What Works to Increase Student Attendance and Enrollment Around the World?

Results from a recent comparative cost-effectiveness analysis

Sam Carter, J-PAL Global
I. About J-PAL and RCTs
II. CEA at J-PAL
III. Increasing Student Enrollment and Attendance
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II. CEA at J-PAL

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J-PAL-affiliated researchers have conducted or are conducting more than 860 randomized evaluations in 80 countries.
I. About J-PAL and RCTs

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III. Increasing Student Enrollment and Attendance
Why does J-PAL do CEA?

- Our mission is to reduce poverty by ensuring that policy is informed by scientific evidence.
- Policymakers may not have the time, knowledge, or mandate to seek out and digest evidence from impact evaluations.
- CEA can help us bridge the gap between research and policymaking.
We see CEA as a useful starting point for assessing the efficacy of different programs

• Tells the user what outcome can be achieved for what cost
  – **Cost effectiveness**: calculates cost per outcome (e.g., additional years of schooling)
  – **Cost efficiency**: calculates cost per output (e.g., textbooks delivered)

• Comparative CEA helps policymakers choose between multiple programs addressing the same problem (e.g., improving school attendance)
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In developing countries, primary school enrolment rose from 83 percent in 2000 to 91 percent in 2015.

Adjusted net enrolment rate in primary education

But there is much progress to be made

• Pockets of low enrollment remain, particularly in remote or conflict-affected areas
• Millions of children who are enrolled in school are not attending regularly
• Possible barriers to school participation:
  – Access and convenience
  – Costs
  – Low-quality education
  – Underestimate the benefits
  – Discount the future
  – Low community involvement
  – Poor school infrastructure
  – Low student motivation
Investment in education is sensitive to the costs and perceived benefits of schooling

- Reducing the costs of attending school
  - Shortening travel time
  - Subsidies and in-kind transfers
  - Reducing child morbidity
- Increasing the perceived benefits of attending school
  - Improving the quality of education
  - Changing perceptions
  - Involving local communities
  - Adding school supplies
  - Increasing student motivation

The most cost-effective programs address health problems and reduce the distance to schools.
The cost-effectiveness rankings remain the same using “at-scale” costs or excluding the costs of cash transfers.

Cost-effectiveness of programs, in pilot and at scale

Cost-effectiveness of cash transfer programs with and without cost of transfers
Comparative cost-effectiveness analysis is a flexible tool, not a precise ranking of best programs

- Multiple programs can be cost-effective
- Contextual factors matter
  - Are intestinal worm infections a problem?
  - How will costs change in different settings?
- Programs may impact more than one outcome
- Sensitivity analysis to other implementation factors
  - Level of underlying problem
  - Population density
  - Local wage rates
Thank you!

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The Challenge of Using Evidence

• Dramatic rise in the number of rigorous impact evaluations of policy programs in last 20 years

• Unlikely to be rigorous evaluation of the program policy makers want to introduce in exactly same location

• How should we respond?
  – Wait to act until there is more evidence?
  – Always do new RCT before introducing in new context?
  – Only use less rigorous local evidence?
  – Use results from study conducted in another context?
  – Only use evidence from other countries if at least X replications or if replicated in a similar enough context?

• What counts as a “new” or “similar” context?
The Challenge of Using Evidence II

• Rigorous impact evaluations are hard to do well and we underutilize their potential if we only learn about the precise program and context they evaluate.

• But understanding local needs, and informal and formal institutions is critical to good policy.

• We should do more replications of RCTs of similar programs in different contexts but there are limits.

• Policy makers never have 100% certainty
  – Basu (2014) tomorrow is a new context
  – Is imperfect evidence likely to be worse than no global evidence?
Targeted Instruction Increases Learning

• Series of studies shows targeted instruction can work in a variety of contexts:
  – Extra Teacher Programme in Kenya (Duflo et al 2011)
  – Balsakhi Assistant Programme in India (Duflo et al 2007)
  – Read India Programme (Banerjee et al 2007)
  – India Reading Camps (Banerjee et al 2010)
  – Haryana Learning Enhancement Programme (Berry et al 2013)
  – TCAI Programme in Ghana (Duflo and Kiessel in progress)
  – Computer Assisted Learning (Duflo et al 2007)
1. Parents want to vaccinate.
2. Parents can access clinic
3. Provider presence is sufficient.
4. Full immunization schedule is salient.

1. Minimal risk from over-vaccination.
2. People fail to persist with preventative health.
3. People are highly sensitive to price of preventative health.

1. Incentives get to clinics.
2. Incentives delivered to parents.
1. Children are in school but literacy and numeracy low.
2. Wide variation in learning levels within a class.
3. Teacher incentives to finish curriculum not improve learning.

1. Children acquire skills quickly when teaching is aimed at their level.

1. For part of day, children are organized by learning level.
1. Teaching is focused on level of child.
Many Implementation Models

<table>
<thead>
<tr>
<th>Who should lead the program?</th>
<th>Where should the program be held?</th>
<th>When should the program be held?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teachers</td>
<td>1. In schools</td>
<td>1. During the school day</td>
</tr>
<tr>
<td>2. Low-cost Tutors</td>
<td>2. Outside of schools</td>
<td>2. After school hour</td>
</tr>
<tr>
<td>3. Unpaid volunteers</td>
<td></td>
<td>3. On holiday breaks</td>
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<tr>
<td>4. Computer-Assisted</td>
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Main lesson: Create a dedicated time to focus on the learning level of each child, especially those failing to grasp basic skills.

Results replicated in volunteer program in Chicago. Working with Government of Zambia to scale.