

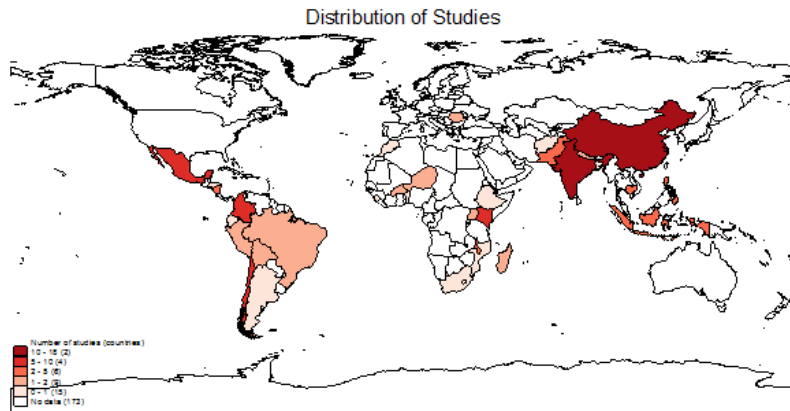
What Education Policies and Programs Affect Learning and Time in School in Developing Countries?

A Review of Academic and Aid Agency Evaluations from 1990 to 2014 for the Swedish Expert Group for Aid Studies (EBA)

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Global Distribution of Studies



Challenges Faced by Education Sector

1. Low Household Demand for Education

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2. Inadequate School Inputs

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3. Ineffective Pedagogy
4. Low Quality School Governance

Assessment of Intervention Effectiveness

Table 3. Rubric for Categorizing the Effectiveness of Studies.

What works	<ul style="list-style-type: none"> Requires 3+ studies with positive and significant outcomes May include a few non-significant or negative estimates, but most are significantly positive.
What often works	<ul style="list-style-type: none"> Evidence that the intervention often works, but sometimes does not work. Requires 3+ studies Relatively equal mix of positive and significant estimates with negative and/or nonsignificant estimates.
What is promising but needs more evidence	<ul style="list-style-type: none"> Promising evidence that the intervention works, but needs additional evidence. Requires: 1-2 studies. If 2 studies, 2+ positive and significant estimates are required; may include a limited number of non-significant estimates and even 1 negative estimate. If 1 study, only positive and at least 1 significant estimate
What does not work	<ul style="list-style-type: none"> No evidence that the intervention works Requires 2+ studies Most estimates are negative or insignificant
What we don't know and needs more research	<ul style="list-style-type: none"> No evidence that the intervention works, in part due to too little evidence on the intervention effectiveness, needs further evaluation. Requires: 1-2 studies

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- ▶ Necessarily, the following recommendations are restricted to *only* those interventions that have been analyzed using rigorous methods, so that while our conclusive recommendations are few in number they are made with a very high degree of confidence.
- ▶ There is ample room for organizations such as Sida to contribute to this growing body of rigorous evidence that demonstrates the effectiveness of different interventions

Time in School: What Works

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 - ▶ **Governance intervention:** providing vouchers to reduce the cost of enrolling in a private school

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 - ▶ Before pursuing additional funding for such interventions, more research is needed

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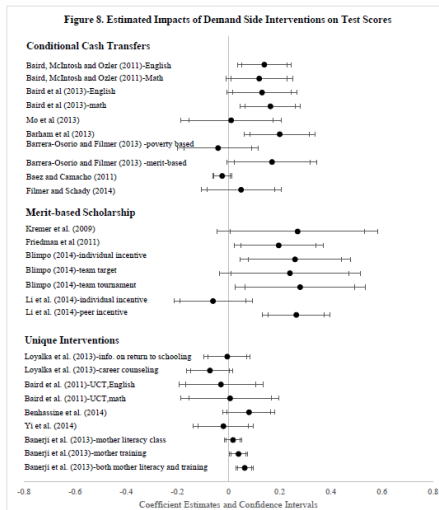
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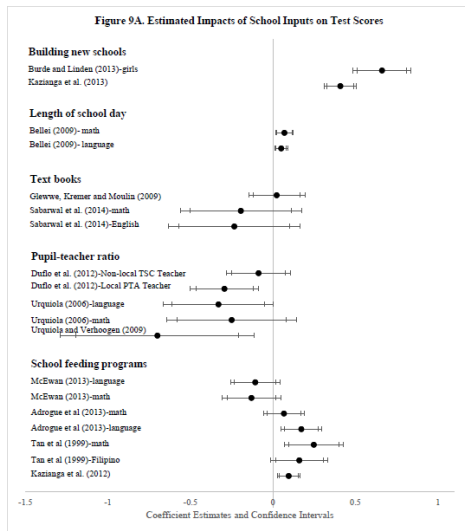
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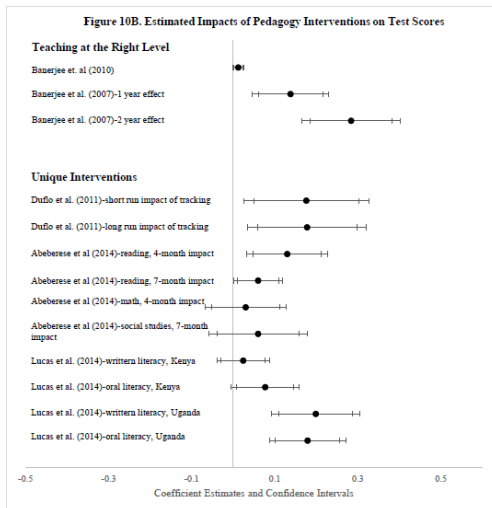
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 - ▶ **Governance interventions:** (1) school-based management, (2) teacher performance pay, and (3) attending a private school

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 - ▶ **Governance interventions:** tracking/streaming of students

Learning Outcomes: What Does Not Work

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 - ▶ Before pursuing additional funding for these interventions, more “pilot scale” research is needed to determine their effectiveness

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 - ▶ Ex: CCTs and school feeding programs

Cost Effectiveness

Table 12: Cost-Effectiveness of Interventions in Increasing Test Scores

Intervention	Study	Country	Length of Intervention	Test Scores Measured Well after Intervention Ended?	Increase in Test Scores in Terms of US \$ Cost per 0.10 σ
Girls' merit-based scholarship	Kremer, Miguel, Thornton, 2009	Kenya	2 years	No	\$14
Girls' merit-based scholarship	Friedman et al., 2011	Kenya	2 years	Yes, 4-5 years later	\$19
Individual scholarship, not tournament	Blimpo (2014)	Benin	1 year	No	\$3
Group scholarship, not a tournament	Blimpo (2014)	Benin	1 year	No	\$1
Group scholarship, tournament	Blimpo (2014)	Benin	1 year	No	\$2
Conditional cash transfer	Baird, McIntosh & Ozler, 2011	Malawi	2 years	No	\$77 (for girls in school)
Conditional cash transfer	Baird et al., 2013	Malawi	2 years	No	\$138 (girls not in school)
Conditional cash transfer	Barham et al., 2013	Nicaragua	3 years	Yes, 7 years later	\$100
Conditional cash transfer	Filmer and Schady (2014)	Cambodia	3 years	no	\$90
Conditional cash transfer	Barrera-Osorio and Filmer (2013)*	Cambodia	1-3 years	no	\$12
Computers (4 per school)	Banerjee et al., 2007	India	2 years	No	\$6
Computers (4 per school)	Banerjee et al., 2007	India	2 years	Yes, 1 year later	\$33
Computers (after school program)	Linden, 2008	India	1 year	No	\$2
One laptop per child	Mo et al. (2013)	China	6 months	no	\$5
Computer Assisted learning	Mo et al. (2014b)	China	1 year	no	\$2
Teacher incentives	Muralidharan & Sundararaman, 2011	India	2 years	No	\$1
Voucher for private schools	Angrist et al. *(2002)	Colombia	1 year	Yes, 1 year later	\$26
Girl-friendly schools	Kazianga et al. (2013)	Burkina Faso	N/A	no	\$8
Building new schools	Burde and Linden (2013)*	Afghanistan	2 years	no	\$5

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 - ▶ There is a need for funders of education research to create standardized templates for reporting costs and benefits

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 - ▶ A very important consideration when planning an impact evaluation is the *timing* of the evaluation relative to the project's implementation
 - ▶ It is *critical* that projects and programs be developed in collaboration with evaluation experts so that they are implemented in a way that allows for rigorous quantitative evaluation techniques

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 - ▶ **Related Recommendation:** International development agencies develop a standardized system to calculate costs and benefits of intervention projects

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 - ▶ If the program appears successful on a pilot scale, then it can be “*scaled up*” to a regional level or the national level
 - ▶ Ideally, the pilot program should have the same geographic coverage as the planned scaled-up program
 - ▶ Ex, if the program is intended for all rural areas in a given country then the pilot program should be done in all major “zones” of rural areas within the country

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 - ▶ Resources required to determine whether an intervention is an effective intervention

Table 13. Cost of Further Evaluation by Effectiveness Category.

Current categorization	Number of existing studies	Number of additional studies needed to determine if a program works	Per evaluation cost (range)	Cost estimate (range)
Promising Interventions	1 or 2	2 additional	\$USD500,000 - \$USD1,000,000	1 to 2 million USD
Interventions with too little research	1	3 additional	\$USD500,000 - \$USD1,000,000	1.5 to 3 million USD

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 - ▶ The number of schools, students, and/or households included in the evaluation, the number of rounds of surveys, the costs of transportation in-country, the detail required in the survey (more detailed household surveys are more expensive), the local enumerator costs, the number of treatment arms in an evaluation, and professional evaluator and analysis costs

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 - ▶ Determining these costs is relatively straightforward (albeit highly dependent on local costs of labor and transportation) and thus will provide a clearer idea of how much additional evaluations will cost

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- ▶ Note: the recommended number of additional large-scale evaluations needed in Table 13 is an approximation, though we would caution against making decisions based on fewer than the recommended number of additional evaluations

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 - ▶ As the skills/experience of in-house staff improve, it may be more efficient to reallocate a larger proportion of the evaluations to an in-house team

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 - ▶ But since experimentation is inherently risky so one should not penalize program staff who are willing to try new programs, many of which in the end may not work

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 - ▶ Ex: Effective interventions in India are likely to be effective in Bangladesh; effective interventions in Kenya are likely to be effective in Tanzania

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 - ▶ However, caution is needed in interpreting the results of a single evaluation of a particular intervention

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- ▶ Collection of data on program implementation (including qualitative) is useful for determining next steps

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- ▶ Yet given the current weak evidence base for “what works” to improve education outcomes in developing countries, more high-quality valuations are essential for using donor funds more effectively to increase learning, and thus economic and social progress, in developing countries
- ▶ While much has been learned in the past two decades, much more needs to be learned to ensure a bright future for today's, and tomorrow's, children