HEART
HEALTH & EDUCATION ADVICE & RESOURCE TEAM

Helpdesk Report: Barriers to Learning

Date: 5 December 2012

Query: Why are there poor quality student learning outcomes, even though enrolment is high? The focus country is Bangladesh but evidence from any country will be helpful. The aim is to be able to design a programme and develop a framework to address this issue of learning outcomes.

What is the global research that sheds light on the problem of children who are in school but not learning, for example overage, low attenders and low achievers? Why don't these children achieve the expected level of proficiency despite being in classroom? For example, low level of nutrition, special cognitive and physical needs, absenteeism, lack of access to learning materials, low quality instructions in classrooms, low level of support at homes and communities, inappropriate curriculum and assessment.

Do traditional inputs such as classrooms, textbooks, cascading teacher training and others create the enabling learning environment needed?

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1. Overview

Despite increasing numbers of children being enrolled in school, their learning outcomes are often of poor quality. This report looks at the issues and research on poor quality student learning outcomes and what inputs can create the enabling learning environment needed to address this. The report begins with a brief section on the context of the education system in Bangladesh. A key global evidence paper is then presented which provides an overview of many of the issues related to poor learning outcomes in developing countries.

Poor quality student learning outcomes, even though enrolment is high

The first main area of the report, presented in Section 3, looks at why there are poor quality student learning outcomes, even though enrolment is high. Experts in the field identify many reasons for this including: inappropriate curricula and pedagogy; distorted beliefs about the benefits of education; weak teacher incentives; high pupil teacher ratios (PTRs); teacher absenteeism; lack of time spent teaching and learning in the classroom and a high percentage of overage children. Additionally, experts made the point that there is not sufficient focus on the fact that learning matters. There is no measurement of it, or very poor measurement. There are insufficiently clear learning standards, along with lack of measurement. One expert went as far as to say that enrolment has been so much of a focus over learning that "kids are not learning because education systems have not really focused in on it."

The CREATE model of zones of exclusion from education is presented in this section. This identifies the patterns and causes of exclusion of different groups of children of school age, including those who are enrolled but have low achievement or poor attendance.

Research on children who are in school but not learning

Information on the global research on the problem of children who are in school but not learning is covered in Section 4. Experts identify many reasons for this including the ability to make the actors within the education system, including teachers and district officers, feel bound to learning goals and focus on achieving standards. This requires increasing the ability of the bureaucracy to demand professionalism, but also requires more community involvement and awareness. Additionally, many of the actors don't have sufficient knowledge on how to respond to the standards and the demand for accountability and professionalism. The issues highlighted by the experts in the field include:
   1) Teachers lack of knowledge regarding how to teach to standard.
   2) The learning materials are often lacking or of poor quality.
   3) There is insufficient and inadequate management of time.
   4) There is inappropriate assessment of student learning.
   5) There is insufficient instruction in the children's mother tongue.
   6) There is a need to articulate clear and achievable learning goals.
   7) Negative consequences of an overambitious curriculum.
   8) Tremendous diversity in each grade level which creates challenges to effective teaching.
   9) The need for effective and useable methods for teaching-learning.
   10) Building home support for children's learning.
   11) Intestinal worm infections increasing student absenteeism.
   12) Education costs and lack of subsidies.
   13) Silent exclusion: children who are nominally enrolled in school but not learning.
Research papers and other resources related to children who are in school but not learning are included in this section.

Do traditional inputs work?

Whether traditional inputs such as classrooms, textbooks, cascading teacher training and others create the enabling learning environment needed is discussed in Section 5. Experts suggest that a key aspect in this is providing evidence that learning improvement can be achieved as this will motivate and show how to improve outcomes in certain areas in a sector often mired in pessimism and negativity. Many agreed that there is scope for massive improvement. Some negative comments on 'traditional inputs" included opinions that they are not the answer, that if the actors in the system are not learning-driven no amount of inputs will make much difference. Traditional expansion of inputs (teachers, books, etc.), without

paying attention to their true quality and to efficient management and supervision will not produce results. It was commented that the problem is that everyone really want the answer to be inputs (or some new variant on inputs like "cascading teacher training") because inputs are what donor and government systems know how to do.

Others argued that traditional inputs are needed and necessary but not sufficient. Clear and achievable learning goals need to be articulated that are understood by teachers and, if possible, by parents. All the efforts put in by the system: teacher training; classroom activities; curriculum/textbooks; field support; monitoring and review need to be aligned to achieve these goals. There is little evidence that traditional inputs by themselves, without other changes in the learning environment, have much of an effect on learning.

Other argued that traditional inputs are important; that these are the bare minimum required in any education system and that they work if they are delivered to the poorest in sufficient quantity and on time. In Bangladesh the poorest do not get enough classrooms, schools, teachers, training, books, pens, pencils. They go to the worst school types in a tiered system of unequally funded schools. Funding community and RNGPS schools at the same rate as the government primary schools (i.e. providing the poorest with the same resources as others) would help.

Attention to learning styles was flagged up as important. Traditional methods (e.g. choral rote repetition) don't work very well, but ideas imported from the West assume a great deal of home support and literacy. What is often needed is something that is "modern" in the sense that it is based on an analytical approach to what works, but also appropriate in that it realises that the prior knowledge base of the children is very low and the teachers need a lot of guidance.

Some other methods that were suggested include substituting contract teachers for regular teachers; teaching at the right level; summer camps; grouping by level during the school day and bridging home and school.
Relevant research papers and policy recommendations are presented in this section.

The remaining sections are issue focused and include information on learning barriers that affect individual children, social barriers to learning and issues with the education system.

Section 6 includes information on learning barriers that affect individual children, including physical disabilities and learning disabilities. These factors can impede the learning of individual children and affect their school careers.

Issues which act as social barriers once the child has enrolled in school are covered in Section 7. These issues include a poor home environment, language difficulties (for example, not learning in their mother tongue), teaching quality, nutrition and hunger and also covers drop-out rates, early school leaving and repetition levels.

Section 8 gives information on structural issues affecting the education system, for example, teacher absence, teaching quality, lack of resources and school buildings and lack of transport to schools.

This report focuses on Bangladesh and South Asia, but also includes relevant information from around the world, including a recommended key global evidence paper. The report is divided into six main parts, with additional sections covering a brief context on the education system in Bangladesh, other useful resources, additional specialist comments and additional information.

Opportunities lost: The impact of grade repetition and early school leaving
UNESCO Institute for Statistics, 2012
http://www.uis.unesco.org/Library/Documents/global-education-digest-opportunities-lost-impact-grade-repetition-early-school-leaving-2012-en.pdf

South and West Asia has made strong gains over the past decade. The reported number of out-of-school children fell by two-thirds, from 40 million to 13 million between 1999 and 2010. This decrease was primarily due to progress made in India. Currently the out-of-school rate in South and West Asia is 7%.

Globally, 47% of all out-of-school children of primary school age will probably never enter school. A further 26% have attended school but dropped out, and the remaining 27% are expected to enter school in the future. Data show large variations in regional patterns. In the Arab States, Central Asia, South and West Asia and sub-Saharan Africa, about one-half of all out-of-school children will probably never enter school.

Access to Education in Bangladesh: Country Analytic Review of Primary and Secondary Education
Manzoor Ahmed (Coordinator), Kazi Saleh Ahmed, Nurul Islam Khan and Romij Ahmed, BRAC University Institute of Educational Development and CREATE, 2007
http://www.create-rpc.org/pdf_documents/Bangladesh_CAR.pdf

This country analytical review examines the key issues in access to and participation in primary and secondary education in Bangladesh, with a special focus on areas and dimensions of exclusion. Against a background of overall progress, particularly in closing the gender gap in primary and secondary enrolment, the research applies a conceptual framework outlining different forms of exclusion and presents two significant findings which compromise access and diminish gains made: high dropout rates at primary and secondary levels and nominal access but virtual exclusion from quality learning. Other areas surveyed in the review include interventions by public sector and non-governmental providers in primary and secondary education as well as the financing of basic education. This review of the literature concludes with suggestions for future research directions that might lead to new understanding and insights on equitable access and participation.

Why Aren't Children Learning?
Abhijit V. Banerjee and Esther Duflo, Development Outreach, 04/01/2011
http://www.povertyactionlab.org/publication/why-arent-children-learning

This paper provides a good global overview of the issues in developing countries.

Length of the school day
While being enrolled is obviously necessary, there are many reasons why enrolment by itself may not translate into much more effective schooling. The school year in many developing countries is very short, India's is only about 140 days, and each school day often lasts only 3 hours. By contrast, children in most OECD countries spend between 180 and 200 days in school, with longer school days of 6 to 8 hours.

Teacher absenteeism
In 2002 and 2003, the World Absenteeism Survey of six countries, led by the World Bank, concluded that in Bangladesh, Ecuador, India, Indonesia, Peru and Uganda, teachers miss

one day of work out of five on average, and the ratio is even higher (one in four) in India and Uganda. Their data from India also find that teachers who are in school do not necessarily teach—they read the newspaper, drink tea, or chat with their colleagues. Overall, teachers spend less than half the time they are supposed to be teaching actually doing so (Chaudhury et al. 2006).

Poor accountability
There is not enough pressure on teachers to teach. When such pressure is brought to bear, they do teach more, and students' test scores improve, suggesting that students can indeed be taught (something teachers often question), and that teachers know how to teach (something education experts, who tend to insist on the need for training, sometimes doubt). A randomised evaluation in non formal schools in Rajasthan, India found that linking teacher compensation to attendance, by verifying attendance with objective impersonal means (such as photos taken with tamper-proof date and time stamps), was effective. Teacher absences fell by half, from 42 percent to 21 percent. And, students learned more: test scores rose by 0.16 standard deviations, and children were 50 percent more likely to pass the exam allowing them to join formal schools (Duflo et al. 2010a). Another evaluation in India found that basing teacher pay on student performance was highly effective at improving student learning (Muralidharan and Sundararaman 2009). In Kenya, teachers hired on short contracts, under supervision by the school committee, were much more likely to be present then regular teachers, and their students had higher test scores than those of regular teachers, even though the contract teachers had no prior teaching experience (Duflo et al. 2010b).

Private schools are often better but the net effect of private school is not much higher than the effect of improving incentives. Indeed, part of the effect of private school may be due to the fact that private school teachers attend school more often. It is possible to account for roughly half to a third of the estimated overall gain in test scores from private schooling just by virtue of the fact that private school teachers are more likely to be at work. The rest may be the result of teacher effort while in school, or better pedagogy.

Extra tuition
In the 2000s, Pratham, a large NGO in India, trained *balsakhis* (children's friends) to provide remedial education to the lowest performing 3rd and 4th graders in Vadodara and Mumbai municipal schools. Participating children showed large learning gains.

The education-as-lottery hypothesis
Surveys of parental aspirations suggest that the average semi-educated or uneducated parent sees education mainly as a way to secure a government or other salaried job. For this reason, they think that education is only worthwhile if their child can get through the gate-keeping public exams that restrict access to these kinds of jobs. All the evidence suggests that they are probably wrong. That is, while the evidence suggests that the return to an extra year of education in developing countries is more or less constant, parents believe that the returns are concentrated at the higher levels of education. Given the winner-take-all nature of education, it is very important to identify the child who has the best chance of being a winner as early as possible and putting all the resources behind him or her. This tendency to pick winners early and focus on them would explain why parents are not very excited by remedial education. If their child needs remedial education, they feel, he is probably beyond help.

Conclusion
First, there is now huge pressure all over the world to hire more teachers but just cutting class size without changing pedagogy will not work. Second, because the long-term incentives are distorted by the assumption of a lottery, creating short-term rewards for educational success are all the more important. The ultimate solution, however, has to involve a wholesale attitude shift by everyone in the system from parents to educators. The good news is that if this shift takes place, very large gains can follow.

Shawn Powers, Policy Manager, Abdul Latif Jameel Poverty Action Lab, on behalf of Professor Banerjee and the Education Program at J-PAL

1. Inappropriate curricula and pedagogy. In many developing countries, classroom instruction is focused on completing a syllabus rather than learning. (India's Right to Education Law, for example, essentially codifies this in legislation.) Therefore schools focus on high-performing students, those likely to finish school, do well on exit exams, and move on to the next level of education. This insight helps explain why many rigorous evaluations in developing countries have found no impact from reducing class size (e.g. Banerjee et al. 2007; Duflo et al. 2011). For the students left behind by the curriculum, smaller classes do little to help them learn because the instruction is not at an appropriate level. On the other hand, remedial instruction to help children acquire basic skills—often implemented by lightly trained locally-hired tutors or volunteers—has consistently proven effective in promoting learning (Banerjee et al. 2007, Banerjee et al. 2010, Banerjee et al. 2012, He, Linden, and MacLeod 2009). An evaluation in Kenya found that students learned more when classes were tracked by initial test scores than they did in heterogeneous classes, because teachers were better able to tailor lessons to student's achievement levels (Duflo et al. 2011). The key insight across these studies is the need for instruction that is appropriate to children's actual learning levels, and for a commitment to the idea that all children can and should acquire basic skills.

2. Weak teacher incentives. To the extent that teachers face incentives, they may be to help students who are already at the top of the class, for the reasons mentioned above. In countries with a centralised civil service, teachers often are not accountable to local parents or school committees. In many areas, teachers even have weak incentives to come to work; teacher absenteeism is rampant in a number of developing countries. Performance pay for teachers that was tied to an objective measure of attendance (daily photos taken by students with cameras that had tamper-proof time stamps) cut teacher absenteeism in half and significantly increased student learning in India (Duflo, Hanna, and Ryan 2012). There is evidence that performance pay tied to student test scores can increase learning (Muralidharan and Sundararaman 2008a), but one study in Kenya found evidence of "teaching to the test," (Glewwe, Ilias, and Kremer 2010), suggesting a reason for caution with this type of intervention. There is also evidence from Kenya (Duflo et al. 2011) and India (Muralidharan and Sundararaman 2008b) that students learned more with local teachers hired on a short-term contract than with civil service teachers. The contract teachers were often paid far less than civil service teachers but had greater accountability to local school committees.

3. Distorted beliefs about the benefits of education. Parents and students may not understand the economic benefits of education, viewing it more as a lottery—consistent with the "winner-take-all" mindset described above—than an investment. However, research around the world has found a consistent relationship between educational attainment and earnings. Simply providing information about the returns to education has been shown to increase school attendance in the Dominican Republic (Jensen 2010) and to increase attendance and learning in Madagascar (Nguyen 2008). However, care must be taken to ensure that the information is presented as an average relationship rather than a prediction of personal results.

Benjamin Zeitlyn, Lecturer in International Education and Development, University of Sussex

Why are there poor quality student learning outcomes, even though enrolment is high?

- High PTRs
- Teacher absenteeism and poor incentives for teachers
- Low time on task – too many days off
- In Bangladesh half days and only 5 year primary cycle
- Overage children – only 20% the correct age in Grade 2 in Bangladesh http://www.create-rpc.org/pdf_documents/PTA48.pdf

Poor health and nutrition – strongly associated with all types of exclusion especially zone 3 silent exclusion.

Lant Pritchett, Professor of the Practice of International Development, Harvard University

The answer is "we don't know" but that reveals the deeper cause which is that it just hasn't been prominent enough on the agenda. That is, nearly all of the emphasis in international and national has been expanding enrollments so how surprising is it that we have high enrollments and little learning? So the answer is "kids are not learning because education systems have not really focused in on it."

Luis Crouch Team Coordinator, Global Good Practices Team Global Partnership for Education

There is not sufficient focus on the fact that learning matters. There is no measurement of it, or very poor measurement. There are insufficiently clear learning standards, along with lack of measurement. This is partly because politicians and the education system have not accepted it as their responsibility, and because society does not pressure for them to take this responsibility in an organized manner. All of this can be improved in countries where they do not exist, via processes of policy dialogue and studying what other countries have done.

Dr. Rukmini Banerji, Director, Pratham

All my/our (Pratham's) experience is from India where conditions and contexts may not be that different from Bangladesh.

One of the first challenges in tackling the issue of poor learning is to define it. We, in India, have defined it in a very simple way. We focussed on basic reading and on basic arithmetic. You may be familiar with ASER (Annual Status of Education Report) that has been done by Pratham in India annually in every district since 2005. ASER is a household survey done by a local organisation or institution in each district. The ASER findings shocked many people in India - although people were aware that learning was poor - the quantification was very helpful in focussing attention on the depth and extent of the problem. In India, we have close to 50% of children who have reached Std 5 but cannot read Std 2 level text. The arithmetic numbers are even more worrying.

While there can be debate and discussion on the ASER measurement methods and measures, the message is loud and clear (and it is reinforced by other empirical work done from time to time in the last 8 years in India). Learning is in crisis and something has to be done immediately and on large scale. It is not "remedial" anymore - it is a question of building foundations for learning for a vast majority of children. As the economist Lant Pritchett puts it, India is in a "big stuck". Further, we see hardly any improvement at the national level in basic arithmetic or reading trends over time in the last 7 years.

All of the ASER tools and findings can be found on www.asercentre.org including the basic information about how it is done etc.
http://www.asercentre.org/ngo-education-india.php?p=ASER%20KEY%20DOCUMENTS

Similar ASER like efforts are being done in Kenya, Uganda and Tanzania (see www.uwezo.net), Pakistan (see www.aserpakistan.org) also in Mali and Senegal.

Further Information

CREATE
http://www.create-rpc.org/about/exclusion/

CREATE has developed a model of zones of exclusion from education which it has used to shape its research in communities and schools and as a tool for policy dialogue (Lewin 2007a). In each of the zones the patterns and causes of exclusion from education are likely to be different. They may also be different from community to community. The model charts participation by grade and identifies different groups of children of school age that fail to sustain access to basic education.

Zone 1 contains those who never attend school. It includes those who could attend existing schools but do not, and those who are excluded by livelihoods, location, civil status, disability, social stigma or other vulnerabilities.

Zone 2 includes the majority of children who are excluded *after* initial entry, who drop out of school and fail to complete a full cycle. In an increasing number of countries these are the largest numbers of out of school children.

Zone 3 includes those in school but at risk of drop out, most obviously as a result of low achievement and poor attendance. These children can be described as "silently excluded" since they are enrolled but may learn little, attend irregularly, and/ or are over age.

Zone 4 contains those who fail to transit to secondary education as a result of failing to be selected, being unable to afford costs, or located far from a secondary school, or otherwise excluded.

Zone 5 includes those dropping out of secondary grades

Zone 6 contains those at risk of drop out from secondary school

Zone 0 captures those excluded from pre-school.

The Negative Consequences of Overambitious Curricula in Developing Countries
Lant Pritchett and Amanda Beatty, Center for Global Development Working Paper 293, April 2012

Learning profiles that track changes in student skills per year of schooling often find shockingly low learning gains. Using data from three recent studies in South Asia and Africa, we show that a majority of students spend years of instruction with no progress on basics. We argue shallow learning profiles are in part the result of curricular paces moving much faster than the pace of learning. To demonstrate the consequences of a gap between the curriculum and student mastery, we construct a simple, formal model, which portrays learning as the result of a match between student skill and instructional levels, rather than the standard (if implicit) assumption that all children learn the same from the same instruction. A simulation shows that two countries with exactly the same potential learning could have massively divergent learning outcomes, just because of a gap between curricular and actual pace—and the country which goes faster has much lower cumulative learning. We also show that our simple simulation model of curricular gaps can replicate existing experimental

findings, many of which are otherwise puzzling. Paradoxically, learning could go faster if curricula and teachers were to slow down.

Lant Pritchett, Professor of the Practice of International Development, Harvard University

We (as a research community) don't know precise and quantitative answers to the questions posed. Nearly all of the things in that list play some role. Only after we focus in on it will we know more about "why" in the more proximate sense but it boils down to "learning readiness" and "quality of instruction."

One new thing (just a few months old) is that part of the problem may well be that the curriculum moves ahead too fast and leaves those who don't get it early behind http://www.cgdev.org/content/publications/detail/1426129/

Luis Crouch Team Coordinator, Global Good Practices Team Global Partnership for Education

(b) Assuming (a) is solved or is on its way to being solved, there are two big sets of barriers:

(i) The first set has to do with the ability to make actors feel bound to the learning goals: teachers, district officers, etc., and to relentlessly focus on achieving the standards. This requires increasing the ability of the bureaucracy to demand professionalism, but also requires more community involvement and awareness. Generating that involvement around learning is much more difficult than generating it around access, because the latter is more obvious. This is why learning standards are so important: they make the less obvious more obvious.

(ii) The second set has to do with the fact that even if you have clearer standards, and some elements of professionalism and accountability, most of the actors don't have sufficient knowledge on how to respond to the standards and the demand for accountability and professionalism. In my experience and in my reading of the literature, there are five main issues: a) the teachers don't know how to teach to standard, they don't have specific-enough lesson plans that can shore up the weaker teachers, and that are pretty much guaranteed to produce learning if assiduously applied, and they don't have coaches or supporters who know what they are doing in terms of being able to help the teachers teach to standard and deliver the lesson plans; b) the learning materials (books, mostly, for now) are often lacking or of poor quality (not based on any research of what helps learning) or too expensive, c) there is insufficient and inadequate management of time (student absenteeism, teacher absenteeism, lack of time on task when both are present), d) and there is inappropriate assessment of student learning, in that it is not available to the teachers, and there is little coaching support to the teachers that is based on the results of the assessments; and e) there is insufficient instruction in the children's mother tongue (not an issue in Bangladesh, just mentioning it as a general case).

Dr. Rukmini Banerji, Director, Pratham

Again using the research and experience in India we see several major reasons - you have listed some already and I am listing some with some references that you may be able to read up as well

- Need to articulate clear and achievable learning goals : Most countries do not do that. For example there are language textbooks but teachers are not taught how to instruct or help children to read. In India - the grade level expectations are what is in the textbook.

- "Negative consequences of overambitious curriculum"': Excellent paper by Lant Pritchett and Amanda Beatty that lays out this whole issue well. Bottom line is that even in early grades textbook level is far higher than what most children can reach. A study done by ASER Centre called Inside Primary Schools also shows this well.

- Tremendous diversity in each grade level and challenges to effective teaching: If we take India as a case in point. In Std 5, there are 50% children who are at least at Std 2 level, another 25% who are only about at Std 1 level and the rest who are not even at that level yet. What is a teacher supposed to do? Who is she supposed to teach? She has a Std 5 textbook in her hand and most often that is what she is uses in instruction. But there is probably less than 10% children in her class who can keep pace with her and the textbook. (see recent article and ppt by me to highlight this issue.) Serious efforts to reorganize instruction by groups and levels is needed rather than the traditional age-grade linear movement through the school system.

- Teacher capability to teach: Much of the teacher training done in India has two characteristics - first, it is very theoretical and second it assumes that every teacher has a homogenous class where children are at grade level. In many ways despite the large expenditures on pre and in service teacher training we are unable to equip our teachers to deal with the reality in our classrooms. Recent assessments done of teachers show that teachers need help (in training and via field support for effectively communicating what is in the textbook) (see SchoolTELLS - a study by Geeta Kingdon and myself as well as Inside Primary Schools).

- Effective and useable methods for teaching-learning: This is important.

- Home language and school language: This is a relatively under-studied and under-understood area. Difference in home language and school language can account for a big difference in early reading levels and cause getting left behind early. (See Inside Primary Schools for some discussion and data on this).

- Building home support for children's learning: ASER data shows us that close to half of all mothers of children who are currently enrolled in school have not been to school themselves. Less than 20% of rural households in India any reading material for children at home other than textbooks (which are already not at the level of the child). Recent work done by Pratham outlines what all can be done to engage mother's in their children's learning and with what impact. You can read about this intervention on the ASER Centre website and see short video clips (www.asercentre.org) and on the JPAL website as well

Shawn Powers, Policy Manager, Abdul Latif Jameel Poverty Action Lab, on behalf of Professor Banerjee and the Education Program at J-PAL

See responses to #1 above about inappropriate curriculum, weak teacher incentives, and distorted beliefs among parents. Some additional barriers suggested by J-PAL research include:

1. *Intestinal worm infections.* A suite of studies on school-based mass deworming treatment in Kenya found that deworming medicine reduced student absenteeism by one fourth in the short run and led to higher earnings in the long run (see J-PAL 2012 for a summary).

2*. Education costs and subsidies.* A large number of studies show that poor families are sensitive to out-of-pocket expenses for schooling, such as uniforms, and that incentives for school attendance such as conditional cash transfers (CCTs) can significantly increase attendance (see Section 2 of Kremer and Holla 2009 for a review).

Benjamin Zeitlyn, Lecturer in International Education and Development, University of Sussex

See: http://www.create-rpc.org

And for Bangladesh: http://www.create-rpc.org/publications/countrystudies/bangladesh/

http://www.create-rpc.org/pdf_documents/PTA51.pdf
http://www.create-rpc.org/pdf_documents/PTA49.pdf
http://www.create-rpc.org/pdf_documents/PTA48.pdf
http://www.create-rpc.org/pdf_documents/PTA45.pdf
http://www.create-rpc.org/pdf_documents/PTA12.pdf

Especially the CREATE concept of silent exclusion – zone 3 of the zones of exclusion. Children who are nominally enrolled but not learning.

Research Papers and Further Information

Age in Grade Congruence and Progression in Basic Education in Bangladesh
Altaf Hossain, CREATE Pathways to Access, Research Monograph No. 48, October 2010
http://www.create-rpc.org/pdf_documents/PTA48.pdf

In Bangladesh gross and net enrolment rates are used to measure overage and underage enrolment in the education system. However, due to the limits of these methods in exploring the issue of age in grade, the paper uses the CREATE Community and School Survey (COMSS) data from Bangladesh. COMSS was a longitudinal survey of 6,696 households with 9,045 children of 4-15 years old in 2007 and 2009. The paper shows that 69.4 percent of 6-15 year old children, enrolled in primary and secondary schools in 2007 are age in grade incongruent and that in the early grades of primary school this proportion is even higher. Age in grade incongruent children come from relatively low income families and have relatively poor health. Age in grade incongruent children attend school irregularly and perform worse than the congruent children of the same grade. Less than 50 percent of primary Grade 1, 2 and 3 children progress to the next grade on time. Slow progressing children also come from relatively low income families, have relatively poor health and inadequate learning materials compared to regularly progressing children of their grade group. The slow progressing children attend school irregularly compared to the regularly progressing group and get less primary school stipend money. Both these age in grade incongruent and slow progressing children are increasing the number of 'silently excluded' children in classrooms.

The Rebirth of Education
Chapter 1: Schooling goals are not education goals
Lant Pritchett, DRAFT BOOK

The goal of education is to equip children to flourish as adults— as parents and caregivers to the next generation of youth, as participants in their communities and societies, as active citizens in their polity, and as productive workers in their economy. The challenge of formal education is to supplement what parents can provide and, in a few formative years, build the

foundation for a long and successful lifetime. The fundamental measure of success of any system of basic education system is whether each successive cohort of children emerges from childhood equipped with the skills and capabilities for the world they will face.

We all know that in this complex and rapidly-changing world, each child needs schooling. We've seen massive expansions in *schooling* in nearly every country in the world. Nearly all countries will meet the Millennium Development Goal of children "completing a full course of primary schooling" by the target date of 2015. Each new cohort of youth enters adulthood having spent more and more time in a building called a school.

But no one has ever really had only a schooling goal; we all, for our own children and others, have *education* goals. Schooling is the means to the goal of education. Are children around the world today emerging from the *schooling* they get with the *education* they need? No.

The accumulated body of performance in learning, from internationally comparable tests, to assessments of curricular mastery, to academic studies, to civil-society-designed and implemented tests, shows truly tragic results among *schooled* children. In rural Andhra Pradesh, India, only around 1 in 20 children in *fifth* grade could fill in this blank: 200+85+400=600+____. Less than 1 in 10 of these children in *fifth grade* understood 1/4 of a chocolate bar was less than 1/3 of a chocolate bar. In a different country-wide assessment in India, 60 percent of the children who had made it all the way to grade 8 couldn't use a ruler to measure a pencil. Similar findings of very low levels of conceptual mastery emerge from Pakistan, Tanzania, South Africa, Indonesia, and around the globe. Even in many middle-income countries like Brazil, internationally comparable assessments reveal that more than *three quarters* of their youth are reaching age 15 without adequate learning achievement and are ill-equipped to participate in their economy and society. While in the educationally-advanced countries, educators are rightly worried about 21st century skills, millions and millions of children finish schooling without the basic literacy and numeracy skills of the 19th century.

The problem is that the *learning achievement profile*, the relationship between the years of schooling children attend and what they learn and the capabilities they acquire, is just too damn flat. Children learn too little each year, fall behind, and leave school unprepared. In most developing countries schooling goals are not fulfilling even the most modest education goals.

D5. Do traditional inputs such as classrooms, textbooks, cascading teacher training and others create the enabling learning environment needed?

Lant Pritchett, Professor of the Practice of International Development, Harvard University

The one thing we know, pretty much for sure, is that 'traditional inputs" are not really the answer. There is a massive empirical literature on this and my interpretation of this literature is that if the actors in the system are nor learning driven no amount of inputs will make much difference. Conversely, research from the LEAPS study in Pakistan shows that some schools perform almost a student standard deviation above other schools, even at roughly the same level of inputs, so there is scope for massive improvements. Atherton and Kingdon show that substituting contract teachers for regular teachers in Uttar Pradesh doubles learning and cuts teacher costs by four-fifths. Again, there are massive gains possible at same inputs.

The problem is that everyone wants very badly the answer to be inputs (or some new variant on inputs like "cascading teacher training") because inputs are what donor and government systems know how to do. But it is a like a recipe. A cake has flour in it. But if your cake didn't rise because you didn't put baking powder in it then more flour does not solve the "not rising"

problem. So flour is an input but without leavening "more flour" is not a solution to bad outcomes.

Luis Crouch Team Coordinator, Global Good Practices Team Global Partnership for Education

A key aspect in all this is providing evidence that "it" (learning improvement) can be done. This is important as education sectors are often mired in pessimism and negativity. The quality or learning task has come to be perceived as generally undoable, or as very complex. And in sectors where there is this kind of frustration and negativism, there is a tendency for everyone to blame everyone else and to spend their energies on this blame game. Thus, it is important to provide the society with some relatively quick wins, by putting together the elements noted above around one or two key, doable goals, such as improving reading and numeracy in the early grades, in a major and demonstrable manner.

Traditional expansion of inputs (teachers, books, etc.), without paying attention to their true quality (e.g., are teachers able to teach to standard, are the books based on serious research and analysis of what books help children learn and are appropriate to children often coming from pre-literate households), and to efficient management / supervision (is there an effective system for coaching the teachers, to books get distributed plentifully and on time) that is focused on learning, will not produce results.

Finally, an important issue is that traditional methods (e.g, choral rote repetition of something that's written on the board, instead of actually teaching reading) don't work very well (except for the small subset of children who would have learnt anyway), but, also, ideas imported from the West and from the urban upper middle-class, that assume a great deal of home support and assume children are exposed to books, and come from a literate environment (e.g., the promotion of discovery-based learning) also don't work. What's needed often is something that is "modern" in the sense that is based on a really analytical approach to what works, but also appropriate in that it realizes that the prior knowledge base of the children is very very low, and the teachers need a lot of guidance as they are inherently, themselves, not very well educated, so you cannot expect the same from them that you'd expect from a teacher in the West.

Dr. Rukmini Banerji, Director, Pratham

We believe that traditional inputs are needed and necessary but not sufficient. Clear and achievable learning goals needed to be articulated that are understood by teachers and if possible by parents. All the efforts put in by the system - teacher training, classroom activities, curriculum/textbooks, field support and monitoring, review need to be aligned to achieve these goals.

Some of the promising strategies that we in Pratham feel have worked:

Teaching at the right level : If children are grouped not by age/grade but by level of learning, they seem to make much faster progress than in the traditional setting. Two examples of this:

Summer camps: In the state of Bihar, the government and Bihar carried out summer camps for about one month. These camps were organized for children in Std 3,4 and 5 who were not at yet able to read simple text fluently or do basic arithmetic (basically these children were not yet at Std 2 level).A simple ASER type assessment was used to identify the reading and arithmetic level of children and to group the children by level. Government school teachers were assigned to each of these groups and they used simple basic activities and appropriate materials to work with these children daily for 2-3 hours. The evaluation showed that the

learning gains made during this summer period was higher than the learning during the school year.

- See summary
  http://www.icontact-archive.com/2tHo2txPcQb9iIKe9ftCX3WN4I44K3T9
- Also See : chapter on education in the book "Poor Economics" by Abhijit Banerjee and Esther Duflo for more details.
- Also http://www.povertyactionlab.org/evaluation/read-india-helping-primary-school-students-india-acquire-basic-reading-and-math-skills
- You can see the attached video link to get a sense of what summer camps can be like.
- **Harshad's Learning Camp:** This short film shows you how learning camps were conducted as part of Pratham's Read India program this summer. http://www.youtube.com/watch?v=FGKNALQM39Q&feature=em-share_video_use

Grouping by level during the school day : Grouping children by level during the school day has been effectively done statewide in Punjab (in a collaboration with Pratham and Punjab government) - where there were significant increases in basic learning levels in a period of 2 years. Currently similar initiatives are on in Haryana (where the program is being evaluated by JPAL) and in a district in Bihar (where the program is being evaluated by external agency). In both Haryana and Bihar, the grouping by level is being done by the government school system itself.

Bridging home and school : The "distance" between home and school is substantial for many reasons. Most of the Pratham effort via different kinds of school and community interventions are attempts to bridge this gap. Community volunteers work with children in variety of contexts - in school, after school, in pre-school, for learning improvement, camps etc. In all the impact evaluations of Pratham programs, the volunteer effort consistently comes out as significant. From this we infer that attempts to link home and school, home environment and learning are very important in contexts such as ours.

General references:

- Papers reviewing the available literature : See
  - o Karthik Muralidharan paper
  - o Chapter on education in Poor Economics - Banerjee and Duflo
  - o Paper in progress by Michael Walton and Shobhini Mukerji (you may have to ask Michael_Walton@harvard.edu for the most recent version)
- Papers or documents on "what works" - impact evaluations of programs - contact
  - o Luis Crouch of Global Partnership for Education - concise and useful on key elements for basic reading
  - o http://www.povertyactionlab.org/education. Iqbal Dhaliwal of JPAL (iqbald@mit.edu)
  - o Chloe OGara of Hewlett Foundation for the summary of all the early reading impact evaluations that they have commissioned cogara@hewlett.org

Shawn Powers, Policy Manager, Abdul Latif Jameel Poverty Action Lab, on behalf of Professor Banerjee and the Education Program at J-PAL

There is little evidence that traditional inputs by themselves, without other changes in the learning environment, have much of an effect on learning. Randomized evaluations of textbooks and flipcharts in Kenya failed to find an effect on learning for most students (Glewwe et al 2009; Glewwe et al. 2004), with the exception that textbooks increased test scores for already higher-performing students. This reinforces the notion that curricula and

instruction were geared toward the top of the class. There is also evidence from India that additional spending on classroom inputs may be ineffective if it induces parents to spend less on educational inputs themselves (Das et al. 2011). A program that established village-based schools in a remote province of Afghanistan found significant learning gains, especially among girls (Burde and Linden 2012), suggesting that basic infrastructure is important in underserved areas where children must travel long distances to attend school.

Benjamin Zeitlyn, Lecturer in International Education and Development, University of Sussex

Yes – these are the bare minimum required in any education system, they work if they are delivered to the poorest in sufficient quantity and on time.

In Bangladesh the poorest do not get enough classrooms, schools, teachers, training, books, pens, pencils. They go to the worst school types in a tiered system of unequally funded schools – funding community and RNGPS schools at the same rate of the government primary schools (ie. providing the poorest with the same resources as others) would help.

Schools run double shifts, class sizes are too big, not every child has a pen, book, bag etc.

Research Papers and Further Information

School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010
Paul W. Glewwe, Eric A. Hanushek, Sarah D. Humpage, Renato Ravina, NBER Working Paper No. 17554, Issued in October 2011
NBER Program(s): ED LS PE
http://www.nber.org/papers/w17554

The estimated impacts on time in school and learning of most school and teacher characteristics are statistically insignificant, especially when the evidence is limited to the "high quality" studies. The few variables that do have significant effects – e.g. availability of desks, teacher knowledge of the subjects they teach, and teacher absence – are not particularly surprising and thus provide little guidance for future policies and programmes.

Inside Primary Schools: A study of teaching and learning in rural India
Suman Bhattacharjea, Wilima Wadhwa, Rukmini Banerji, Pratham Mumbai Education Initiative, October 2011G

Supported by UNICEF and UNESCO, this longitudinal study tracked 30,000 rural children studying in Std 2 and Std 4 in 900 schools spread over five states (Andhra Pradesh, Assam, Himachal Pradesh, Jharkhand, and Rajasthan). These children, their classes, schools and families were tracked over a period of 15 months (2009–2010) in order to take a comprehensive look at the factors in the school, in the classroom and in the family that correlate with children's learning outcomes. The research provides important inputs for action as states begin to implement the Right to Education Act.

There are six main findings:

1. Usual assumptions about 'age-appropriate grade' and 'grade-appropriate learning levels' do not match ground reality.
2. Textbooks have unrealistic expectations about what children can do and should learn during one year.
3. Teachers' ability to teach matters. But educational and professional qualifications do not guarantee effective teaching.

4. Teachers understand the importance of 'child friendly' practices. But classrooms are not child friendly at all.
5. Attendance matters. Children who attend regularly have better learning outcomes.
6. Empirical evidence can be helpful in shaping policy and practice.

Studies conducted by Government and civil society have told us that learning levels are not meeting the goals set out in the Right of Children to Free and Compulsory education (RTe) Act, which mandates child centered, child-friendly learning. This study is an attempt to figure out why and to identify what elements may make the difference. What is happening – in the teaching-learning process, in the school environment or at home – that hinders children from learning and from accessing their right to at least eight years of quality education?

In the classrooms where we do see these elements, children learn better. The results from this study provide indications of what we might do differently to reach learning goals. Some of these indications are simple to implement, i.e. time tables in school followed consistently, additional teaching and learning materials, regular reading of library books, unlocking girls' toilets to ensure access, encouraging children to ask questions. However, the evidence also indicates that substantial reform is required in teacher training to insure more child-centered teaching tools and methods, and in assessing teachers' skills and teaching ability to ensure real learning. The evidence also points to the need to reform textbooks to be more appropriate for children's age and ensure better mastery of the foundations of early literacy and numeracy that are the building blocks required to meet the goal of all children completing elementary education and beyond. With a little push and support, each and every child can reach the summit of her potential. Each school can create a safety net to catch those who may be the most at risk of dropping out or not learning.

Priorities for Primary Education Policy in India's 12th Five-year Plan
Karthik Muralidharan1, July 12, 2012, Working Draft, Comments Welcome

Policy Recommendations
While there has been a considerable amount of high-quality research in the past decade on what does and does not seem to matter for improving learning outcomes in India, it is not obvious that each of these individual research findings should directly translate into policy. Policy formulation needs to consider technical, administrative, ethical, as well as political factors and even the best technical studies can only provide inputs into one dimension of policy making. For instance, many programs which may not be 'cost-effective', such as education for children with special needs, may nevertheless be consistent with normative principles of a just and humane society. Nevertheless, given budgetary pressures and the existence of several sectors that can claim an ethical basis for increased spending in a fiscally constrained environment (including health and food security), it becomes both morally and practically imperative to account for cost-effectiveness in questions of public policy. Improving the cost-effectiveness of social sector spending will allow a fiscally constrained state to do more in the social sector and improve both efficiency in spending as well as achieve greater equity in outcomes.

The collection of evidence presented in this paper suggests that there are several 'low-hanging' fruit for education policy that can improve learning outcomes at low cost. Since the majority of disadvantaged children (especially in rural India) still attend government-run schools, the focus of this section is on the policy priorities that are most relevant to the running of the government-school system. The paper makes four main policy recommendations in this regard (in ascending order of ease of practical implementation as well as political feasibility).

Beyond recommendations for improving the performance of government schools, this section also makes two additional recommendations for better designing the education system in India. The first of these focuses on principles for more effective centre-state relations in

primary education (with the goal of designing education systems to encourage innovation, followed by evaluation, dissemination, and replication of successful initiatives). The second recommendation discusses principles for effective regulation of non-state actors in primary education (with a focus on private schools who now comprise a significant part of the education system, but also covering the vast number of not for profit organizations that work in the education sector in India).

The policy recommendations are:
- Make Learning Outcomes an Explicit Goal of Primary Education Policy
- Consider curricular reform to adjust for vast variation in learning levels and/or provide additional instructional resources in early schooling years to disadvantaged children with a view to bridging learning gaps at an early age
- Expand the use of locally-hired contract teachers (for remedial instruction)
- Principles for effective centre-state relations in primary education
- Principles for effective regulation of non-state actors in primary education Working

Education Policy in Developing Countries, Paul Glewwe, editor. Forthcoming book to be published by University of Chicago Press later in 2013.
Chapter 2: **School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010**
Paul Glewwe (University of Minnesota), Eric A. Hanushek (Stanford University), Sarah Humpage (University of Minnesota), Renato Ravina (University of Minnesota)

Perhaps the clearest finding is that having a fully functioning school – one with better quality roofs, walls or floors, with desks, tables and chairs, and with a school library – appears conducive to student learning. Of course, these attributes may partially be signaling an interest in, and commitment to, providing a quality education. On the personnel side, the most consistent results reflect having teachers with greater knowledge of the subjects they teach, having a longer school day, and providing tutoring. Additionally, and again unsurprising, it makes a difference if teachers show up for work; teacher absence has a clear negative effect on learning.

Randomized trials arguably provide the most rigorous evidence, but for most variables there is either no study at all, or at most one study. Thus, it is currently difficult to draw general conclusions from the available results. Somewhat surprisingly, however, for the two variables with more than one RCT (textbooks/workbooks and computers), no clear results have been found.

On the other hand, perhaps the most useful conclusion to draw for policy is that there is little empirical support for a wide variety of school and teacher characteristics that some observers may view as priorities for school spending. While one could argue that the absence of strong results simply reflects insufficient data (low statistical power) to detect systematic effects, it could also be the case that most of the effects are themselves small. Quite plausibly, part of the ambiguity comes from heterogeneous treatment effects, where the impact of various inputs depends importantly on the local circumstances, demands, and capacities.

There is also meager evidence at best for what can be done to increase students' time in school and attainment. Focusing on the 43 high quality studies, only two findings receive fairly clear support: building more schools increases students' time in school, and in-service teacher training reduces student time in school. The latter result is unexpected and admittedly is based on only two studies, but it may reflect that in-service teacher training takes teachers out of the classroom, so that the primary effect is similar to that of teacher absence. The randomised trials to date again provide insufficient evidence for clear policy directions, although if many more were conducted it is possible that clearer policy conclusions could be drawn.

Improved Learning Outcomes: Five Steps
Rukmini Banerji, Learning Note

<u>Introduction</u>

In the past decade or so, the author has accumulated evidence on how to produce learning outcomes from: a) projects he or his team have implemented, b) projects they have evaluated but others have implemented, and b) projects and national-scale efforts they find inspiring and of which they have detailed knowledge. This distillation therefore represents many years of direct, personal, yet rigorously-evaluated experience. In addition, the opinions expressed are based on the evaluation literature. *The results of these projects do not leave much doubt that it is possible, in a time frame even shorter than the average donor project, to produce significant, measureable improvement in children's learning outcomes—on the order of doubling, tripling, or even quadrupling children's outcomes*, particularly if these are low at baseline and particularly if there is a specific focus on a limited set of objectives such as early grade reading.

All together, they show that a variety of approaches can produce results, as long as they are militantly oriented at achieving results, and as long as most of a set of conditions, listed in the paper, are adhered to. If there is political will to actually implement, and sufficient time to prepare, then whole-country, scaled-up efforts of this kind would produce results in around five years at most.

<u>Lessons learned</u>

This note summarizes what all these experiences seem to show in common. The lessons are the following:

1. An over-riding lesson is that the *focus on learning outcomes has to be the driving concern.*
2. With regard to specifics, we mnemonically refer to the requirements as "the five T's," namely: time use, teaching technique, texts, tongue of instruction, and testing.
3. *A climate of accountability.*

<u>Evidence base from various efforts</u>

1. *EGRA Plus* (Liberia)*.*
2. *District Development Support Program (DDSP) and Integrated Education Program (IEP)* (South Africa).
3. *Breakthrough to Literacy (BTL)* (Zambia).
4. *Malindi District Experiment* (Kenya*).*
5. *Systematic Method for Reading Success (SRMS)* (South Africa).
6. *Read-Learn-Lead (RLL)* (Mali).
7. *Pratham's Read India effort.*

The Rebirth of Education
Chapter 3: More of the same is just more of the same
Lant Pritchett, DRAFT BOOK

It would be nice (and easy) if goals for universal *education* could be met the same way as those for universal *schooling*: more of the same and eventually children are equipped for the 21st century. If this were true, then the same coalition of advocacy, altruism, and self-interest could elide from a schooling goals (like the MDG) to learning and education goals—without innovation, disruption or change from the existing *access axis.*

But "wouldn't it be nice", is not a plan grounded in evidence about what "more of the same" will actually achieve. In this chapter, I marshal evidence to show four things.

First, if their current pace of progress is unchanged most developing countries would take *centuries* to reach acceptable levels of learning for their students.

Second, no developing country has an evidence-based plan for achieving significant progress in education. Nearly all countries have plans to spend more on inputs (and will call that "quality") but none has a plan for increasing student capabilities.

Third, copying the educational fads from rich countries is not going to work: pedagogical and educational problems of developed countries are entirely different than those of advanced countries.

Fourth, system change and the diffusion of innovations, rather than intensifying existing inputs, are required to meet education or learning goals.

This is not to say that inputs cannot affect learning in developing countries. But augmenting the exterior trappings of good schools does not make a good school. Without the animating drive that is the heart of any functional school, adding more of this or that just doesn't make that much difference. This is the lesson of Frankenstein: while most people have two arms, stitching arms on a cadaver does not make a living person; and conversely, people can lose an arm and still be functional. Appearances can be forced from outside; performance must be driven from within.

6. Learning barriers that affect an individual child

Disabled Children- physical disabilities, learning disabilities

Barriers to Education- A Note
Leonard Cheshire Disability
http://www.eenet.org.uk/resources/docs/barriers%20to%20education.pdf

It well known and oft quoted that disabled children have five and a half times the chance to be out of school than non-disabled peers. Further, to put a figure to this information, out of the 72 million children out of school across the globe, 24 million are children with disabilities with the numbers increasing.

Above all the barriers mentioned, the crucial point to be noted is that inclusive education cannot be in any way equated with only enrolment and with the mere construction of a ramp. Enrolling a disabled child into school is only the beginning of the process. The school community needs to be prepared for the education of the child and all stakeholders must have undergone capacity building. Focus needs to be put on the education on severely disabled children who often get left out of the system.

Investigation of secondary school teachers' attitudes towards and knowledge about inclusive education in Bangladesh
Khan, Tania Afreen, 2011
http://ir.canterbury.ac.nz/handle/10092/6290

A willingness on the part of teachers to support all children in the mainstream classroom, including children with special needs, is the hallmark of inclusive education. This study used a mixed method design to explore the attitudes towards and knowledge about inclusive education of 30 randomly selected secondary school teachers in Bangladesh. The ATIES (Attitudes Towards Inclusive Education Scale; Wilczenski, 1992) was used to measure

teachers' attitudes towards inclusive education. Semi-structured interviews about knowledge of inclusive education were also conducted with six teachers, and analysed using thematic analysis. The findings were that secondary school teachers had predominantly positive attitudes towards inclusive education for children with special needs, except for children who had physical disabilities such as visual or hearing impairments. The results also suggested that secondary school teachers have diverse conceptualisations of inclusive education, and that barriers to the success of inclusive education include insufficient knowledge, lack of training, and lack of teaching materials. The current findings are a step towards increasing knowledge about and implementation of inclusive education, not only in Bangladesh, but also in other developing countries.

7. Social barriers once the child is in school

The literature points to many social barriers which affect learning, once the child is enrolled. These factors affect areas such as poor cognitive ability, low attendance, poor learning ability, factors leading to drop out and issues affecting children when they are in school. Some important areas include poor home environment and language difficulties (for example not being taught in your mother tongue). Other important areas are presented below.

Gender

Opportunities lost: The impact of grade repetition and early school leaving
UNESCO Institute for Statistics, 2012
http://www.uis.unesco.org/Library/Documents/global-education-digest-opportunities-lost-impact-grade-repetition-early-school-leaving-2012-en.pdf

Boys are more likely than girls to repeat grades in all regions, except in East Asia and the Pacific. The second highest share of primary repeaters is found in South and West Asia.

Barriers to girls' secondary school participation in rural Bangladesh
Jennifer Hove, PhD Thesis, 2007, Simon Fraser University
http://summit.sfu.ca/item/2633

This study explores girls' secondary school participation in rural Bangladesh. Specifically, I seek to lend insight into the factors that inhibit girls' retention through to completion of secondary school. This question is particularly relevant in light of the Female Stipend Programme (FSP), which provides financial school incentives to eligible girls. To uncover the main determinants of girls' participation, I utilise data from interviews with teachers, parents, girl students and out-of-school girls from four schools and villages in rural Bangladesh. Interviews reveal the importance of socio-economic condition and private tutoring to understanding why some girls remain in school and others do not. I use interview responses and educational data to analyse four policy options based on their impacts on access, learning achievements, school improvements, financial sustainability and stakeholders' response. I conclude by recommending that the FSP be modified to target disadvantaged girls and to provide instructional support to stipend recipients.

http://www.malaysiandigest.com/world/130492-76-per-cent-female-students-face-sexual-harassment-in-bangladesh.html

Nutrition and hunger

Nutrition and Schools HEART Helpdesk Report

There is little doubt that undernutrition limits national intellectual potential and has a significant impact on cognitive development. The research illustrates it has major effects

during the period from conception through to the second birthday. Irreversible damage to the physical, mental, and social development of the child occurs during this period. Therefore great effort should be made to prevent malnutrition before the second birthday as a high−priority investment in educability and economic growth.

With regards to specific nutrition interventions it was found that:

- Iron supplementation improves mental development modestly.
- School feeding programmes can enhance school attendance and educational outcomes
- There is not enough evidence to suggest deworming has a positive effect on school performance.
- For haemoglobin, community deworming seems to have little or no effect, and the evidence in relation to cognition, school attendance, and school performance is generally poor, with no obvious or consistent effect.
- Limited evidence from both animal and human studies suggests that zinc deficiency may lead to delays in cognitive development
- Both conditional and unconditional transfers tend to improve school enrolments and attendance

Developmental potential in the first 5 years for children in developing countries
McGregor, S. G. 2007, *The Lancet*, 369 (9555) 60 - 70
www.thelancet.com/journals/lancet/article/PIIS0140-6736(07)60032-4/fulltext

This is a cross-country analysis of the long term impact of undernutrition and poverty on children's cognitive abilities. It uses childhood stunting and the number of people living in absolute poverty as the indicators to predict education outcomes such as the number of years in schooling, reading and math test scores and attained grades. The paper finds that both stunting and poverty are closely associated with poor cognitive ability in early life and in turn is associated with poor educational outcomes in schools too.

Impact of feeding children in school: Evidence from Bangladesh
Akhter U. Ahmed, Commissioned by The United Nations University, International Food Policy Research Institute, Washington, D.C., U.S.A., November 5, 2004
http://www.lcgbangladesh.org/FSN/reports/IFPRI%20Final%20Report_School%20Feeding%20in%20Bangladesh.pdf

In July 2002, in order to diminish hunger in the classroom as well as to promote school enrolment and retention rates, the Government of Bangladesh and the U.N. World Food Programme launched the School Feeding Program (SFP) in chronically food-insecure areas of Bangladesh. SFP is the first effort in Bangladesh to provide incentives directly to primary-school children themselves, as opposed to cash or food to parents for sending their children to school.

SFP has raised school enrolment by 14.2 percent, reduced the probability of dropping out of school by 7.5 percent, and increased school attendance by about 1.3 days a month. These results are obtained from econometric models that captured the impact of the SFP alone, isolating the effects of income and other factors.

An extremely high percentage of mothers report several positive effects of the SFP on their children. They note that children's interests in attending school and concentration on studies have increased; they are livelier and happier than before, and their incidence of illness has declined.

Participation in the SF program increases test scores by 15.7 percent points. Participating students do especially well in mathematics. Students from urban slums do better in

achievement tests than do students from rural areas, probably due to the difference in quality between urban and rural primary schools.

Urban slums are underserved. In control urban slums, only about half of those who enter primary school stay to complete it. Direct and opportunity costs of schooling are likely to be the main causes for children from poor households in slums not to attend school. Besides low enrolment and high dropout rates, urban slum children are threatened by violence and other social disruptions. Some of these threats can be mitigated if children can be drawn to school.

The encouraging findings of this study suggest that the SFP could well be scaled up to benefit many more children—but care must be taken with targeting.

Impact of early childhood health and nutrition on access to education in developing countries
Jukes, M. 2007. *Paediatrics and Child Health*, 17 (12), 485-491
www.sciencedirect.com/science/article/pii/S1751722207002557

This is a broad review of the issues around child nutrition and education. It discusses the impact of micronutrients and early childhood stunting, as well as that of pre-natal and post-natal infections. It reviews some of the evidence on their effect on pre-school attendance and suggests that stunting and anaemia are conditions that are prevalent in younger children and which are associated with poor pre-school and primary attendance. It suggests that there are countless ways in which poor health and nutrition in the early years can influence a child's chances of attending school. All but a few of these conditions are preventable or treatable. The authors recommend a life-cycle approach is taken to address these conditions beginning with maternal child health programmes and integrated management of childhood illnesses during infancy and continuing with early childhood development programmes in the preschool years. Where such programmes are successful, more children will be able to enrol in school and benefit from expanding school health programmes. It concludes good health and nutrition from birth and before is essential for achieving education for all.

Grade repetition

Opportunities lost: The impact of grade repetition and early school leaving
UNESCO Institute for Statistics, 2012
http://www.uis.unesco.org/Library/Documents/global-education-digest-opportunities-lost-impact-grade-repetition-early-school-leaving-2012-en.pdf

In 2010, there were an estimated 13.3 million primary school-age children out of school in the South and West Asia region. Of this number, the biggest group comprised children who are not expected to ever enter school (49%).

There is a growing potential for a demographic dividend in the region as school-age populations increased by only 1.8 million over the last decade, meaning that, in principle, education systems can focus on reaching the excluded and improving the quality of education provision. In fact, enrolment skyrocketed by 31 million between 2000 and 2010, which helped to drive regional and global progress towards the goal of universal primary education.

Drop-out rates

Opportunities lost: The impact of grade repetition and early school leaving
UNESCO Institute for Statistics, 2012
http://www.uis.unesco.org/Library/Documents/global-education-digest-opportunities-lost-impact-grade-repetition-early-school-leaving-2012-en.pdf

In South and West Asia, for every 100 pupils who start primary school, 33 will leave before the last grade; this is especially shocking as the shortest average duration of compulsory education was observed in South and West Asia (5.7 years).

By looking at major patterns in pupil progression through primary and secondary education, it is possible to identify barriers to successful learning.
These key points usually include entry, grade progression, completion of a programme and transition to the next level of education.

Three main patterns emerge from analysis of a range of data. The first pattern is reflected by countries with extremely high participation rates in the initial grades, which then drop sharply after Grade 1 and with each successive grade. These education systems are characterised by high numbers of late entrants (children who are older than the typical or intended primary school entry age of 6-7 years) and high rates of early school leaving, especially in early grades. As early grades provide the foundation for further learning, this means children often leave school with very little in terms of skills. At the same time, these countries often have high rates of grade repetition. The stock of pupils rapidly declines over the course of primary education, so that fewer make the transition to secondary education. This is often seen in low income countries, especially in sub-Saharan Africa, but also in Asia and the Pacific, as well as Latin America and the Caribbean.

The second main pattern includes countries that have high gross participation rates in the initial grades of primary education (though not as high as countries in the first pattern), which is followed by a more moderate decline in participation rates. High rates of grade repetition are not uncommon, and early school leaving is a concern, especially at the secondary education level. This pattern is prevalent among middle-income countries, especially in Latin America and the Caribbean.

In the third main pattern, countries have relatively consistent participation rates across grades, with little grade repetition and fairly good retention through lower secondary education. This is the largest group and includes countries from all over the world – from the highest performing systems in sub-Saharan Africa to most countries in North America and Western Europe, Latin America and the Caribbean, Central and Eastern Europe, Central Asia, and the Arab States.

Overall, this section has shown that the schooling trajectory is not always smooth, nor does it deliver desired results for many children in developing countries, especially for those coming from disadvantaged backgrounds. The next sections assess the magnitude of these barriers to learning, while highlighting the compounding effects of socioeconomic disadvantages on progression patterns of students. Poor children tend to enter school late, repeat grades and are more likely to leave school early or without requisite skills. Notably, the odds are stacked against them from the beginning – meaning that without early identification and intervention, it becomes more difficult and costly to influence their trajectory for the better.

8. Education System Problems

Teaching quality

Early Years Literacy in Indian Urban Schools: Structural, Social and Pedagogical Issues
Dyer C, 2008, Language and Education, 22:5, 237-253
http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ824610&ERICExtSearch_SearchType_0=no&accno=EJ824610

The relationship between schooling and literacy is an acute issue in India: the absolute numbers of non-literate adults, many of whom have failed to become literate at school, continue to increase; and high proportions of children are not achieving adequately in literacy at school. This paper presents a socially situated examination, drawing in part on collaborative action research, of how a small sample of primary teachers approach literacy teaching and learning in socio-economic contexts of disadvantage. The paper identifies structural, social and pedagogical constraints to effective literacy teaching and learning in schools. The working environments observed were not conducive to good-quality educational processes. Classrooms were crowded and under resourced. Project teachers routinely had 60 children to teach and frequently over 100 which limited the amount of individual attention they could give. The paper explores the impact not only of the socio-economic context of disadvantage on children's learning, but also the socio-cultural relationships between teachers and students. It identifies that current policy intends to reconstruct the role of teacher as facilitator of learning, rather than transmitter of knowledge. Observations identified that teachers often continue to adhere to the transmission approach rather than using methods that draw in children's experience or engage in meaning making. The paper focuses in its conclusions on the implications of its findings for both initial and in-service teacher education.

A framework for evaluating qualitative changes in learners' experience and engagement: developing communicative English teaching and learning in Bangladesh
Adrian Terence Kirkwood & Jan Rae, Evaluation & Research in Education, Volume 24, Issue 3, 2011
http://www.tandfonline.com/doi/abs/10.1080/09500790.2011.610504

This article presents the context and framework for evaluation studies of educational transformations associated with the English in Action Project, Bangladesh (EIA) as it progresses over a nine-year period. EIA was launched in May 2008 with the intention of developing *communicative* English language learning and teaching in Bangladesh. Through a range of interventions involving school students, teachers and young adults, EIA aims to achieve measurable changes in the way that English is taught and learned in Bangladesh, such that useful communicative competence results. Before the interventions were launched, baseline research was undertaken to examine the environment and contexts within which the project would operate. The Baseline Studies not only provide information and data that will enable subsequent comparisons to be made to assess the impact and effects of the project, they also make evidence available to inform the development of project activities. Innovative approaches to language and teacher development are being employed in order to address the challenges and legacy issues identified. Evaluation of the anticipated qualitative changes over the life of EIA requires a broad programme of studies focusing on the various target beneficiaries.

Learning Levels and Gaps in Pakistan
Das J, Pandey P. Zajonc T.. World Bank Policy Research Working Paper 4067, Nov 2006.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=944668

This paper reports on a survey of primary public and private schools in rural Pakistan with a focus on student achievement as measured through literacy and numeracy test scores. Absolute learning is low compared to curricular standards and international norms. Children whose parents have higher educational or socio-economic status achieve higher levels of attainment. However these differences are dwarfed by the differences between schools. The gap in English test-scores between government and private schools, for instance, is 12 times the gap between children from poor and non-poor households after controlling for observed differences between children. Not all government schools are the same: the difference in learning between a high-performing and a low-performing government school is 24 times the difference between children from poor and non-poor backgrounds after controlling for observed child-level differences. To contextualise these results within a broader South-Asian

context, the authors use data from public schools in the state of Uttar Pradesh in India. Levels of learning and the structure of the educational gaps are similar in the two samples. This suggests that improvements in learning can be achieved through policies targeted at the school level. The authors do not examine the characteristics that make the difference between the schools, although they speculate that teacher commitment and motivation may play an important role.

Teacher Absence

Missing in Action: Teacher and Medical Provider Absence in Developing Countries
F. Halsey Rogers, September 26, 2005
http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,print:Y~isCURL:Y~contentMDK:20661217~pagePK:64165401~piPK:64165026~theSitePK:469382~isCURL:Y~isCURL:Y~isCURL:Y~isCURL:Y,00.html

Governments and donors may construct school buildings and supply textbooks, but if teachers are repeatedly absent, students are unlikely to learn. Moreover, high levels of teacher absence are likely to be symptomatic of other problems of quality control and accountability in education. Developing-country governments often spend 80 to 90 percent of their recurrent education budgets on teachers. A government that cannot ensure that its largest expenditure is yielding even the most basic of returns–getting teachers into classrooms–is unlikely to be effective at ensuring that students are learning. This reports talks about reasons for absence and how to reduce absence.

Teacher absence in India: a snapshot, Journal of the European Economic Association
Kremer M, Muralidharan K, Chaudhury N, Hammer J, Rogers F.H., 2005, 3 (2-3) 658-667 [doi:10.1162/jeea.2005.3.2-3.658]
http://onlinelibrary.wiley.com/doi/10.1162/jeea.2005.3.2-3.658/abstract

25% of teachers were absent from school, and approximately half were teaching, during unannounced visits to a nationally representative sample of government primary schools in India. Three unannounced visits were made to each of 3700 schools in 20 states. Higher rates of absence were concentrated in low-income states. Higher pay was not associated with lower absence. Older teachers, more educated teachers and head teachers were more frequently absent. The authors suggest that one reason why higher pay is not associated with lower absence may be that teachers feel little risk of being fired for absence and that teachers with a higher level of power may be less vulnerable to sanctions. Teacher absence is considerably lower in schools with better infrastructure including toilets for the teachers, a library, electricity, covered classrooms and non-mud floors and in schools which are closer to a paved road. Absence was also lower in schools that had been inspected within the last 3 months. The authors find little evidence that attempting to strengthen local community ties will reduce absence: teachers from the local area have similar absence rates as teachers from outside the community; locally controlled non-formal schools have higher absence rates than schools run by the state government and the existence of a parent-teacher association is not correlated with lower absence.

Lack of Resources

School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010
Paul W. Glewwe, Eric A. Hanushek, Sarah D. Humpage, Renato Ravina, NBER Working Paper No. 17554, Issued in October 2011
NBER Program(s): ED LS PE
http://www.nber.org/papers/w17554

Developing countries spend hundreds of billions of dollars each year on schools, educational materials and teachers, but relatively little is known about how effective these expenditures are at increasing students' years of completed schooling and, more importantly, the skills that they learn while in school. This paper examines studies published between 1990 and 2010, in both the education literature and the economics literature, to investigate which specific school and teacher characteristics, if any, appear to have strong positive impacts on learning and time in school. Starting with over 9,000 studies, 79 are selected as being of sufficient quality. Then an even higher bar is set in terms of econometric methods used, leaving 43 "high quality" studies. Finally, results are also shown separately for 13 randomised trials. The estimated impacts on time in school and learning of most school and teacher characteristics are statistically insignificant, especially when the evidence is limited to the "high quality" studies. The few variables that do have significant effects – e.g. availability of desks, teacher knowledge of the subjects they teach, and teacher absence – are not particularly surprising and thus provide little guidance for future policies and programmes.

Other Issues

Why Indian education needs to get back to reality
Rukmini Banerji, Ideas4India Blog, Posted On: 12 Oct 2012

The education system in India, like in many other countries, is built on a set of assumptions. The recent Right to Education (RTE) Law is also based on assumptions. Let's review some of these assumptions in light of recent evidence from across India (ASER data from 2005 to 2011). ASER – the Annual Status of Education Report is the largest annual nationwide survey done by citizens to understand the status of schooling and learning in India. ASER is done in every rural district in India every year.

Assumption 1: High enrolment means children are in school.
Assumption 2: Children are in school from age six onwards. India's RTE Law "guarantees" education from the age of six to the age of fourteen.
Assumption 3: Children in a given grade/ class are homogenous (of a similar age, ability etc.).
Assumption 4: Textbooks are at appropriate age/grade level.
Assumption 5: Every year the country's capability to deliver education is improving.

Coming back to the question of how should we be attached to our reality... If we don't look hard at our own reality, we will be constructing schools and curriculum for children who do not exist. If we don't look hard at our own reality, we will be creating laws for situations that are far from real. If don't look at our own reality, we will not be able to set out reasonable goals or align all efforts of schools, teachers and parents to achieve these goals. If we don't look at our own reality we will have a school system where only a few succeed and they rest will be left behind, never to catch up again.

9. Other useful resources

Recommended by Shawn Powers, Abdul Latif Jameel Poverty Action Lab

Banerjee A, Cole S, Duflo E, Linden L. 2007. Remedying education: evidence from two randomized experiments in India. Q. J. Econ. 122:1235–64

Banerjee, A, Banerji R, Duflo E, Glennerster R, and Khemani S. 2010. Pitfalls of Participatory Programs: Evidence from a Randomized Evaluation in Education in India. *American Economic Journal: Economic Policy* 2(1): 1-30.

Banerjee, A, Banerji R, Duflo E, and Walton M. 2012. "Effective pedagogies and a resistant education system: experimental evidence to improve basic skills in rural India." Working paper.

Burde D and Linden L. 2012. The Effect of Village-Based Schools: Evidence from a Randomized Controlled Trial in Afghanistan. IZA Discussion Paper No. 6531.

Das J, Dercon S, Habyarimana J, Krishnan P, Muralidharan K, Sundararaman V. 2011. School Inputs, Household Substitution, and Test Scores. Policy Res. Work. Pap. 5629, World Bank, Washington, D.C.

Duflo E, Dupas P, Kremer M. 2011. Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya. *American Economic Review* 101(August): 1739-1774.

Duflo E, Hanna R, Ryan S. 2012. Incentives work: getting teachers to come to school. American Economic Review 2012, 102(4): 1241–1278.

Glewwe P, Kremer M, Moulin S. 2009a. Many children left behind? Textbooks and test scores in Kenya. Am. Econ. J. Appl. Econ. 1:112–35.

Glewwe P, Kremer M, Moulin S, Zitzewitz E. 2004. Retrospective vs. prospective analyses of school inputs: the case of flipcharts in Kenya. J. Dev. Econ. 74:251–68.

He F, Linden L, MacLeod M. 2009. A Better Way to Teach Children to Read? Evidence from a Randomized Controlled Trial. Working Paper.

J-PAL Policy Bulletin. 2012. Deworming: A Best Buy for Development. Cambridge, MA: Abdul Latif Jameel Poverty Action Lab.

Jensen R. 2010. The (Perceived) Returns to Schooling and Demand for Education.

Kremer M and Holla A. 2009. Improving Education in the Developming World: What Have We Learned from Randomized Evaluations? Annual Review of Economics 1: 513-42.

Kremer M, Miguel E, Thornton R. 2009. Incentives to learn. Rev. Econ. Stat.

Muralidharan K, Sundararaman V. 2008a. Teacher performance pay: experimental evidence from India. Work. Pap., Univ. Calif, San Diego

Muralidharan K, Sundararaman V. 2008b. Contract teachers: experimental evidence from India. Work. Pap., Univ. Calif., San Diego

Nguyen T. 2008. Information, role models, and perceived returns to education: experimental evidence from Madagascar. Work. Pap., MIT

Other Resources

Challenges of Primary Education in India Powerpoint, October 2012, Provided with this paper

English in Action, BBC Janala, Baseline Research Synthesis
October 2009, Research and Learning (R&L) Group Bangladesh, Provided with this report

From Schooling Goals to Learning Goals: How Fast Can Student Learning Improve?

Amanda Beatty and Lant Pritchett. 2012CGD Policy Paper 012. Washington DC: Center for Global Development.
http://www.cgdev.org/content/publications/detail/1426531

By 2015, the universal primary education Millennium Development Goal (MDG) will be met in nearly all countries. However, millions of students still finish formal schooling without mastering basic literacy and numeracy. Schooling doesn't necessarily produce learning or education.

In this paper, we measure the observed annual pace of progress for developing countries in three cross-nationally comparable assessments that have been repeated over time: TIMSS (mathematics and science), PISA (mathematics and reading), and SACMEQ (mathematics and reading).

The pace of progress is very slow. At "business as usual" progress, it would take a century or more for developing countries to reach current OECD assessment levels. Slow progress is not universal—some countries are making sustained progress and thus accelerating the pace of learning progress is not impossible. However, setting overambitious learning goals may be counterproductive. Sustained progress faster than four points a year (on this scale) seems unlikely.

10. Additional information

Author
This query response was prepared by **Catherine Holley,** and **Imogen Featherstone**

Contributors:
Benjamin Zeitlyn, University of Sussex
Lant Pritchett, Harvard University
Shawn Powers, Abdul Latif Jameel Poverty Action Lab
Paul Glewwe, University of Minnesota
Luis Crouch, Global Partnership for Education
Rukmini Banerji, Pratham
Pauline Rose, EFA Global Monitoring Report
Leah Murphy, IDS
Fran Hunt, Institute of Education
Abhijit Banerjee, MIT