Cost-Effectiveness Considerations When Taking a Program to Scale

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What is Cost-Effectiveness Analysis?

\[
CE \text{ Ratio} = \frac{\text{Impact of Program on Specific Outcome}}{\text{Total Cost of Implementing Program}}
\]

• Summarizes a complex program in terms of a simple ratio of costs to impacts
• Allows for comparison between different programs evaluated in different contexts across different timeframes
• Sensitivity analysis to understand how the cost-effectiveness of a program might vary with context
**What is Cost-Effectiveness Analysis?**

**Improving Student Learning: Cost-Effectiveness of Education Programs**

<table>
<thead>
<tr>
<th>Program</th>
<th>Additional SD Deviation (SD) per $100 (Log Scale)</th>
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<tbody>
<tr>
<td>Streaming by Achievement Kenya</td>
<td>34.56 SD</td>
</tr>
<tr>
<td>Remedial Education India</td>
<td>3.05 SD</td>
</tr>
<tr>
<td>Extra Contract Teacher + Streaming Kenya</td>
<td>1.96 SD</td>
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<tr>
<td>Individually-paced Computer Assisted Learning India</td>
<td>1.54 SD</td>
</tr>
<tr>
<td>Read-a-Thon Philippines</td>
<td>1.18 SD</td>
</tr>
<tr>
<td>No Significant Impact</td>
<td></td>
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<tr>
<td>Adding Computers to Classrooms Colombia</td>
<td></td>
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<tr>
<td>OLPC Peru</td>
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When to Conduct Costing and CEA

• Retrospective analysis programs
  – Exactly how cost-effective was that pilot program?

• Prospective analysis of programs
  – Roughly how cost-effective could this proposed program be, at pilot or at scale?
  – How big an impact must this achieve to meet our threshold?
Why Gather Costs?

- Key input into CEA
- When thinking about scale, important to know what effective programs cost
- General cost per participant to compare various options
• Landscaping study in 2012 to identify barriers
• Key barriers:
  – Lack of data (cost and impact)
  – Staff capacity to collect data and conduct analysis
  – Lack of decision points
Why is Costing Difficult?

• Program budgets likely insufficient to estimate costs
• Gather cost data from multiple sources
  – Academic papers or program reports for description of program structure, ingredients, and local conditions like household income
  – Interview researchers and implementers for additional program components and costs
  – Supplement with public sources (e.g. local wages, transportation costs, etc.)
I. Cost-Effectiveness Analysis of Early Learning Investments at CIFF

II. Approach to Cost-Effectiveness Analysis Throughout the Investment Life Cycle

III. Lessons Learned and Remaining Challenges

Appendices

– 1: Costing Guidelines
– 2: Assessing the Quality and Relevance of Impact Estimates
– 3: Sensitivity Analysis
– 4: Guidance for Interpreting Cost-Effectiveness in Investment Memos
Using CEA to Inform Decisions Throughout the Lifecycle of a Program

1. Initial CEA estimates are developed as a core part of the due diligence process undertaken by deal teams.

2. Cost data is continually updated and analyzed to identify opportunities for cost reductions that could be exploited to improve program affordability.

3. Program cost and impact data are used to update CEA estimates.

4. Updated information on costing, CEA, and financial sustainability is used alongside evaluation results in discussions with partners around scale-up and policy development.
Additional Information on Costing and CEA

Comparative Cost-Effectiveness Analysis to Inform Policy in Developing Countries: A General Framework with Applications for Education

Iqbal Dhaliwal, Esther Duflo, Rachel Glennerster, Caitlin Tulloch
Abdul Latif Jameel Poverty Action Lab (J-PAL), MIT

http://www.povertyactionlab.org/publication/cost-effectiveness

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www.povertyactionlab.org/policy-lessons