



What Education Policies Work Best to Increase Student Learning?

Lessons from Three Recent Reviews of the Evidence

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1. Background

Economists and other researchers have produced a large amount of evidence that education increases workers' productivity and thus increases their incomes.¹ There are also many non-monetary benefits of education, such as improved health status and lowered crime. Finally, at the country level there is also a large amount of evidence that education increases the rate of economic growth. Policymakers in developing countries have generally accepted these research findings and so have greatly increased their funding of education. International development agencies have also called for greater resources to be devoted to education, and have increased their levels of assistance for education projects in recent years.

The most consistent focus of investment has been on increasing primary and secondary school enrolment rates, with the ultimate goal of higher levels of educational attainment. The increases in enrolment over the past three decades, particularly at the primary level, have been quite dramatic. From 1980 to 2010, primary and secondary enrolment rates have increased in all regions of the developing world (Table 1), so that by 2010 gross primary enrolment rates were at or above 100 per cent in all regions, and gross secondary enrolment rates were above 50 per cent in all regions except Sub-Saharan Africa.²

Table 1: Gross Primary and Secondary Enrolment Rates, by Region

<i>Region</i>	<i>Primary</i>			<i>Secondary</i>		
	<i>1980</i>	<i>1995</i>	<i>2010</i>	<i>1980</i>	<i>1995</i>	<i>2010</i>
East Asia and Pacific	111	115	111	43	65	76
Latin American & Caribbean	106	111	117	42	53	90
Middle East and North Africa	87	97	102	42	64	72
South Asia	76	99	110	27	49	55
Sub-Saharan Africa	78	75	100	14	27	36

¹ See Glewwe et al. (2011) for specific references.

² Gross enrolment rates compare numbers of school children to the size of a specific age cohort so that grade repetition, late enrollment, and the like can lead to gross enrolment rates over 100 percent.

Source: World Bank (World Development Indicators, 1998, 2012)

However, school enrolment is not the final goal of education policy. The ultimate goal is to prepare children for a better life when they are adults. Perhaps the most important avenue by which education prepares children for a better life is to provide them with basic and advanced skills that make them more productive workers, and thus increase their earnings when they are adults. Unfortunately, there is a large amount of evidence that many, and in some countries most, children are not learning very much. This is seen in Table 2, which presents reading and maths scores of secondary school students on an international test (PISA) that has been administered every three years since 2000 (2012 results are not yet available).

Table 2: Scores on PISA Tests in Mathematics and Reading, 2000-2009

Country	READING (PISA Study)				MATHS (PISA Study)		
	2000	2003	2006	2009	2003	2006	2009
Argentina	418		374	398		381	388
Brazil	396	403	393	412	356	370	386
Chile	410		442	449		411	421
Colombia			385	413		470	481
Indonesia	371	382	393	402	360	381	371
Jordan			401	405		384	387
Mexico	422	400	410	425	385	406	419
Peru	327			370			
Thailand	431	420	417	421	417	417	419
Tunisia		375	380	404	359	365	371
Turkey		375	380	404	423	424	445
Uruguay		434	413	426	422	427	427

The PISA tests are normed so that the average score of a student in a developed country is about 500, and the distribution of test scores has a standard deviation of 100. Thus, all of the developing countries in this table have average scores well below those of students in developed countries, and in some cases more than one standard deviation below the average in developed countries. Even more worrisome is the finding that the trends over time are not particularly promising; some countries show an upward trend (Chile, Colombia, Indonesia, Peru, Tunisia

and Turkey) but others show inconsistent or even declining trends (Argentina, Brazil, Mexico, Thailand and Uruguay).

Thus, the focus of education policy in developing countries, and of bilateral and multilateral assistance to those countries, should be on education policies that can increase student learning in developing countries. Unfortunately, there is at best incomplete evidence on which education policies are most effective for increasing student learning. This note summarises the findings of 3 (or 4) different reviews of “what works” to raise student test scores in developing countries. The reviews are:³

1. “School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010”, by Paul Glewwe, Eric Hanushek, Sarah Humpage and Renato Ravina.
2. “Why the McKinsey Reports will not Improve School Systems”, by Frank Coffield.
3. Chapter 4 in *Poor Economics*, by Abhijit Banerjee and Esther Duflo.

In fact, these three readings summarise four different viewpoints, because the Coffield paper presents the McKinsey report and then, in the process of criticising it, also presents Coffield’s views.

The remainder of this note summarises these viewpoints, focusing on:

- The goals of education
- The evidence base used
- Education policies that are viewed as **most** promising
- Education policies that are viewed as **least** promising
- Assumptions about the process by which policies are adopted
- Assumptions/proposals about the role of international aid
- Roles played by parents and local communities

2. Goals of Education Implicit in Each Review

In general, all of these readings agree that the goal of education is to increase student learning. First, the McKinsey report argues that countries need to improve their education systems in order to “compete in the global knowledge economy”. This assumes that more learning raises economic growth. The first McKinsey report focuses on three subjects (reading, maths and science), but the second report has a broader view of the skills acquired from formal education.

Turning to Coffield’s views, he appears to accept that learning is one main goal of education, but he also adds “cultural, democratic and social” goals (p.133). He does not elaborate on these other goals in this paper, but presumably he has discussed this in other papers he has written. He also does not explicitly indicate whether learning is the most important goal or just one of many goals.

³ Full references are given at the end of this document.

Banarjee and Duflo point out (p.74) that learning is important because it can lead to better jobs, which in turn reduce poverty. This chain of thought implies that the goal of education is to increase student learning. Similarly, Glewwe et al. imply that the primary goal of education is to increase learning, since their paper focuses on learning (as measured by test scores), although they also discuss (to a lesser extent) the impact of education policies on school enrolment and daily attendance.

3. Evidence Base

With almost universal agreement that the primary goal of education is to increase student learning, each of the above reviews goes on to discuss what policies are most likely, and which are unlikely, to achieve that goal. In doing so, each has a distinct approach for reviewing the evidence, although there is some similarity in their approaches.

Firstly, the first McKinsey report focuses on associations between groups of countries (defined by test scores) and “clusters of interventions” (see p.134 of Coffield’s paper). Coffield argues that sometimes that report offers little evidence to support its claims (pp.138-139). The second McKinsey report adds “200 interviews with education leaders” and “data on nearly 575 interventions” (p.133 of Coffield’s paper). Overall, there is a mixture of both quantitative methods and qualitative approaches.

In contrast, the main focus of Coffield’s paper is to provide a critical assessment of the two McKinsey reports, rather than to present his own review of the evidence. Thus from this paper alone it is not very clear what Coffield’s evidence base is. Presumably it is based on decades of experience, both contributing to and reading other’s contributions to the literature.

Banerjee and Duflo base almost (but not all) of their analysis on evidence obtained from randomised control trials (RCTs), many of which they (or their students) conducted. At least half of the studies mentioned in their book chapter are from only two countries: India and Kenya. This reflects the fact that many of the randomised control trials conducted by economists in the last 10-15 years were conducted in these two countries.

Finally, Glewwe et al. are more explicit than the other studies concerning how they assessed the literature. They conducted a very exhaustive (and tedious) search of the education literature (using the ERIC online database) and of the economics literature (using the EconLit database). They excluded studies that they deemed to have a “weak” research methodology, which turns out to be most of the studies.

4. Most Promising Policies

This section summarises what each of the reviews of the literature concludes about what education policies are most promising. While there are some common findings, the overall picture is, unfortunately, one of substantial disagreement.

The first McKinsey report focuses on teachers, in particular on getting the “most talented” people to become teachers and providing better training and support for those teachers. There is also some discussion of the importance of principals/headmasters (“strong leadership”). The second McKinsey report was both broader and more specific. Three particular policies that it advocates (as reported in Coffield’s paper) are teacher incentives, student assessments to monitor their progress, and policies focused on teacher accountability.

In contrast, Coffield argues that variation in student and home characteristics matters more than school and teacher characteristics. He is in favour of allowing teachers more flexibility to make decisions and more decentralised decision-making. He also mentions reducing teachers’ administrative burdens. Finally, he argues for more equality between teachers and principals (“equal partners”) and for teachers to work with students in collaborative, rather than hierarchical, learning relationships.

Banerjee and Duflo strongly argue for the benefits of remedial education, as exemplified by the *Balsakhi* programme in India. They are also open to providing a greater role for private schools. They strongly advocate tracking (streaming) by initial student performance, as well as providing students and parents with information on the returns to education. More generally, they argue that education systems should focus on basic skills (especially for weaker students), as opposed to focusing on preparing the better students for competitive academic examinations. Finally, they are supportive of programmes that provide computers and other information technology.

Finally, Glewwe et al. argue that there is little of evidence in favour of most education policies. Physical inputs that appear to be promising are provision of desks, tables and chairs, provision of school libraries, and improving the physical condition of schools’ roofs, floors and walls. Regarding teachers, they conclude that more knowledgeable teachers, teachers who are less likely to be absent, and teachers who assign homework are more effective at increasing student learning. Finally, their review of the evidence shows positive impacts of longer school days and the use of tutoring services.

5. Least Promising Policies

Each review of the evidence also points out policies that are viewed as relatively ineffective. This section summarises these judgments.

The first McKinsey report focuses almost exclusively on teachers, and thus it downplays anything not related to teachers. In particular, the report deliberately ignores pedagogy and curriculum, without much explanation as to why. This suggests that the authors do not view these as very important, but the report does not explicitly indicate that it views pedagogy and curriculum as unimportant. The Coffield article is less clear as to whether the second McKinsey report identifies “least promising” policies.

Coffield argues that, since there is more variation in student and home characteristics, they are more important than teacher characteristics. Of course, while they may be more important, they may be less easily influenced by education policies, and thus it may still be the case that education policies should focus on school and teacher characteristics. Coffield favours flexibility and local control in education policies, and thus he opposes “rigid, centralised control” and “one size fits all best practices”.

Banerjee and Duflo cite several education policies that they view as relatively ineffective. Their least favourite education policies are: conditional cash transfer (CCT) programmes; compulsory education laws (because they cannot be enforced); physical inputs (textbooks, flip charts); and reductions in class size.

Finally, Glewwe et al. find that there is little evidence to support many commonly advocated education policies. The examples they cite are: textbooks and workbooks, computers and other information technology devices (e.g. e-readers), teacher experience, female teachers, class size reductions, and school meal programmes.

6. Assumptions about the Policymaking Process

Implicit in some, but not all, of these reports is an understanding of how policies are formulated in developing countries. This section reviews these implicit assumptions.

The McKinsey reports, at least as they are described in Coffield’s paper, have little to say about the process by which education policies are formulated. The reports seem to assume that the government has complete control of education policy, so that all “actors” (students, teachers, parents and principals) will do as the Ministry of Education decides. They also appear to assume that there will be no interference from other institutional actors, such as legislative bodies and teacher unions.

Coffield has more to say about the policymaking process. He seems to be somewhat cynical (perhaps he would characterise his stance as “realistic”). He points out that teachers and principals, and perhaps teacher unions, can “sabotage” the Ministry of Education’s plans. More generally, he says that it is not possible to “depoliticise” education policymaking (p.144).

Banerjee and Duflo argue that elite groups can “capture” the policymaking process for education to get it to cater to their goals. For example, the push for “high standards” serves these elite groups well, but not the needs of the rest of the population. They also point out that in many cases teachers have negative attitudes toward the poor, which could make policies less effective.

Glewwe et al. have little to say concerning the politics of decision-making in education. However, they do suggest that education policymakers should invite researchers to participate at the early stages of new policy formulation, to allow for a good evaluation strategy for new policies.

7. Assumptions about the Proper Role of International Aid

While DFID staff would like to know what these researchers have to say about the appropriate role for international aid agencies to play in the policymaking process, these reviews have very little to say about it. The McKinsey reports (at least as they are summarized in Coffield's paper) have nothing to say about the role of aid agencies. The same is true for the Coffield paper. Banerjee and Duflo have little discussion in their chapter, but they do make the point that there are policies that work, which implies a role for funding these policies. Glewwe et al. state that there is a need for much more research to understand which education policies lead to increased learning, which implies that international aid should allocate more funds towards research.

8. Assumptions on the Roles of Parents and of Local Communities

Some of these reviews of the evidence reveal some thoughts about the roles of parents and local communities in the education process. While the McKinsey reports do not seem to envision any role for parents or the local community, Coffield is very clear that parents influence children's education, but he is less clear whether policies can affect this influence in a positive way. Given his dislike of "one size fits all" he probably sees a role for communities to get involved.

Banerjee and Duflo argue that parents play a large role. For example, their expectation of the economic returns to schooling and their willingness to invest in their children's education are major influences on their children's education outcomes. Communities could also be able to help, for example in setting up voluntary organisations that provide remedial education. In contrast Glewwe et al. focus on education policies and have little discussion of the roles of parents and local communities.

9. Questions for Discussion

1. What are the strengths and weaknesses of the evidence presented in each of the three readings?
2. What are the implications of these reports for DFID's education policies and approaches?

10. References

Banerjee, Abhijit, and Esther Duflo. 2011. *Poor Economics*.

Coffield, Frank. 2012. "Why the McKinsey Reports will not Improve School Systems". *Journal of Education Policy*.

Glewwe, Paul, Eric Hanushek, Sarah Humpage and Renato Ravina. 2011. "School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010", by National Bureau of Economic Research Working Paper 17554. (www.nber.org/papers/w17554.pdf). Forthcoming in P. Glewwe, ed., *Education Policy in Developing Countries*. University of Chicago Press.

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