Title: Teacher Community Assistant Initiative (TCAI)

**Principal Investigators:** Annie Duflo and Jessica Kiessel

### I. Policy Motivation for Research:

In Ghana, 95 percent of children are enrolled in primary school, an achievement to be celebrated. However, high attendance levels have not yet led to high levels of academic achievement—less than half of 8-9 year olds, for example, can perform simple tasks in reading, writing, and arithmetic. Fewer than 20 percent meet Ghana's grade-level proficiency standards. The Teacher Community Assistant Initiative (TCAI) replicates a successful program from India, where a volunteer teacher provided remedial education to the lowest performing primary students in his or her community, using simple teaching methodology focused on targeting instruction to children's actual learning levels. The program also draws on lessons from successful education programs in Kenya, focused on the importance of community involvement in monitoring. IPA is partnering with the Ghana Education Service, the Ghana National Association of Teachers, and the National Youth Employment Program to conduct a rigorous study on TCAI, using several variations on the program to tease out the key factors leading to impact on learning outcomes.

# **II. Policy Impact:**

While much of the developing world has succeeded in drastically increasing enrolment in primary schools, cost-effective methods for improving learning outcomes have been much more elusive, with many governments focusing on infrastructure in the absence of good information on what works. The evaluation of the Teacher Community Assistant Initiative will provide valuable information on the most effective and cost-effective way forward for remedial education policy in Ghana and across the developing world.

#### III. Audience:

Educational policy-makers across the developing world, particularly those focused on primary education.

### **IV. Implications:**

With four variations on the program (described below in the research summary), TCAI teases out several important factors related to the successes of other remedial education programs. The evaluation tests the relative impact and cost-effectiveness of each of these factors—the impact of targeted instruction on learning outcomes; the added value of teaching community assistants (TCAs) with relatively little professional training, who will reduce the teacher-pupil ratio and provide a different, more child-centric learning environment; and the impact of simply reducing class size.

Initial results suggest the following:

- Supplementary (after-school) programs may provide the greatest impact in improving student achievement on basic skill indicators in literacy and numeracy.
- Targeted teaching methodology (in which students are taught according to their current learning levels) seems to have a significant impact in improving basic literacy skills.
- This kind of program may be most effective in areas with better basic resources and infrastructure, such as available teaching space, more motivated school principals, etc.

These results suggests that policy makers should consider:

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- Advocating for supplementary programs that provide children with additional attention on learning basic skills, focused at their actual level, regardless of the government curriculum (which is often far too advanced for students' real learning levels)
- Advocating for literacy materials, curricula, and methodology training that encourage teachers to focus their teaching on students' actual learning levels in primary schools
- Providing extra support to remedial programs in highly deprived (low-resource) regions, where desperately-needed programs are less likely to succeed

# V. Brief Summary of Research:

The TCAI program was designed as a scale-up of these ideas and to test the efficacy of similar programs in a new context with the support of a national government partner. TCAI selected 400 schools across Ghana to receive variations of the program, with 100 schools receiving each of the following treatments:

- Remedial classes provided by the Teacher Community Assistant (TCA) during school hours for the weakest students in each class, with targeted instruction in basic math and reading
- After-school remedial classes provided by the TCA for the weakest students in each class, with targeted instruction in basic math and reading
- A reduction in class size, with the teacher and TCA switching between evenly divided classes of randomly-selected students.
- Teacher training to develop skills in providing small-group instruction targeted at students'
  actual learning levels, with a focus on improving learning outcomes for the weakest
  students in each class

The program is being evaluated rigorously using a randomized control trial, for which an additional 100 schools will serve as comparison schools and receive no TCAI programming. The evaluation design includes a baseline at the outset of the program and two "endline" surveys to test pupil learning levels, in addition to three midline surveys, which gather data on the ground-level realities of the program, including attendance of pupils, teachers, and TCAs; classroom activities and teaching behaviour; and other features of the program uptake.

# VI. Implementation:

The program's initial pilot will run in 400 schools for two years, during which time various stakeholders will undertake continuous monitoring and assessment. The impact of the four treatments will be evaluated using data collected throughout the program and, based on the results of the evaluation, the program may be scaled up across Ghana. Because TCAI is a replication and scale-up of successful programs in India and Kenya, the success of the TCAI program will demonstrate the key factors that translate internationally into improved learning levels, particularly for the children who need help most.

### VII. Further Readings: