Global Landscape of In-service Teacher Professional Development Programs: The Gap between Evidence and Practice

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How do we get better teachers?

- Recruit
- Prepare
- Motivate
- Improve
Why focus on in-service professional development?

- Governance
- Political Economy
- Evidence (it can work)
- Evidence (it often doesn’t)
Evidence

Teacher PD can work:

• Evans & Popova (2016) compared 6 recent reviews of 227 studies with learning results, and find PD works when:
  • It is individualized and repeated.
  • It is associated with a specific task.

But it often doesn’t:

• Early literacy program in northern Uganda (Kerwin & Thornton 2015)
  • Worked well when NGO-implemented
  • Some significant negative impacts with government trainers

• Active learning intervention with training and materials in Costa Rica (Berlinksi & Busso 2017)
  • Negative impact on student learning
Objectives of this presentation

1. Summarize updated evidence of what we know about what good teacher professional development looks like

2. Compare characteristics of actual teacher PD programs with what we know works—based on available research evidence
Part 1: What do successful programs look like?
Sample of evaluated programs: The search

11 meta-databases searched

- Identification: 4,294 records identified through search of databases, 20 records identified through other sources
- Screening: All records screened, 4,272 records excluded
- Eligibility: 42 full texts assessed for eligibility, 18 full texts excluded
- Included: 23 studies (26 programs) included
Geographical distribution of studies: China, India, Kenya, Uganda, and a few more
The ITTSI: What does the instrument look like?

Overarching
- Who implemented?
- Professional implications?
- Based on a diagnostic?

Content
- Focus? (Content, pedagogy)
- Subject area?

Delivery
- Core activities?
- Cascade?
- Proportion in lecture? Practice?

Perceptions
- What did teachers like?
- What do you think mattered?
Availability of information

- Papers: Information on 27/51 indicators (52%) was reported in the evaluations on average.
- Contact: We contacted the authors of all evaluations to put us in touch with program implementers – 25/33 responded.
- Interview: We interviewed the program implementers for 18/33 programs.
- Success: Post-interview, information on 98% was collected on average.
What is associated with success?

- Bivariate regressions
- Remember power: 33 observations
- 3 robustness checks
Characteristics “Robustly” Associated with Successful PD Programs in Low and Middle-Income Countries

**Overarching Aspects**
- Program linked to career (promotion, points to promotion or salary) [+0.12**]
- Targeted by years of experience [+0.10*]

**Content**
- Training involves lesson enactment [0.10*]
- No subject focus [-0.23***]
- Focus on counseling [-0.20***]

**Delivery**
- Initial face-to-face training [0.15***]
- Training at central location (e.g., hotel) [-0.13*]
- Distance learning [-0.10*]
<table>
<thead>
<tr>
<th>Overarching Aspects</th>
<th>Content</th>
<th>Delivery</th>
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<tbody>
<tr>
<td>• Targeted by skill gaps [-0.06*]</td>
<td>• Subject focus on IT [+0.08*]</td>
<td>• Proportion of face-to-face training spent practicing with other teachers [+0.16*]</td>
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<tr>
<td>• Provide flashcards, word banks, reading pamphlets [+0.13]</td>
<td>• Subject Focus on other (not literacy, science, math) [-0.10**]</td>
<td>• Trainers are education university students [+0.15]</td>
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<td>• Follow-up visits to review content [+0.14]</td>
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What do trainers think is the most effective?

- Mentoring follow-up visits
  (5/18 interviewees)

- Complementary materials (structured lessons, scripted materials)
  (5/18 interviewees)

- Engaging teachers - for their opinions and ideas either through discussion or text messages
  (4/18 interviewees)
Part 3: How do global programs line up?

- Global snapshot
- 139 Programs
- 17 Education systems
Sample of at-scale programs

- Identified 4-5 countries in each region
- Obtained permission from Government/Ministry of Education in each country
- Obtained list of all teacher training programs conducted from 2012-2016
- Sampled 10 largest-teacher programs
  - ITTSI Survey in 4 largest programs
  - BITTSI Survey in remaining 6 programs
- Phone interviews conducted with teacher training program coordinators
Geographical Distribution of At-Scale Global Programs
How often are at-scale programs evaluated?

- Teacher knowledge: 50%
- Teacher behavior: 20%
- Student learning: 25%
- No evaluation: 15%
How do at-scale programs compare with top programs?

### Overarching Aspects

<table>
<thead>
<tr>
<th>Aspect</th>
<th>At-scale Programs</th>
<th>Top Programs</th>
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<tbody>
<tr>
<td><strong>Targeting by Years of Experience</strong></td>
<td>12%</td>
<td>13%</td>
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<tr>
<td><strong>Opportunities for Status, Salary or Promotion</strong></td>
<td>58%</td>
<td>88%</td>
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<tr>
<td><strong>Program Provides Other Reading Materials</strong></td>
<td>21%</td>
<td>43%</td>
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<tr>
<td><strong>Program Provides Storybooks</strong></td>
<td>13%</td>
<td>36%</td>
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<tr>
<td><strong>Number of Schools</strong></td>
<td>148</td>
<td>6,397</td>
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(Normative characteristics of global programs compared with top programs (based on test score gains))
How do at-scale programs compare with top programs?

Content

NORMATIVE CHARACTERISTICS OF GLOBAL PROGRAMS COMPARED WITH TOP PROGRAMS
(BASED ON TEST SCORE GAINS)

PROGRAM HAS A SUBJECT FOCUS
- 12% At-scale Programs
- 13% Top programs

FOCUS IS SUBJECT CONTENT
- 100% Top programs
- 92% At-scale Programs

TRAINING INVOLVES LESSON ENACTMENT
- 73% Top programs
- 63% At-scale Programs

SUBJECT FOCUS IS MATH
- 13% Top programs
- 54% At-scale Programs

SUBJECT FOCUS IS IT
- 23% At-scale Programs
- 6.3% Top programs
How do at-scale programs compare with top programs? Delivery

NORMATIVE CHARACTERISTICS OF GLOBAL PROGRAMS COMPARED WITH TOP PROGRAMS (BASED ON TEST SCORE GAINS)

**INITIAL PERIOD OF FACE-TO-FACE TRAINING**

- 100% Top programs
- 85% At-scale Programs

**TRAINING HELD AT A CENTRAL LOCATION (E.G. HOTEL)**

- 38% Top programs
- 73% At-scale Programs

**PROPORTION OF TIME SPENT PRACTICING WITH OTHER TEACHERS**

- 40% Top programs
- 16% At-scale Programs

**TRAINERS ARE UNIVERSITY STUDENTS**

- 0% At-scale Programs
- 6% Top Programs

**INCLUDES FOLLOW-UP VISITS**

- 50% At-scale Programs
- 85% Top Programs
Takeaways

• Weak reporting on interventions can be improved by using the ITTSI

• At-scale PD programs differ from top-performing programs in some crucial ways we think are important for student learning
  • Fewer at scale programs:
    • Linked to incentives
    • Include follow-up visits
    • Provide time for teachers to practice together
  • PD programs may not make a difference if they do not include these elements
Thank you!

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