Fast Track Initiative
A global partnership to achieve Education For All

Learning for All

An Educational Case for Financial Replenishment of EFA FTI



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Acronyms

CCT	Conditional Cash Transfers
ECD	Early Childhood Development
EFA	Education For All
EGRA	Early Grade Reading Assessment
EPDF	Education Program Development Fund
FTI	Fast Track Initiative
LLECE	Latin American Laboratory for Assessment of Quality of Education
MDG	Millennium Development Goal
PASEC	Programme d'Analyse des Systemes Educatifs de la CONFEMEN
PIRLS	Progress in International Reading Literacy Study
PISA	Program for International Student Achievement
SACMEQ	Southern and Eastern African Consortium for Monitoring Educational Quality
TIMSS	Trends in International Mathematics and Science Study
UNDP	United Nations Development Program
UNESCO	United Nations Education, Scientific and Cultural Organization
UNICEF	United National Children's and Educational Fund
UPE	Universal Primary Education

Preface

The purpose of this report is to present the educational arguments for a robust replenishment mechanism for the EFA FTI trust funds. The report is primarily a literature review and document analysis of the efforts made by the EFA FTI Task Team on Replenishment.[1]

The report seeks to understand the role of universal primary education as the fundamental goal of both the Education for All (EFA) movement and the Millennium Development Goals (MDGs) on education. Although both the MDGs and the EFA movement seek to improve education and ensure that all children are achieving primary education by 2015, only the EFA movement emphasizes the importance of the quality of education. For instance, MDG 2 states that by, "2015 children everywhere, boys and girls, will be able to complete a full course of primary schooling." However, this MDG targets achieving primary school completion of all children by 2015 without making an explicit reference to quality of education. The EFA goals, in contrast, do emphasize the importance of quality. The second EFA goal states:

- *By 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality.*

Furthermore, EFA goal six states that by:

- *Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.*

These goals were established because education is viewed as a basic human right.[2] Pritchett (2004) notes the importance of equipping people with the range of competencies which include both cognitive and non-cognitive skills, knowledge, attitudes that are necessary to live productive, fulfilling lives fully within their societies and communities.

Primary education is only one part of the EFA movement. EFA also includes educating adults and those bypassed by the formal education system (or informal education). This paper, however, focuses on primary education because it is the principal means by which all countries seek to educate new generations. Therefore, the quality of primary education is important before emphasizing on the quality of secondary and higher education. In addition, public sector interventions at the primary level have much higher payoffs than interventions at later stages. The paper also focuses on cognitive learning outcomes as the main goal of basic education, but recognizes that 'values' also constitute an important, though less easily measured, objective (UNESCO 2007; Pritchett 2004; Mertaugh et. al. 2009).

[1] The task team was commissioned in Oslo in December 2008 to recommend a detailed replenishment mechanism to the FTI Board of Directors. The task team presented several recommendations which were approved by the Steering Committee in Copenhagen in April 2009. Having completed its mandate and submitted its final summary report, the task team was disbanded. The task team was chaired by the UK and its members were Denmark, the World Bank, Spain, UNESCO, EC, and the FTI Secretariat.

[2] See Appendix 5, UNDP 2005a, Universal Declaration of Human Rights 1948, and Clemens 2004 for review of the long history of commitments to universal primary education (UPE) from 1948 to 2000 (Pritchett 2004).

Executive Summary

The Education for All – Fast Track Initiative (EFA FTI) has been successful in reducing donor fragmentation and stimulating country-led education sector plans. EFA FTI has supported 32 low-income countries through its Catalytic Fund with commitments of US$1.6 billion and disbursements of US$689 million (2002-2009). However, the EFA FTI faces financial constraints in new commitments. As a proposed solution the EFA FTI Board of Directors is exploring the establishment of a formal cycle of resource replenishment similar to the international Global Fund to Fight AIDS Tuberculosis and Malaria (GFATM). The aim would be to provide low-income countries with reliable, increased and long-term financial support for basic education. This report addresses the *educational* reasons for establishing an EFA FTI replenishment mechanism.

The educational justification rests on the crucial importance for economic growth and poverty alleviation of raising learning outcomes for full age cohorts, and the time and financing required to achieve it in low-income countries. Sustained and increased international support to those countries is indispensable and necessary. EFA FTI is one important global mechanism to achieve learning for all (full age cohorts) – the real policy goal.

Getting all children in school is only the first challenge. Despite recent progress, about 72 million children are still not enrolled in primary school. Completion of the primary cycle is a second challenge: Student survival rates have improved, but one third of entering students in Sub-Saharan Africa and one fourth in South Asia dropout before completing the primary cycle. Survival rates are lowest for children from poor households. On current trends 60 percent of measured countries that have not yet reached universal primary enrollment will not achieve it by 2015. According to UNDP, it could take more than 50 years to achieve universal primary enrollment in the Arab states and one hundred years in Sub-Saharan Africa. Some of the strategies to increase student attendance and completion rates aim at creating demand-side incentives. These include reducing the direct and indirect costs of attendance by eliminating school fees, equipping and furnishing classrooms, providing school meals and cash transfers conditional on attendance.

The greatest challenge for developing countries – and the real policy goal – is ensuring that all children have acquired basic cognitive skills when completing basic education. Individual earnings, the distribution of income and economic growth depend, not on the number of years of schooling attained, but on the cognitive competencies obtained in school. Economic growth flows *only* from reforms that raise cognitive skills and achievement. Returns to cognitive skills tend to be higher for low-income individuals. Policies that improve school quality and raise educational outcomes can improve the distribution of income.

In nearly all developing countries the levels of learning achievement are shockingly low. Findings from national, regional and international assessments point to deep deficits in student knowledge. In many low-income countries students learn virtually nothing and end up functionally illiterate. Not only do disparities exist among countries, learning outcomes also vary widely *within* countries. Learning outcomes are much worse for the poor which perpetuates inequalities. The damage to children of not achieving minimum cognitive learning in primary school is reversible only at great effort and high cost.

The best indicator for achievement of the main policy goal is the 'full age cohort primary completion rate with attainment of basic cognitive skills' (literacy and numeracy.) This indicator combines both quantitative information (enrollment and cohort completion rates) and qualitative information (proportion of graduates attaining minimum learning standards.)

Learning achievement can be raised through targeted investments and reforms. The learning process is complex: There is no single cause of low quality within an education system and there is no single solution for increased quality either, making complementary actions even more important. Non-school variables exert a major impact on educational achievement of children. Those can be tackled through child health and nutrition programs and early childhood care and development. School-related factors are especially important in low-income countries. In some countries nearly every aspect of the schooling system is seriously deficient – infrastructure, teaching materials, teacher availability and qualifications, lack of student assessments and lack of incentives for improving learning outcomes. Clearly a threshold level of resources and investment is essential to produce acceptable learning outcomes. How resources are spent is at least as important as how much is spent. But money *alone* is not the answer: institutional reform is also necessary to generate the right incentives within the system. Although much is known about the factors that influence learning achievements, there is not sufficient information available about which inputs are cost-effective for raising learning achievement in different country circumstances. Therefore, more, better and contextualized analysis is needed.

Box 1: Country specific strategies can raise learning achievement through actions in three areas

1. *Investing in enabling inputs* – infrastructure, learning materials and teachers – especially in low income countries;
2. *Improving teaching/learning processes*, including appropriate aims and content in the curriculum, language of instruction, dynamic teaching processes, having sufficient instructional time and using it well, and especially regular student assessment and exit examinations; and
3. *Reforming institutions to make schools work better*, particularly incentives structures. Promising reforms include greater parental control over school governance, local autonomy, school-based management and increased accountability of schools for student performance.

The full effects of quality improvements will materialize over time and require sustained support while gains are possible in the short term. Raising educational achievement to minimum acceptable levels requires difficult reforms that will take years to test, implement and take to scale. The benefits are only realized over the medium to long term, whereas the payoffs to cognitive skills are nonetheless massive, pervasive and well worth pursuing. Some low-income countries have been able to raise learning outcomes in the short term proving that relevant changes can produce immediate results. Also a country can achieve results in a relatively short period through policy reforms (ensuring teacher attendance, increasing time on task, focusing on reading in early grades, revising language of instruction policies) when their starting point is relatively low.

According to UNESCO's 2009 Global Monitoring Report, the cost for universal basic education is likely to be US$11 billion per annum. Currently, external financing meets less than a fourth of the required support. Reaching out to the remaining out-of-school children and enrolling them into school through breaking down access barriers is costly. While at the same time the provision of the essential "enabling inputs" for quality improvements is likely to be expensive, too. Inevitably, the worldwide economic recession will decrease domestic financing and widen the financing gap in low-income countries.

The introduction of a replenishment mechanism for EFA FTI trust funds could symbolize a milestone towards providing the sustained and increased financial support needed for low-income countries.

Such a mechanism could:

- stimulate countries to make the necessary reforms to boost access and learning outcomes;
- provide incentives for more countries to improve their and budgeting processes and adopt long-term visions and strategies for quality basic education; and

- give countries the confidence to embark on politically risky reforms.

Greater predictability of donor assistance could …

- improve the countries' financial confidence to invest in essential recurrent costs, such as hiring new teachers, without threat of disruption;
- enable countries to introduce new kinds of interventions, e.g. conditional cash transfers and per capita grants; and
- encourage countries to engage in strategic capacity development which is the key to institutional reform.

A regular financial replenishment of the EFA FTI trust funds would enable EFA FTI as a global Partnership to become more effective. The replenishment process could widen the narrow donor base and increase the volume of assistance to basic education. With increased financing, EFA FTI could cover additional eligible countries not yet receiving EFA FTI support. It could sustain its policy dialogue and introduce new forms of assistance, e.g. progressive funding mechanisms and conditional grant transfers. A replenishment mechanism would allow EFA FTI to improve its management and decision-making and allocate its resources more rationally. Finally, regular replenishment could provide a foundation and incentive for countries and donors alike to strengthen the aid effectiveness agenda at the sector level.

EFA FTI should accompany the envisioned replenishment process through a shift from a focus on access to a focus on learning outcomes.

Therefore recommendations for the EFA FTI include:

- adopt the proportion of a full age cohort attaining mastery of basic cognitive competencies as its main indicator;
- agree on basic learning standards;
- support systematic assessment of learning achievements nationally and for targeted sub-groups;
- provide more support through EFA FTI's Education Program Development Fund (EPDF) for the analysis of student learning outcomes;
- support proven strategies for raising learning achievements, including policy changes that require political will and organizational capacity;
- address incentive and accountability structures;
- concentrate on reading fluency in early grades and regular provision of reading materials;
- channel funds directly to school level; and
- support wider EFA goals especially pre-school education for low-income children and expansion of basic education to lower secondary level to reinforce learning gains.

1 Introduction

The Education for All - Fast Track Initiative (EFA FTI) was established to help realize a "global compact" after the conference in Dakar. At the Dakar conference in 2000 the donor community made a commitment that no developing country with a 'credible plan' for achieving EFA would fall short of the 2015 goal for lack of external financing. Since its creation in 2002 EFA FTI has supported 32 low income countries through its Catalytic Fund worth US$1.6 billion and has disbursed US$689 million.[3] It has succeeded in fostering donor alignment and coordination around a single, coherent, country-owned education sector plan. It has put countries in charge of their dialogue with donors, and created a global-level forum in which donors and recipient countries can coordinate policies and track progress. It has helped to reduce donor fragmentation and to harmonize donor support at the country level. EFA FTI, however, is facing financial constraints on new commitments. New EFA FTI financial commitments have been uncertain, sporadic, short-term and declining (EFA FTI 2008). Sperling (2008) writes that "the lack of significant funding has had a major impact on lowering the ambition of developing countries" (pg. 21). In addition, UNDP (2005) notes that "countries that have worked hard to develop plans are inhibited from pursuing major access and quality reforms because of uncertainty over whether they will have sustained and predictable funding" (pg. 91). Sperling (2008) acknowledges that a sufficient level of funding of the long term should be a top priority right now.

Box 2: Four main arguments to make the case for a regular financial replenishment mechanism

1. **Essential learning for all (full age cohorts) is the 'real MDG'.** Cognitive skill, not years of enrollment, is what pays off in individual earnings and national economic growth.
2. **Learning levels are abysmal in low income countries.** Most children fail to learn even basic reading and numeracy by the end of primary education in some low income countries. The resulting damage to children is irreversible only at great cost and effort (Pritchett 2004).
3. **Learning achievement can be raised through targeted investments and reforms.** These take time and money, sustained and increased international support.
4. **Sustained and increased international financial support for EFA FTI** can be best assured through a financial replenishment mechanism.

This paper proposes a solution to these problems. The EFA FTI Board of Directors is exploring the feasibility of establishing a formal cycle of resource replenishment, similar to existing procedures for IDA, HIV/AIDS and malaria, and the environment. Such a mechanism would seek to provide low-income countries with reliable, increased and long-term support. The question addressed in this paper is: 'What are the educational reasons for establishing an EFA FTI replenishment mechanism?'[4] *The answer is that sustained and increased international support through EFA FTI is necessary to achieve learning for all – the real policy goal.*

[3] Information up-dated after April 2009. Catalytic Fund disbursements till December 2009 totaled US$689 million for 32 of 40 FTI partner countries.

[4] This paper does not deal with the modus operandi of how replenishment would work, but with its educational rationale.

2 Shifting from Access to Learning Outcomes

2.1 Focus on Access and Completion

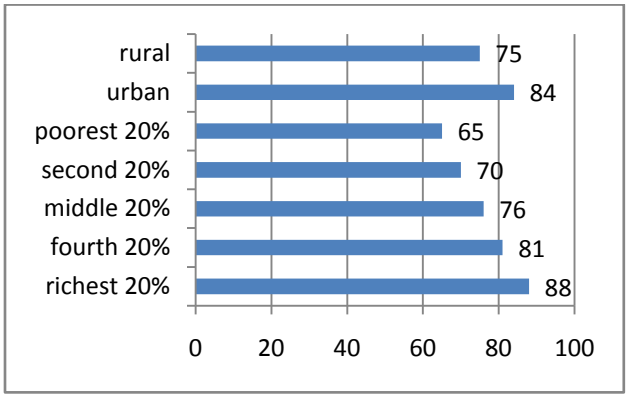
If the MDGs could be achieved by 2015 – just five years away– no replenishment mechanism would be needed. But this is not the case. Why? Given the education deficits in low-income countries, the MDGs and EFA goals cannot be achieved fully by 2015. In particular, the objective of "good quality"[5] will be missed by a wide margin.

The education deficit in-low income countries is the result of three basic factors: (a) children do not enroll in school, (b) children drop out of school early, and (c) children have low levels of learning achievement while in school and below the threshold for basic competencies even after completing basic schooling.

Most regions are close to achieving universal primary education (UPE). Substantial progress has been made in the three regions that fall short – the Arab States, Sub-Saharan Africa and South and West Asia. Since 2000 regions have made great strides in enrolling more all types of eligible children in school, including marginalized children and children with disabilities. Gross intake rates in primary education have increased by 22 percent in Sub-Saharan Africa, 13 percent in South Asia, and 10 percent in Central Asia (UNESCO 2008).

In 2006, there were 26 million fewer out-of-school children than in 2000. South and West Asia halved its out-of-school population from 37 million to 18 million. Progress has also been made towards gender parity. In 2006, however, some 75 million children were still not enrolled in school. Over four in five of these children live in rural areas, mostly in South and West Asia and Sub-Saharan Africa. Half of the children out of school live in conflict-affected countries. The vast majority of those children come from families living in poverty and "many are the victims of a cross-generational transfer of deprivation" (UNESCO 2008). Despite the fact that national and individual prosperity is linked more and more to education, 12 percent of the world's primary school-age population is not in school. The proportion is almost one in three in Sub-Saharan Africa (UNESCO 2008). Figure 1 shows net attendance ratios at the primary level in developing countries by income level and urban-rural residence.

Figure 1: Primary net attendance ratios by income level and urban-rural residence, 2000-2006

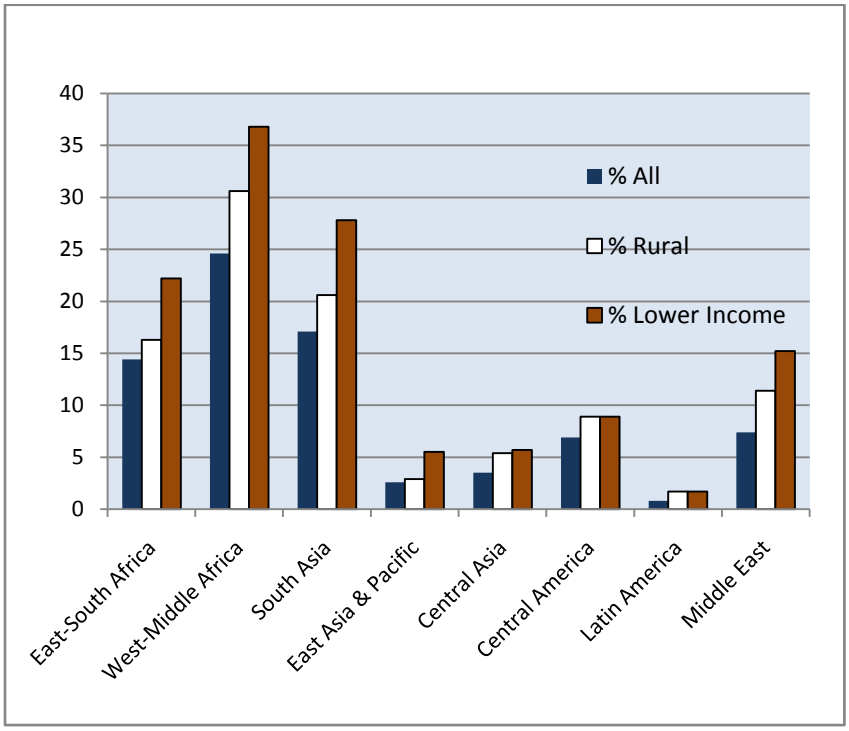


Source: UNICEF 2007 pg. 13.

[5] "Good quality" means education that produces the minimum standards of cognitive learning.

Sub-Saharan Africa, with 19 percent of the world's primary school-age population, has 47 percent of out-of-school children. Some countries have failed to make progress in decreasing the number of out-of-school children, including Nigeria, Burkina Faso, and Mali. Fewer than half the 41 countries reviewed in Sub-Saharan Africa are close to the goal of gender equity, compared with 63 percent in the Arab States and one third in South and West Asia. In 2006, girls accounted for 55 percent of the world's out-of-school children. Girl's access continues to remain a big issue in India, Nigeria and Pakistan (UNESCO 2008: Table 2.13 and 64).

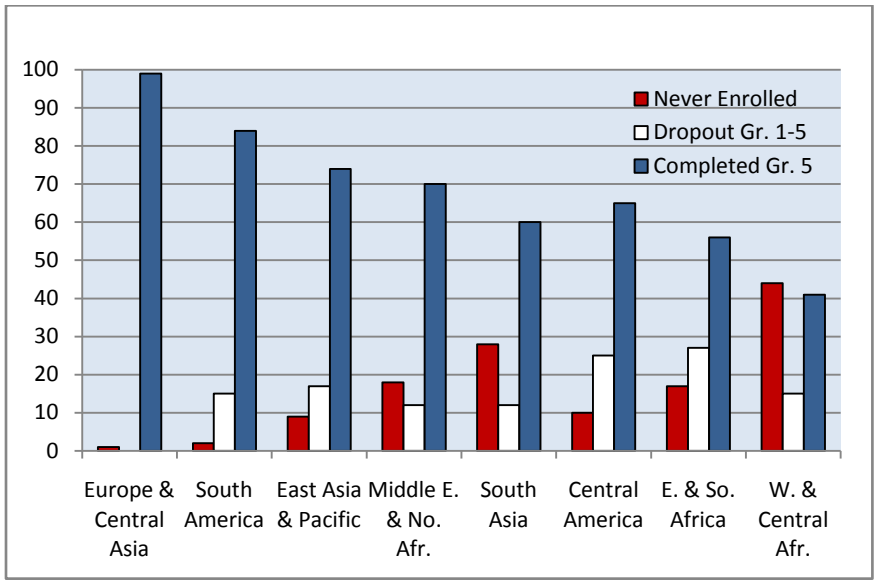
Figure 2: Percentage of 14 year olds never starting school, by region from 1994 - 2005



Source: Orazem, et. al. 2007: Table 2, p. 58.

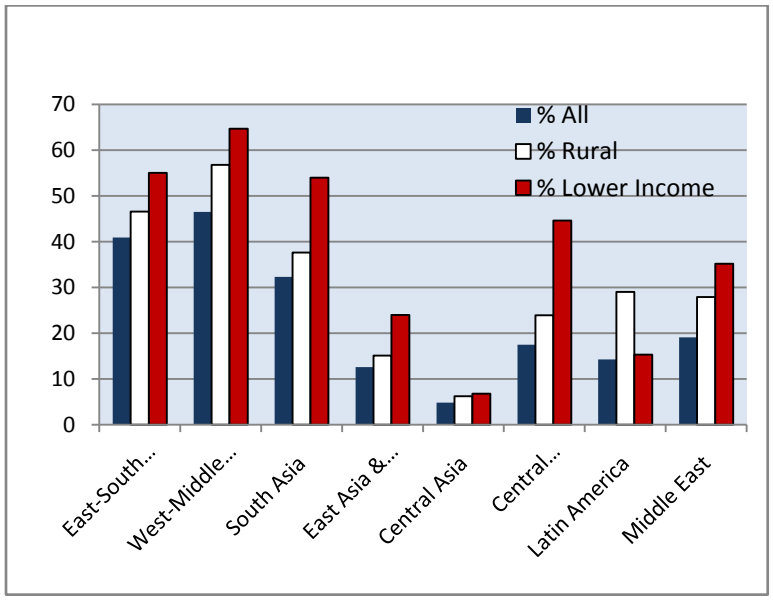
After universal intake of all school-age children is ensured, a second necessary pre-condition for reaching UPE is to retain and advance entering students through progressive grades in school. Dropout and non-completion of primary education are more significant than non-enrollment in most developing countries (figure 3, 4). For example, at current rates one third of school entrants in Sub-Saharan Africa and one fourth of entering students in South Asia will not complete primary education (UNESCO 2008).

Figure 3: Enrollment, dropout and completion rates, by region



Source: Based on Pritchett 2004, in Hanushek and Woessmann 2007: Figure 7.

Figure 4: Percentage of youth 15-19 years old not completing Grade 5, by region from 1994 - 2005



Source: Orazem, et. al.: Table 2, p.58.

2.2 Towards Learning Outcomes

Based on the current trends, two thirds (58 out of 86)[6] countries for which data were available will not reach UPE by 2015. This includes 33 countries at risk of not achieving the goal by 2015 and 25 countries either with low chances or serious risk of not achieving the goal by 2015. Forty-five (seven of them fragile) of the 58 countries will not even achieve UPE by 2025 unless significant progress is made (UNESCO 2007). A UNDP report projected that it would take more than 30 years to achieve UPE in South Asia, fifty years in the Arab States and one hundred years in Sub-Saharan Africa (UNICEF 2004; UNICEF 2007, Summary Indicator for MDG2).

Effective strategies to increase enrollment and completion often focus on creating demand-side incentives which may not always be effective.[7] These include efforts to reduce relative prices by reducing the direct and indirect costs of attendance. Educational choices respond to costs and three types of actions have been shown to increase enrollments: (a) reduction in school fees (e.g. Uganda, Tanzania, Kenya and Malawi which led to immediate, large increases in enrollments); (b) targeted or non-targeted cash or non cash inducements (e.g. school lunches or provision of free school uniforms, as in Kenya), and (c) conditional cash transfers to poor parents to keep their children attending school (mainly in Latin America, e.g. PROGRESA in Mexico).

Reducing fees, however, may lead to overcrowded classrooms and jeopardize the quality of teaching. Governments must compensate schools for lost revenue from fees through per capita grants and sufficient increases in teaching staff (World Bank in collaboration with UNICEF, 2009). Moreover, conditional cash transfers can be administratively demanding, difficult to sustain and require careful targeting. Such transfer programs may not be cost-effective and little is known about their impact on student achievement. One recent study recommended policy experimentation and innovation to increase the impact of conditional cash transfers on learning outcomes, such as transfer programs plus reforms to improve the quality of service delivery (Fiszbein and Schady 2009; Pritchett 2004; Mertaugh, et. al. 2009; Vegas and Petrow 2009).

[6] Some 54 countries were excluded from the UNESCO analysis owing to insufficient or no data. Thirteen of these were low income countries, twelve of them fragile states, with low levels of educational development – Afghanistan, CAR, DRC, Guinea-Bissau, Haiti, Liberia, Nepal, Papua New Guinea, Sierra Leone, Solomon Islands, Somalia and Sudan (UNESCO 2007).

[7] See Annex 1 for recommended options

3 Learning is the Real Goal

3.1 The Quality Gap

As discussed in the previous section, merely raising the schooling levels of the population will not suffice. Much of the discussion on the educational gap in developing countries focuses on the quantitative dimensions of enrollment and completion. It assumes that "years of schooling" is the target goal. The real goal, however, is creating competencies through learning achievement. Getting children enrolled and keeping them in schools is merely a means to this more fundamental objective. It is not the number of years in school that counts, but cognitive learning.[8] Countries only benefit when children not only remain in school, but also need to be learning (Hanushek et al 2008; Pritchett 2004; UNESCO 2008). Hereinafter, learning achievement is referred to as 'quality.'

The quality of education is increasingly seen as the pervasive issue worldwide. Many children do not complete the primary cycle and even fewer master basic literacy and numeracy skills. According to UNESCO (2007), "improving quality […] may well be the defining educational challenge of the early 21st century" (pg. 13).

Studies have shown that raising learning outcomes pays off massively for the individual, the economy and society.[9] The quality of education, as measured by tests of cognitive skills, is much more important for economic growth than merely the quantity of education. There exists evidence that, "the cognitive skills of the population – rather than mere years in school – are powerfully related to individual earnings, to the distribution of income, and to economic growth" (Hanushek and Woessmann 2007; UNESCO 2004). There are three areas on which quality can have an impact: individual earnings, economic growth, and social benefits.

- ***Impact of quality on individual earnings:*** Differences in wages across countries are explained in part by differences in cognitive skills, which in turn reflect quality of education. The quality of education an individual receives, as measured by achievement tests, correlates with individual productivity and earnings. The higher the achievement level, the higher the individual income (Vegas and Petrow 2008; Hanushek and Woessmann 2007; UNESCO 2004).

  Another important research finding is that returns to cognitive skills tend to be higher for low income individuals. As a result, policies that improve school quality and raise educational outcomes can improve the distribution of income. Current disparities in learning outcomes in developing countries demonstrate that children do not receive a uniform quality of primary education. Ensuring equitable distribution of educational quality and ensuring that low income children have an equal chance to learn are necessary conditions for guaranteeing equality of opportunity. These findings form a strong argument for investing in basic education in low-income countries to promote economic equality (Vegas and Petrow 2008; Hanushek and Woessmann 2007; Reimers 2000 in Vegas and Petrow 2008).

[8] Schooling is not the only factor contributing to a society's cognitive skill development. Family, individual ability and health combine with school quality to determine a student's level of achievement. Yet the single best route to higher levels of cognitive skill is strengthening a country's education system. (Hanushek and Woessmann 2007; Hanushek, et al., 2008; Vegas and Petrow 2008)

[9] 'Quality' is defined in this report as student learning achievement and 'learning achievement' is defined as cognitive skills. It is recognized that other factors are involved in quality – such as relevance and social values, etc., but they are not considered in this report.

- ***Impact of quality on economic growth:*** The level of a country's cognitive skills appears to explain much of the international differences in economic growth. The level of cognitive skills of a nation's students affects significantly its subsequent economic growth rate. However, increasing the average number of years of schooling attained by the labor force boosts the economy only when increased levels of school attainment also boost cognitive skills[10] (Hanushek, et. al. 2008; Orazem, et. al. 2007; and Vegas and Petrow 2008). For example, countries in Latin America have achieved reasonably high enrollment and attainment levels, but perform relatively low in cognitive achievement on international examinations. Furthermore, Hanushek and Woessman (2009) note that, "a crucial missing link in explaining why Latin America went from reasonably rich in the early post war period to relatively poor today is its low cognitive skills" (pg. 1).

  A highly skilled work force can raise economic growth by about two-thirds of a percentage point every year. That may seem insignificant, but since the Second World War the world economic growth rate has only been around two to three percent of GDP annually. Raising it by two-thirds of a percentage point would boost annual growth rates by more than 25 percent than otherwise would have occurred – a significant amount (Hanushek, et. al. 2008).

  The exact relation between educational attainment and growth is elusive, but the gains are thought to occur through greater productivity, the increase in rates of invention and innovation, and the introduction of new technologies and improved production methods. Schooling without acquisition of cognitive skills does not contribute to increased economic growth because it generates higher wages but not higher productivity or skills (Vegas and Petrow 2008).[11]

- ***Impact of quality on social benefits:*** The literature provides ample documentation that social benefits (or "externalities") also flow from the level of learning achievement. As summarized in Vegas and Petrow (2008), both educational attainment and learning are tied to a number of development outcomes beyond individual incomes. Researchers have established the relation between a variety of health and well-being outcomes and both educational attainment and learning. Higher reading and math scores are associated with lower fertility rates in Ghana and South Africa. Cognitive skills have stronger effects on the number of children per household than do mere years of schooling. Education has also been associated with lower prevalence of HIV and greater use of condoms in Africa. A mother's education also has a strong impact on her child's health. Studies from developing countries have associated the link between education and children's health with health knowledge and math scores. For example, research in Nepal and Venezuela showed that literacy and language skills that women acquire in school provide an educational pathway to better health care. Research also indicates that well-educated people are more likely to participate in civil life and

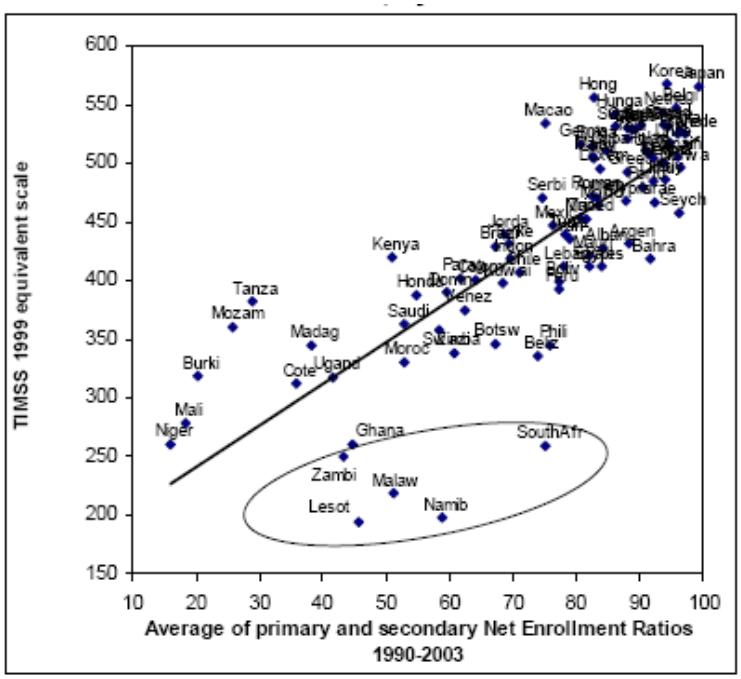
[10] "The size of the impact of cognitive skills depends on whether a nation's economy is open to outside trade and other external influences. The more open the economy, the more important it is that a country's students are acquiring high levels of cognitive skills." (Hanushek et al 2008 andVegas and Petrow 2008. "Cognitive skills have a significant positive growth effect even in countries with a poor institutional environment." (Hanushek and Woessmann 2007). ("The economic context maximizes both the impact of skills on economic development (Vegas and Petrow 2008).

[11] In asking which is more important for growth – having a substantial cadre of high performers or bringing everyone up to a basic level of performance – the answer seems not to be both. "The more workers that have at least basic skills, the easier it will be for them to make use of those new technologies (produced by highly skilled citizens). Some workers need a high level of skill so they can help adapt the new technologies to their countries' particular situation, but so is a labor force that has the basic skills needed to survive in a technologically driven economy. Both turn out to be significantly related to economic growth. Both education for all and the share of top performers seem to exert separately identifiable effects on economic growth" (Hanushek et al 2008 and Hanushek and Woessmann 2007).

influence decisions that may affect their lives (LeVine, et. al. 2001; UNESCO 2004; UNICEF 1999; Global Campaign for Education 2005 in Mertaugh, et. al. 2009; Lewis and Lockheed 2006; UNICEF 2004).

It is important to note that the pursuit of access and quality is not a zero sum game. Enrollment expansion and quality improvement can go hand in hand. Findings from a World Bank review of its support to primary education found that many of the strategies used to increase access rapidly – such as fee reductions, double-shifting, automatic promotion – reduced learning outcomes at least in the short run. However, it concluded that "a trade-off between improved access and student learning gains can be avoided with explicit planning for improved learning outcomes and strong political commitment. Countries should resist the temptation to increase access first and improve learning outcomes later. Expansion and quality improvement can be successfully undertaken together and can have mutually reinforcing effects" (World Bank 2006, pgs. xv, xvi). A world-wide comparison of learning outcomes and enrollment ratios at the primary and secondary levels shows a high correlation between access and learning (except for Southern Africa –See Figure 5).

Figure 5: Correlation between learning outcomes and enrollment, primary and secondary school



Source: Crouch and Vinyevold 2005 Figure 3, pg.8.

The benefits of educational quality also are manifested in increased educational attainment. Educational quality exerts a strong influence on enrollment and attendance. Whether parents send their children to school at all, or keep them there, depends to a large extent on judgments about the value of learning in relation to the opportunity costs of the child's time. Thus, quality correlates with higher student survival rates. Low quality schools tend to have higher dropout rates. In higher quality schools students learn more and have lower rates of repetition. Consequently, the achievement of UPE depends significantly on the quality of education available (Asian Development Bank 2008; Hanushek and Woessmann 2007; Mertaugh, et. al. 2009; UNESCO 2005; UNESCO 2007).

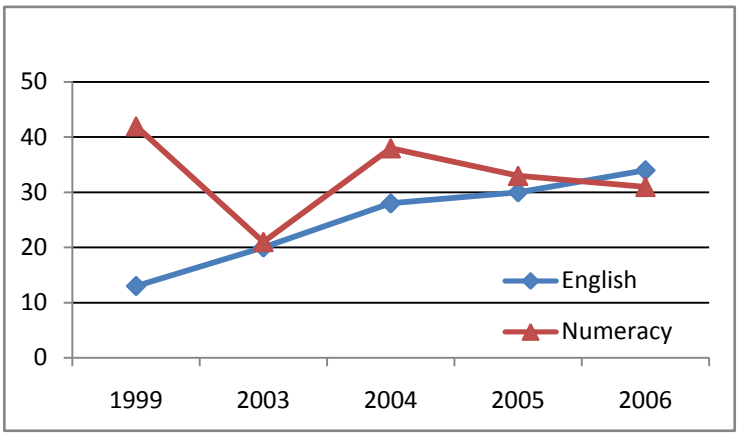
3.2 Learning Assessments and What the Results Tell Us

Recent progress in quantitative indicators of school participation has distracted attention from the glaring need to improve education quality. Available evidence suggests that in nearly all developing countries the levels of learning achievement are strikingly, even abysmally, low. Developing countries are much worse off than commonly perceived from data about enrollments and school attainment; the deficits are much larger than previously thought. Many children complete the primary cycle, but low learning achievement in school leaves them far below the threshold for basic competencies. Millions of children in developing countries attend primary school and even graduate without ever acquiring minimum literacy and numeracy skills. Test results in some countries also indicate that students have not mastered important basic concepts (Filmer 2006; Pritchett 2004; UNESCO 2008; UNDP 2005a; and Hanushek and Woessmann 2007).

There is also a lack of correlation between completion and learning achievement. Enrollment and completion indicators are not necessarily good or consistent predictors of outcomes. A 1999 study of six African nations revealed a range of relationships. Kenya had the lowest completion rate, at 63 percent, but 65 percent of its sixth grade pupils achieved minimum literacy skills. Malawi's completion rate was almost identical to Kenya's at 64 percent, yet only 22 percent of its sixth grade pupils demonstrated minimum literacy skills (Ellis in UNDP 2005a).

The investment of time and money in a child's schooling who fails to produce basic cognitive skills such as literacy are inefficient, is another problem (Orazam 2007). UNESCO (2008) reports that, "evidence from many developing countries paints a worrying picture on learning achievement and it would be a Pyrrhic victory for EFA if countries achieved UPE but failed to give children real opportunities to learn. [And] findings from national, regional and international assessments of student learning point to deep deficits in student knowledge in many countries" (pg. 108). Collectively, the assessment points out the sheer scale of the learning challenge in primary education. The results of national assessments are patchy, but consistent with very low levels of learning (Pritchett 2004).

Figure 6: Uganda – Grade 6 pupils reaching defined competency levels, 1999-2006



Source: Uganda National Examinations Board 2006 in UNESCO 2007, Table 2.16.

Table 1: Findings from national assessments in six countries

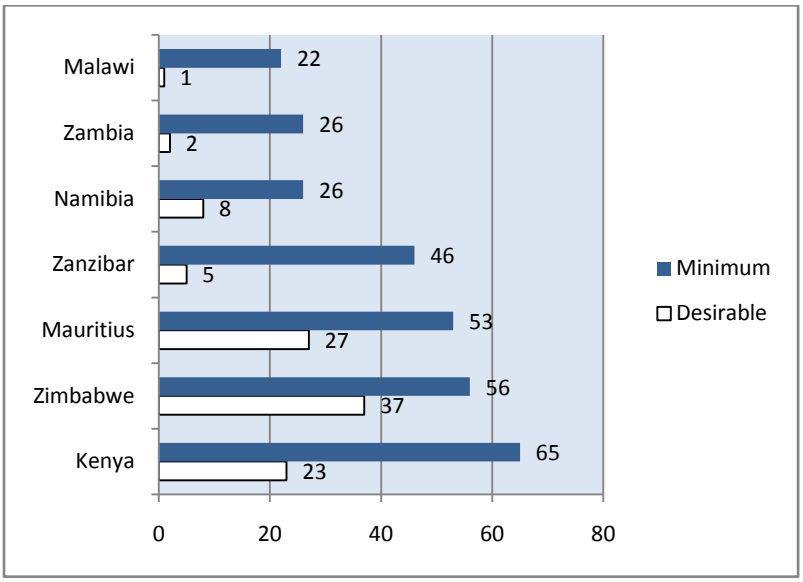
Uganda	National assessments show that performance in English was improving, but fewer than half the students reached defined competency levels in English literacy and numeracy. In 2006, 57 percent of grade three students and 69 percent of grade six students failed to meet minimum performance standards in mathematics.
Ghana	The mean score of grade six students on a simple multiple-choice reading test was 25 percent, the score one would expect from randomly selecting answers in a multiple choice exam (Glewwe 1999 in Glewwe & Kremer 2005). More recently, only 10 percent of children reached the country's mastery levels in math and 5 percent in English (World Bank 2006).
Bangladesh	An assessment of competencies found that two thirds of those who had completed primary school failed to achieve the minimal level of learning (Greaney, V., Khandker, S. and Alam, M. 1998 in Pritchett 2004).
India	A household survey in rural areas found that only 38 percent of grade level 4 students could subtract or divide (Pratham Resource Center, 2008 in UNESCO 2009). A survey of students in 22 states of India reported an average grade four achievement level of 32 percent in mathematics and science, below the minimum pass mark of 35 percent (Watkins 2001 in Mertaugh, et. al. 2009). Only 5.4 percent (Valdora) and 14 percent (Mumbai) of third grade children were able to pass the minimum competencies for math scoring (Banerjee, Cole, Duflo and Linden, 2000 in Pritchett 2004).
Morocco	A 2006 assessment of grade six students found that most students failed to meet minimum standards: 82 percent of students in French, 64 percent in Arabic, 57 percent in mathematics (Hddigui 2007 in Mertaugh: et. al. 2009).
Cambodia	An assessment in grade 3 in Khmer language found that 60 percent had poor or very poor skills in reading and writing (UNESCO 2009).

Table 2: Findings from regional assessments on reading levels 2006

SACMEQ II (Southern and Eastern African Consortium for Monitoring Educational Quality)	Results indicate that fewer than a fourth of grade six children reached the 'desirable'[12] level of reading literacy in Botswana, Kenya, South Africa and Swaziland, and fewer than 10 percent in Lesotho, Malawi, Mozambique, Namibia, Uganda and Zambia. Only about one fourth of the students even attained "minimum" proficiency levels in Namibia, Zambia and Malawi (UNESCO 2008; UNESCO 2004). In most countries the average literacy levels declined between test periods (Figure 7).
PASEC (Programme d'Analyse des Systemes Educatifs de la Confemen)	Results of an assessment of grade five pupils in French and mathematics show that about 40 percent of Senegalese students registered low achievement and about a third in Madagascar.
OREALC (UNESCO Regional Office of Education in Latin America and the Caribbean)	In the Dominican Republic, Ecuador and Guatemala half or more of grade three students were found to have very low reading levels (UNESCO-Orealc 2008 in UNESCO 2008).

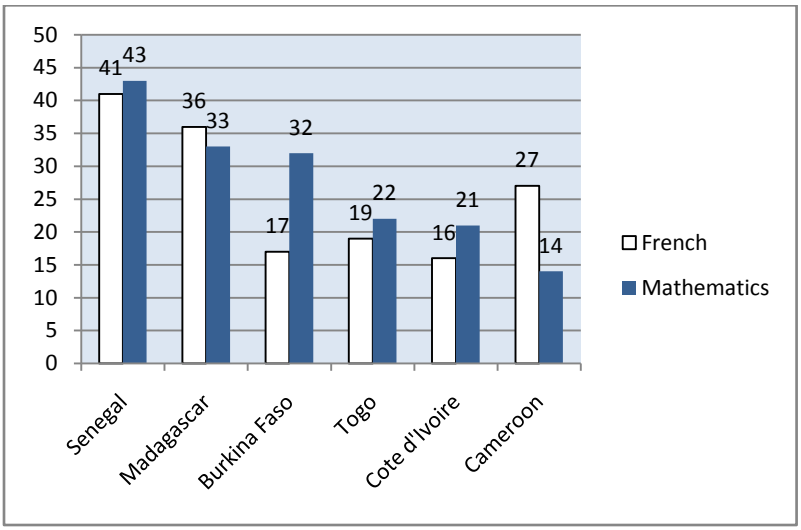
[12] "Minimum" level = pupil would barely survive during the next year of schooling;
"desirable" level = pupil would be able to cope with the next year of schooling (Greaney, et. al. 2008).

Figure 7: Percentage of Grade 6 students reaching proficiency levels in SACMEQ reading, 1995-1998



Source: UNESCO 2004 pg. 121, Figure 3.31.

Figure 8: PASEC: Percentage of Grade 5 students with low achievement in 6 African countries, 1996-2001



Source: UNESCO 2004, Table 3.32, 122.

Reports show that students in developing countries perform poorly in international assessments. Relatively few developing countries participate in international assessments of learning,[13] but those that do have students that perform substantially below students in developed countries. The findings from international assessments reveal glaring gaps in achievement between developed and developing country participants. The gaps in learning achievement between rich and poor countries exceed the gaps in enrollment coverage. Moreover, the size of the gap may be understated for two reasons: (1) the assessments in developing countries do not cover the full school-age cohort because they test only children in school and not all children are enrolled; and (2) the developing countries that do participate may have higher learning achievement than the developing countries that do not participate (Hanusheck and Woessmann 2007; Mertaugh*, et. al.* 2009; Pritchett 2004).

Table 3: Findings from international studies on reading, mathematics, and science for 2006

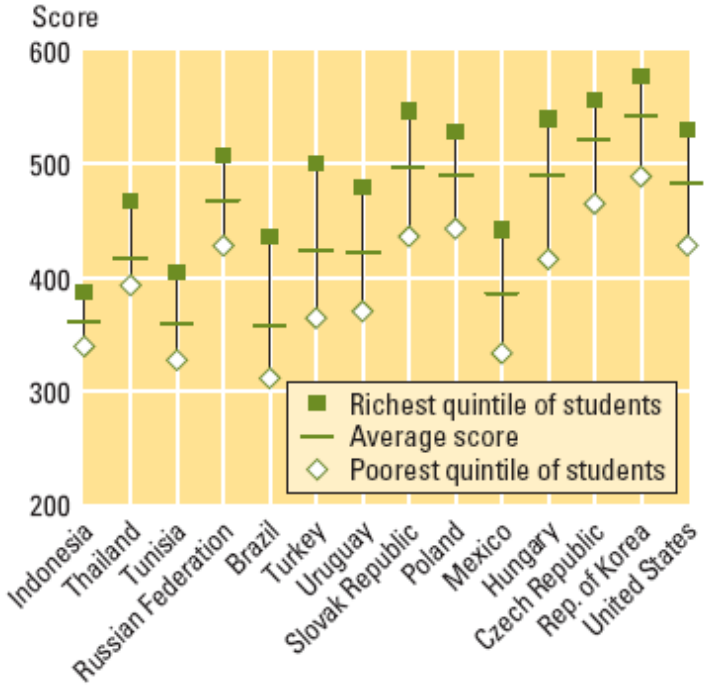
PIRLS (Progress in International Reading Literacy Study)	In 2006, PIRLS measured grade four reading skills. The share of students demonstrating basic reading ability – i.e. reaching level 1, the lowest international benchmark – varied from 22 percent in South Africa and 26 percent in Morocco to more than 95 percent in most of North America and Western Europe. The percentage of students performing at or above the intermediate benchmark, level 2, was 75 percent in most OECD countries but less than 20 percent in developing countries, including Indonesia, Morocco and South Africa. Results were similar by country income level in the 2001 PIRLS assessment (Mullis, et al, 2007, in UNESCO 2009; also UNESCO 2004 and Mullis 2004 in Greaney, et. al. 2008).
PISA (Program for International Student Achievement)	PISA tests 15 year-old students (equivalent to the end of lower secondary) in several subjects and includes several non-OECD countries. The 2001 assessment showed students from developing countries in the lowest 20 percent, including Peru, Indonesia and Brazil (UNESCO 2008; Greaney, et. al.:2008 in OECD 2003). Prittchett (2004) notes that "the astoundingly large differences imply that the developing countries are not just the lower tail of the OECD, but have performance far below the *poorest* performing OECD countries" (pgs. 11-12).
TIMSS (Trends in International Mathematics and Science Study	TIMSS tests students in mathematics and science at three levels – equivalent to age 9 (Grades 3 or 4), age 13 (Grade 8) and the final year of secondary school for 2006. The threshold of basic literacy in grade 8 mathematics is roughly 400. South Africa scored 264, Ghana 276, Botswana 366 and the Philippines 378. The countries with the largest shares of students who were functionally illiterate were Peru (82%), Brazil (66%), Morocco (66%), South Africa (65%), Botswana (63%) and Ghana (60%). Put in another way, to reach the OECD median performance at the Colombian rate of progress would take more than seven additional years of schooling (Mullis 2004 in Graney, et. al. 2008; Hanushek and Woessmann 2007; Pritchett 2004).

[13] The international tests also have limitations in discriminating performance at low levels (Hanushek and Woessmann 2009).

> "[I]nternational comparisons incorporating expanded data on cognitive skills reveal much larger skill deficits in developing countries than generally derived from just school enrollment and attainment. The magnitude of change needed makes clear that closing the economic gap with developed countries will require major structural changes in schooling institutions" (Hanushek and Woessmann 2008, pg. 608).

Not only are there wide disparities among countries, learning outcomes also vary widely within countries. Outcomes are almost universally worse for rural areas and the poor. This perpetuates inequalities. Income inequality and educational inequality, as reflected by differences in test scores, are closely related; countries with greater income inequality also tend to have greater inequality in test scores (Vegas and Petrow 2008). In Uganda, for example, 88 percent of grade six students in the Kampala zone achieve the desired proficiency level in English literacy, compared with less than 30 percent in each of six other zones (Greaney and Kelleghan 2008).

Figure 9: Student performance in mathematics by income quintile (PISA 2003)



Source: World Bank 2006, figure 3.2, in Mertaugh, et. al.:31; UNESCO 2008:112.

Most international assessments (PISA, PIRLS) do not assess children's reading skills before the fourth grade, and assume that students can read and write by then. By then it is often too late to carry out effective remedial instruction. Problems in learning achievement later tend to be related to low reading performance in early grades. For these reasons, Early Reading Assessments (EGRA) have been conducted recently in many developing countries. The aim is to assess early primary grades in the main skills known to predict reading success. The EGRA methodology regards reading fluency as a simple, but robust, indicator of other reading and language skills (RTI 2008). Initial findings underscore the low reading skills of students in several low-income countries. In Peru more than a third of second graders could not read a single word. In Cameroon, that number was 80 percent of third graders. In Guinea, none of the

children were able to detect all letters of simple words, and only half the children tested were able to identify four of twenty simple words. Only 6.1 percent of grade three students in Gambia were able to read 45 words per minute correctly in English, compared with 43.5 percent of third graders tested in French in Senegal (Grove 2007).

> "Combining the data on quantitative educational attainment and qualitative achievement of cognitive skills makes clear the truly staggering task facing most developing countries. In many developing countries, the share of any cohort that completes lower secondary education and passes at least a low benchmark of basic literacy in cognitive skills is below one person in 10. Thus, the educational deficits in developing countries seem even larger than generally appreciated" (Hanusheck and Woessmann 2007, pg. 14).

The key indicator is mastery of basic cognitive skills by full age cohorts. Attention recently has been placed more on learning achievements compared with earlier almost exclusive attention to expansion of enrollments (Abadzi 2006 and Hanushek and Woessmann 2009). However, no clear indicators have been developed and used to assess progress towards the ultimate goal in primary education – proportion of the age group that attains minimum learning standards.[14] Filmer et.al (2006) writes that, "with a Millennium Learning Goal, progress of the education system (should) be judged on the *outcomes* of the system: the assessed mastery of the desired competencies of an entire age cohort – both those in school and out of school" (pg. 1). To do this, it is necessary to combine quantitative data with qualitative information. For instance, it is necessary to understand both the proportion of the age group that completes primary education and the percentage of those who attain minimum learning standards.[15]

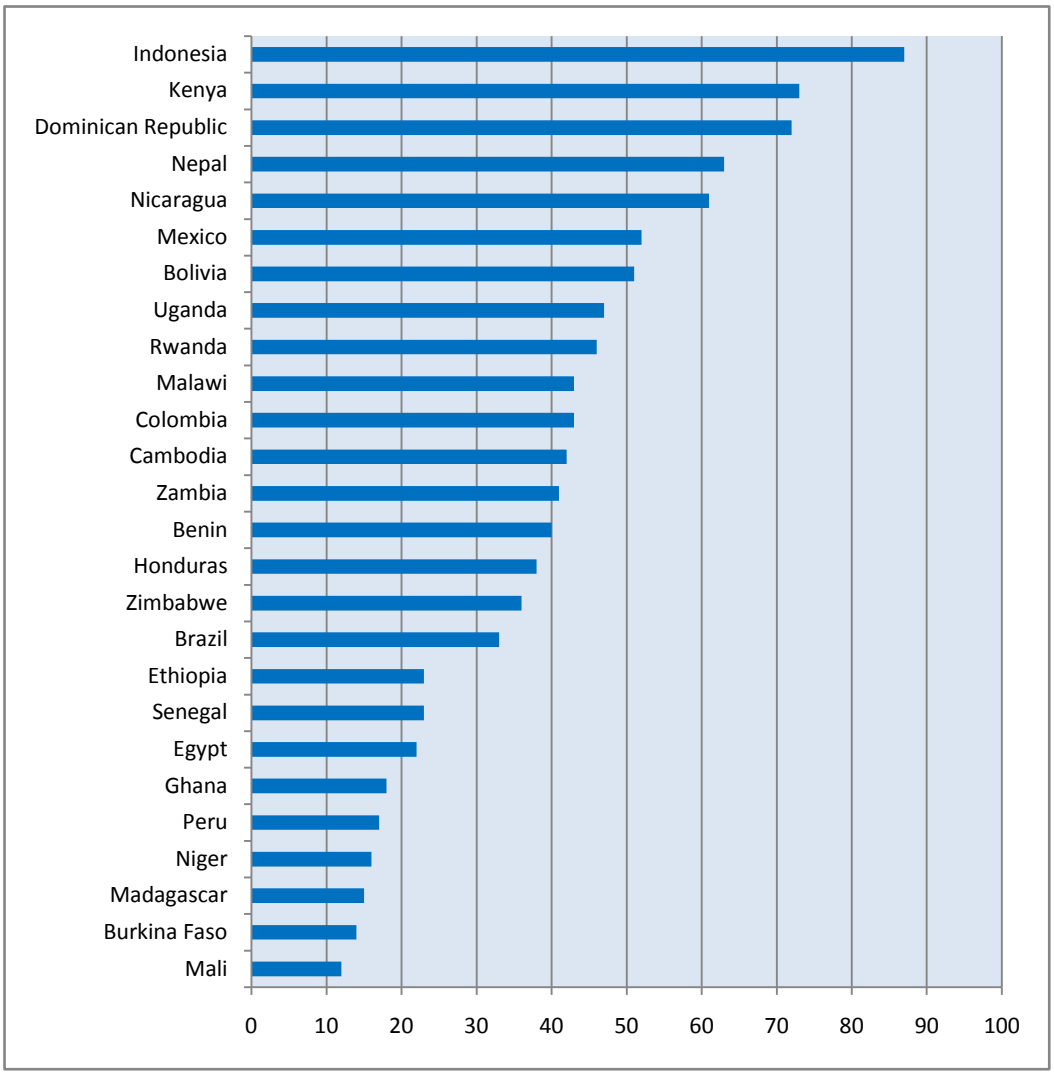
Unfortunately, country data are limited on this indicator and whatever data is available it is startling low. For example, the proportion of the age cohort able to read by the end of primary education is only 15-17 percent in Madagascar, Burkina Faso and Peru; 25-26 percent in Senegal and Ethiopia and 47 percent in Uganda and Rwanda. This bears repeating: less than one quarter of the children in five states attains basic cognitive skills in reading, and Figure 11 shows that most countries in the review are below 50 percent. Only Indonesia with 87 percent could be considered to attain a minimally acceptable level of learning achievement in learning.

A comparison of figures 4 and 10 shows that several countries face major challenges with learning achievement. For example, more than 90 percent of children completed grades 4 or 5 in Egypt and Mexico, however, only a small number of these children achieved reading competency (22 percent in Egypt and 51 percent in Mexico). A similar affect was seen in Peru and, Ghana, and Niger where cohort completion rates and reading proficiency rates did not match. For example, in Peru 84 percent of students completed the grade, however, only 17 percent achieved reading competency, in Ghana 57 percent of students completed the grade, while only 18 percent achieved reading competency, and in Niger 40 percent of students completed the grade and only 16 percent achieved reading competency (annex 2).

[14] "Establishing a 'minimal' level of skills or competence will always be arbitrary, but not more arbitrary than setting up completion of primary school as a target […]. Judging progress just by grade attainment with no indicator of learning achievement or mastery of competencies is hollow" (Pritchett 2004).

[15] The Gambia report for funding from the Catalytic Fund includes indicators for both completion and subject mastery on achievement tests. It aims at an increase in minimum grade level competency in core subjects on the National Achievement Tests from 46 to 60 percent by 2011, and in lower basic completion rates from 67 to 80 percent by 2011 (FTI, Catalytic Fund, The Gambia, Summary Documentation, December 13, 2008, Oslo). These targets are ambitious, but they indicate it may be feasible to marry quantitative and qualitative indicators in a single indicator on the proportion of the cohort achieving minimum standards.

Figure 10: Percentage of cohort able to read at the end of primary school



Note: All data are based on Demographic Health Surveys except Senegal, Niger and Madagascar which are from Monitoring Learning Achievement surveys, and Honduras, Colombia and Bolivia, which are from LLEGE. Separate data for males and females were averaged. Data for Nicaragua, Cambodia and Egypt are for females only.

Source: Derived from Wills, et. al., *Educating the World's Children*, Figure 11.

Combining the quantity and quality of education for countries with reliable attainment data from household surveys and data from international student achievement tests allows for rough calculations of recent cohorts of school leaving age. For instance, how many students were never enrolled in school, how many dropped out by grade 5 and by grade 9, how many finished grade 9 with test score performance below 400 (signaling functional illiteracy), and how many finished grade 9 with a test score above 400. Only the last group can be viewed as having basic literacy in cognitive skills. The picture that emerges from the three Latin American countries, Brazil, Peru, and Colombia is shown in table 4.

Table 4: Estimated progression and completion of Grade 9 with basic literacy skills			
Category	**Brazil** (% of age cohort)	**Peru** (% of age cohort)	**Colombia** (% of age cohort)
Never enrolled	4	1	1
Dropout, Gr. 1-5	29	6	11
Dropout, Gr. 6-9	46	33	38
Finished Gr. 9, without reaching basic literacy skills	14	48	19
Finished Gr. 9, with basic literacy skills	8	12	30
Note: Figures may not add to 100% owing to rounding *Source:* Hanushek and Woessmann 2009: Figure 3.			

In eleven of the countries for which data are available – the share of fully literate students in recent cohorts is less than a third. In Ghana, South Africa and Brazil, only 5-8 percent of each cohort reaches literacy, while in Peru only about 12 percent can be termed functionally literate. On the other side, in Colombia, 30 percent of a cohort is viewed as literate at the end of lower secondary schooling. In Thailand the percentage is 42 and in Moldova it is 63 (Hanushek and Woessmann 2007; Hanushek and Woessmann 2009).

4 Replenishment Mechanism for EFA FTI

4.1 Achieving Quality Improvements

The replenishment process should be accompanied by a concerted effort to agree on basic learning benchmarks (initially perhaps on reading) for all FTI partner countries. Some information from SACMEQ and PASEC indicate that most low-income countries show no advantage for girls at the primary level on learning. This contrasts with a significant advantage shown in all developed countries (IIEP 2004.) This suggests a need to refine equity and gender parity targets to accommodate the shift from a sole focus on access to a focus on learning outcomes.

Some expenditure is inevitable in almost any reform, but the institutional changes required for improved educational performance of students may not entail major costs. Many of them could be accomplished within the given education budgets. For example, increasing time on task would require policy changes and perhaps increased teacher professional support, but would not necessarily require more teachers. Providing a greater role in school control for parental groups would not entail major recurrent outlays. Woessmann (2000) notes that "one of the most pleasant features of institutional reforms - as opposed to resource expansions – is in fact that institutional effects are 'for given resources.' That is, they mostly come at no or low recurrent operation costs, causing only implementation costs which usually lie in the political domain" (pgs. 79-80). This means that modest incremental financing targeted to essential reforms and proven approaches could leverage substantial increases in cognitive learning outcomes.

Low-income countries will not be able to meet the goal of universal primary education, let alone quality improvements, without sustained and significantly increased external financial support. Even with optimal policy reforms and strong domestic fiscal commitments, countries will not be able to generate the resources needed (Bruns, et. al. 2003). The 2009 UNESCO Global Monitoring Report stated that, "having promised that no national strategy would fail for want of finance, donors need to increase aid for basic education to at least US$11 billion annually. UNESCO also noted that "an estimated US$11 billion is needed in aid annually to reach key education goals in the world's poorest countries. In 2007, aid to basic education in these countries was just US$2.6 billion, less than a fourth of what is needed – and a miniscule fraction of the trillions of dollars injected into banks and industries hit by the global economic crisis" (UNESCO press release spring 2009 using OECD-DAC data).

The two year average for 2005 and 2006 points unmistakably towards a reduction in commitments for basic education compared with the previous two years. As an immediate priority, "donors should commit to an increase of US$7 billion annually in aid financing for basic education" (UNESCO 2008; also Sperling 2008). These figures may well under-estimate the external requirements.[16] And it is not clear whether requirements for raising cognitive skills have been included fully. According to the UNDP (2005), "the range of estimates is huge, but even the high estimate probably understates the full cost of the expansion, quality gains and special programs, including subsidies to poor households, that are crucial if all children are to complete primary school" (pg. 9).

Getting the remaining out-of-school children enrolled in primary education is costly. Different strategies, and higher costs, will be involved in reaching the most disadvantaged children, including those with special needs and those negatively affected by conflict, child labor, gender discrimination, disease or remote geography (Sperling 2008; Mertaugh, et. al. 2009).

[16] This report does not attempt to re-calculate the financing gap. UNESCO reportedly is making new calculations on the cost of universal primary education for its Global Monitoring Report 2010.

The costs of achieving quality improvements may not be large (in relation to existing education budgets), but providing the threshold enabling inputs in low-income countries will be expensive. These include provision of adequate school infrastructure, textbooks and teaching materials, and hiring additional teachers and providing them with incentives to teach in underprivileged areas. Other measures aimed at quality improvement – including in-service teacher training, mentoring of teachers, leadership training, establishment and execution of exit examinations – also have costs. Other mainly institutional and organizational reforms (e.g., changes in initial language of instruction, increased instructional time and time on task, school autonomy and parental involvement) may not involve huge up-front costs, but do carry price tags often beyond the capacity of many low income countries. As stated by the World Bank (2006) review of primary education projects, "reaching children not yet enrolled and improving low achievement levels will raise the unit costs of primary education" (pg. xvii).

> "[…] even these high cost may be understated because the children who are currently not in school are disproportionately located in areas that are expensive to reach with schooling services or in households that are less keen to send children to school. […] school dropout attributable to poverty or child labor is a more prevalent problem and requires more expensive interventions (than health) to correct" (Orazem 2007, pgs. 8 and 47).

As stated, investment in early childhood care and education has a significant impact on learning achievement, and the costs will be significant. An increase in lower secondary education will help reinforce parental incentives for their children's enrollment in or primary school. The success of expanded primary enrollments will dramatically expand demand for education beyond primary. Most experts believe eight years of basic education are essential for students to have the quality basic education necessary to be productive members of society. The UNESCO Institute for Statistics found that 10 percent of children are literate after three years of education, 70 percent reach literacy after six years, and 100 percent attain literacy with 10 years of basic education (Ellis in UNDP 2005). Thus, longer enrollment is associated with greater retention of literacy skills. Achievement of the EFA goals of a 50 percent improvement in adult literacy by 2015 will also entail substantial costs: Second chance non-formal basic education is necessary for equity reasons for the substantial number of adults bypassed by the formal education system; Access to upper secondary education correlates with reductions in fertility and should be expanded for females to meet the objective of gender equity (Bruns, et. al. 2003; Sperling 2008; UNDP 2005).

No study has been done yet on the implications of the current world crisis, but the current global economic and financial crisis threatens to reverse recent progress in education in low-income countries. Slower growth and reduced foreign investment inevitably will cut budget support for education. Many vulnerable families may find that education is unaffordable for their children. This is precisely what happened in Indonesia during the Asian financial crisis in the late 1990s. Given shrinking incomes, many poor households withdrew their children from schools to supplement falling household incomes. In many cases younger children were withdrawn from school to be able to afford the direct costs of enrollment for older siblings (Thomas et. al., in Mertaugh, et. al. 2009).

The largest low-income countries have not been supported through EFA FTI yet. Their requirements are likely to be substantial. These include Nigeria, Tanzania, Bangladesh, Pakistan and the Democratic Republic of Congo. These countries account for about 40 percent of the world's out-of-school children.

4.2 Providing Long-term Predictable Support

Long-term, increased financing would provide an incentive for low-income countries to go through EFA FTI planning processes and adopt realistic long-term visions and strategies for quality basic education. Having a strong national framework for basic education, though not sufficient for the full set of institutional changes required, is a necessary first step. A UNESCO analysis of advanced countries that had achieved universal quality basic education (Korea, Canada, Cuba and Finland) found that a consistent, long-term vision was one of the most important reasons (UNDP 2005 and UNESCO 2004).

Long-term, predictable and increased financing would give countries the confidence to embark on strong EFA plans and to tackle essential long term reforms, e.g. revamping the teacher force, establishing student assessment systems and exit examinations. Good achievement testing is costly and politically risky to governments, hence rarely attempted.

Additional and predictable resources are critical in maintaining quality when developing countries eliminate tuition and other fees. Without additional resources these changes in the past have led to overcrowded classrooms and acute teacher shortages.

Increased, predictable aid flows would enable countries to introduce new kinds of measures that require a sustained commitment of resources, e.g. conditional cash transfers, providing per capita grants to schools in return for abolition of school fees (World Bank in collaboration with UNICEF 2009), providing extra resources to schools serving disadvantaged students through school-based compensatory programs (Vegas and Petrow 2008). Burns (2003) also notes, "[…] the stability and predictability of external assistance is crucial if countries are to take on recurrent expenditures that are not easily compressed if external support fluctuates" (pg. 17).

Predictable, long-term support is also necessary for capacity building. Necessary quality reforms – e.g. institutional and organizational changes – may not entail high direct costs, but they do require substantial capacity development. Developing such capacity is a lengthy process even in the best of circumstances. Sustained international support is necessary.

4.3 Replenishment for more Effectiveness

A system of replenishment is instrumental to increase EFA FTI assistance to low-income countries. Regular replenishment would provide EFA FTI with a process and venue for dialogue with potential new donors. At present, aid to basic education is provided by only a small group of donors. Just three donors – the Netherlands, the UK and IDA – accounted for half of all aid commitments and 85 percent of the increase in disbursements in 2006. The narrowness of the donor base is a source of under financing which in turn causes potential instability and unpredictability of aid (UNESCO 2009, pg. 240). A replenishment process would likely increase the scope of partnership and the amount of contributions by adding new donors.

With increased financing, EFA FTI could cover more of the (widening) financial gaps in low income countries, and could add worthy countries not presently assisted. Sufficient funding is also necessary to leverage policy changes and enable EFA FTI to increase its focus on learning outcomes. It is important to focus sustained attention on the policy dialogue – difficult to do in time-bound, short-term investment projects. According to the UNDP (2005), "financing that is tied to agreed upon benchmarks can provide donors with the opportunity to engage with national governments in defining the concrete outcomes that constitute progress" (pg. 11).

Regular replenishment could enable EFA FTI to introduce new forms of assistance geared to improving cognitive learning outcomes, e.g. progressive funding mechanisms for schools, conditional grant transfers and the development of local capacities in learning assessments.

Replenishment mechanism would allow EFA FTI to improve its internal management and decision-making. Certain of the available resource envelope (compared with the current ad hoc, first come-first served, mode of operation), FTI could plan the allocation of its resources more rationally. Regular replenishment would provide sustained support for aid effectiveness and donor alignment – themselves long term processes.

The UNDP (2005) states, “donors need to commit to sustain their financial support beyond the next few years – for a decade or more, and to add to that support […] if the educational community is serious about reaching the educational goals, massive funding – on the order of spending on HIV/AIDS – needs to be committed; the paltry sums currently committed to basic education will not help most countries meet the goals” (pg. 12).

5 Conclusion

The educational case for a financial replenishment mechanism is simple, yet compelling. A replenishment mechanism is needed to help FTI partner countries to raise standards of cognitive learning for full age cohorts. Achieving essential cognitive learning for all is the critical educational factor in economic growth and poverty alleviation, not merely additional years of schooling. Low-income countries fall far short of achieving basic learning for all. The damage to children of not achieving minimum cognitive learning is virtually irreversible except with major effort and cost. Increased international support is needed to help low-income countries make the enabling investments and undertake the necessary reforms for raising learning standards, especially for low income households. Given the time required, international support needs to be sustained to, and beyond, the current target of 2015. A financial replenishment mechanism would enable EFA FTI to increase its effectiveness and would provide an incentive for low-income countries to undertake vital access and quality reforms. Governments should commit to sustained, long-term and increased financing for basic education through a replenishment mechanism for EFA FTI.

Implications for EFA FTI: Recommendations

The replenishment process should be accompanied by a shift from a focus on access to a focus on learning outcomes.

- Focus in each country on a main indicator of the top goal: the proportion of the age cohort attaining at least minimum levels of learning achievement. This single indicator encompasses access, completion and acquisition of cognitive skills. Countries and international partners should monitor progress toward the true policy goal by combining quantitative (enrollment and completion rates) with qualitative data (student achievement tests) to indicate the proportion of cohorts achieving satisfactory cognitive outcomes. Agree on basic learning standards (e.g. reading, numeracy) for all FTI partner countries and a realistic set of competencies (Filmer, op. cit. pg. 40).
- Support systematic assessments of learning achievements through such programs as EGRA.
- Within cohorts, collect and track data on learning achievement by targeted sub-groups (gender, low-income, disadvantaged).

Given the lack of information about country-specific factors, EFA FTI should move its support (through EPDF) towards evidence-based approaches for improving learning outcomes for priority target groups.

- This requires more analysis of student learning and what affects it locally (World Bank 2006, pg. xvii). Adequate evidence is often lacking to inform efforts about raising learning outcomes. This in turn is because few countries have adopted systematic evidence-based approaches to improve learning. EFA FTI's assistance needs to focus on the factors most likely to affect learning outcomes in given country contexts. EPDF assistance should be oriented to support better country-specific evidence as a basis for investments.
- EFA FTI should help ensure that projections of costs and financing gaps for EFA goals include achieving basic learning outcomes – not just universal enrollment and completion (World Bank 2006, pg. xviii).

EFA FTI should support proven strategies for raising learning achievements, specifically:

- Leverage needed **policy changes** through recurrent financing and EPDF capacity development that are not costly financially, but require political will and organizational capacity – e.g. ensuring teacher attendance, increasing time on task in classroom instruction, revising language of instruction policies in the early years.
- Ensure that **quality improvement strategies** address more explicitly incentive and accountability structures at the system, school and classroom levels, including performance incentives for student learning outcomes (World Bank 2006, pg. xvii).
- Concentrate on **improving reading fluency in early grades**, which is highly correlated with reading comprehension and subsequent success in learning achievements. (RTI, EGRA). A corollary requirement is ensuring that appropriate reading materials (textbooks and reading books) are regularly available and used at the classroom level.
- Ensure that consistent, **predictable funding** is channeled directly to the school level to empower school level teams and enhanced planning for school improvement. Centrally-controlled channeling of education finance is unlikely to leverage needed changes in school level behavior.
- Include in EFA FTI programs **support for wider EFA goals** and levels where they impact directly on greater learning achievement. Specifically, given the strong increase in learning for the poor, it makes economic sense for EFA FTI programs to include early childhood development. Moreover, lower secondary education provides an incentive to complete primary education and reinforces learning gains.

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7 Annexes

Annex 1: Interventions to Improve Attendance and Completion

- ***Lower the unit costs of primary schooling to achieve faster universal coverage***, e.g. introducing contract teachers, use of low-cost school construction – resisting pressure to reduce class size much below 40 until universal coverage is achieved, providing free primary education, shortening the pre-service training cycle, recovering a larger share of costs at other levels.
- ***Focus on teaching and learning*** – recruiting teachers based on content mastery; training teachers for 'student-centered' or active learning instruction, not frontal teaching; measuring student learning outcomes (and giving teachers the same tests); designing good quality curricula; books and materials and producing them cost-effectively; implementing inexpensive but effective models of in-service teacher training (master teachers, pedagogical advisers, rural teacher self-help networks) and creating performance incentives linked to school and student performance.
- ***Make good use of the private sector*** – allow high quality for-profit firms to serve the top 10 percent of income distribution with private finance; contracting out with private providers;
- ***Watch out for equity*** – ensure that the benefits of system expansion are being shared by the poor by setting clear rules for the distribution of resources across different regions and schools; by monitoring outputs and outcomes across regions and schools to identify where performance needs strengthening; target the lowest-performing regions and schools; providing accelerated programs and targeted subsidies; introducing cost-effective ECD (UNDP 2005a).

Interventions to get out-of-school children into school:

- ***Encourage children to attend school*** – by eliminating school fees, instituting conditional cash transfers, using school feeding programs as an incentive, and implementing school health programs to reduce absenteeism; and for girls: increase security and privacy for girls and reduce gender stereotyping in the curriculum.
- ***Support mothers*** – maternal education is a key determinant of children's attainment. Literacy programs for uneducated mothers help increase school participation by their children, particularly for pockets of undereducated women, such as ethnic minorities or indigenous communities.
- ***Enhance post-primary education*** – Demand for primary education may be determined in part by the availability of secondary education slots (UNDP 2005a).

Annex 2: Primary School Progression

Country	% of cohort ever to attend school	% of cohort to reach Gr. 4/5	% of cohort able to read by end of primary	(a)-(b)	(b)-(c)
	(a)	(b)	(c)		
Mali	43	35	12	8	23
Burkina Faso	34	29	14	5	15
Madagascar	80	27	15	53	12
Niger	52	40	16	12	24
Peru	98	84	17	14	67
Ghana	79	57	18	22	39
Egypt	95	94	22	1	72
Senegal	61	50	23	11	27
Ethiopia	37	25	23	12	2
Brazil	93	75	33	18	42
Zimbabwe	97	64	36	33	28
Honduras	94	67	38	27	29
Benin	71	48	40	23	8
Zambia	79	66	41	13	25
Cambodia	83	55	42	28	13
Colombia	94	68	43	26	25
Malawi	89	45	43	44	2
Rwanda	87	47	46	40	1
Uganda	93	57	47	36	10
Bolivia	99	85	51	14	34
Mexico	98	91	52	7	39
Nicaragua	81	61	61	20	0
Nepal	98	67	63	31	4
Dominican Republic	99	78	72	21	6
Kenya	87	77	73	10	4
Indonesia	99	91	87	8	4

Source: Derived from educational pyramids in Wills, et. al., *Educating the World's Children*, Figure 11.
Column (a)= % of cohort ever to attend school
Column (b) = % of cohort to reach Grade 4 or 5
Column (c) = % of cohort able to read by end of primary
Note: Separate data for males and females were averaged. selected countries, most recent year for which data available.

Annex 3: A Strategic Framework to Raise Learning Achievements

A possible framework for raising learning achievement is presented below based on three main elements: (a) ensuring enabling inputs, (b) focusing on learning outcomes and (c) reforming institutions[17] (Figure 1.1, UNESCO 2005).

A. Ensure Enabling Inputs

Schools without threshold levels of teachers, learning materials and infrastructure will not be able to do an effective job. These inputs are "enabling" in that they underpin and support teaching and learning (UNESCO 2004).

1. Learning materials. "Textbooks are one of the few inputs that have consistently been shown to have a strong impact on student learning" (Vegas and Petrow 2008). The availability of textbooks is especially beneficial for disadvantaged students and can counteract socio-economic disadvantage (UNESCO 2007). For example, in Guinea- access to books was shown to significantly improve learning (UNESCO 2008). The most cost-effective educational input for 2nd grade students in Northeast Brazil was found to be textbooks and writing materials (Harbison and Hanushek 1992). However, availability of this critical input is sorely lacking in many developing countries. About 15-20 percent of grade four students do not have a textbook or have to share one. A SACMEQ survey found that over half the grade six pupils in Kenya, Malawi, Mozambique, Uganda Tanzania and Zambia learned in classrooms that did not have a single book. In Liberia the pupil/textbook ratio was estimated at 27:1. As a result, students depend most of their class time copying textbook content from blackboards to notebooks which they are expected to memorize (UNESCO 2007). A study in Zambia indicated that less than 10 percent of books procured actually reached classrooms (UNESCO 2004).

2. Infrastructure (classrooms that are not crowded and in good condition, with clean water and sanitary facilities). In many developing countries the inadequacy of school physical facilities adversely affects student achievement. The "parlous state" of the education infrastructure (UNESCO 2004, 2007) is still of concern. In low income countries the poor quality of education facilities is a chronic problem. In conflict-ridden countries damage to the education infrastructure may be acute. (UNESCO 2007: 74). Learning assessments in Madagascar and Niger found that having electricity in the school significantly improved outcomes (UNESCO 2008). Poor school infrastructure is also widespread in Latin America. (UNESCO 2005). It is a common reality to have overcrowded classrooms where students cannot sit or sit comfortably in Africa, including Chad, Guinea, Malawi and Zanzibar (UNESCO 2007). Investment in school infrastructure can lead to improved learning achievement by reducing classroom overcrowding and expansion of instructional time by reducing the number of multiple-shift schools (Abadzi 2006). Schools need an adequate level of equipment to function properly; good working conditions are necessary to attract good teachers (Vegas and Petrow 2008). Achieving UPE will require unprecedented development and refurbishment of classrooms and schools in many countries (UNESCO 2004).

3. Teachers. Teachers are the core of any system of schooling (Pritchett 2004). "Ultimately delivery of good quality education is contingent on what happens in the classroom and teachers are in the front line of service" (UNESCO 2008). Competent teachers are the number one input to increased student on student learning. The characteristics of effective teachers are not clear, but years of experience and content mastery shown in teacher test scores seem to make a difference (Vegas and Petrow 2008). What is needed is better recruitment and initial training, followed by on-going professional support.

[17] This framework is modified and adapted from that presented in UNESCO 2004, Chapter 4.

Sufficient earnings and conditions of service are also essential. Above all, teachers must be well motivated. Investing in teachers, by providing both increased and improved incentives, as well as continuous support and training, can help improve student learning (UNESCO 2005; UNESCO 2007; and Vegas and Petrow 2008). For example, an NGO in India used financial incentives to reduce teacher absenteeism which improved student test scores (Vegas and Petrow 2008).

B. Focus on Teaching and Learning Outcomes[18]

1. Appropriate aims and content. The design and implementation of curriculum and standards can have important consequences for what and how students learn […]. In particular learning to read and write is critical for the mastery of other subjects and is one of the best predictors of longer term learning achievement. It must be the priority focus in basic education, particularly for learners from disadvantaged backgrounds (UNESCO 2004). In Zambia low educational achievement (only one third of students achieve minimum requirements for mathematics and language at grade five) is attributed in part to an "overcrowded and compartmentalized curriculum" (FTI, Catalytic Fund: Zambia).

2. Language of instruction matters. There is now a strong body of evidence that bilingual schooling provides significant benefits in learning outcomes. In the most successful models, the mother tongue is used in the initial years of schooling. Initial literacy is more easily acquired in the mother tongue (Benson 2004 in UNESCO 2004).

3. Structured learning. Dynamic teaching processes are important as embodied in effective teaching styles. Effective teaching can be taught, e.g. structured teaching that is a combination of direct instruction, guided practice and independent learning (UNESCO 2004). Moreover, once schools have an acceptable level of textbooks, it is teacher practice that makes the difference (UNESCO 2004).

4. Sufficient instructional time and using it well. Learning gaps in many countries are linked to inadequate and unequal provision of instructional time. Studies show that wastage of instructional time is a serious impediment to student learning (Vegas and Petrow 2008). Instructional time is a sum of the number of school days, length of the day and time spent during class in actual instruction (i.e. time on task.) Almost all countries set official rules on the number of days time children should be in school, but the actual time varies enormously within and among countries. International agencies recommend 850-1000 hours per year, or about 200 days a year on a five-day school week. However, an in-depth study of government primary schools and registered non-government schools found that the bottom ten percent of government schools provided fewer than 500 lesson hours per year in classes 3,4,5 whereas the top 10 percent provided more than 860 (UNESCO 2008). The main factors responsible were weather, conflict, natural disaster, strikes, holidays, agricultural seasons, but also lack of facilities, teacher absenteeism, teacher turnover and late teacher postings. Simply making the school day longer does not necessarily lead to better performance. More important, ultimately, is how effectively time is spent (UNESCO 2004). Increasing time spent in the classroom on task is an important part of improving learning. In an efficient classroom as much as 90 percent of class time is spent on learning. In lower-income countries this figure is about 25 percent (Abadzi 2006 in Vegas and Petrow 2008 and UNESCO 2007).

6. Assessment and national examinations. "Regular, reliable and timely assessment is key to improving learning achievement. It is the bedrock of an effective teaching and learning environment" (UNESCO 2004). The purpose of assessment is to allow those working in the education system to diagnose, monitor and assure the quality of the education they provide. By giving feedback to learners, formative

[18] UNESCO (2005) pg. 185.

assessment can help improve their learning and performance. Sri Lanka, South Africa and Ghana have introduced continuous learner assessment to supplement the national examinations. (Ibid.) The TIMSS review found a high correlation between the practice of scrutinizing students' educational performance (through use of exit examinations) and student achievement. (Woessmann 2000:6) "Accountability systems based upon tests of student cognitive achievement can change the incentives for students. By focusing on the true policy goal – instead of imperfect proxies based on inputs to schools – performance can be improved" (Hanushek and Woessmann (2007) pg. 2). "Students in countries with external exit exam systems tend systematically to outperform students in countries without such systems" (Hanushek and Woessmann (2007, pg. 18).

C. Reform Institutions to Make Schools Work Better

Numerous sources point to the key role of educational institutions in learning achievement.

- "The debate is not principally about what policy actions by producers of education could lead to improvements – nearly everyone agrees that better teaching practices and better instructional material inputs could lead to better outcomes. […] The key question is whether in any given country the current institutional conditions lead to a public sector that is motivated to and capable of implementing the required actions […]. In nearly all developing countries the path will lead to systemic reform" (Prittchett 2004).
- "The way an educational system is organized can have a significant bearing on learning outcomes. Organizational factors may explain up to 25 percent of variations in test scores across countries (Fuchs and Woessmann, forthcoming, OECD 2007a in UNESCO 2008, pg. 114).
- "Sustained improvements in education are impossible to achieve without improving the way key institutions in the sector function..." (UNDP 2005a, pg. 7).
- "The binding constraint seems to be institutional reform – not resource expansions within the current institutional systems … It appears extraordinarily important to get the incentives and institutional structure right" (Hanusheck and Woessmann 2007, pgs. 13, 21).
- "The road to improvement will involve major structural changes and will not follow from simple additions to resources" (Hanushek and Woessmann 2007, pg. 19).
- "The attainment of universal primary completion depends even more crucially on education system reform than on incremental financing" (Bruns, et. al. 2003, pg. 9).

1. Incentive structure. Institutional and structural changes aim at changing incentives[19] within the education system. "The only education policy that promises positive effects is to create an institutional system where all the people involved have an *incentive* to improve student performance" (Woessmann 2000, pg. 6). "The key problem is that within the current institutional conditions for government production of schooling, there are *too few incentives* to create performance oriented management – in either the government or market sectors. […] The key constraint is that the system does not produce incentives for producers to be effective" (Pritchett 2004, pg. 63). "The largest problem in current school

[19] An alternative "maintains that neither resource levels nor incentive structures can properly account for differences in schooling outcomes, gives weight to political and sociological factors" (UNESCO 2004, pg. 75).

policy is the *lack of incentives*[20] for improved student performance" (Hanushek and Woessmann 2007, pg. 20).

2. Autonomy. One way to create incentives is through greater parental involvement and school autonomy. "Increased local decision making or local autonomy, coupled with accountability, can facilitate (aligning rewards with outcomes)" (Hanushek and Woessmann 2007, pg. 2). "In some learning assessments, learning outcomes are related to the extent to which schools in a system have autonomy over teacher appointments, budget formulation and allocation and/or instructional content., plus public posting of student performance" (UNESCO 2008, pg. 114). "Cross country evidence shows that greater school autonomy over personnel management and process decisions (hiring of teachers, textbook choice, budget allocations within schools) appears to be correlated with better student performance" (Fuchs and Woessmann 2004 in Vegas and Petrow 2008, pg. 150). The positive effects of parental and community participation in education have been well documented, e.g. El Salvador's EDUCO, Honduras' PROHECO. Three studies from Central America show some evidence of the positive impact on student learning of school-based management (Vegas and Petrow 2008). Greater school autonomy, i.e. greater parental and community control, led to higher teacher attendance (Brazil, Chile, El Salvador, Nicaragua, Honduras, Mexico, Nigeria, some Indian states). Oversight and authority by parent-teacher associations or parent councils bolstered reduced dropout and repetition rates and bolstered student test scores in Argentina, Brazil, Nicaragua, Honduras, India and Indonesia. In an analysis of 10 Latin American countries, parental participation had the strongest impact on student achievement (UNDP 2005a).[21]

Decentralization can also register disappointing results, as in Nicaragua where power was concentrated in the hands of the school principal, not parental representatives (Vegas and Petrow 2008). Simply decentralizing can result in perverse effects. In Kenya decentralization led to the creation of uneconomic school sizes. Decentralization can lead to increased inequality within countries, e.g. Argentina and Brazil (Vegas and Petrow 2008). In Zambia, decentralization shifted spending from the province to the districts, negatively affecting the equity of fund allocation and crowding out parental and community contributions (UNDP 2005a, pg. 71). In short, promises often differ from reality (UNESCO 2007). Decentralization must be accompanied by commensurate funding and accountability for results.

3. Accountability. Many countries have been moving toward increased accountability of schools for student performance. The evidence is relatively new and limited to developed countries, but suggests that strong accountability systems lead to better student performance (Hanushek and Woessmann 2007). Curriculum-based external exit examinations are another means of accountability. "Little evidence is available at present about accountability systems in developing countries – reflecting weak general accountability in these countries and a general lack of systematic measurement and reporting of student achievement" (Ibid.). One of the central theses of the World Development Report 2004 is that the currently observed poor educational outcomes are largely the result of failures of the relationships of accountability. The "short route" to accountability is to evaluate student performance and provide the results to schools and teachers to improve classroom instruction, to policy makers and to parents and to communities (World Bank World Development Report 2004 in Vegas and Petrow 2008 and Hanushek and Woessmann 2007). The state of Parana in Brazil has introduced a "report card" for each school to increase accountability of schools and government to the community (UNDP 2005a).

[20] Perverse side effects of incentives policies – merit pay, decentralization (incentives to build too many small schools […]. Designing reforms to increase teacher and school accountability to parents appears to be a difficult task (UNESCO 2004). Limited evidence on merit pay, decentralization and privatization show that they can have perverse side effects […] (UNESCO 2004).

[21] See Hanushek and Woessmann 2007, for more examples of the positive effects of decentralization, school autonomy and community involvement.

4. Leadership. Studies on effective schools have stressed the importance of strong educational leadership in improving learning outcomes. Such leadership is seen in terms of transformation rather than control or maintenance. The trend towards greater school autonomy and school-based management makes competent school management all the more important. However, in most developing countries school principals and head teachers work in relative isolation in poorly supported schools with tight resource constraints. School-based leadership is unlikely to be achieved through training alone. Strong networks of professional associations, mentoring and quality assurance processes are necessary. Such broad-based approaches have been initiated in South Africa, South Korea and Malaysia. In Senegal, which lacks national support systems, school directors have set up networks on their own initiative to share experiences and advice (UNESCO 2004).

5. Experimentation and evaluation. As stated, too little is known about the impact of educational options under different circumstances. As UNESCO wrote, "Debates on adequate teaching practices are not settled" (UNESCO 2004). Too little is known because there have been too few rigorous evaluations of education options. The current level is so low that the marginal returns to additional research are high (Pritchett 2004, pg. 3). Moreover, the application of research findings across countries is hazardous. Contextual differences limit the transferability of policy lessons from one country to another even among relatively comparable countries (OECD 2004a in UNESCO 2004). For example, the highly successful educational programs of BRAC in Bangladesh for low-income children are not likely to be easily transplanted (UNDP 2005a). "What the particular interventions (should be) will vary across countries, regions, schools, etc. Since the 'learning achievement' function is so complex and depends on the presence of a variety of inputs, the impacts will vary" (Pritchett 2004, pg. 45). Not enough is known, and solutions are not highly amenable to global policy prescriptions. Therefore, in country experimentation and evaluation of alternative approaches are essential (UNDP 2005a and UNESCO 2004). "Uncertainty about the best design of incentive programs for schools is most acute in developing countries, largely due to lack of relevant experience. For this reason, it is especially important to implement a program of experimentation and evaluation – a key missing aspect of policymaking in most developing countries. Education policy must be viewed as evolutionary where ongoing evaluation permits discarding policies that are ineffective while expanding those that are productive"(Hanushek and Woessmann 2007, pg. 21).