reached 42,000 pupils





Results from TCAI



# Overview

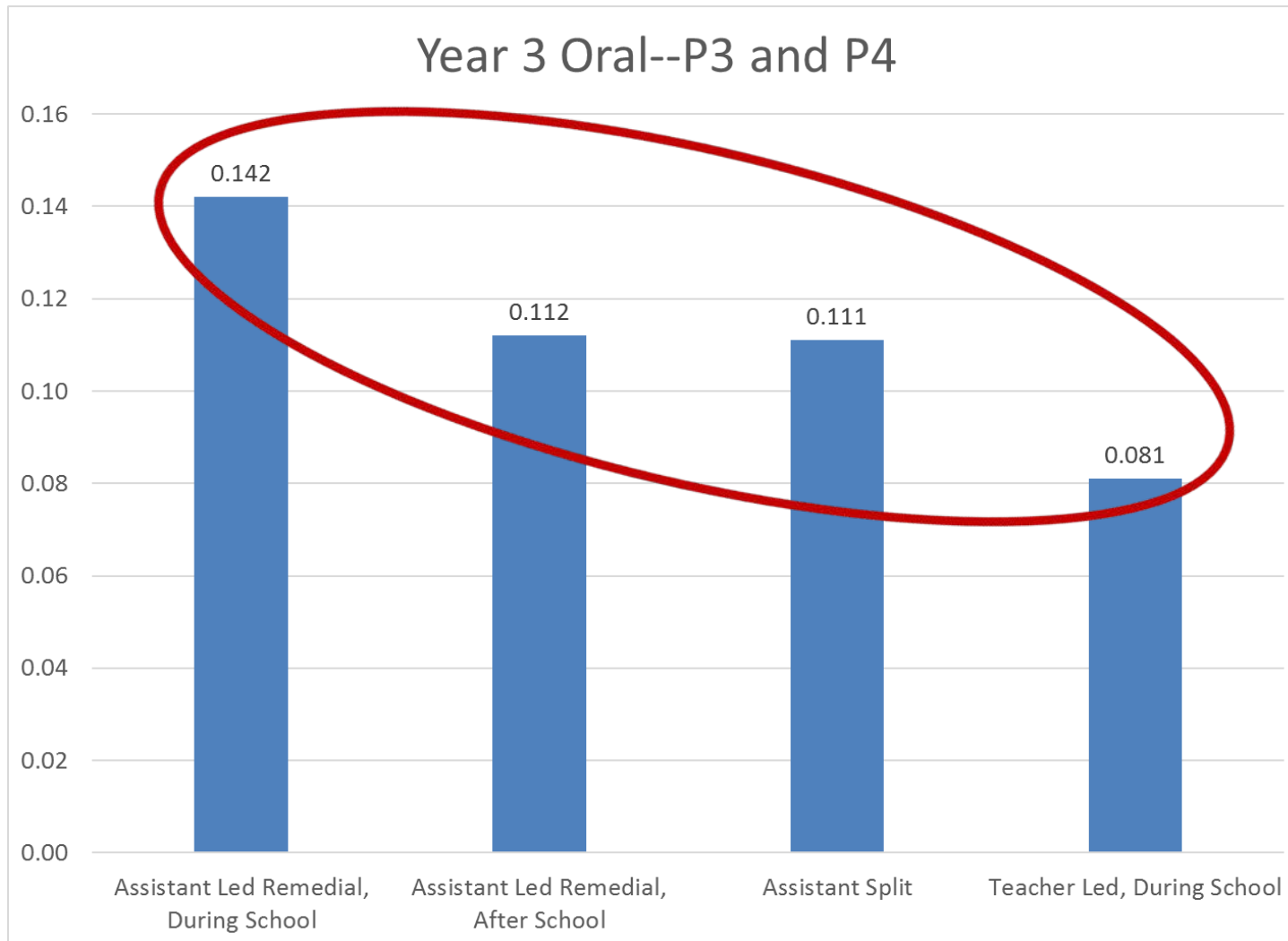
Mostly Positive, Largest Effect on Oral Tests

Through 9 rounds of data collection we find

- Year 2: Small positive test score effects for assistant-led remedial (implementation delays)
- Year 3: Larger (not huge) test score effects for all interventions on oral questions
- Similar test score effects for students one year out of program (P4)
- Written, harder questions—mixed results, only assistant-led remedial
- No change in student attendance, drop out, or progression
- Teachers in teacher-led model 10pp more likely to be engaged with students (present at same rate)



# Oral Tests, End of Year 3

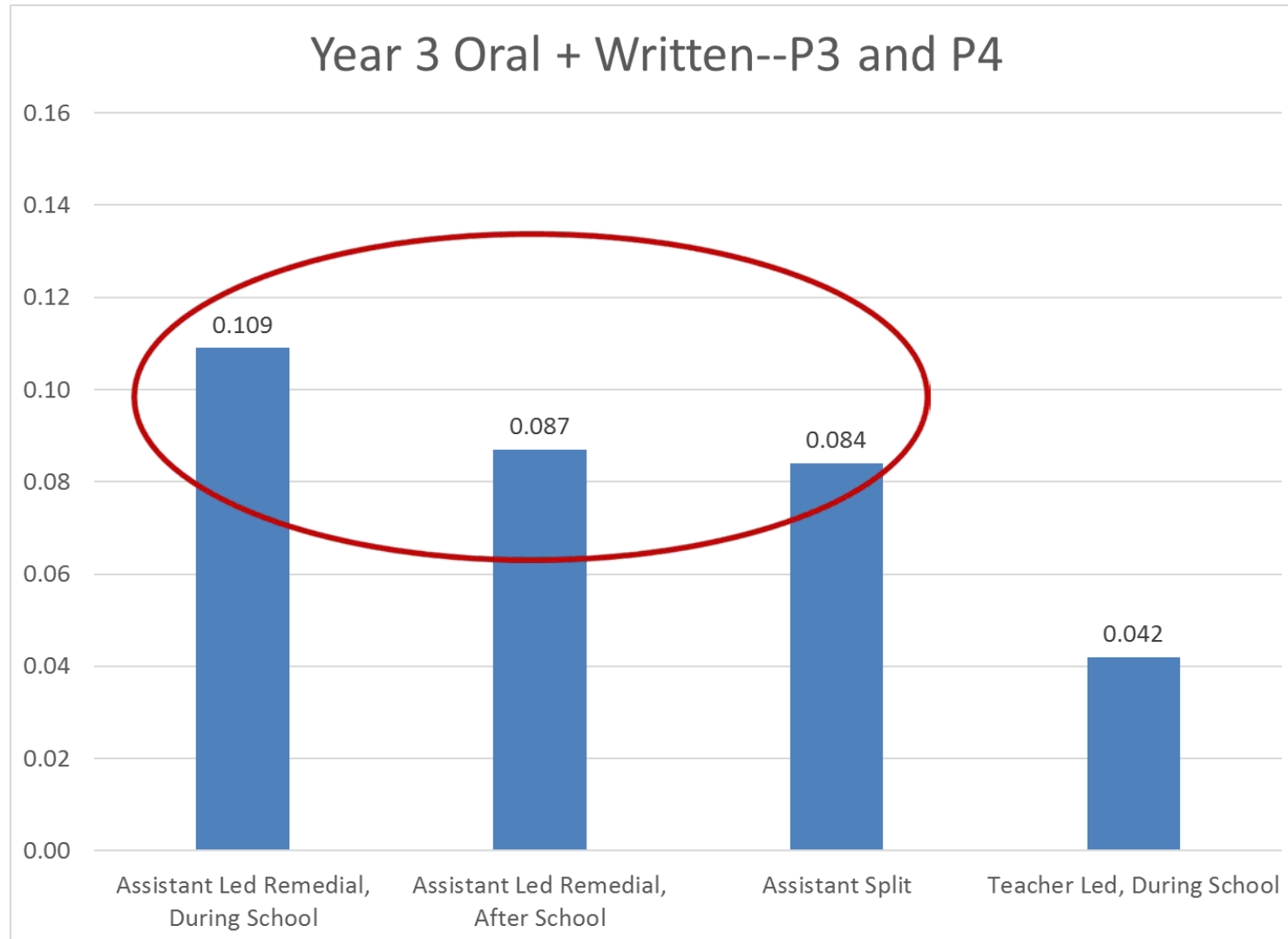


All statistically different from control.

None statistically different from each other.



# Oral + Written Tests, End of Year 3

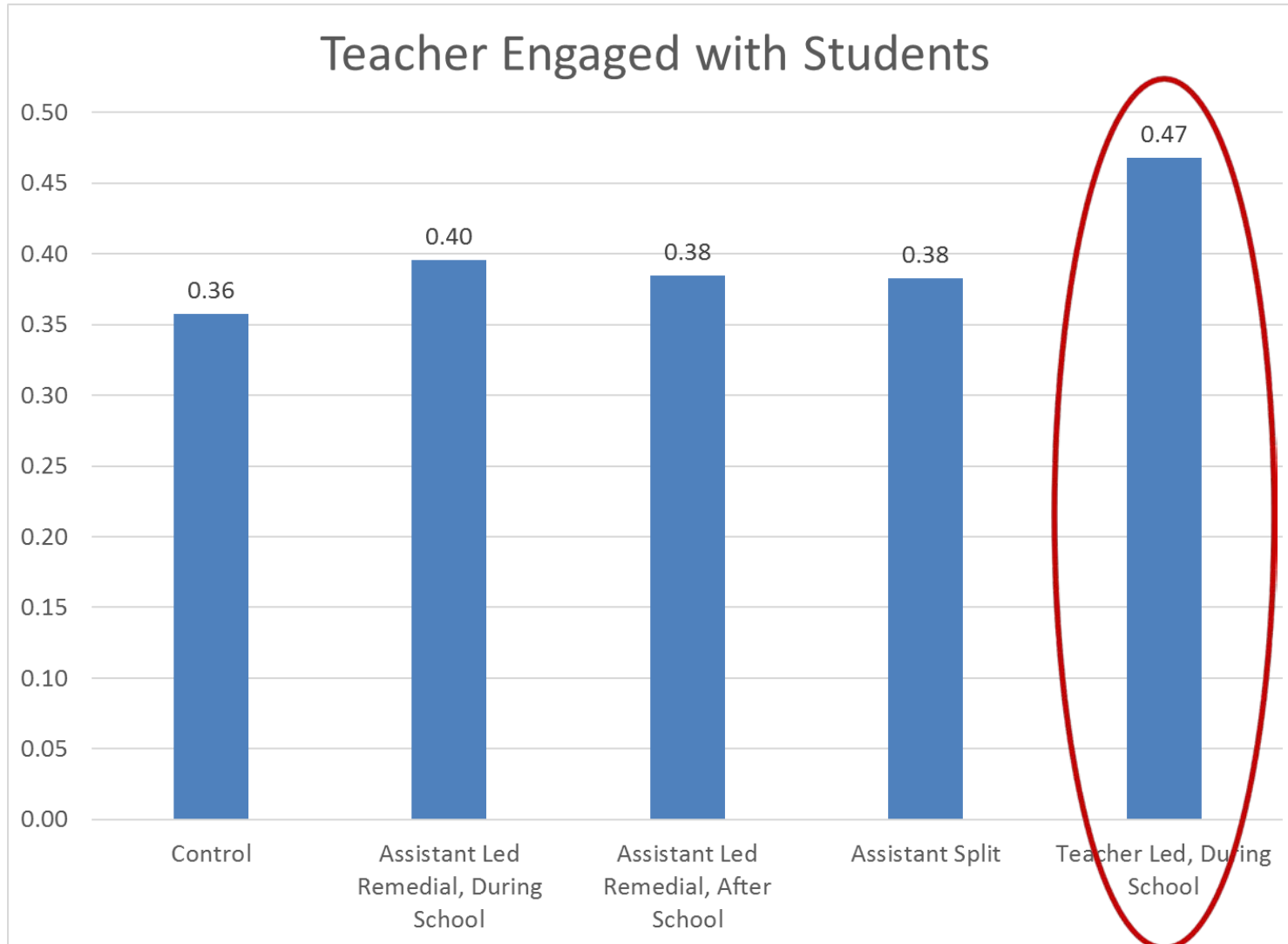


Assistant interventions statistically different than control.

Assistant led remedial during school statistically different than teacher-led.



# Teacher Engagement

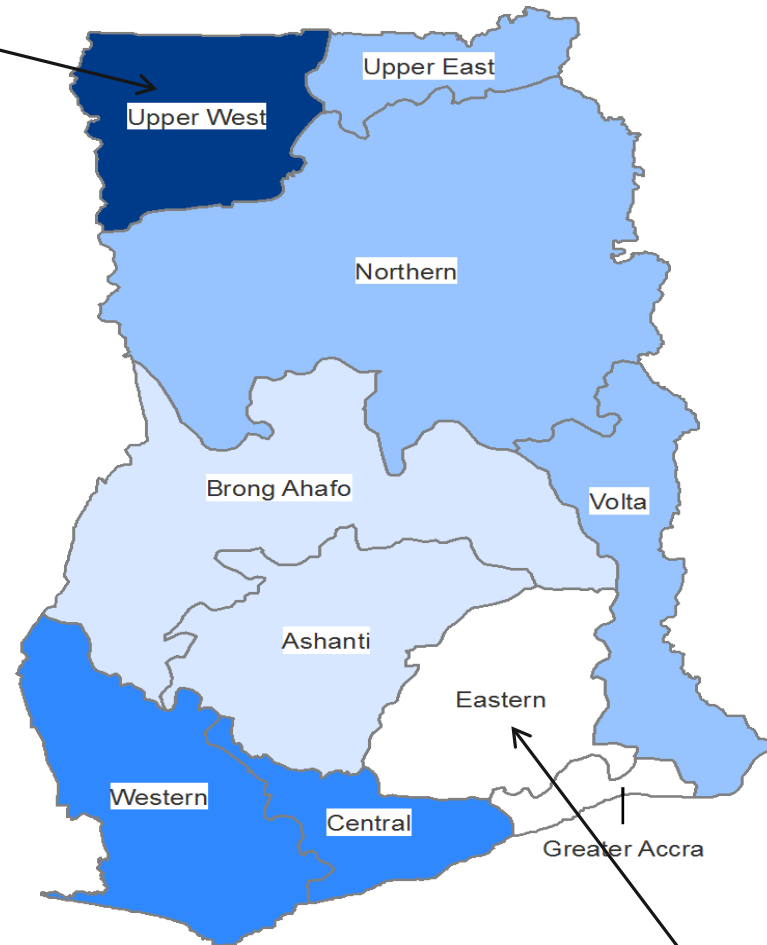


Teacher-led statistically different than others.



# Regional variations correlated with implementation variations

More effect



Less effect

Does better  
implementation  
improve student  
outcomes?

**STARS!**





# The Way Forward—STARS

# STARS

Strengthening Teacher Accountability to Reach all Students

When Teacher-led Targeted Instruction goes to scale—provide more support to teachers

- Head Teachers
- Circuit Supervisors
- Help Desk
- SMS push messages
- What's App learning communities



# STARS

Partnership --  
MoE (GES,  
NIB, NTC,  
NaCCA)  
UNICEF, and  
IPA

Builds on the  
TCAI  
teacher-led  
model

Targets P4 –  
P6 pupils in  
20 UNICEF  
districts

Equips  
teachers to  
teach at the  
level of the  
child

Will test  
importance of  
support





# Evaluation Design

Control

Business as  
usual

Intervention1

Targeted  
Instruction

Intervention2

Targeted  
Instruction +  
Enhanced  
Management

(Head-Teacher &  
Circuit Supervisor)

# Randomization Scheme

20 UNICEF-supported Districts  
(142 Circuits)

No Management Intervention  
(71 Circuits)

Management  
Training  
[CS + HT]  
(71 Circuits)

No Teacher  
Training  
(71 schools)

Teacher TI  
Training  
(71 schools)

Teacher TI  
Training  
(71 Schools)



# STARS Interventions

## Overview

Interventions /Activities	Trainings	Manuals & Materials	Text Messages	Help-Desk	Peer-Learning Activities
<b>Control Group</b> <i>(business as usual)</i>					
<b>Intervention 1</b> <i>(Targeted Instruction)</i> <i>Teachers P4 through P6</i>	X	X			
<b>Intervention 2</b> <i>(Targeted Instruction + Enhanced Management)</i> <i>CSs + HTs</i>	X	X	X	X	X



# STARS

## Research Questions



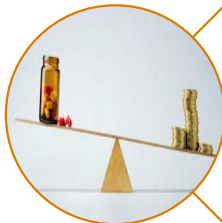
Does targeted instruction improve student test scores in upper primary grades?



Can support from existing circuit supervisors and head teachers change the likelihood that teachers implement targeted instruction?



Does extra support increase learning gains?

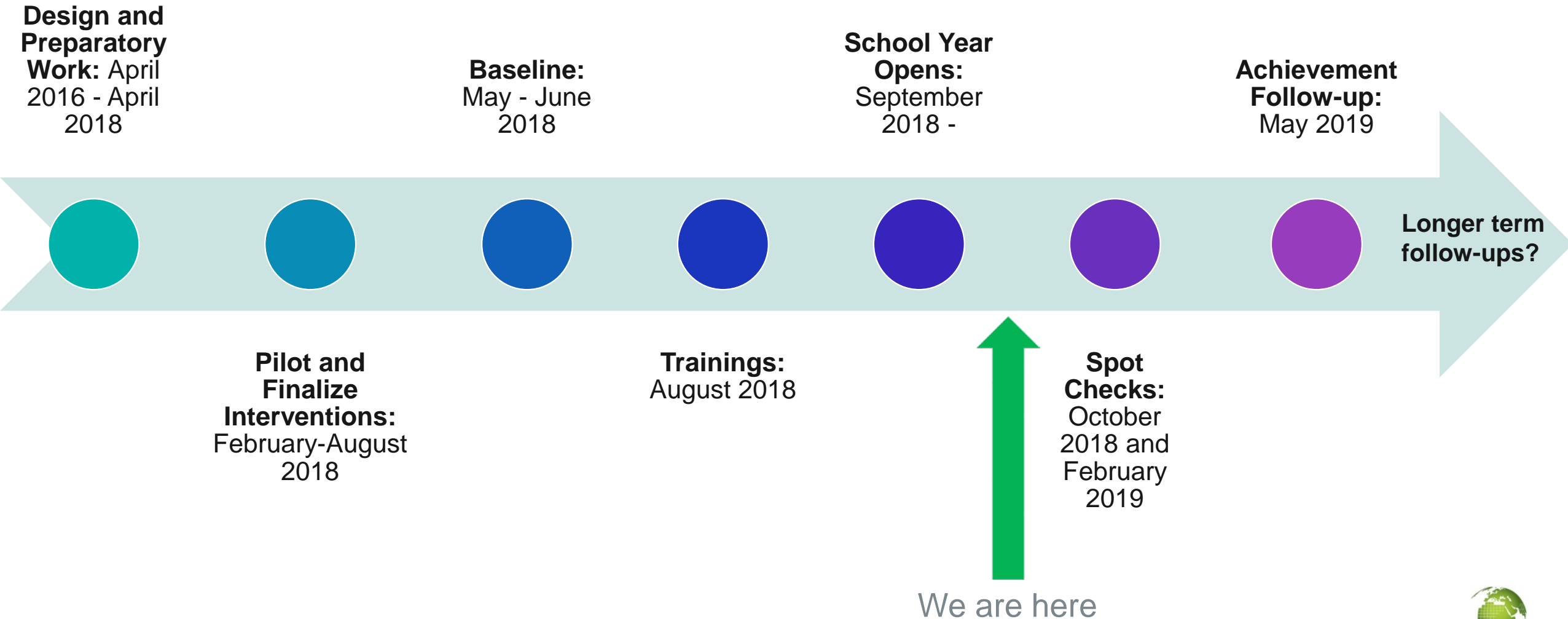


What is the cost-effectiveness of targeted instruction alone as compared to targeted instruction with enhanced management training?



# STARS Timeline Overview

## Implementation & Evaluation



# Some of the Other Tremendous People Involved

- Many government partners—Ministry of Education, Ghana Education Services (**Cynthia** Efua-Sam), National Inspectorate Board, National Teachers Council, National Council for Curriculum and Assessment
- UNICEF (**Muna** Sikaulu)
- Innovations for Poverty Action (IPA) Ghana Office (**Madeleen** Husselman and **Joyce** Jumpah)
- PIs Annie Duflo (IPA) and Jessica Kiessel (IPA) on TCAI; Sabrin Beg (University of Delaware) and Anne Fitzpatrick (University of Massachusetts) on STARS



# Let's Continue the Conversation

## What questions/comments do you have?

If you think of them later: [alucas@udel.edu](mailto:alucas@udel.edu)

