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Timeline

2018-2021

Study Status

Results

Study Type

Randomized Evaluation

Sample Size

210 schools

Research Implemented by IPA

No

Managing to Learn

Sabrin Beg, Anne Fitzpatrick, and Adrienne M. Lucas*

August 16, 2023

Abstract

To achieve significant improvements in public services, relevant civil servants must implement effective reforms. Our randomized controlled trial demonstrates that public sector managers can signal the importance of reforms through their personal effort, affecting change like a leader would. We compared three groups: T1) training teachers in a new pedagogy (Differentiated Instruction) and providing managers with opportunities, primarily a classroom observation tool, to signal their costly effort; T2) T1 with additional manager training to enhance managers' people management skills; and a control group. Both interventions increased Instructional Management by 0.2SD and student test scores by 0.1SD, 20 percent of a learning year. T2 differentially improved People Management but not productivity. Management improvements persisted for at least one year and student test score gains at least two years. Managerial practices can be improved with existing public sector personnel but only improve output when worker effort changes. These results provide insight into how to implement proven interventions at scale in the public sector.

JEL Codes: H40, I25, I28, M53, M54, O15, O43

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Facilitating real-time cost collection and evaluating cost-effectiveness in a multi-armed study with government partners in Ghana

Shahana Hirji, Bethany Park, Edward Tsingio, Sabrin Beg, Anne Fitzpatrick & Adrienne Lucas

To cite this article: Shahana Hirji, Bethany Park, Edward Tsingio, Sabrin Beg, Anne Fitzpatrick & Adrienne Lucas (2022) Facilitating real-time cost collection and evaluating cost-effectiveness in a multi-armed study with government partners in Ghana, Journal of Development Effectiveness, 15(1), 31-42, DOI: [10.1080/19439342.2021.2024589](https://doi.org/10.1080/19439342.2021.2024589)

To link to this article: <https://doi.org/10.1080/19439342.2021.2024589>

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Published online: 25 Jan 2022.

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Cost-effectiveness Analysis Paper



Strengthening Teacher Accountability to Reach all Students (STARS) Qualitative Study

Renaud COMBA
CIES 2018
28th March, 2018



Presentation



The Importance of Management Support for Teacher-Led Targeted Instruction in Ghana

This brief presents findings from the baseline survey conducted between May and June 2018 for the Strengthening Teacher Accountability to Reach All Students (STAR5) project, a randomized evaluation measuring 1) whether teacher led targeted instruction increases student achievement in upper primary grades and 2) how additional managerial support from head teachers and circuit supervisors can increase the likelihood that teachers implement targeted instruction in their classrooms. The data are drawn from 210 schools, 140 circuit supervisors, 209 head teachers, 671 P4 through P6 teachers, and 5,894 P4 and P5 pupils from 20 districts and seven regions in Ghana. Preliminary results from the evaluation are expected in October 2019.

Researchers: Sabrin Beg, Anne Fitzpatrick, Adrienne M. Lucas
Partners: Ghana Education Service, The National Council for Curriculum and Assessment, The National Inspectorate Board, UNICEF
Country: Ghana
Timeline: 2018-2019
Sample: 210 government primary schools

Key Insights

1. School-level statistics across the sampled schools showed an average pupil:teacher ratio of 36:1, that is, 36 pupils for every teacher. The largest pupil:teacher ratio was 102 pupils per teacher while the smallest pupil:teacher ratio was five students per teacher. Large class sizes in some schools could have negative implications for classroom management, quality of instruction, and the overall performance of pupils.

2. Pupils in primary 4 and 5 generally scored poorly in the baseline language and mathematics assessment, especially in oral reading fluency and comprehension as well as performing simple division operations.

- A sizable proportion of the pupils in primary 4 and primary 5 struggled with recognizing four-letter words compared to three-letter words. Sixty-nine percent of pupils correctly identified all five three-letter words, while only 16 percent could correctly identify all seven four-letter words. On average pupils could recognize 82 percent of the three-letter words and only 55 percent on the four-letter words.
- Pupils had difficulty with oral reading fluency, which also influenced their reading comprehension ability. Eighty-four percent of pupils could not read a five-sentence passage orally fluently aloud within 45 seconds and without making more than two mis-takes.

Pupils' Ability to Answer Reading Comprehension Questions



• Answered no questions
 • Correctly answered one question
 • Correctly answered two questions

Almost 80 percent of pupils could not correctly answer any of the post-reading comprehension questions because they were either unable to read the passage or did not understand it. Reading fluency is closely related to reading comprehension. Of those who could not read the passage aloud, 94 percent could also not answer either question about the passage. These results demonstrate that pupils' have low reading fluency skills that limits their ability to comprehend written passages.

Project Brief

The Importance of Management Support for Teacher-Led Targeted Instruction in Ghana



A teacher with students in a classroom, photographed during an IPA study in Ghana. ©2019 IPA

In partnership with IPA Ghana, the Ghana Ministry of Education, and UNICEF, researchers conducted a randomized evaluation that showed that engaging school principals and supervisors to improve their monitoring and support for teachers substantially increased the implementation of Differentiated Instruction in classrooms. As a result, student test scores in English and math increased by one-third of a school year. Both the increased test scores and the improved management persisted after the intervention ended.

In Ghana, 70 percent of students are below grade level in literacy and math.¹ Differentiated Instruction—one of the most rigorously tested interventions to improve learning—teaches students at their learning level for part of the day, with positive results across contexts.² However, a previous study in Ghana found that only five percent of public schools implemented it, with evidence suggesting that a lack of oversight and support for teachers to adopt it in their classrooms contributed to this.³

In collaboration with IPA Ghana, the Ghana Ministry of Education, and UNICEF, researchers conducted a randomized evaluation to assess whether engaging school managers (principals and circuit supervisors, supervisors of groups of about 10 geographically close schools) to improve their management practices increased the implementation of Differentiated Instruction in classrooms. A total of 210 public primary schools across Ghana were randomly divided into the following groups:

1. **Differentiated instruction + school manager signaling:** Teachers and school managers were trained in and given materials for Differentiated Instruction. School managers conducted 30 minute classroom observations and completed forms highlighting the most important aspects of differentiated instruction to signal to teachers it was important, valued, and would improve test scores.
2. **Differentiated instruction + additional school manager training:** Teachers and school managers received the same as above. School managers received additional training on effective people management and reminder sessions to support teachers.
3. **Comparison Group:** Schools continued their usual instruction.

Results showed that both interventions nearly doubled the likelihood that head teachers and school circuit supervisors observed teachers in their classrooms for more than 30 minutes (74 percent relative to the comparison group mean of 39 percent) and increased implementation of Differentiated Instruction. While management measures improved for both groups, schools in Group 2 had sustained improvements in management practices. In turn, student test scores in English and math increased by one-third of a school year, with effects persisting for two years after the intervention. Starting in 2022, the Teacher Training and Management Effort intervention was being scaled to 10,000 schools in Ghana.

Sources

¹ World Bank. World development report 2018: Learning to realize education's promise. The World Bank, 2017.

² Banerjee, Abhijit V., Shawn Cole, Esther Duflo, and Leigh Linden. "Remedying education: Evidence from two randomized experiments in India." *The quarterly journal of economics* 122, no. 3 (2007): 1235-1264.

Banerjee, Abhijit, Rukmini Banerji, James Berry, Esther Duflo, Harini Kannan, Shobhini Mukerji, Marc Shotland, and Michael Walton. "From proof of concept to scalable policies: Challenges and solutions, with an application." *Journal of Economic Perspectives* 31, no. 4 (2017): 73-102.

Evans, D K, and A M Acosta (2023), "How to recruit teachers for hard-to-staff schools: A systematic review of evidence from low-and middle-income countries," *Economics of Education Review*, 95: 102430.

³ Duflo, Annie, Jessica Kiessel, and Adrienne Lucas. Experimental evidence on alternative policies to increase learning at scale. No. w27298. National Bureau of Economic Research, 2020.

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