



EdQual

A Research Programme Consortium on
Implementing Education Quality in Low Income Countries

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**THE EDUCATION MILLENIUM
DEVELOPMENT GOAL BEYOND 2015:
PROSPECTS FOR QUALITY AND
LEARNERS**


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Implementing Education Quality in Low Income Countries

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ABSTRACT

As we pass the mid-way point to the target date for the Millennium Development Goals (MDGs), an agenda for the next set of goals is already being discussed. The current education development goal of universal completion of primary education by 2015 has led to the expansion of enrolments in many countries. However, measurements of learning outcomes have found that too many children are graduating from primary school without having achieved competency in literacy or numeracy. To tackle this problem, three World Bank economists, Filmer, Hasan and Pritchett, have proposed the current education MDG be replaced by a Millennium Learning Goal (MLG) in place of universal completion of primary education in a paper published by the Center for Global Development. This working paper critiques the proposal from the perspective of education quality. It argues that where learning outcomes are used as an indicator of quality there is a tendency to privilege cognitive learning outcomes that are amenable to measurement by standardised testing. Filmer et al.'s proposal errs in this direction. As a consequence the problem of raising learning achievement is treated as a technical one neglecting complex, often cultural specific and political nature of education as a social practice. A MLG that promotes testing can have the unintended effect of impoverishing curricula and educational processes as teachers and learners come under pressure to maximise scores in pen and paper tests, irrespective of whether this enhances useful learning outcomes. The current MDG has been accompanied by a concern for quality at both the international and national level, including debate on the meaning and conceptualisation of quality. Filmer et al. suggest that a transition from the current MDG with quality to a MLG. It is argued that is important to sustain the debate that has already been flourishing around quality. Finally, it is argued that any measure of learning outcomes can only be a partial indicator of quality that must be supplemented by monitoring of educational processes, most especially teaching and learning processes within classrooms. The paper concludes by warning that a MLG would have to be formulated with caution and include more expansive forms of indicator than that suggested by Filmer et al. as well as having associated process targets.

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Introduction

The 8 Millennium Development Goals (MDGs) emerged from the UN Millennium declaration agreed by the UN General Assembly in 2000. Out of the eight MDGs, two relate to education. The education goal of achieving universal primary education has an associated target of ensuring that by 2015 all girls and boys everywhere complete a full course of primary schooling. Achievement of gender equality goal is measured by the target of eliminating gender disparity in enrolment at primary and secondary levels by 2005 and at all levels by 2015. The first MDG provided the overarching goal of eradicating extreme poverty, which may be viewed as a purpose for the education and gender equality goals.

There can be little doubt that the formulation of an education development goal has led to the expansion of enrolments in many countries throughout the world. Yet, persuasive arguments against the effectiveness and sustainability of rapid expansion have been tabled. Analysis conducted by the Consortium for Research on Educational Access, Transitions and Equity (CREATE), funded by the UK Department for International Development (DFID), demonstrates that rapid expansion deteriorates quality to the extent that low retention and high drop-out rates prevent universal completion from being achieved (Lewin, 2007; 2008). Clemens (2004) argues on the basis of a historical analysis that encompasses high as well as low income countries that enrolments depend more strongly on demand than supply factors, so that UPE is unlikely to be achieved in economic environments that cannot absorb graduates. Expansion in countries with the lowest enrolment rates is constrained by a shortage of secondary school graduates available to become teachers, leading to situations where primary school graduates are recruited as trainee teachers (UNESCO Institute for Statistics, 2006; Lewin, 2007).

The international agenda for expanding provision of basic education, which dates back to the first UN development goal set by UNESCO in 1960, has been coupled with a concern for quality since the World Conference on Education for All held in Jomtien in 1990. Nonetheless, even countries that started with close to universal primary enrolment in 2000, such as Mexico and Ghana, are reported to be failing to educate primary school learners so that graduates lack basic literacy and numeracy skills (Filmer et al., 2006). This situation has led three World Bank economists to propose the enrolment goal for education be replaced by a '*Millennium Learning Goal*' or MLG. This suggestion is receiving some attention amongst policy agenda-setters if not the academic community. It is therefore worth taking the time to consider what form a MLG would take and what implications for the quality of basic education might be. This paper calls attention to critiques of standardised testing and principles established by the DFID-funded EdQual Research Programme Consortium (RPC) for understanding the meaning of educational quality for disadvantaged groups in sub-Saharan Africa (see Tikly & Barrett, 2007) to argue that a MLG may potentially be detrimental to the achievement of education quality. It is argued that the operationalization of a MLG must sustain the current lively debate on quality and open up the black box of educational processes. Operationalization of a MLG depends significantly on how learning is measured and so this paper will take in some criticisms of existing international measurements of learning through international surveys such as the OECD's Programme for International Student Assessment ([PISA](#)).

The paper starts in section 1 by considering the frameworks for quality that have become associated with implementation of the current MDG, showing how national policy has tended to focus on inputs as a measure of quality. This section also reviews critical literature that inquires into who set the MDG agenda and the impact of the current education MDG. Section 2 describes the process now underway to determine the next set of MDGs and describes the favoured the MLG. The proposed MLG focuses on achievement outcomes of education. Section 3 provides a critique of an output-based approach to education quality, considering what the implications are for assessment and measurement, curriculum development and learners' schooling experience. Section 4 suggests alternative ways of setting an agenda for education quality that is both responsive to the context dependence of educational outcomes and the needs of learners themselves.

1. The current education MDG

1.1 Formulation and implementation of the MDG

The UN's history of setting social and economic development goals dates back to 1960 when UNESCO organised a series of regional conferences to set goals for achieving universal primary education by 1980. Since then, the UN has set around fifty development goals. Referring to the work of the *UN Intellectual History Project*, Jolly (2005) reports that most of these have been partially or considerably achieved despite in most cases lack of backing from the World Bank or International Monetary Fund (IMF). Targets for reduction in child mortality and the eradication of smallpox have been achieved. The most elusive targets have proven to be those that relate to increasing development assistance. Universal primary education has, of course, remained on the development agenda, despite gains made in the lead-up to 1980, and most experts consider it unlikely that it will be achieved by 2015 (e.g. Clemens, 2004; Lewin, 2007). Nevertheless, it is considered to be one of the more successful targets as millions of children have been enrolled in primary school as a consequence of its establishment as an international target.

The current MDGs were set in the normal way by the UN General Assembly which unanimously agreed the Millennium Declaration, from which they emerged, at a Summit in September 2000. Unlike past UN goals, they have enjoyed the support of the Bretton Woods institutions following development agencies' converging focus on poverty reduction and pro-poor growth during the 1990s. This may be attributed to increased importance placed on the UNDP's Human Development Index as opposed to Gross Domestic Produce (GDP) as a measure of growth (Robertson, *et al.*, 2007). Robertson *et al.* (2007), like King (2008) credit the OECD's Development Assistance Committee with setting the agenda through defining six International Development Targets (IDTs) in their paper, *Shaping the 21st Century: The Contribution of Development Cooperation* (OECD, 1996) which 'foreshadowed' the MDGs. Sumner & Tiwari (2008) point out that the IDTs were set at a series of UN social development conferences. So the education target of UPE was set at the Jomtien World Conference on Education for All, jointly organized by UNESCO, UNICEF and the World Bank, with the rather optimistic target year of 2000. The gender equality target emerged from the Fourth UN conference on women held in Beijing in 1995. Nonetheless, the IDTs were regarded by governments in the South and civil society organizations as donor-led. They represent an approach to international development that Unterhalter (2005:113) describes as seeking "a more rigorous definition of aims and clearer approaches to evaluating success." Unterhalter goes on to point out a link with the shift to audit as a form of accountability in Northern democracies. Lawrence Haddad has recently argued that the MDGs have "strengthened the conflation between aid and development," (Haddad, 2008), implying a donor-focus consequent to Northern leadership in their formulation.

In their implementation, the MDGs work together with other mechanisms identified by Robertson *et al* (2007:91), including:

- Poverty reduction Strategy Papers (PRSP) as a mechanism for operating the goals at country-level;
- technologies for delivering aid in support of the PRSPs in the form of Medium Term Expenditure Forecasts, Sector Wide Approaches and Poverty Reduction Support Credits;
- Global funds such as the Education for All Fast Track Initiative; and
- Commitment to results-based management.

The education MDG is one of the goals with which the international community is registering success. The latest Millennium Development Goals Report (UN, 2008) informs us that the number of out-of-school children in the world has dropped from 103 million in 1999 to 73 million in 2006, despite an overall increase in the number of children in the relevant age group. All world regions have net enrolment ratios (NER) over 90% with the exception of Western Asia (88%) and sub-Saharan Africa (71%). Understandably, therefore much attention is focused on SSA.

Some countries which started from a very low enrolment base have made remarkable progress with enrolments. Burkino Faso increased enrolments by 66% between 2000/1 and 2005/6 but with the gross admission ratio still only at 71% it is nonetheless very unlikely to achieve UPE by 2015 (Vachon,

2007). Alongside this expansion, repetition rates have decreased and survival rate to grade 5 has increased to 71%. Despite these undeniable advances, a recent report concluded that:

the educational provision cannot keep up with the rate of demand and, as a result, general teaching and learning conditions have tended to deteriorate: overcrowded classrooms, absence of basic classroom materials, lack of drinking water, sanitary facilities and canteens in most schools, insufficient teacher training, and so forth. In addition, the education system is not yet in a position to manage learning outcomes appropriately. (Vachon, 2007:1)

Countries starting from a higher enrolment base have been able to make more sustained progress by focussing on groups that have the lowest participation rates. In Cambodia, multigrade approaches have been adopted and bilingual approaches piloted in border, remote areas populated by ethnic minority groups. In overcrowded schools, multiple shifts have been introduced, automatic grade promotion established and advocacy conducted on the benefits of girls' education (UNESCO, 2007:224). Consequently, the NER for the primary cycle increased from 85% in 1999 to 98% in 2004 (Seel, 2007:7). Survival rate to grade 5 has been increased but still remains low at 62% for the academic year ending in 2005 (UNESCO, 2008:317).

1.2 Framing and measuring quality in the run-up to 2015

The education MDG may not refer to the quality of education explicitly but the target of all children *completing* a full cycle of primary education has clear quality implications as retention of learners is strongly related to quality. Hence, alongside numerical target-setting, the importance of education quality has been recognised at local, national and international levels. At the international level, various frameworks for conceptualised education quality have been conceived. The most well-known and influential of these are the framework presented in *the Education for All Global Monitoring Report 2005 – The quality imperative*; the framework generated by the Global Campaign for Education (GCE) (Global Campaign for Education (GCE), 2002) and championed by UNICEF and a framework developed by Mary Joy Pigozzi over a number of years (Inter-Agency Task Team (IATT) on Education, 2006; Pigozzi, 2008). Whilst each, amounts to nothing less than an attempt to model education systems, they can be crudely distinguished in terms of what is privileged as the central objective of education.

The GMR2005 model is influenced by both the UNICEF framework and school effectiveness models and like the latter views 'learner characteristics' interacting with 'enabling inputs', such as teaching methods and human resources, to produce learning outcomes. Learning characteristics, enabling inputs and outputs all interact with context, which includes factors that are both within and beyond the control of education systems. Learning outcomes are broadly conceived as literacy, numeracy and life skills, creative and emotional skills, values and the social benefits of education. Hence, whilst the quality of education depends on learner characteristics and system inputs, the implication is that quality is evidenced by outcomes. As the report comments, "knowledge and cognitive skills ... have received the lion's share of attention in assessment exercises that have provided internationally comparable data" (UNESCO, 2004:120) because they are relatively value-neutral compared to other educational goals and hence more amenable to measurement through standardized testing. In its own assessment of quality and equality of learning GMR2005 refers to survey data from the Southern and East African Consortium on Monitoring Education Quality (SACMEQ), Programme d'Analyse des Systèmes Educatifs de la CONFEMEN (PASEC), Progress in International Reading Literacy Study (PIRLS), PISA and the Latin American Laboratory for the Assessment of Education Quality (LLECE) to present test performance in language, mathematics, science, social studies.

The five dimensions of the UNICEF framework are defined as (i) what learners bring to learning; (ii) learning environments; (iii) content; (iv) processes and (v) outcomes. What learners bring is viewed in relation to their home and broader social and cultural contexts. The next three dimensions of learning environments, content and processes relate to what children experience within schools and are viewed as being within the control of education systems. Hence, learning outcomes are understood as dependent on how well education meets the needs of learners and to that extent, learners and their needs, framed in terms of human rights and gender equality, are placed centre stage. Pigozzi's model departs from the other two in modelling education systems as concentric systems, with learning placed at the centre. Pigozzi then identifies five factors at the level of the learner and, in the outermost, level,

five factors at the level of the learning system that shape learning. Hence, learning is placed at the centre of the model.

The GMR2005 model is most closely aligned with the Education for All (EFA) goal concerned with quality, as might be expected from a report that set out to measure progress towards achievement of that goal. The sixth EFA goal conflates quality with outcomes, amongst which it privileges cognitive outcomes:

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. (UNESCO, 2004:28)

In fact, to assess progress towards the sixth goal, the EFA Global Monitoring Reports report on teacher supply and quality (UNESCO, 2004;2007;2008), finance (UNESCO, 2005), learning time (UNESCO, 2008), learning environments (UNESCO, 2007), school resources (UNESCO, 2007;2008) as well as learning outcomes as measured by national and international measurement of cognitive skills. In other words, whilst the main emphasis is on the measurement of cognitive learning outcomes, international monitoring of the quality of basic education also reports on measurable inputs, with supply and quality of teachers (as judged by academic and professional qualifications and absenteeism).

To summarise, the three most influential quality frameworks at the international level represent both a depth of thinking about quality within which emphasis has been placed on learning outcomes, learners themselves and actual learning depending on the particular priorities of individuals and organisations involved in formulating and promoting the frameworks. The 'quality imperative' (UNESCO, 2004) has been framed as an imperative to improve learning outcomes, to meet the social and affective as well as cognitive needs of learners and to create the conditions at the classroom, school and systemic levels that are conducive to learning.

1.3 Impact of the MDG on Education Quality

At the international level, it is rare to find a voice outside of academia that will question the value of the education MDG. To question the goal of universal primary education comes too close to questioning the right of all children to receive a basic education, as enshrined in the Convention on the Rights of the Child. As the human-rights approach, championed by international non-governmental organisations (NGOs) as well UN agencies, is competing ever more fiercely with human capital theory as the dominant paradigm for understanding development, there is little opportunity to consider whether the cost of expansion in enrolments is sustainable in terms of its impact on quality. However, within the many countries where class-sizes have surged in advance of the implementation of reforms intended to improve quality (Riddell, 2003), this question has become a matter of public debate. EdQual researchers based in Tanzania, for example, have come across this debate in the popular media. Statistics published in the Global Monitoring Reports, however, do suggest that whilst national and international resources are channelled towards primary education, many countries are managing to raise retention rates and reduce repetition rates simultaneous to enrolment expansion.

2. Education MDG post-2015

Now we are past the mid-way to the target date for the Millennium Development Goals, the opinion-makers within Northern-based institutions that set global policy agendas are starting to debate what the next set of development targets should be post-2015. In the Overseas Development Institute's (ODI) Annual Report 2008, Andrew Shepherd, Director of ODI's Rural Policy and Governance Group, advises that with 2015 on the horizon now is the time to start re-thinking the MDGs:

However, we are just seven years from the 2015 MDG deadline. As the credit crunch and rising prices threaten to distract leaders from their global commitments, now is the time to regroup around the MDGs, looking beyond 2015 and changing direction if necessary. (Andrew Shepherd, 2008:1)

Individual academics have been the drivers of debate, most notably Andrew Sumner at the Institute for Development Studies (IDS), University of Sussex. He was one of the presenters at a recent seminar

run jointly by the Institute for Development Studies, Sussex and the All-Party Parliamentary Group for Debt, Aid and Trade held at Westminster, which was titled '[Half-way to what? Development beyond the MDGs](#)'. On 8 November 2008, Sumner co-convened a session at the annual conference of the Development Studies Association (DSA) titled '[After 2015: What's next for development research and policy](#)'. Andrew Sumner and Meera Tiwari set out a vision for post-2015 development in their forthcoming book (2009).

In a paper drawn from the book, Sumner & Tiwari argue that since the MDGs were framed debate has moved on from a pre-occupation with a "quantitative, physiological, material consumption set of poverty measures" (Sumner & Tiwari, 2008:8). They identify an emerging well-being approach that extends the capabilities focus on what people can do and be to what people feel about what they can do and be, going beyond the material to value relationships, values and behaviour. In education, this field can be identified with the life skills agenda that has introduced 'new subjects' such as democracy or citizenship education, health education, peace education. The fourth Education for All goal defines life skills in relation to the Delors pillars of learning (learning to know, learning to do, learning to be and learning to live together). Hence, education is not only expected to enhance employability or livelihoods at the individual level and economic development at the national level but also to develop democratic values and responsible citizenship behaviour that contribute to stable and peaceful communities and nations. Likewise, the international promotion of child-centred curriculum and pedagogies can be interpreted as a concern with how children feel about education as well as achieving affective and cognitive outcomes of education. However, as shall be argued below, this thinking is only weakly represented within documents setting the post-2015 agenda for education.

Sumner & Tiwari conclude by tentatively proposing process targets that lead to genuinely nationally-owned development goals formulated with the participation of non-state actors. The call for a shift to local agenda-setting is also made by Andrew Shepherd:

... the goals are often seen as 'northern', and debate is relatively muted in the south. Reviving the southern debate may require a shift in focus away from sweeping global targets to strong local indicators showing the reality on the ground. Global goals are all well and good, but countries need to be able to set their own targets. What is important is a vibrant public debate about progress, informed by indicators that are backed by solid data. (Andrew Shepherd, 2008:1)

EdQual has found that public debate on education quality is thriving within the countries in which it is conducting research, as discussed below. However, as the Overseas Development Institute (ODI) exemplifies, planning of the post-2015 agenda is largely located within the northern offices of development agencies. DFID has already committed in its Research Strategy 2008-2013, to prioritise education quality. With respect to the education development goal, a trio of World Bank researchers, who have taken the initiative. Deon Filmer, Amer Hasan and Lant Pritchett (2006) wrote a paper published by the Center for Global Development that is proving to be influential, in which they propose the education MDG be replaced by a Millennium Learning Goal (MLG) post-2015. Although they allow for the possibility of locally defining the MLG, the focus is very much on the educational outcomes rather than education processes and in this respect, divergent to Sumner & Tiwari's post-2015 vision.

2.1 The Millennium Learning Goal

In contrast with Sumner & Tiwari's privileging of process goals, the Filmer *et al.*'s (2006) proposal of a MLG calls attention to the outcomes and outputs of education. They view the current target of universal completion of education as the means towards an ultimate goal of universal *education*, which they define as:

every youth should make the transition to adulthood equipped with the minimal set of competencies — including both cognitive and non-cognitive skills — needed to function adequately in the economic, social, and political spheres of a modern society. (Filmer *et al.*, 2006:3-4)

In order to gauge to what extent learners in primary schools are being educated, Filmer *et al* refer to studies of literacy and numeracy acquisition in countries or states that are on target to achieve UPE by

2015. In their introduction, they cite examples of survey evidence that is either unreferenced or else published by the World Bank, including the following:

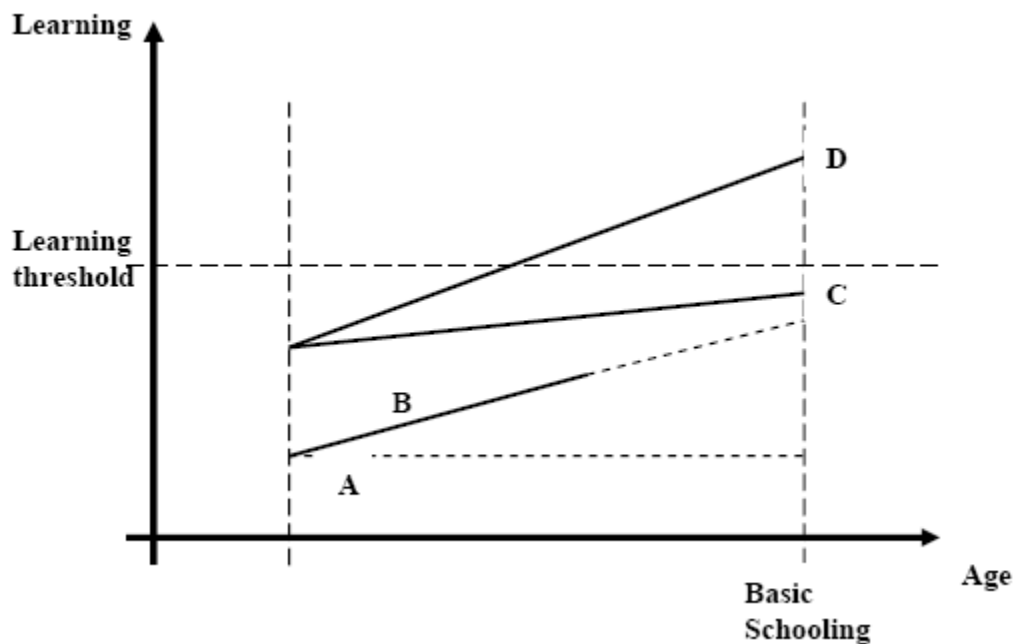
- A baseline survey of 3rd to 5th graders in five districts of Andhra Pradesh, a middle performing Indian state, found that only 12 percent of students could do single digit subtraction and that 46 percent could not, when shown a picture of six balls and three kites, answer how many kites were in the picture. (*Op. cit.*, p. 5)
- A recent survey of learning in India found that of students in government schools in grades 6-8, who are students who have completed the lower primary cycle and hence met the MDG, 31 percent could not read a simple story, 29 percent could not do two digit subtraction—both of which should have been mastered by grade 2 in the Indian curriculum. (*Op. cit.*, p. 6)
- In Indonesia, where primary completion is nearly universal 47% of 15-19 year olds could not answer the question " $56/84 = \dots$ " correctly. (*Op. cit.*, p. 6)
- In Ghana, a household survey administered eight mathematics questions--where mastery of one digit arithmetic would have been sufficient to answer half the questions and two digit arithmetic to answer all correctly (e.g. $1+2 =$, $5-2 =$, $2 \times 3 =$, $10/5 =$, $24+17 =$, $33-19 =$, $17 \times 3 =$, $41/7 =$) found that only a quarter of 15-19 year olds could answer more than half of these very simple questions. (*Op. cit.*, p. 6)

In the body of the paper, however, the authors use their own analysis of PISA data from the 2003 survey on performance in reading, mathematics and science to support their argument for a MLG. Hence, as is so often the case, despite formal recognition of the affective goals of education, performance in tests to measure cognitive learning in a limited set of subjects are taken as the indicator of achieving broad educational goals, *with no discussion of the limitations of this approach.*

Filmer *et al.* compare "learning profiles" for the whole age cohort of 15 year olds in Brazil, Indonesia, Mexico, Thailand, Tunisia, Turkey and Uruguay, including those who are out-of-school or still enrolled in the primary level, who are not captured in the PISA data. All of the seven countries included in the analysis except Indonesia and Thailand have already achieved or are on track to achieve UPE by 2015. A "learning profile" is explained simply as a straight line graph representing learning achievement for a given student against years of schooling within the basic education cycle (see fig. 1). The graph is assumed to be flat for a child who never attends school. Line B represents a child who drops out; line C a child who completes the basic education cycle but does not achieve above a "minimum learning threshold" and line D a child who both completes the cycle and achieves above the minimum learning threshold. Standardized testing of whole age cohorts is argued for as the only feasible measure of progress towards a MLG and for measuring the performance of education systems as a whole. The PISA 2003 survey provides competency levels for all 15 years olds in full or part-time post-primary education. Results for 15 year olds not in post-primary education are therefore simulated, however numbers are small for the selected countries. These simulated results are taken together with the actual results to deduce levels of competency and hence the adequacy of educational provision across the cohort, assuming a normal distribution for students within each grade.

Figure 1: Learning profiles

Source: Filmer *et al.* (2006:16)



The lower bound set for learning achievement corresponded to the lowest level of competency defined by PISA, level 1, described as follows:

At competence level 1, students can answer questions involving familiar contexts where all relevant information is present and the questions are clearly defined. They are able to identify information and, carry out routine procedures according to direct instructions in explicit situations. They can perform actions that are obvious and follow immediately from the given stimuli. (Filmer *et al.*, 2006:21).

Figure 2 gives an illustrative level 1 question. The upper bound for learning achievement MGL_H was set at a score of 500 because this roughly corresponds to the meanscore for students in OECD countries. Results of their analysis are given in table 1.

Figure 2: Illustrative level 1 question, corresponding to MLG_L

Source: Filmer *et al.* (2006:22).

Illustrative level 1 competence in mathematics question: The following table shows the recommended Zedland shoe sizes corresponding to various foot lengths.

From (in mm)	To (in mm)	Shoe Size
107	115	18
116	122	19
123	128	20
129	134	21
135	139	22
140	146	23
147	152	24
153	159	25
160	166	26
167	172	27
173	179	28
180	186	29
187	192	30
193	199	31
200	206	32
207	212	33
213	219	34
220	226	35

Marina's feet are 163 mm long. Use the table to determine which Zedland shoe size Marina should try on.

Table 1: Percentage of cohort of 15 year olds estimated to be below MLG_L and MLG_H

	Below MLG-Low			Below MLG-High		
	Mathematics	Reading	Science	Mathematics	Reading	Science
Brazil	78	57	64	96	90	96
Turkey	45	50	57	84	89	93
Indonesia	68	45	39	98	97	98
Mexico	50	39	38	91	86	91
Uruguay	39	31	31	79	74	80
Thailand	34	19	26	82	83	85
Greece*	17	8	7	66	54	59
USA*	9	5	7	49	43	53
Japan*	3	5	3	30	43	32
Korea*	2	0	2	25	24	34

* Enrollment assumed to be 100 percent in the grades covered by PISA for these countries.

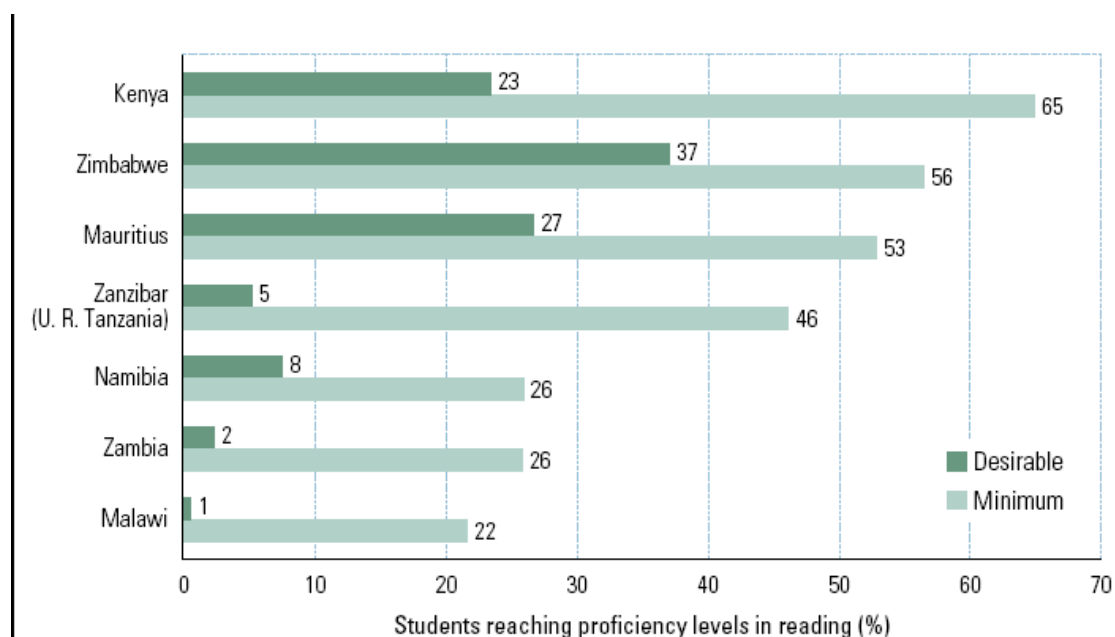
From these results they deduce that in middle income countries that are on course to achieve the MDG, a substantial proportion of youth are not achieving the minimum learning threshold and conclude that a MLG would focus attention on addressing this problem more effectively than a MDG. Advantages of a

MLG over a MDG that are given in the paper are firstly that it would value interventions that raise learning achievement but not necessarily access, for example pre-primary interventions that raise "school readiness" (*Op. cit.*, 17). Secondly, it would not value keeping children in dysfunctional schools where they are not learning, as the MDG does.

Whilst it is possible to critique Filmer *et al.*'s analysis, their broad point that education systems are failing learners is not contentious. The GMR2005 likewise demonstrated, through reference to analysis of findings from a range of international surveys, that substantial percentages of learners in low income countries that are reaching the upper years of primary are not performing at minimum levels of competency, however this is defined. See for example figure 3, a bar chart that appears in GMR2005 and draws on data from the first SACMEQ survey to show that only between 65% and 22% of grade 6 students in the countries included in the survey achieved a minimum proficiency levels in reading. The latest Global Monitoring Report (UNESCO, 2008:67) argues the importance of monitoring learning outcomes as an indicator of quality and it cites evidence that learning levels in many low, middle and high income countries are unacceptably low. Some examples cited in GMR2008 are quoted in box 1. However, both GMR2005 and GMR2008 also draw attention to the relationship between learning outcomes and both national and individual economic wealth.

Figure 3: SACMEQ: Percentage of grade 6 learners achieving minimum and desirable proficiency levels in reading, 1995-1998.

Source: UNESCO (2004:121)



Note: Countries are ranked by proportion of pupils meeting minimum proficiency levels.

Sources: Kulpoo (1998); Machingaidze, Pfukani and Shumba (1998); Milner et al. (2001); Nassor and Mohammed (1998); Nkamba and Kanyika (1998); Nzomo, Kariuki and Guantai (2001); Voigts (1998).

Box 4: Evidence of low learning levels cited in GMR2008

Source: UNESCO (2008:67)

- The PIRLS 2001 assessment found that in many countries, including Argentina, Colombia, the Islamic Republic of Iran, Kuwait, Morocco and Turkey, over 40% of grade 4 pupils read at or below the lowest level (Mullis et al., 2003). The PISA 2003 reading assessment found that 20% or more of 15-year-olds in Austria, Germany, Greece, Hungary, Italy, Luxembourg, Portugal, Spain and Turkey performed at or below the lowest proficiency level.
- Achievement levels are lower in developing than in developed countries. For example, in TIMSS 2003, 20% to 90% of grade 8 students in low and middle-income countries did not reach the lowest benchmark level (UNESCO, 2005a). In PISA 2003, 34% to 63% of 15-year-olds who performed at or below proficiency level 1 in reading were in low- and middle-income countries, including Brazil, Indonesia, Mexico, the Russian Federation and Thailand.
- Pupils from more privileged socio-economic backgrounds (in terms of parents' education, occupational status or household wealth) and those with access to books consistently perform better than those from poorer backgrounds or with limited access to reading materials.
- African and Latin American assessments, notably SACMEQ and LLECE, find strong disparities in favour of urban students, reflecting both higher household incomes and better school provision in urban areas (UNESCO, 2000b).

Filmer *et al's* analysis is intended to illustrate how a MLG may be measured. They conclude by recommending that international agencies and individual countries move from the MDG to a MLG and towards this end recommend that:

- Individual or sets of countries define a realistic set of competencies as low and high learning targets;
- Countries agree on how to measure the desired competencies from schooling on a regular basis; and
- International comparisons measure performance of age cohorts rather than school grades.

Whilst Filmer *et al.'s* is, as far as I know, the only proposal on the table for the formulation of a MLG, it does not stand alone in demanding more monitoring of learning outcomes. A recent evaluation of World Bank funding for primary education observed that whilst the World Bank monitoring inputs there had been very little monitoring of outputs or learning outcomes. GMR2008 also calls for more monitoring of learning outcomes. The critique of a MLG below highlights the difficulties measuring learning outcomes at the international level and some of the consequences of prioritising measures of achievement.

3. Critique of MLG

This section focuses on six main criticisms of Filmer *et al's* argument. These may be summarised as:

1. Whilst acknowledging that educational goals are broad, complex and value-based, the problem of raising learning achievement is treated as a technical one that is amenable to a technical solution (in this case, changing the MDG to the proposed MLG);
2. The assumption of a flat learning curve for youth who have not attended school and the nature of the unreferenced evidence cited in the introduction indicates a lack of respect and understanding of the cognitive skills, including literacy skills, that people who have not attended school possess;
3. The paper assumes that standardized tests do provide a measure of learning;
4. The paper does not acknowledge the relationship between learning outcomes and socio-economic status of individuals or reflect on the implications of the relationship between learning outcomes and national wealth;

5. The paper proposes a transition from “MDG with *quality*” (my emphasis, *Op. cit.* p.38) to MLG without given any consideration to the dangers of replacing the current recognition given to the importance of educational quality by a narrower focus on learning outcomes; and
6. Any measurement of ‘learning outcomes’ will always be a partial indicator of quality and learning and does not preclude the need to also observe educational processes.

3.1 Technician view of education

Whilst educational goals are complex, often culturally specific and political, it is relatively non-contentious to assert that a basic education should equip learners with basic literacy and numeracy skills. Such cognitive skills are also relatively amenable to measurement through standardized tests. On this, grounds the assumptions that Filmer *et al* make about the international relevance of the PISA survey seem reasonable enough. International surveys such as PISA that are rigorously designed by international teams composed of individuals with considerable technical ability are likely to continue developing in sophistication and to remain important indicators of quality. Nonetheless, such surveys have been subject to criticism and before moving towards a MLG, these criticisms should be given attention.

Harvey Goldstein is a leading international expert on Statistical modelling techniques in the construction and analysis of educational tests, who has critiqued the EFA literacy target, pointing out the challenges of creating a test of literacy that is not culturally or educationally specific (Goldstein, 2004). Goldstein observes that:

If a measuring instrument is restricted only to those items for which we might assume there are no locally specific differences, there is then a real question about whether such an instrument is measuring anything useful. (Goldstein, 2004:9)

Expertise in international testing is located in OECD nations and so test items in international tests are likely to be culturally specific to OECD contexts. Indeed, ethnographic studies in some low income contexts have challenged the notions of literacy that are embedded in schooling (see for example, Maddox, 2007).

Some of the difficulties associated with international testing may be overcome by setting learning goals at the national level, as proposed by Filmer *et al.* in the conclusion. However, it is Filmer *et al.*'s paper implies that part of the purpose of a MLG is viewed as providing comparability and hence accountability between countries, in very much the same way that the MDG has been used. The fact that the analysis that makes up the bulk of their paper uses international survey data from countries from Latin America, South Asia and Europe to demonstrate the technical feasibility of generating quantifiable learning goals sends a message of international goal-setting. However, Goldstein's criticism warns that setting an international or even regional MLG in literacy is not only technically highly complex but may even end up being meaningless. In such a situation, there is a real danger that the transition to a MLG may dissipate the political goodwill that the current MDG has generated internationally. At the very least, Goldstein's critique serves as a warning that setting a MLG will require a great deal of careful technically-informed research and planning.

3.2 Out-of-school youth are not learning

This second criticism relates to the first in that a technical view of cognitive skills is blind to alternative literacy and numeracy skills. Many millions of learners who would fail to reach the lowest levels of competency in a PISA, SACMEQ or other standardized tests do in fact possess a sophisticated skill set. People who are presumed illiterate often have better memories and mental arithmetic skills than people who are schooled. Dyer (2001:325) in her examination of the relevance of Education for All to nomadic pastoralists refers to two pieces of research showing that Maasai boys out of school could perform higher order and more complex classifications and identifications of cattle than those in school.

We are given no information on how the household survey in Ghana, cited by Filmer *et al.*, was administered and no reference through which to seek this information. However, one does wonder what the reaction of the quarter of 15-19 year olds who couldn't answer more than half of the abstract simple mathematical calculations correctly would be if they had been short-changed in the marketplace. It is common for people, who perform poorly in paper and pencil tests, to make relatively few errors when performing comparable cognitive skills in context. This may be due to a lack of confidence with

the formal presentation of abstract numerical problems. In some contexts, relatively disempowered individuals may wish to conceal their literacy skills. Bryan Maddox (2007) ethnographic study of a village woman's literacy group in a strongly patriarchal and economically highly vulnerable society demonstrated how women in this situation acquire and practice literacy surreptitiously. Maddox goes on to show that literacy practices are socially contingent. Power relations and ideology shape literacy practices, however individuals acquiring literacy are not entirely subject to their context as they can and do use their literacy skills to exercise agency.

3.3 Standardized tests are assumed to measure learning

What standardized tests actually measure is another theme in test literature. Goldstein (2004) observes that literacy tests very often fail to measure more than one dimension of literacy. Having critiqued the literacy target, Goldstein turns his attention to the EFA goals with respect to achievement of children. The 6th or quality EFA goal is expressed as:

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.

Goldstein's concern relates to the total lack of attention given by the Dakar Framework for Action to how the measurable learning outcomes are to be measured and the risk that attempts to measure learning outcomes will be detrimental to learning:

Experience within existing educational systems shows that an emphasis on numerical learning targets can be dysfunctional. My argument is that similar considerations will apply internationally—in particular, that any rise in test scores should not be confused with a rise in learning achievement as opposed to test-taking performance. (Goldstein, 2004:10)

This is possibly the strongest argument for not instituting a MLG or, at the very least, doing so with extreme caution. Goldstein cites evidence from England and USA where national and state-wide testing respectively were introduced in the 1990s. In England, whilst test score levels in those aspects of the curriculum that are tested and in public examination results have risen there has been a backwash effect on learners and teachers that is detrimental to other aspects of quality. This includes a tendency to de-motivate pupils, increased test anxiety especially amongst low achievers, and teachers finding that their professionalism and capacity for creative innovation is undermined. Texas introduced high stakes testing that rewarded schools or teachers on the basis of pupils' test scores in 1990 and over the 1990s very large gains in student test scores were observed. However, when independent researchers compared the results of the intensive testing programme in Texas with results obtained from a national testing programme they found that the gain in test scores over time for Texas students on the national test was much less than that implied by the Texas test scores.

When learning outcomes become the focus of targets, schools, teachers and learners come under pressure to maximise scores in pen and paper tests, irrespective of whether this enhances useful learning outcomes. This washback effect is observed in its most dramatic form not in England or the USA but in low income countries, where examinations, which select for the next educational level, are high stakes for learners and their families as gateways to eventual formal sector employment. In many SSA countries, schools are ranked according to the performance of pupils in end-of-cycle examinations, children are over-tested and teaching and learning experiences through much of upper primary and the whole of secondary revolve around the testing. Curriculum areas that are not tested or are given less weight in selection procedures are de-valued, under-resourced and given reduced teaching time. The phenomenon of 'cramming' and examination anxiety coupled with low levels of professionalism amongst teachers sends flocks of children and youth to extra-tuition, sometimes completely eroding time for leisure and play. In systems where accountability mechanisms are ineffectual, corruption in relation to examinations and testing also abounds. Examinations are leaked and names on pass lists are mysteriously replaced by those of wealthier relatives of officials. During the examination season there are reports of mass hysteria and 'fainting fits' in schools (BBC news, 2008).

It is possible that the implementation of a MLG would turn a spotlight on assessment methods and lead to massive global investment in the improvement of examination design and administration. However, there is a risk that a greater rhetorical emphasis on achievement in learning at the international level may reinforce norms of over-testing at the national level. Just as the current MDG has legitimised the

implementation of rapid expansion policies that in many countries are actually detrimental to sustainably achieving UPE, a MLG may legitimise the impoverishment of curricula and educational processes in ways that do not improve meaningful learning outcomes. This all adds weight to the warning that a MLG needs to be approached with extreme caution and an awareness of the potential impacts on educational quality. Bivens *et al* advice that:

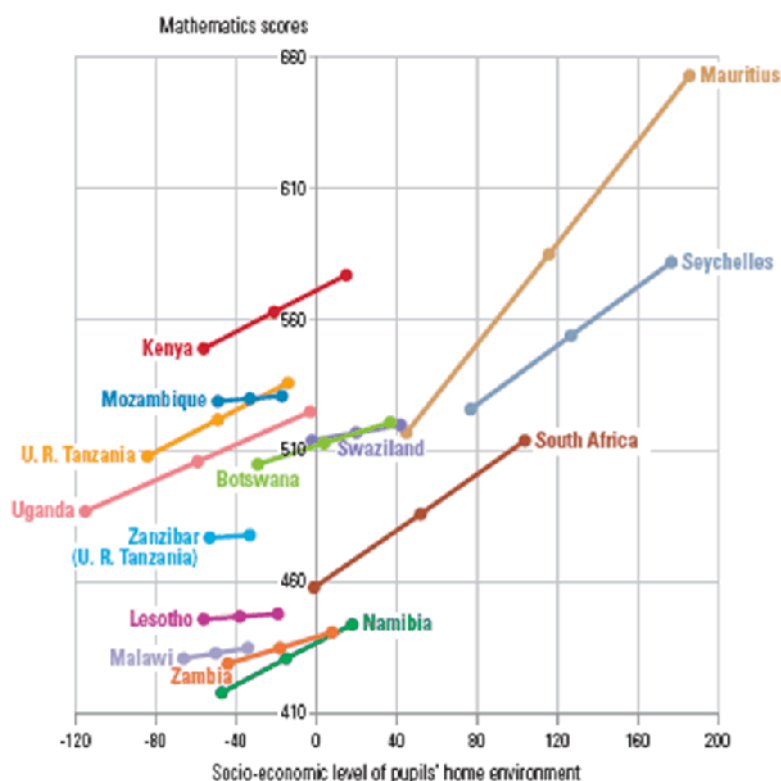
Rather than making the measurable important, a greater focus is needed on how to make the important measurable; that is, how to prioritise learning outcomes that are relevant to the lives and survival of children in developing contexts. (Bivens, *et al.*, 2008)

Pithily expressed, such advice sets a formidable challenge for setting and monitoring a MLG.

3.4. Relationship between learning outcomes and economic wealth ignored

Consonant with the dominant development paradigm and the ideology of the World Bank, Filmer *et al.* assume a human capital theory view of the role of education in development. Namely, the purpose of education is to develop in individuals advanced cognitive skill sets that will enable them to contribute positively to their national economies and hence national development. Since the 1970s this is a view that has been critiqued by a radical view influenced by Marxist class theory (e.g. Bowles & Gintis, 1976; Apple, 1978) as neglecting the role that education systems play in reproducing social and economic advantage and disadvantage. In the 1990s, Lynn Ilon (1994) predicted that globalisation and marketisation of education has created a four tier system of education quality. A global elite send their children to schools that are comparable to the private schools in Western countries. A middle tier of parents send their children to local fee-paying private schools (sometimes calling themselves 'international schools') that use European languages as the medium of instruction. In many countries, state education is rapidly becoming a poor quality third tier, the last resort for poor urban parents and the only choice for rural parents who prefer not to send their children away to urban centres. These schools will at best, make their children "marginally competitive for low-skill jobs" (Ilon, 1994:102). A fourth tier of children for whom the market does not cater or governments make provision for are further marginalised by extreme remoteness, extreme poverty, disability, nomadic living, conflict, political instability, abuse or neglect at home, are unable to access education in any shape or form. Radical theories have been critiqued as being overly deterministic (Papagiannis, *et al.*, 1982) for not recognizing that education can and does contribute both towards overcoming as well as perpetuating and inequalities. Yet, there is overwhelming evidence that learning outcomes are related to socio-economic status, as figure 4, generated from SACMEQ data and presented in the EFA Global Monitoring Report 2007 (UNESCO, 2006:51) illustrates.

Figure 4: Mathematics achievement scores for grade 6 pupils in relation to socio-economic status, SACMEQ II (2000-2002)



With respect to the current MDG, Lewin (2007) and Clemens (2004) have both observed that it is optimistic to assume that supply-side factors exclusively determine enrolments pointing out that the motivation for parents to enroll children in school will relate to the perceived economic benefits which relate to the availability of employment and entrepreneurial opportunities for graduates. Whilst good quality education can and does improve economic prospects for learners, it still needs to be remembered that quality of education is very far from being the sole determinant. Learning outcomes, like enrolments, will be constrained by perceived benefits and learners achievement will relate to the perceived relevance of the cognitive skills being measured and pen and paper tests generally measure outcomes in a way that are most apparently relevant to skills sets required within formal sector highly skilled employment. Attempts to improve learning outcomes that take an exclusively technical approach and are blind to the social, political and economic factors that influence educational quality are ultimately going to be limited in their perspective and their potential to raise learning outcomes across all children, most especially those who are most disadvantaged.

3.5 MDG with quality should be replaced by a MLG

The current MDG has become associated with a focus on quality, which was strongly represented in the World Declaration of Education for All produced by the World Conference on Education for All. The quality EFA goal and the dedication of one of the EFA Global Monitoring Reports to the theme of quality has contributed to sustaining the focus on quality. National policies tend to focus on inputs as a means to improve quality as has World Bank funding to primary education, as a recent evaluation observed (Independent Evaluation Group, 2006). International agencies have however participated in a much richer debate around quality that has been nonetheless influential for not being underpinned by numerical targets. The Delors report (Delors & *et al.*, 1996) commissioned by UNESCO conceptualised the four pillars of learning that were incorporated into the 4th life skills EFA goal calling attention to the affective and spiritual dimension of education. The human rights based approach currently favoured by INGOs has strengthened the case for including subject areas such as health, democracy, citizenship and peace into national curricula. The influential UNICEF framework for conceptualising quality, discussed above, has focused attention on the knowledge and experiences that learners bring with them into school, contributing to a re-balancing between emphasis on meeting learners' needs and meeting the skill demands of national development. These debates and frameworks have informed INGO-sponsored projects aimed at raising enrolments amongst disadvantaged populations, for example by introducing multigrade classes for small schools or bilingual teaching and learning environments, or improving the quality of education by making school environments and teaching and learning processes more child-friendly.

Within low income countries, education is a hotly debated topic. In each of the sub-Saharan African countries in which EdQual conducts research, public debate in the media is engaging with dimensions of quality that go beyond a longstanding pre-occupation with examination results to a concern with educational processes, such as teaching and learning practices, school accountability to local communities and the impact of child labour. Education is essentially a value-based activity and understandings of education quality necessarily have a value basis (e.g. Sayed, 1997; Barrett, *et al.*, 2006). This means that:

Defining what aims for a public system of education are 'appropriate' and what content is 'relevant' to students and society at a time of rapid change is eminently and necessarily a matter for debate. (Alexander, 2008:9)

Open-ended qualitative debate is a necessary and vital complement to sharply defined indicators as a means of holding governments accountable for the quality of education systems and it is imperative that any global goal sustains the environment for such debate at international, national and local levels. So whatever form a MLG takes it should be framed with an intention to sustain and enrich the debate that has already been stimulated at various levels on the quality of education and not as a definitive all-encompassing goal that precludes the need for such debate.

3.6 Quality is about processes as well as outcomes

In each of the three internationally-recognised models for conceptualising quality outlined above, outcomes appear as just one dimension of quality. Any measurement of learning outcomes, however carefully defined and accurately measured needs to be recognised as only a partial measure of quality which governments must supplement by monitoring of educational processes, most especially teaching

and learning processes within classrooms (Alexander, 2008). It is on this aspect of quality that EdQual's research programme is primarily focussed (Tikly & Barrett, 2007). Setting indicators for the quality of processes is far more challenging than measuring learning outcomes as ultimately much depends on values and beliefs regarding educational purpose and the upbringing of children. It is, however, exactly the task that school inspectorates and other supervision services, perform for national governments. How teaching and learning processes are evaluated and monitored in schools and support for inspection services, including the development of quality indicators must be a central concern of any effort to ensure that all children are receiving meaningful basic education. Hence, whilst a MLG may take us further in ensuring that quality of education is improved than the current MDG, like the MDG, it also needs to be kept in perspective as a partial and relatively crude indicator of what education systems are actually achieving for their learners and not become the exclusive focus of international efforts.

Conclusion

None of the six main points made in this critique of Filmer *et al.*'s paper proposing a MLG necessarily exclude it as an option. A shift from an over-riding international focus on getting children into school to ensuring that all children benefit learning that enhances their capabilities, economic opportunities and well-being is surely to be welcomed. This paper is intended to flag early on some of the potential pitfalls of the implementing a MLG in the form in which Filmer *et al.* have conceived it. An overly single-minded focus on enrolments has been shown to be counterproductive as overstretched education systems fail to meet the needs of rapidly increasing numbers of learners resulting in high levels of drop out. Similarly, a focus on a simple measurement of cognitive learning may be detrimental to learning more broadly conceived as acquiring a balanced skill set and attitudes that will extend what learners can do and be that they have reason to value, as Sen has defined capabilities (Sen, 1999).

Harvey Goldstein's warnings concerning the difficulties of measuring learning outcomes internationally in a comparable way and the possible consequences of over-valuing measurement within education systems underline the enormity and complexity of the challenge of formulating a MLG in a way that will be beneficial to the quality of education across high, middle and low income countries. Filmer *et al.*'s suggestion that a learning goal be determined at the national or regional level deserves serious consideration. In addition, I would argue on the basis of the critique above that a MLG be more expansive than the form of indicator suggested by Filmer *et al.* in three ways. First, a broad range of international experts on the measurement and assessment of learning outcomes need to be consulted in the process of setting targets for learner achievement in literacy, numeracy and any other knowledge or basic cognitive skills, such as science, that are included within the MLG. Secondly, the MLG should additionally include indicators for achievement of learning goals, which are not amenable to measurement through standardized tests and therefore not necessarily quantifiable. Lastly, a MLG could have associated process targets that are privileged at least as much as any quantitative targets for learning outcomes. These might include targets for the following:

- the presence and influence of participative public and professional debate on the learning outcomes privileged within national and school curricula;
- the improvement of assessment regimes for measuring learning outcomes at the national and local level, including the analysis of learning outcomes data and the use made of this information to improve educational processes;
- the strengthening of inspection systems for monitoring quality of educational processes and outcomes that are not amenable to standardised testing.

Such targets strongly supported and advocated for across international development agencies may prevent an unbalanced focus on measures and indicators of learning outcomes impacting negatively on the actual quality of teaching. They should also create space for local participation in setting and hence claiming ownership of learning goals.

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