Innovations for Poverty Action

Researchers
Adrienne M. Lucas
Lerner College of Business and Economics, University of Delaware

Sabrin Beg
University of Delaware

Anne Fitzpatrick
The Ohio State University

Staff
Renaud Comba
Policy Manager

Edward Tsinigo
Research Manager, Ghana

Henry Atimone
Senior Research Associate

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Results

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Yes

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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 Tsinigo, Sabrin Beg, Anne Fitzpatrick & Adrienne Lucas

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

Abstract

Ghana, like many countries in sub-Saharan Africa, has greatly expanded access to primary school in the last two decades, but very few children meet academic standards for their grade. A recent evaluation found that the Teacher Community Assistant Initiative (TCAI), a targeted instruction program in Ghana, improved children's basic skills in numeracy and literacy, but implementation was uneven and compliance with the program was low among classroom teachers. Researchers partnered with Ghana Education Services (GES), The National Teaching Council (NTC), The National Council for Curriculum and Assessment (NaCCA), The National Inspectorate Board (NIB), and UNICEF to evaluate whether additional managerial support from head teachers and circuit supervisors could increase the likelihood that teachers implement targeted instruction in their classrooms. According to preliminary results, the program was effective in increasing math and English test scores, leading to 0.7 additional years of learning per US$100 spent for the targeted instruction group and 0.4 additional years of learning per US$100 spent for the targeted instruction plus management training group.

Policy Issue

Many developing countries have significantly improved access to primary school education, spurred by initiatives such as the United Nations Millennium Development Goals (MDGs), which called for achieving universal primary education by 2015. Enrolling more children has strained education systems—primary schools are failing to equip a large portion of students with even basic reading, writing, and math skills. The Sustainable Development Goals (SDGs), which build on the success of the MDGs, look beyond access to education quality. One SDG is to ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes by 2030, measured both by rates of attendance, as well as by achievement levels in math and reading.[1]

Targeted instruction is a pedagogical approach that tailors instruction at the level of the student's current knowledge instead of the level of the official curriculum. Evidence from Ghana found that targeted instruction had positive effects on learning even though take-up of the program was low among teachers. This study evaluated the effect of increased management engagement on program compliance and contributed evidence on scalable ways to implement targeted instruction programs.

Context of the Evaluation

Ghana has high primary school enrollment rates, yet not all students are learning. According to a 2012 report from UNICEF's Global Initiative on Out-of-School Children, 89 percent of Ghanaian children were enrolled in primary school. However, only 8 percent met academic standards for their grade.[2] Based on data collected in 2016, fewer than half of 2nd grade pupils could read a single word in English or an official Ghanaian language of instruction. The gap also persists into higher grade levels. In grades four and six, a quarter of pupils were proficient in math, and only 37 percent in English.[3]

An evaluation of the Teacher Community Assistant Initiative (TCAI) targeted instruction intervention showed that teacher-led targeted instruction improved pupils' basic skills in numeracy and literacy despite teachers' low compliance with the program.

Details of the Intervention

An IPA research team partnered with GES, NTC, NaCCA, NIB, and UNICEF to evaluate if stronger management support could increase the compliance of teacher-led targeted instruction. The management support program was called Strengthening Teacher Accountability to Reach all Students, or STARS.

In Ghana, government schools in each district are grouped into circuits of 8-10 schools overseen by a circuit supervisor (CS). The circuit supervisor's acts as a liaison between the school and district education office. Over time, schools have come to see the CS as an enforcer not as a mentor or supporter. The STARS program sought to change that relationship.

The STARS program aimed to improve student achievement by enhancing head teachers' and circuit supervisors' roles in monitoring, providing feedback, motivating, and supporting teachers. The program took place in 20 districts, comprised of 140 study circuits. Within those circuits, 210 government schools were randomly assigned to one of three groups:

Training in targeted instruction: School teachers in grades four through six, head teachers, and circuit supervisors were trained in how to provide instruction targeted at pupil's actual learning levels. For eight weeks of each 12-week term, teachers in Grades 4-6 divided their students by learning levels, rather than grade level, for eight thirty-minute sessions per week, 40 percent of a pupil's English and math curriculum. The training was directly focused on the classroom teachers and head teachers; however, circuit supervisors often attended district level training. (70 schools)

Training in targeted instruction plus management training: In addition to the first intervention, head teachers and circuit supervisors received training on how to best mentor and support teachers. Training participants received a resource manual that outlined how to perform specific tasks to support teachers and contained teacher observation forms and examples of successful mentoring strategies. (70 schools)

Comparison group: No program. Business operated as usual in these schools. (70 schools)

The program ran for the entire 2018-2019 school year. An initial survey was conducted in June 2018, and a follow-up survey was conducted in July 2019. In addition, unannounced classroom observations occurred throughout the evaluation period to assess multiple dimensions of teacher effectiveness.

Results and Policy Lessons

According to preliminary results, the STARS program increased student learning outcomes. Both targeted instruction and targeted instruction plus management training increased students' combined math and English test scores by 0.11 standard deviations (SD).

Student test scores: Both students in the targeted instruction group and students in the targeted instruction plus management training group increased their English test scores by 0.07 SD and math test scores by 0.13 SD. The learning outcomes from both groups were statistically indistinguishable from each other. These increases in test scores were likely not due to changed attendance patterns.

Teacher attendance and classroom implementation: Teachers were more likely to be in the classroom during the STARS program (13 percentage points in the targeted instruction group and 11 percentage points in the targeted instruction plus management training group). Teachers in both groups were also more likely to be using the STARS teaching and learning materials (29 percentage points in the targeted instruction group and 25 percentage points in the targeted instruction plus management training group). Across both groups, about 90 percent of schools reported that they had implemented targeted instruction at least once in the past week and had conducted a leveling exam at either the start of the current term of end of the previous term. Students were correctly divided by learning levels instead of grade levels about 58 percent of the time in the targeted instruction group and about 62 percent of the time in the targeted instruction plus management training group.

Teacher interactions with head teachers: Both groups increased the likelihood that head teachers were present (12 and 16 percentage points in the targeted instruction and targeted instruction plus management training groups, respectively, an increase of 28-38 percent from the comparison group). When teachers were asked about the number of times that head teachers observed their teaching for at least 30 minutes, teachers in the targeted instruction and targeted instruction plus management training groups reported 0.68 and 0.86 more observations than the comparison group, respectively. Head teachers were also more likely to provide teachers with feedback and teachers were more likely to think that this feedback was useful.

Teacher interactions with circuit supervisors: The additional management training that the circuit supervisors received appears to have increased both the number of observations they conducted and the likelihood that they provided teachers with feedback. When teachers were asked about the number of times that circuit supervisors observed their teaching for at least

30 minutes, teachers in the targeted instruction and targeted instruction plus management training groups reported 0.42 and 0.62 more observations than the comparison group, respectively. Circuit supervisors were also more likely to provide feedback to teachers (13 and 17 percentage points in the targeted instruction and targeted instruction plus management training groups, respectively).

Cost-effectiveness: The STARS program was designed to be affordable and scalable. The average total costs per child were approximately US $47 and $82 for the targeted instruction group and targeted instruction plus management training groups, respectively. Overall, the program was cost-effective in increasing math and English test scores, leading to 0.7 additional years of learning per US$100 spent for the targeted instruction group and 0.4 additional years of learning per US$100 spent for the targeted instruction plus management training group.[4] The cost-effectiveness ratio for the targeted instruction group was more favorable compared to the targeted instruction plus enhanced management group due to the program's lower cost.

Sources

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