

A REPORT FROM THE IWGE

From schooling to learning

Edited by N.V. Varghese



International Institute for Educational Planning

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United Nations
Educational, Scientific and
Cultural Organization



International Institute
for Educational Planning

This document is the summary of discussions of the 2012 meeting of the International Working Group on Education (IWGE). The views and opinions expressed in this volume are those of individual participants in the meeting and should in no way be attributed to UNESCO, IIEP, or any of the agencies that are members of the Working Group.

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Preface

The International Working Group on Education (IWGE) is an informal network of aid agencies and foundations. Since its inception in 1972 it has provided a forum for donor agencies and their representatives to exchange information and work closely together on education issues. The network meets regularly to discuss topics of interest and importance to the agencies and organizations engaged in education.

More specifically, the objectives of the IWGE meetings are:

- to exchange information among agencies concerning education aid policies and practices in an open and informal way;
- to strengthen cooperation and facilitate a convergence of approaches and operational modalities when appropriate;
- to advocate for bringing major education policy issues to the forefront.

The members of the working group meet regularly (at least once every two years). These network meetings have helped to develop a common understanding in support of education. During the 1980s and 1990s the group focused on basic education and served as a catalyst for the preparation and follow-up to the 1990 World Conference on Education for All (EFA) in Jomtien, Thailand. After the Dakar World Education Forum in 2000, the Working Group continued to exchange information on basic education but broadened its focus to include the preparation of young people for entry into the labour market, coping with the growing demand for secondary education after EFA, mitigating the impact of HIV and AIDS on education, and planning education in contexts of crisis and reconstruction. The exchange of views and experience on how to move towards a sector-wide approach (SWAp) has developed to include the progress made on poverty reduction strategies (PRSs) and the Fast-Track Initiative (FTI).

Topics discussed in the IWGE during this millennium have included: quality and learning (Florence, Italy, 2000); sector-wide approaches (Lisbon, Portugal, 2001); gender parity and education and emergency (Helsinki, Finland, 2003); governance (Washington, DC, USA, 2004); education for rural people (Rome, Italy, 2006); capacity development (New York, USA, 2008); and financing and redesigning national strategies and the global aid architecture (Stockholm, Sweden, 2010).

The 2012 IWGE meeting was hosted by the World Bank on its premises in Washington, DC. The topic identified for focused discussions was *From schooling to learning*. The meeting brought together 80 participants representing aid agencies and organizations, foundations and scholars invited to address those present.

IIEP subsequently published a summary report and recommendations emerging from the meeting. This book is a more detailed report on the event and also summarizes the discussions in the ‘show and tell’ sessions on recent developments in the participating agencies, presentations and discussions in the plenary sessions, the recommendations that emerged from the meeting and a set of papers prepared by some of the guest speakers.

I am grateful to the members who took part in the IWGE meeting: Ms Elizabeth King and her team at the World Bank who hosted the event; the authors who contributed papers to this volume; Kathryn Barrett for her support in organizing the meeting; Natasha Kelsick for her support in editing; Marie-Paule Montagne for her help in editing and carrying out the follow-up; and my colleague N.V. Varghese for his role in coordinating network activities, organizing the meeting and preparing this volume for publication.

Khalil Mahshi
Director, IIEP*

* From 2010 to February 2014

About the International Working Group on Education

The IWGE is an informal network of aid agencies and foundations. Since its inception in 1972, it has provided a forum for donor agencies to exchange information and work closely together on education issues. The IWGE is guided by a planning committee consisting of representatives from the Aga Khan Foundation, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the Swedish International Development Cooperation Agency (Sida), UNESCO, UNICEF, the United States Agency for International Development (USAID), and the World Bank. The activities of the IWGE are coordinated by its Secretariat, the UNESCO International Institute for Educational Planning (IIEP).

The network meets regularly to discuss substantive topics of importance to the aid agencies engaged in education. Its meetings have brought together agencies representing varied perspectives, providing a forum to exchange views and develop a common understanding in support of education. Topics discussed in previous IWGE meetings include: quality and learning (Florence, Italy, 2000); sector-wide approaches (Lisbon, Portugal, 2001); gender parity and education and emergency (Helsinki, Finland, 2003); governance (Washington, DC, USA, 2004); education for rural people (Rome, Italy, 2006); capacity development (New York, USA, 2008); and financing and redesigning national strategies and the global aid architecture (Stockholm, Sweden, 2010).

The 2012 IWGE meeting was hosted by the World Bank in Washington, DC. There were 80 participants, including representatives from agencies and organizations, as well as eminent scholars who were invited to give presentations on various topics related to the main theme of the meeting, *From schooling to learning* (see *Annex 1* for the list of participants).

Acknowledgements

Neither the organization of the 2012 IWGE meeting, nor the publication of its summary report or the present full report, would have been possible without the valuable support and guidance of various agencies and individuals. The Secretariat would like to thank the following in particular:

- The IWGE planning committee members – the Aga Khan Foundation, GIZ, Sida, UNESCO, UNICEF, USAID, and the World Bank – for their advice and guidance;
- The World Bank, Washington, DC: Elizabeth King for her lead role in hosting the meeting, and her team and especially Alethea Dopart, Arlene Fitzpatrick, Genoveva Torres, and Michael Trucano for their contribution to the local organization of the meeting;
- Tamar Manuelyan Atinc, Vice President of the World Bank Human Development Network (HDN), for her inaugural address;
- All guest speakers for their compelling presentations and contributions which enriched the deliberations of the meeting;
- The World Bank team for preparing the session reports which furthered the preparation of this report;
- All the agencies for sending their representatives, whose participation made a significant contribution to the discussions;
- All those authors who invested time in preparing the papers included in this volume;
- Khalil Mahshi and Suzanne Grant Lewis, IIEP Director and Deputy Director respectively, for their support in organizing the meeting and preparing its reports;
- Kathryn Barrett, IIEP, for also helping to organize the meeting and prepare various documents, including its summary report;
- Natasha Kelsick for her generous help with editing, and Marie-Paule Montagne for her continued support in editing, follow-up with the authors and final processing of the document for publication.

N.V. Varghese

On behalf of the IWGE Secretariat

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List of abbreviations

AAID	Australian Agency for International Development
ADEA	Association for the Development of Education in Africa
AED	Academy for Educational Development
AGE	Apoyo a la Gestion Escolar
AKF	Aga Khan Foundation
APF	Asociaciones de Padres de Familia (parent associations in Mexico)
BMZ	German Federal Ministry for Economic Cooperation and Development
CAFS	conflict-affected fragile states
CFS	child-friendly school
CICED	Center for International Cooperation in Education Development
CPD	continuing professional development
DFID	Department for International Development (UK)
ECD	early childhood development
EFA	Education for All
EGRA	Early Grade Reading Assessments
EMIS	education management information systems
ENLACE	the Mexican standardized national test score information
EQA	external quality assurance
ESD	education for sustainable development
FTI	Fast-Track Initiative
GDP	gross domestic product
GIZ	Gesellschaft für Internationale Zusammenarbeit

GMR	Global Monitoring Report
GPE	Global Partnership for Education
HLE	home literacy environment
ICT	information and communication technologies
IEA	International Association for the Evaluation of Educational Achievement
IWGE	International Working Group on Education
JICA	Japan International Cooperation Agency
LLECE	Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación
LLL	lifelong learning
MDG	Millennium Development Goals
NER	net enrolment ratio
NGO	non-governmental organization
NORAD	Norwegian Agency for Development Cooperation
OECD	Organisation for Economic Co-operation and Development
OOSC	out-of-school children
OTL	Opportunity to Learn
PASEC	Programme d'analyse des systèmes éducatifs de la CONFEMEN – Conférence des ministres de l'Éducation des pays ayant le français en partage
PEC	Programa Escuelas de Calidad
PIAAC	Programme for the International Assessment for Adult Competencies
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PRS	poverty reduction strategy
RCT	randomized control trials

List of abbreviations

RESPECT	Recognizing Educational Success, Professional Excellence and Collaborative Teaching
SABER	Systems Approach for Better Education Results
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SBM	school-based management
SC	Save the Children
SES	supplemental educational services
Sida	Swedish International Development Cooperation Agency
SWAp	sector-wide approach
TIMSS	Trends in International Mathematics and Science Study
UIS	UNESCO Institute for Statistics
UNICEF	United Nations Children's Fund
UPE	universal primary education
USAID	United States Agency for International Development

Introduction

Education is a universal human right, and most countries have passed legislation to make elementary education free and compulsory. Empirical evidence supports the positive effects of education on raising productivity, national income and individual earnings. The returns on investment in education are positive and sometimes higher than those on investment in its alternatives. Moreover, returns on education are greater in the less developed countries than in the developed ones, and are also higher among women than men.

Studies have shown that cognitive skills developed during schooling, as opposed to total time (in years) spent at school, are a better predictor of the contribution of education to economic growth and individual earnings. Thus the expansion of provision to enrol more students in schools and tertiary institutions is just a first step, however essential. More important still perhaps is that students should acquire knowledge and master the skills needed to compete in the labour market and to enrich their lives.

What governs student learning? Do income levels determine levels of learning? Studies from the Programme for International Student Assessment (PISA) show that, above an income of US\$20,000 per capita, national wealth has little effect on variations in student learning. This may be why countries with the same income levels show varied student learning levels. Just as important, if not more so, are the investment targets of these resources and how the resources available are used to achieve varied strategies geared to the common aim of enhanced learning.

Some of these strategies may focus on classroom facilities to improve teaching or learning conditions, while others may concentrate on teacher quality, or the effective management of institutions to maximize student learning time, etc. A recent conference at Harvard University noted that faculty members often teach in accordance with habits and hunches, and

lack any formal postgraduate training on how students learn. This points to the importance of training for quality teaching to improve learning at all educational levels.

How to accelerate learning is a major challenge confronting national governments and partner agencies. Investment priorities are shifting from the creation of facilities to improved gains in learning. There is strong evidence to suggest that, given an opportunity, all children can learn, and that the emphasis should now be on equity in learning outcomes rather than in access.

The 2012 IWGE meeting focused on learning and on the central topic of *From schooling to learning*. It provided a forum for agencies and foundations whether engaged in or funding education to exchange views, scrutinize issues, develop a common understanding, and discuss strategies for intervention to maximize learning outcomes.

The subjects debated included the poor state of student learning, effective systems for improving learning outcomes, impact evaluation, student assessment, investment priorities and action to enhance learning outcomes, and progress beyond the Millenium Development Goals (MDG) agenda in education.

The IWGE Secretariat has now published two reports on the meeting. The first report produced soon afterwards was a summary report with conclusions and recommendations, while the second is the present book. *Part One* of this volume contains (a) a report on the ‘show and tell’ session concerned with recent developments in the participating agencies, and (b) a section on the summary and conclusions of the meeting. *Part Two* contains some of the papers actually submitted, although not all the contributors supported their presentations with written papers, despite a request to this end by the Secretariat. The papers included here do not therefore cover all topics discussed at the meeting.

Part One
Meeting sessions and recommendations

I. ‘Show and tell’: Report on recent developments in participating agencies

Introduction

The ‘show and tell’ session in the IWGE meeting is an important initial interactive session during which each agency has the opportunity to share information on its recent activities, changes in approach, and the implementation of programmes. In this meeting, the session was organized around themes. The participants were requested to choose a theme of their preference from the seven that were identified and shared with all. Each group was guided by representatives from one or two agencies. The agency representatives were requested to take part in and contribute to two thematic sessions; one was related to their area of operation and the other to an area about which they wished to learn more. The themes identified for discussion were (a) access and equity in conflict-affected fragile states (CAFS); (b) early childhood development (ECD); (c) education for sustainable development (ESD); (d) gender and equity; (e) learning outcomes; (f) teacher policies; and (g) tertiary education.

‘Show and tell’: What is going on?

Access and equity in CAFS

Lead agencies: UNICEF (Susan Durston) and the Commonwealth Secretariat (Virgilio Juvane)

There are approximately 61 million non-enrolled school-age children in the world, of whom about 28 million in CAFS are out of school. The circumstances of CAFS vary and there is therefore a need to contextualize interventions and understand the context from different perspectives, both for provision and for assessing learning outcomes. Education in CAFS helps to promote a culture of reading and learning at home. This means addressing

the needs of different groups and races etc., in both the curriculum and the language of instruction.

It was found that the provision of education in CAFS contributes to improving the overall situation and can help (a) to protect schools and children, (b) save lives, (c) build knowledge, (d) sustain communities, and (e) strengthen resilience. Education can help to develop resilience within and beyond the system, as well as the resilience of the people.

The British Council is engaged in post-conflict relief in many situations, including that in Iraq in which the challenges stem from a lack of physical resources, professional development, and teachers in sufficient numbers. New teachers are often fresh untrained undergraduates, given that qualified and trained teachers are unavailable to meet the increased demand resulting from higher enrolment. On the basis of experience in Afghanistan, Mali, Syria, and elsewhere, the Aga Khan Foundation (AKF) is continuing its drive to open new schools in poorly served areas and those in which schools for girls are non-existent. The AKF often works closely with the community and the government to identify competent girls, and train them to become teachers once they have completed their schooling. This helps to overcome the scarcity of women teachers, especially in remote and rural areas.

The organization Save the Children (SC) has attempted to raise awareness of the importance of education in CAFS, and has introduced reading programmes adapted to this context. Its action has concentrated on (a) teacher training, with a focus on how to teach reading, (b) assessment – especially in areas with high student mobility – and (c) out-of-school extra-curricular opportunities. Training has also emphasized the need for schools and communities to consider resilience.

The main aim of UNICEF is to keep schools away from conflict. Above all, it seeks (a) to work with peace-builders in the UN, (b) enhance institutional capacity, (c) increase awareness of conflict among communities, and (d) introduce conflict relief programmes.

USAID is working to strengthen the USA's bilateral and multilateral relations by providing increased support to CAFS. It is aiming to develop a global partnership with organizations at the national level to further the implementation of programmes and to supply resources. The Commonwealth Secretariat is seeking mechanisms to develop respect and understanding and use education as a means of preventing conflict. One challenge is to provide professional training for teachers, many of whom have received none whatever. Experience points to a need to develop their skills in multigrade teaching, thereby addressing issues linked to small class size and to the shortage of teachers. Nomadic education affecting 3–5 per cent of out-of-reach children is another area of concern.

The experience of the Japan International Cooperation Agency (JICA) in Afghanistan demonstrates that girls are excluded from schooling, and that getting them into school there is a very complex matter. JICA action focuses on creating appropriate physical facilities and on the design of teaching guides for untrained teachers to promote quality. Sida offers financial support for programmes related to emergency situations, including those still in the development stage. It believes that education is life-saving, and invests in it with a view to furthering early recovery and long-term development. It works very closely with members of the community to send children to school and to ensure the community ownership of schools.

IIEP experience shows that it is preferable to wait until conflict ends before intervening with educational programmes. Institutional capacity development is more important than short-term intervention. Developing institutional capacity is a lengthy process and requires a long-term engagement with countries in conflict. IIEP experience in several countries, most notably Cambodia, demonstrates that its action has succeeded in developing capacities for training teachers but not educational planners.

The Academy for Educational Development (AED) emphasized the importance of understanding the context and the need to identify immediate education targets in CAFS. It is unrealistic to measure learning or learning

assessment when students are fleeing from insecurity and in fear of their lives. From its experience in South Sudan and six other countries, AED feels that there is no linear direction for intervention in conflict situations, and that it is always a ‘back and forth’ process. Capacity development is very important to sustain the efforts deployed by different agencies.

The Association for the Development of Education in Africa (ADEA) believes that the priority concerns of CAFS should be safety, security, and food, rather than health and education. In such states, education should focus on developing tolerance. The situation in Angola clearly demonstrates the need for developing both tolerance and understanding.

In the final analysis, the discussions suggested that political leadership should be allowed to take the initiative without external agencies becoming directly engaged in national policies. Yet their involvement in education should not be confined to developing and measuring cognitive skills, but also focus on other matters such as good citizenship, the promotion of cultural diversity, and peace building. These are important aspects of building a value system conducive to social harmony and peaceful coexistence in post-conflict situations.

Early childhood development

**Lead agencies: Aga Kahn Foundation (Caroline Arnold);
Save the Children (Dan Stoner); World Bank (Michelle Neuman)**

It is necessary to enhance the profile of ECD on the global agenda. It has a central position on the post-MDG agenda and should involve a holistic/multi-sector approach. Advocacy for it should focus on all dimensions and not just education. This means building a constituency comprising parents, health and education institutions, and international organizations to work in the best interests of young children.

A main step towards investment in the sector is to provide empirical evidence of the importance of ECD. Abundant evidence already exists, indicating positive returns on investment in ECD. However, for donors to

invest and ministries to demand ECD programmes, stronger evidence relevant to each country at different levels is required, including more evidence from international longitudinal studies and observations, for the **economic** rewards of programmes. Studies like High Scope in the USA carried out in developing countries would be helpful in convincing countries to invest in ECD. ECD outcome measures with a focus on education should also be explored. For example, a consensus on cognitive measures could be used for core measurements of ECD – anthropometric and health indicators already exist but cognitive development is needed – and would perhaps produce better results acceptable to all which might encourage investors to increase their contributions to the sector.

One of the limitations of available evidence is that it is difficult to conclude from research what constitutes a 'successful' programme in educational terms. A programme typology should be developed to understand which programmes work best and in what conditions. A randomized control trial of community-based ECD in Mozambique supported by the World Bank and Save the Children provides a good example of strong evidence for the relevance of ECD and ECD programme benefits, and may help in devising future policies. There are plans to continue the longitudinal research with a cohort of 1,000 programme beneficiaries.

Although it is generally agreed that ECD programmes help the needy and ensure equity, they should be focused as a priority on children who are the hardest to reach. This requires data on inequities in both access and achievement, which are related to the location and socio-economic status of children. ECD programmes should ensure that the most vulnerable receive the additional support they require. In Bangladesh, for example, children whose mothers have no education have not benefited from ECD as much as those whose mothers have at least completed primary education. This raises questions such as whether investment in ECD gets to the poorest and the hardest to reach.

There is some debate on who should provide ECD services – governments, the communities, or non-governmental organizations (NGOs)? There is no one answer and lasting solution to this issue. Irrespective of the provider, programmes should focus on the child, and be flexible and adjusted to their operational context. Evidence from African countries, Morocco, and the Philippines suggests that there is scope for providing flexible forms of ECD, which are especially beneficial to children.

Flexibility in provision does not mean compromising on its quality. The quality of providers should be maintained and enhanced to an acceptable level, especially when programmes continue to expand. The norms for remuneration and certification of ECD workers are important in maintaining standards at optimal levels. Too much emphasis is sometimes placed on centre-based care, without programmes taking the home environment into account. Parents should be educated to understand the value of ECD and ways in which they can be engaged in the programme.

Even when several interventions are confined to certain selected sectors each with its own agenda, a cross-sectoral approach is necessary. Examples exist in various countries, including the USA, in which the ‘Race to the Top for Early Learning’ is a joint initiative between the Department of Education and the Department of Health and Human Services.

Participants: Manos Antonisis (UNESCO EFA Monitoring Tool); Caroline Arnold (Aga Khan Foundation); Kathy Bartlett (Aga Khan Foundation); Peter Colenso (Children’s Investment Fund Foundation); Susan Durston (UNICEF); Linda Heibert (World Vision International); Roland Lindenthal (Federal Ministry for Economic Cooperation and Development); Demus K. Makuwa (Southern and Eastern Africa Consortium for Monitoring Educational Quality); Maureen McLaughlin (US Department of Education); Michelle Neuman (World Bank); Jeffrey Puryear (Inter-American Dialogue); Manuel Carmelo Rosa (Calouste Gulbenkian Foundation); Linda Ulquini (Aga Khan Foundation); Dan Wagner (University of Pennsylvania); Leonore Yaffe Garcia (Organization of American States).

Education for sustainable development

Lead agency: BMZ – German Federal Ministry for Economic Cooperation and Development (Roland Lindenthal)

One of the questions addressed at the outset was ‘what constitutes education for sustainable development (ESD)’? At times, it was discussed in the context of climate change and environmental issues, while other factors influencing development such as gender, equality, and conflict/peace were also debated. The emphasis on ecological issues is important especially since it is relatively less marked in developing countries than in developed ones. The topic is also particularly important for small island states and those in conflict.

One of the difficulties in the discussions on ESD was the usual measurement problem. What indicators should be relied on to measure ESD? It was suggested that indicators might include (a) equity/inclusion/gender, (b) the ecological footprint, (c) ethics, and (d) peace building. Questions were also raised about the need to focus on assessing the values and attitudes of individuals. It was agreed that without developing appropriate measuring techniques and methods to quantify competencies, ESD would not be high on the investment agenda.

Another related issue was that of how ESD should be incorporated into sector plans. As a result of their own experience, most participants considered that there was a lack of interest on the part of governments in incorporating elements of ESD into plans. A change in this mindset was needed to streamline public policies for ESD. Another important question was how to incorporate ESD in the classroom teaching/learning process. Experience in Europe in particular indicated that it was not a concept properly understood by teachers and other education practitioners.

ESD has been a high priority for Sida since 2008. The agency currently supports approximately 17 small-scale ESD programmes, accounting for 2 per cent of its allocations to education. One of the reasons for low investment is a lack of convincing evidence for its benefits. The biggest remaining

challenge is to generate empirical evidence of impact on the ground. Few countries incorporate ESD in their education strategies and plans, mainly because the political commitment is lacking.

As part of a larger policy dialogue reflected in its programmes, the Norwegian Agency for Development Cooperation (NORAD) has no specifically ESD programmes. Its programmes are on climate change, conflict reduction, and capital and financial development. Quality education is viewed as a mainstay in each of them and each also includes ESD-related action.

In the early 1990s in Spain, the educational focus shifted from the provision of inputs to learner achievement. The curriculum became skills-based and fostered the concept of cross-curricular content (education for peace, environmental education, etc.). The primary goal was to help learners to think critically and make them aware of environmental challenges. In 2006, ESD became a legal requirement (respect for the environment, value of sustainable development, etc.).

UNESCO addresses the theme of ESD indirectly through many channels, notably by linking it to good governance. The focus is specifically on the three issues of capacity building, democratic participation (including decentralization), and overcoming corruption. The British Council has a programme on climate change called 'Youth Climate Change Champions' to engage youth in ESD-related issues.

Gender and equity

Lead agency: Brookings Institution (Rebecca Winthrop)

Past discussions on gender issues have always focused on issues related to the access of girls to schools or their alternatives, rather than on the content and levels of learning. It is now felt that more intensive emphasis is needed on the content of education for girls, the skills they acquire, and the evaluation processes used, as well as on identifying learning gaps at school between boys and girls. It is no less important to ensure that evaluation systems are constructed to reflect these differences.

UNICEF experience in South Africa shows that issues specifically related to ethnic minorities are often inadequately reflected in assessments. At present, the country is focusing on the curriculum and reviewing practices in schools so as to address issues of language – especially for ethnic minorities – in the context of variations in learner achievement between gender groups and other groups.

The Brookings Institution and the UNESCO Institute for Statistics (UIS) are working with UNICEF and other bodies on a new Learning Metrics Task Force. The Task Force is attempting to find ways and means of measuring learning at the global level by analysing national assessment systems, conducting regional and international comparisons, and developing tools for evaluation that can be applied worldwide. One of its main concerns is to address gender and equity issues in learning outcomes.

JICA has a strong focus on the learning environment, and particularly on community involvement in school planning. It has tried to increase and develop parental involvement (including that of fathers) and to build trust in schools, especially among mothers. The school development plan is extensively promoted to encourage schools and the community to deliver the indicators they require to measure the quality of learning.

Interventions by Save the Children have concentrated mainly on the interplay of factors such as interaction between boys and girls, the language spoken by children at home and at school, socio-economic status, the educational level of parents in assessing the learning environment at home, and the workload of children. The combined effect of these factors makes it possible to analyse opportunities for improving learning levels among girls and barriers to doing so. Early Grade Reading Assessments (EGRA) have indicated that the baseline level of learning in many countries is very low. Many students score zero, which is of little value in developing strategies to improve learning. The results of assessment have sometimes reflected the limitations of the tools employed, rather than measuring children's learning. There is therefore a need to develop assessment tools sensitive to local contexts.

The Aga Khan Foundation (AKF) works in some of the most remote and disadvantaged areas in countries, and girls have been a top priority for over a century. It is important to ensure that they go to school, feel supported, and can learn effectively. The teaching/learning process itself should also be considered rather than just learning levels. This means working closely both with departments of education to help them support schools, and with schools themselves to focus on the process and the training needed to make it effective.

In 2011, the Foundation analysed the learning environment, learning readiness, and learning outcomes. For example, in Tajikistan and Pakistan the focus was on a review of the learning environment; and in India, Kyrgyzstan, and Bangladesh, on school readiness. In all situations, the emphasis was naturally on learning outcomes in grades one and two. Ministries of education are particularly concerned about learning levels at this stage.

A shift is needed from shock and advocacy, to informing policy more closely by understanding those factors that have an impact. The Global Monitoring Report (GMR) has publicized the trajectories of boys and girls through systems, including breakdowns on the poorest girls and boys in household surveys. A Gender Atlas and a Gender e-Atlas (with scope for user interaction) have been developed to address learning outcomes in certain countries. The Atlas looks at primary and early secondary educational levels, and fact sheets on girls in early adolescence have also been prepared. UIS is planning to work with UNICEF to examine more closely numbers, barriers, and bottlenecks, as well as the causes of different kinds of pattern. This work is expected to further national- and regional-level intervention. In response to a question on the impact of UIS studies, it was pointed out that the data are only used at national level and on a limited scale. The reasons for low reliance on the data are that countries fail to see their value or do not find them trustworthy, especially when the results differ from those expected.

The 2012 GMR focused on marginalized groups, and part of the work included indicators on education, poverty, and equity. The GMR is being made more interactive and the database will be relaunched.

While language/ethnicity is somewhat poorly covered, available indicators will be included. An analysis of PISA results is currently being undertaken – with a strong focus on geography, socio-economic, and language factors – for a better grasp of what different learning assessment surveys tell us about gender and poverty issues.

It is generally agreed that agencies should join forces, as several initiatives have been launched by different agencies. The GMR is establishing a database on deprivation and marginalization, while UNESCO has developed the gender Atlas and e-Atlas, and UNICEF has put in place a new system for monitoring results and equity. Especially noteworthy too is the new Learning Metrics Task Force with partners that include UNESCO, UIS, and the Brookings Institution. These efforts will lead to better reflection and action to improve learning and reduce its gender inequalities.

Participants: Manos Antoninis (GMR, UNESCO); Caroline Arnold (AKF); Amy Jo Dowd (Save the Children); Changu Mannathoko (UNICEF); Keiko Mizuno (JICA); Albert Motivans (UIS).

Learning outcomes

Improving the quality of education is an important and timely goal. However, concern for quality does not mean just measuring learning outcomes, as its scope can be broader. However, in discussing issues related to quantification of quality, learner achievement is very often considered a reliable indicator. And it is also the most commonly used and widely accepted indicator of educational quality in many studies.

It is important to emphasize that learning outcomes should not be seen as an end in themselves, but rather as a means of improving educational quality. Student assessment may serve many purposes. It may be used as a proxy to rank countries in terms of their labour force skills. It also helps to improve system-wide curricular and instructional practice, and the practices of individual teachers. It was agreed that too much emphasis has been placed on country rankings, despite their lesser importance.

While the use of student assessments to measure learning outcomes has increased, many countries lack the institutional capacity to exploit fully the data generated or collected. The International Association for the Evaluation of Educational Achievement (IEA), Center for International Cooperation in Education Development (CICED), and Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) are all striving to focus more on helping countries to make the most of the data and understand how they can assist policy-makers in improving their education systems. World Vision said that it had witnessed much enthusiasm and effort on the part of communities and parents who can use such information to improve learning outcomes.

Any future MDG that focuses on improved learning outcomes will require more careful examination of how they should be measured. Worldwide country 'league tables' are not the priority. More emphasis should be placed on improved learning than on developing indicators, although it is difficult to assess progress without them.

Participants: Kathy Bartlett (AKF), Penelope Bender (USAID), Dana Chong (US Department of Education), Katie Donohoe (USAID), Amy Jo Dowd (Save the Children), Deon Filmer (World Bank), Suzanne Grant Lewis (IIEP-UNESCO, France), Cesar Guadalupe (UIS), Linda Hiebert (World Vision International), Karen Mundy (University of Toronto Ontario Institute for Studies in Education), Alain Patrick Nkengne Nkengne (UNESCO Pôle de Dakar), Igor Okunev (CICED), Jon K. Price (INTEL Corporation), Artem Stepanenko (CICED), Daniel Stoner (Save the Children), Hans Wagemaker (IEA), Daniel A. Wagner (University of Pennsylvania), Laurence Wolff (Inter-American Development Bank).

Teacher policies

The discussions about teacher policies centred on two aspects: first, the identification of issues that affect the teaching profession worldwide; and second, initiatives and actions pursued by participating organizations to influence student learning through such policies.

Teacher policies should be based on their potential for improving learning outcomes. Student learning should be the foremost concern when designing, implementing, and assessing the relative merits of teacher policy reforms. The Ontario Ministry of Education utilizes an approach intended to ensure that all policies related to teacher improvement have a 'laser focus' on changing the instructional core, namely the relationship between students, teachers, and content.

Teacher policies need to concentrate on raising the status of the teaching profession since it is associated with improvements in the quality of education. A high-status profession will attract the best candidates. Some participants said that, in developing countries, teacher salaries accounted for over 85 per cent of the education budget, so it was hard to professionalize teaching and attract better qualified candidates to the profession by offering them higher salaries.

Another aspect of the professionalization of teaching is motivation. Yet how to improve teacher motivation is still a widely debated issue reflecting less agreement about where action is required. While some participants stressed the potential value of monetary incentives, others emphasized the need for teachers to see themselves as agents of change. Furthermore, any effort to reinforce teacher capacity should start with the assumption that teachers are professionals and should thus be treated accordingly. An optimal environment is required with the right balance between teacher support systems and shared responsibility to improve classroom learning and teaching.

It is also necessary to develop a framework from evidence providing guidelines on how to progress with teacher policy reforms. There was a discussion of several efforts by agencies to identify and disseminate best practices in teacher policies. Since 2009, the US Department of Education has been involved in organizing Summits on the Teaching Profession. These summits convene ministries of education and representatives from teacher organizations within high-performance and rapidly improving education systems, and discuss the teacher policies that seem to correlate with student achievement. The US Department of Education has been engaged in development of the RESPECT

framework (Recognizing Educational Success, Professional Excellence and Collaborative Teaching), with a ‘statement on transforming the teaching profession’ in order to promote dialogue within and around it.

Another initiative, namely the SABER (Systems Approach for Better Education Results) Teachers framework developed by the Human Development and Education Network of the World Bank, is based on a review of evidence from teacher policies and on analysis of them in countries with high-performance education systems. SABER-Teachers has identified eight Teacher Policy Goals linked to good student outcomes, which these systems have put in place to achieve good education results. It has also collected information on teacher policies, whose precise impact on student achievement remains unknown despite much evidence for its existence.

UIS is also now engaged in developing the evidence base for teacher policies, along with a thematic data collection module on them. Meanwhile the UNESCO Pôle de Dakar is working on a diagnostic tool to assess the situation regarding teacher policies in Benin, Uganda, and Nigeria. The tool will help collect information on several aspects of these policies, including teacher recruitment and shortages, teacher training, and career development. The 2013 UNESCO GMR for its part will focus on teaching and learning issues.

Improving the quality of teaching should be a collective undertaking both within countries and by groups of countries. Teacher policies can only be improved if all stakeholders – and particularly governments and teacher organizations – assume ownership of the reform process. Several organizations are currently developing frameworks to condense evidence concerned with the priorities when establishing effective teacher policy systems. These frameworks have several common features, and the need to collaborate more in their development was firmly acknowledged.

The discussions further examined problems caused by the shortage of women teachers, the inability in some regions to teach in the mother tongue of students, and the inadequacy of some deployment systems that exacerbate teacher shortages.

The effective professional development of teachers should be contextualized and differentiated according to the needs of each individual teacher. Their school-based professional development seems to be the most appropriate means of achieving this. However given that, in many education systems, school principals lack the capacity to be effective instructional leaders, such professional development needs to be accompanied by support structures for school leadership. The professional development of teachers is not something done *to* them, but *with* them.

Participants: Katie Donohoe (USAID, USA), Mary Jean Gallagher (Ontario Ministry of Education, Canada), Suzanne Grant Lewis (IIEP-UNESCO, France), Dzingai Mutumbuka (ADEA), Pauline Rea-Dickens (Aga Khan University Institute for Educational Development, Tanzania), Jerry Strudwick (AAID, Australia), Robert Whitby (DFID, UK), and Deidre Williams (Open Society Institution [Soros Foundation]).

Participants in the second 'show and tell' session were the following: Vigdis Cristofoli (NORAD, Norway), Eric Eversmann [Save the Children], USA), Virgilio Juvane (Commonwealth Secretariat, UK), Rosa Lopez (Embassy of Spain, USA), Maureen McLaughlin (US Department of Education, USA), Changu Mannathoko (UNICEF, USA), Albert Motivans (UIS, Canada), Alain Patrick Nkengne Nkengne (UNESCO Pôle de Dakar, Senegal), and Leonora Yaffa Garcia (Organization of American States, USA).

Tertiary education

Lead agency: Mmantsetsa Marope (UNESCO)

The discussions on tertiary education focused on the challenges faced by it in different systems, the effective allocation of resources, and strategies to improve quality.

Equity is a major concern in higher education. Diversification of the sector is a means of addressing the issue of equity in access for all those who successfully complete secondary education. For example, community colleges

in the USA have more value-added impact for expanding access. Similar examples are found in other countries.

Another major issue is the availability of public resources. Funding for the development of higher education is somewhat limited and does not keep pace with its expansion requirements. Two questions are (a) how can public resources be effectively allocated, and (b) how can the level of public expenditure on higher education be reduced?

The allocation of resources has implications for equity. For example, investing more resources in basic education benefits the relatively poor sections of society rather than those who are better off. It is generally believed that subsidies in higher education benefit the relatively wealthy sections of the population. Furthermore, some regions may be less developed than others. Targeting resources to poorly developed regions benefits relatively poor people.

Another issue with regard to the allocation of resources in higher education concerns the conflicting aims of developing 'world class' universities and universities that respond to the needs of the regions. Due to this conflict of interests – particularly in the context of university rankings – some tertiary education systems prioritize formal, research-oriented universities at the expense of other diversified programmes of study. This goes against the expectation that universities will support regional and local development and develop human resources, including teachers in other segments of the education system.

Allocation of international aid in the education sector is frequently based on a narrow vision and, at times, on the national priorities of donor countries. All too often, a major share of aid to higher education is notional since it supports study abroad programmes in these countries. The need to prioritize aid to improve higher education systems in developing countries, rather than promoting study abroad programmes, certainly merits a full debate.

Efforts to reduce public expenditure on higher education have led to cost-recovery and cost-sharing strategies, as well as the promotion of income-generating activities. For example, in the USA, such efforts have resulted in reforms of student loan programmes and the development of better scholarship programmes for students in Portugal.

Quality has emerged as another important area of reform in higher education. The measurement of quality is a major – and highly controversial – issue. While university rankings show the relative position of universities in comparison to each other, they do not totally reflect quality in higher education. Brazil has made an effort to assess learning on completion of university studies in major subject areas, through its *Prova* assessment. However, the results are reported as scores for each university rather than for individuals. A similar initiative in European countries is now in its pilot stage, and the Organisation for Economic Co-operation and Development (OECD) has also begun a comparable exercise. Most countries have established external quality assurance (EQA) mechanisms and accreditation agencies.

UNESCO has been working in the area of quality assurance, with international conventions for the universal recognition of diplomas, technical and vocational conventions, university rankings, and graduate employability. The GIZ supports quality assurance, capacity development in ministries and elsewhere, and links between the private sector and universities. The Calouste Gulbenkian Foundation is similarly concerned with quality. Its Education for Development programme supports the development of universities and teacher training institutes in five Portuguese-speaking countries in Africa, as well as in Timor-Leste, and also develops research capacity in Africa by expanding PhD programmes in the region. In addition, the Foundation helps Portuguese institutions to be more competitive in Europe.

One IIEP priority area in research and training is quality assurance in higher education. IIEP research has been helpful in supporting training programmes, policy-making, and capacity development in this domain. Current efforts at the World Bank also include the development of a tool to assess the

quality of tertiary education (SABER), which documents how institutions follow policies set at the central level.

Several agencies are involved in student exchange programmes promoting study abroad. The US Department of Education arranges exchanges for American students to study abroad and influences domestic policy dialogue on higher education. The agency has recently prepared blueprints for reforms that encourage career and technical education colleges to collaborate with the community and business environment, and started to revise legislation on government responsibilities in higher education. The Australian Agency for International Development is in the process of transforming Australia's higher education system by bringing students from other regions, notably Asia, to work in Australia with the aim of strengthening the quality of national institutions.

Employability of tertiary education graduates is another serious concern, especially given the economic crisis in the developed countries and the involvement of youth in the 'Arab Spring' in several Middle East countries. Countries in South-East Asia are often able to produce very good technicians and the courses they take are closely linked to the labour market. However, these graduates may lack skills in communication or critical thinking, which holds back their efforts to find a job. Furthermore, countries need more than technicians to make headway and improve economic competitiveness. Higher education institutions should help develop critical thinking and research to generate knowledge.

Participants: Manuel Carmelo Rosa (Calouste Gulbenkian Foundation), Dana Chong (US Department of Education), Birger Fredriksen (IIEP-UNESCO), Nils Geissler (GIZ and Table Lead), Robin Horn (World Bank), Mmantsetsa Marope (UNESCO and Table Lead), Karen Mundy (University of Toronto, Ontario Institute for Studies in Education [OISE]), Pauline Rea-Dickens (Aga Khan University Institute for Educational Development), Jerry Strudwick (Australian Agency for International Development), N.V. Varghese (IIEP-UNESCO), Laurence Wolff (Inter-American Development Bank).

II. Summary of discussions

Introduction

Education has positive economic returns reflected in its contributions to increased national income and individual earnings. Studies on rates of return have consistently shown a positive association between years of schooling and earnings, along with higher returns on schooling in low-income countries and on investment in the education of women and children from deprived groups. Recent evidence also indicates that it is not so much the total number of years spent by students at school, but rather the levels of cognitive and non-cognitive skills they acquire there, which result in improved skills among the workforce and contribute to increased income. Improved workforce skills, as revealed by PISA (Programme for International Student Assessment) and TIMSS (Trends in International Mathematics and Science Study), are a better predictor of economic growth than average levels of schooling. Many of the indicators of social development are positively associated with educational levels. The focus of MDGs on universal primary education (UPE) and gender parity places EFA in the framework of a ‘collective endeavour to eliminate poverty’. All the above findings are good reasons for investing in education and expanding educational provision.

Countries have invested heavily in the education of their citizens, and the flow of funds from bilateral and multilateral agencies to support educational efforts on the part of national governments has been increasing in this millennium. These efforts by governments and partner agencies are having a tremendous effect, especially at the basic level of education in the least developed countries.

According to the 2012 Global Monitoring Report (GMR), countries have made remarkable progress in enrolling children at primary level and increasing net enrolment ratios from 84 per cent in 1999 to 91 per cent in 2010. Total enrolment rose by two-thirds in low-income countries and the

number of non-enrolled children fell from 108 million in 1999 to 61 million in 2010. Ensuring that the enrolled children progress through the system and complete their primary education is just as important as getting them into school. Furthermore, it is not enough to expand provision to enrol and retain larger numbers of students in schools, as they must also receive quality education. Thus the question of moving from access to 'education for all' to ensure 'learning for all' was the key concern and focus of discussion under the heading of *From Schooling to Learning* at the 2012 IWGE meeting.

The poor state of student learning

While countries have reason to celebrate their success in improving access to education, it is learning outcomes that really matter and make a difference. Measures to increase the rate of learning are also critical to benefit from previous investments made to expand school facilities. But are children learning what they are supposed to learn at school? The answer may be 'no'.

Recent studies on learning outcomes indicate that learning levels among primary school children are very low. A high proportion of young people who graduated from primary schools in some developing countries cannot read a simple sentence. In fact, the knowledge gap between developing and developed countries is widening even where gaps in schooling are narrowing. The amount of learning that occurs over one school year is very low in developing countries compared with the developed ones. Results from PISA, TIMSS, and SACMEQ confirm this pattern. For example, SACMEQ results for three periods between 1995 and 2007 show that learning is occurring very slowly in many African countries. Furthermore, substantial variations in levels of learning have been found among children from different schools within a country.

How to accelerate learning is a major challenge confronting national governments and partner agencies. Investment priorities are shifting from creating facilities to improving gains in learning in accordance with the conviction that, given an opportunity, all children can learn.

The belief that school inputs significantly help to enhance learner achievement is not always supported by research evidence. Many studies, including those by PISA, have shown that higher national income or higher levels of educational expenditure do not necessarily enhance student learning. What is perhaps more important is where school resources are invested and how the resources available are used. Furthermore, there is a need to focus on teachers and their competencies, teaching and learning conditions, classroom practices, and teaching and learning processes. There is also a need to develop accountability measures and enforce them at all levels, from that of the system down to the classroom.

One proposal made during the meeting was to develop cohort learning goals and appropriate metrics for the learning agenda including all children in a given age group, whether or not they attend formal schooling. Tracking the distribution of achievement for an entire cohort each year enables the impact of student attainment and student learning to be examined simultaneously. Combining grade attainment profiles with distributions of grade learning achievement will help to extrapolate cohort learning distribution and track its changes over time. It is argued that this is a powerful metric which allows simulation both of the effects of increased student attainment (schooling goal) and improved learning accomplished over one year of school (learning goal).

A closer analysis of cohort learning goals indicates that: (a) the distribution of student achievement in developing countries is far behind that in OECD countries; (b) only a small fraction of students who have not mastered a skill in a given school year gain mastery of it during the following year, implying that very little learning occurs from one year to the next; and (c) the learning profile of students needs to be increased significantly, as improving student attainment at the existing rate of learning will not yield large improvements in learning. The increase in cohort learning profiles can be attained not by increasing inputs, but through empowering primary stakeholders to search independently for ways to meet performance metrics and find solutions.

Several contextual factors should be considered when thinking about appropriate intervention strategies. There is a need to focus on early childhood development (ECD) programmes to get children ready for schools and get schools ready for students. In addition, resource allocation within schools sometimes favours the later years of provision, although the early years are critical in terms of improving learning year by year.

Teachers no doubt play an important role in facilitating gains in student learning. Studies show that teacher quality is a significant factor in improving student learning, underlining the importance of recruiting quality teachers and providing them with support and opportunities for continuing professional development (CPD) – mentoring, communities of practice, etc. Some of the widely disseminated results of large-scale international assessments have furthered – if not resulted in – innovative targeted ways of working with schools and teachers. Similarly, recent US government initiatives to develop a document that teachers could sign, called ‘Transforming the Teaching Profession’, are a good example of ways to strengthen joint efforts to increase student achievement.

Classroom learning is also affected by what goes on outside the classroom and the school. Health and nutrition factors, parental involvement in keeping children engaged in studies after school hours, and parental engagement with schools are also important factors affecting student learning. Some of these issues have been closely examined in studies done by the AKF.

Effective systems for improving learning outcomes

Experience in some countries, such as Pakistan, indicates that students who stayed at school without dropping out performed better in studies. Better student learning conditions could help get more out-of-school-children into school and reduce dropout. One possible conclusion is that learning and equity should be considered together, and that school attendance is connected with learning outcomes. This requires systemic intervention and improvements.

Appropriate metrics for the learning agenda, although important, do not drive the learning improvement process. Metrics should be seen as a support mechanism. It is important to set high standards and establish effective measurement tools, but only in conjunction with a support system to help teachers improve their practice and teaching and learning processes. In other words, measuring systems and the progress they make are necessary and important, but one needs to take care during implementation and when interpreting results. It is important to avoid the ‘blame game’, particularly with teachers, as otherwise nothing may change. In short, teachers need more support in order to effect change.

Although the proposed elements and interventions are all important, the emphasis needs to be on developing effective systems to improve learning of all children in every context. The World Bank approach may be summarized as ‘scan globally, act locally’ and its strategy as ‘invest early, invest smartly, and invest for all’. The World Bank also adopts a systems approach to implement this strategy, relying on a set of knowledge tools, of which the main four are (a) student assessment including education management information systems (EMIS), robust tracking of learning, and Steps Skills Measurement; (b) implementation of policies via service delivery instruments; (c) a systems approach for better education results (SABER) with data on policy and institutional choices; and (d) impact evaluation.

No one agency may be strong in all these four areas of knowledge tools. The World Bank is currently providing assistance in using classroom observation protocols and linking these data with student learning in Latin American countries and Asian countries, such as Indonesia.

Efforts to improve learning require a consensus on what learning *is*. Building this consensus is the first step in effecting system-wide reform in education. This change should be aligned to all elements and be coherent at all levels of the system, and among all actors. Important aspects of improving the learning process are (a) an emphasis on the philosophy of support and positive pressure; (b) shared leadership and respect, and a professional, collaborative

approach with internal accountability; and (c) reliance on research as the basis for improvement strategies. Needless to say, the formulation of policy is easier than the implementation of reform measures. It has been said that policy is only 10 per cent of the equation and implementation is 90 per cent.

The main difficulty in formulating and implementing education reforms is that there are 'black boxes' in education. There is plenty of evidence from research regarding what constitutes effective learning in the classroom, but this information rarely enters policy dialogue and decision-making, and lessons learned are not integrated into the classroom. In many cases no clear definitions are available for the minimum facilities necessary to create a conducive teaching and learning environment. Is it possible to establish a mechanism to define the minimum teaching and learning conditions in the classroom? While it is true that several countries have defined these standards, there is limited enforcement of these norms uniformly across all segments of the process.

All agree that the key black box is the learning process that takes place in the classroom. Classroom practices centre on the teacher and therefore the key to reforming them is a highly capable and passionate teacher. Even where teachers are neither capable nor passionate, it is important to treat them as though they are, and to provide the training and resources needed for their development. Unfortunately, efforts to closely monitor the effect and relevance of teacher training on classroom practices are not systematic, and the results necessary for follow-up actions are not readily available.

Any problems in the teaching and learning process are not the sole responsibility of just one element. In the case of the teacher, his or her effectiveness depends on their response to a given teaching and learning situation. The capacity and ability to improve learning is found in different elements and all aspects of the system. A systemic intervention thus requires an integrated view of the education process. No single element can effectively support learning in isolation from the other elements. Unfortunately, adequate evidence on the impact of each of the interventions on student learning is not available.

Impact evaluation

Impact evaluation measures changes in outcomes that can be attributed to a specific intervention. For example, it may be useful to assess the impact of interventions to improve the teaching and learning process on gains in levels of learner achievement. Impact evaluations make a serious methodological effort to establish cause and effect relationships between inputs and outcomes.

Some of the key issues on impact evaluations include: (a) how programmes work, which is more difficult than assessing whether or not programmes worked; b) how to generate and use more effectively administrative data for impact evaluations; (c) how to communicate more effectively the results from impact evaluations; and (d) the extent to which an institutional decision is based on the results of impact evaluations.

Evaluating the cost of interventions and the direct benefits of such interventions is not always easy. A number of impact evaluation studies do not collect reliable data on costs and benefits of interventions. These studies do not provide conclusive empirical evidence for the importance of and need for retaining some of the intervention strategies.

Impact evaluation studies raise a number of difficult questions. At what level should impact be measured? Should it be measured at the individual level, institutional level, or system level? What periods of time are usually taken into account for measuring impact? Because the effects of interventions on learner achievement take time to become apparent, a realistic timeframe is necessary to measure their impact. In any study, the problem of maintaining the differences between the treatment and control group may arise over a long period of time. Therefore, in addition to a rational timeframe, it is important that such measurements be continuous and rely on long-term panel data. Unfortunately, funding agencies and governments often expect immediate results – an expectation that is difficult to meet.

It is also important to assess the external validity of findings of impact evaluation studies. How far can one use a specific evaluation in a specific

context to apply those results in a totally different context? It is also important to specify the core ideas that are being evaluated. The results of these core ideas can be applied to varying contexts, and they can help improve the external validity of impact evaluation studies.

One common trend in all these efforts is that only what gets measured gets done. Reliable measurements are therefore important. However, collection of extensive data is not only time-consuming but also very expensive.

Student assessment

There is convincing empirical evidence that skills, both cognitive and non-cognitive, are key to economic growth, happiness, and sociability. This may be one of the reasons why a good share (nearly 60 per cent) of the wealth of nations is vested in the skills and knowledge of their citizens. Empirical analysis in the past attempted to establish a relationship between number of years of schooling and contribution to productivity and national income. However, more recent studies have indicated that the role of cognitive skills, rather than the number of years of schooling, is a better predictor of contributions to national income.

It is important to assess the skills gained by children during their education. There are several international, regional, and national surveys on assessing students with regard to the skills they learned during their schooling. International student assessment studies may have a more instructional focus, as in the case of those conducted by the International Association for the Evaluation of Educational Achievement (IEA), or on skills acquired, as in the PISA programme led by the OECD. Irrespective of the focus, these studies are regarded as the best available source of cross-nationally comparable information on learning outcomes in participating countries. For example, it is estimated that children in low-income countries are at least four or five years behind children in rich countries. This may imply that education is partly responsible for wasting four to five years of their lives.

This indicates that there are good reasons to participate in these international surveys, and over 100 countries are already taking part in at least one such survey. Participation in these international surveys helps countries to learn how to assess students better. However, it is not a substitute for conducting national surveys on student assessments.

International surveys on student assessment make learning outcome statements or standards, develop sample constructs or items and assessment standards, help countries to specify standards and sample items, and at times extend funding support to carry out national surveys. National surveys can decide how their current standards for both learning and assessment of learning are defined, and how they match international standards. They can also help national authorities to decide whether or not to share the results of the assessments with other countries.

Regardless of the nature of the surveys – national or international – it is important to link these assessments to classroom assessments. This will be of interest to teachers and help them use the results to improve instruction, although this will be a complex, difficult, and challenging task. Another equally important matter is how to link assessment to accountability in relation to those actors involved in the educational process.

Very often, the correlation between investment in education and test results is not very high. Yet the education sector receives some of the highest levels of investment. One of the reasons for the low correlation between spending and test scores in education may be wastage, which amounts to around \$7 billion and several million student years in low-income countries. Although assessment will not eliminate the extent of this wastage in education, it can help reduce it by improving learning among more children.

At times funding, and especially external funding, is tied to learning outcomes. The indicative framework developed by the Global Partnership for Education (GPE) – formerly the FTI – is relied upon to monitor plan implementation and assess progress. Some proponents of this approach argue that establishing such targets and accountability measures exerts pressure

on national governments to initiate steps to ensure that schools function effectively. In any case, empirical evidence of student learning is a very useful tool, as it enables governments to monitor progress and encourages funding agencies to extend support to governments and educational institutions.

Investment priorities and intervention strategies

Research evidence on factors influencing student learning points to a large number of variables. The time students spend in school (years or days), teacher attendance, the subject competency of teachers, the availability of desks and chairs in the classroom, the availability of library facilities, tutoring programmes for students, and so on, all influence student learning. However, level of qualification, length of experience, and training status do not always emerge as influential variables for predicting student achievement.

A recent review of World Bank interventions found that teacher incentives and contract programmes, such as pay for performance on learner achievement, produce strong results, and that accountability and school-based management produce weak results. Interventions that combined school-based management and teacher incentives produced the strongest results, perhaps demonstrating that programmes for accountability need to create links between powers given to the community and teacher motivation.

A recent impact evaluation on school accountability in Mexico demonstrated strong results for parental empowerment. A randomized control trial designed after a compensatory education programme in rural areas in Mexico showed that the most effective component was parental involvement in school management. It also showed that training designed to help parents play their role in school management and allocation of school funds for parent–school meetings both positively influenced learning outcomes. Similarly, studies on interventions by Save the Children showed that children with access to book banks and other services perform better in tests. This is more so for children from poorer socio-economic backgrounds, where there

are fewer learning resources at home. Although many interventions are school-based, investment is also necessary to promote learning throughout the day.

Moving beyond the MDG agenda in education

Should the world have a new set of MDGs to guide its work in the post-2015 period? Do we need a collective vision and a common agenda to draw the road map for beyond 2015? All participants agreed on the need for a shared vision and a common agenda, but opinions varied on the process needed to prepare the collective post-2015 agenda and the content of the agenda itself. Governments and development partners need to meet to decide goals for beyond 2015, rather than developing a vision and setting goals on behalf of national governments. For example, the MDG goal of attaining UPE was a great achievement. However many heads of states did not prioritize education, which remains one of the reasons why attainment of the goal is not on course. This mistake should not be repeated.

Countries and development partners have focused on equity and quality in education while emphasizing learning for all. There is therefore a need to develop normative frameworks and properly formulated targets in consultation with – and with the full participation of – national governments.

It was felt that education has fallen from the top position on the international agenda. However, if another set of goals is created for after 2015, governments may provide increased support. The major questions are: how can education move to the top of the development agenda? Is it likely that there would be a consensus for a new set of MDGs? How do we get our leaders to endorse a vision for learning for all children? It seems there is a need to change the way in which we talk about education in order to attract the attention of heads of state. There is a need to emphasize the role of education in economic development and to form coalitions with organizations from both business and civil society to support educational development. Furthermore, the education community needs to gain the confidence of governments so that it can effectively deliver results.

No doubt there is a consensus on learning as a goal, but there is less agreement on strategies to be adopted to improve learning outcomes in a given country. Bilateral and multilateral organizations are making serious efforts to improve service delivery. For example, UNICEF is reframing education work through child-friendly education (of which child-friendly schools [CFSs] are a part). USAID is in the process of forming partnerships, focusing its resources (to do fewer projects, but do them better), significantly increasing the number of technical staff in its ranks, and increasing involvement with the GPE and governments. ADEA would like to follow up on the discussion from the biennale on education in Africa, held in Maputo, regarding the expansion of basic education with a focus on the core knowledge and (cognitive, life, social, and pre-vocational) skills needed for sustainable development. Furthermore, it is important to recognize that responsibility for education is shared between public authorities, private sectors, and individuals.

The current state of the world economy is an obstacle to investment in education. Consequently, there is a need to strengthen the argument for education beyond something that is inherently important, or a human right. But to increase the profile of education on the global agenda, and to get heads of state to invest in this over the long term, would necessitate an increase in trust in the ability of education professionals to deliver results efficiently. However, progress in reinstating education at the top of the global agenda is hampered by weak global leadership in the education sector. This is in stark contrast to the fact that education is at the top of most national agendas. What is the role of a global framework when global leadership to guide developments in education remains weak? While stronger global leadership in facilitating knowledge-sharing and technical cooperation in education and research would be beneficial to countries at all levels of development, it would be particularly beneficial to low-income countries that lack the national capacity needed to benefit fully from global knowledge assets.

Conclusions and recommendations

Student learning is central to the educational process. Countries have made commendable progress in expanding access, increasing enrolments, and retaining children in schools. Although these are important steps in accelerating learning among larger numbers of children, student learning continues to be poor, especially in developing countries. The low level of learning contributes to a widening of the knowledge gap between developing and developed countries. There is therefore a need for added emphasis and focused attention to initiate measures to maximize gains in learning.

Interventions to accelerate learning should consider all children in all types of learning arrangements and opportunities. They should also consider schools with all types of management structures, as well as alternatives to schools such as formal, non-formal, and informal learning situations. There is a need for *system-level improvement* rather than improvements in selected institutions.

Previous intervention strategies focused on provision of increased levels of inputs. However, schools with the same level of inputs perform differently, primarily because of the way school resources are used. While inputs are important, therefore, intervention strategies to improve learning need to go beyond providing inputs. The focus should be on strengthening the capacity of the system to translate or transform these resources to enhance learning.

Strengthening the system's capacity involves linking school-level activities in a more directed manner towards learning outcomes. This may include improving classroom learning conditions, and improving teaching and learning processes. Governance of institutions and management of resources within them are important. Strategies to increase learning outcomes should align governance, management, accountability, and financing mechanisms.

An information gap exists on indicators related to the learning process. Data on learning achievements, even when available, are rare, sporadic, and limited in many developing countries. There is a need to develop information

based on learning and on indicators as part of educational management information systems (EMIS).

Many countries are involved in international and regional student assessment surveys. For example, nearly 65 countries are taking part in TIMSS and PISA studies, and 15 countries in Africa participate in SACMEQ studies. Such participation helps to benchmark educational performances of countries and also provides experience in developing and carrying out national surveys on student learning.

One of the suggestions was to extend the idea of learning for all to all children in the cohort, irrespective of the status of enrolment in schools or their alternatives. This may promote a focus on developing cohort learning goals and appropriate metrics for learning. An analysis of the distribution of achievement in an entire cohort each year provides valuable insights into the level of student learning.

There is also a need to define what constitutes learning conditions and what are the minimum facilities necessary to create an environment conducive to teaching and learning in the classroom. Many countries have not defined minimum learning conditions and, even where they are defined, they are rarely enforced. Teachers can be effective only where learning conditions are of an acceptable level.

Teachers matter in making gains in student learning. The importance of recruiting quality teachers, and of providing support and opportunities for their CPD, must therefore be emphasized.

At times, both (external) funding and progress in plan implementation are dependent on the results of student assessment surveys. The indicative framework developed by the GPE is therefore crucial in monitoring plan implementation and assessing progress.

Studies have shown that factors influencing learner achievement include the time students spend in school, teacher attendance, the subject competency

of teachers, the availability of desks and chairs in the classroom, the availability of library facilities, and tutoring programmes for students.

Parental involvement in school affairs has a positive influence on school effectiveness and improved student learning. Thus various forms of parental involvement need to be encouraged to make schools and their functioning more effective.

All interventions take time before their effects on learner achievement become apparent. There is therefore a need to provide for a reasonable time frame in assessing the impact of measures taken on gains in learning.

National governments and funding agencies may try to link funding to institutional performance as reflected in gains in learner achievement. However, any pressure on institutions to produce quick results, which is very often the case, may not be supportive of the efforts made by them.

There is a global consensus on learning as a goal and it is expected that this consensus will remain, even in the post-2015 period. Countries therefore need continuously to work to evolve strategies and develop mechanisms to achieve this goal.

Part Two
Papers presented

I. Improving the equity of quality and learning in education: A systemic approach

P.T.M. Marope

Introduction

The effective and equitable facilitation of high levels of learning is indisputably ‘the core business’ of education systems and their key institutions such as schools. It is also indisputable that effective education systems are those which add very high and ever-increasing value to levels of student learning while substantially reducing the potentially adverse effects on learning of various inequality factors that learners bring into them. What has become a hotly debated topic, however, is why education systems do such a poor job of equitably facilitating learning. As education and learning are so fundamental to development,¹ systems that do not facilitate learning effectively and equitably actually frustrate or even sabotage progress towards equitable, inclusive, and sustainable development. This chapter explores some of the fundamental constraints on strengthening the capacity of education systems to be effective in providing equitable and high-quality education and in facilitating learning. It concludes by advocating a comprehensive and systemic approach to strengthening the effectiveness of such systems.

With unparalleled impetus from the Education for All (EFA) movement, the world’s education systems witnessed an unprecedented expansion in their capacity to enrol learners in schools, particularly at the primary level. The two EFA decades – 1990 to 2010 – registered a 13 per cent increase in the primary school-age population, from 577 million to 652 million worldwide. The highest increases were in the Arab States (21 per cent), South and West

1. In this context, ‘sustainable development’ encompasses all levels including individuals, families, households, communities, countries, and the world, and all facets whether economic, social, cultural, spiritual, value-based, political, or ethical, etc.

Asia (17 per cent) and sub-Saharan Africa (62 per cent). Secondary education enrolments rose by 104 million or 16 per cent, from 668 million to 772 million (UNESCO, 2012). The same regions registered the highest increases of 41 per cent, 34 per cent, and 66 per cent respectively (taken from the UIS data centre on 16 January 2013). Despite the likelihood that the 2015 EFA quantitative targets will not be met, the world's education systems have coped impressively with this growth. The number of out-of-school children (OOSC) fell by 44 per cent from 108 million to 61 million, with South Asia, South West Asia, and sub-Saharan Africa collectively accounting for 81 per cent of this decrease (UNESCO, 2012). North America and Western Europe, East Asia and the Pacific, and Latin America and the Caribbean are well poised to reach the EFA target, while Central Asia and Central and Eastern Europe should come close to it, as they achieved 90 per cent and 94 per cent net enrolment ratios (NER) respectively by 2010. Gender parity in primary and secondary education seems feasible for Central and Eastern Europe, East Asia and the Pacific, Latin America and the Caribbean, Central Asia, North America, and Western Europe (UNESCO, 2012).

While many countries have successfully enrolled millions of learners in schools, a significant majority of them are not learning effectively, or at least not at levels commensurate with their educational attainment. The impressive expansion in the capacity of education systems worldwide to enrol learners in schools has therefore not been matched by a similar capacity to facilitate their learning once they are enrolled, let alone equitably. The world's education systems have thus witnessed a widening disconnect between educational attainment and actual educational achievement.

Moreover, there is a risk of deepening inequality in effective learning opportunities and therefore learning outcomes. As educational achievement has an impact on life chances, the world's education systems are losing their ability to play the role of 'the great equalizers' and have become more like 'great sieves'. Regrettably, the holes in the 'sieves' let the children of the poor or other marginalized groups fall by the wayside as they try to progress through the systems, ultimately locking them into a vicious cycle of inter-generational

poverty. The ‘sifting’ role of education systems means that these learners have far less chance of reaching higher educational levels – not just because they could not access the basic levels in the first place, but because even when they could, they had only symbolic² rather than substantive access.³

Evidence of system weakness in the equitable facilitation of learning⁴

As learning is a complex and dynamic process not readily amenable to ‘direct and immediate measuring’, scores from written tests or assessments are often used as a proxy for learning. Needless to say, these tools cannot fully capture the effectiveness of the learning process or even its outcomes, particularly in that not all learning outcomes – immediate or long-term – can be measured. This was summarized in the 2011 EFA GMR, while the 2006 PISA Report showed that over 40 per cent of learners in Brazil, Indonesia, Mexico, and Thailand failed to reach level ‘one’ proficiency in reading after eight years of schooling. In Kyrgyzstan, the proportion was a staggering 70 per cent. The 2007 TIMSS recorded that in 18 of the middle-income participating countries, including Algeria, Botswana, Colombia, Egypt, Morocco, and Saudi Arabia, the average student performance in mathematics was below the low international benchmark. In Ghana, only 17 per cent of 16-year-olds scored above the benchmark. The 2011 TIMSS Report showed that, out of 25 countries and eight ‘benchmarking participants’ with comparable data spanning 1995 to 2011, only nine countries improved on the eighth grade mathematics achievement, while in 11 countries performance decreased. Among the countries in decline were Hungary, Jordan, and Thailand. Among those that improved were Bahrain, Slovenia, and the Russian Federation. The

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2. I use ‘symbolic access’ to refer just to participation with little or no learning. It is symbolic since it would appear that the learners have access to education and are learning, when in fact they only have access to schooling. They are neither being educated nor learning. This symbolism makes enrolled learners the invisible victims of ‘a lack of access to education’ while OOSC are its visible victims.
 3. ‘Substantive access’ refers to effective access whereby learners are actually learning and being educated.
 4. The evidence presented in this section is mainly a summary of the 2011 EFA GMR and also the 2012 GMR.

2006 Progress in International Reading Literacy Study (PIRLS) indicated that the vast majority of fourth graders in developed countries performed at or above the intermediate international benchmark. In participating middle-income countries in Africa (Morocco and South Africa) and even in wealthy Arab States (Kuwait and Qatar), a significant majority of fourth graders had not acquired basic reading skills. The 2011 PIRLS showed that, out of the 45 countries involved in the Grade 4 reading comprehension performance, most middle-income countries performed below the low international benchmark. Morocco continued to have the lowest rating and Qatar performed similarly among the Arab States. In nearly all of the countries and ‘benchmarking participants’, girls outperformed boys in 2011, and there has been little reduction in the reading achievement gender gap over the decade. The SACMEQ III Project (2007) showed that, after five to six years of schooling, over a third of learners in Malawi and Zambia had not acquired basic literacy skills and could not therefore read fluently. The 2009 PISA recorded that only a minority of 15-year-olds in 10 OECD partner countries had attained level two in reading, or a baseline level of proficiency. In 18 participating countries and economies, level two was the most common highest level of proficiency among students, including those in some OECD countries, such as Mexico and Chile (33 per cent of students) and Turkey (32 per cent). Argentina, Bulgaria, Colombia, Romania, the Russian Federation, and Uruguay also had substantially high proportions of students performing at level two. According to the 2012 GMR, nearly 20 per cent of the 650 million learners enrolled in primary school do not make it to Grade 4, while a further 20 per cent who make it fail to acquire the basic skills expected at this level.

Other than via test scores and internal efficiency indicators, the ineffectiveness of education systems is manifest in their failure to prepare learners for subsequent educational levels, or for trainability and educability, taking up lifelong learning (LLL) opportunities on their own, the labour market and the world of work. Systems have repeatedly been diagnosed as having limited capacity to produce graduates who can effectively meet labour market demands, function effectively in the world of work, or take up current

or foreseeable opportunities; or who, while meeting current challenges, are also able to seize unexpected opportunities, meet unforeseen challenges, and contribute constructively to holistic national and global development agendas. Current analytical approaches and instruments have provided little hard evidence for the effectiveness of general education systems in producing graduates with appropriate dispositions, attitudes, aesthetics, life views, and core values (such as peace, multiculturalism, respect for diversity and the importance of living harmoniously together).

Education systems are also very ineffective in mitigating social factors that cause inequities in learning effectiveness and, ultimately, in the distribution of learning outcomes. Thus the learning outcomes of individual learners, countries, and world regions are highly inequitable. For instance, the 2007 TIMSS showed that the average mathematics student in El Salvador, Ghana, Indonesia, and Morocco performed at the same level or lower than the poorest-performing 10 per cent of students in higher-performing countries (Republic of Korea, UK). The 2006 Latin American regional surveys of primary mathematics placed 30 per cent of Chilean Grade 3 students at level three or four, compared with just 13 per cent in El Salvador. About 10 per cent of third graders in Argentina performed below level one on the mathematics performance scale, while a similar proportion performed at the highest level. Over 50 per cent of third graders in Cuba performed at level four – more than three times the proportion in Argentina or Chile. The 2009 PISA demonstrated that the gap between the highest and lowest performing OECD countries was more than the equivalent of two school years. The gap between the highest and lowest performing partner country or economy was more than the equivalent of six years of formal schooling. National assessments of Indian primary school children showed that from 2006 to 2009, the proportion of Grade 5 students able to read a Grade 2 text increased from 44 per cent to 64 per cent in Punjab state, but fell from 65 per cent to 46 per cent in West Bengal. Children in Kerala state were five times more likely to be able to read a text in their own language by Grade 3 than children in Tamil Nadu. In Bangladesh, over 80 per cent of the students who reached Grade 5 passed the Primary School

Leaving Examination. However, in Wazirpur upazila (sub-district) in Barisal district, almost all Grade 5 students passed the exam, compared with fewer than half in Jamalganj upazila in Sylhet district. In Kenya, 17 per cent of Grade 3 students in the North Eastern Province could read a story in Kiswahili for Grade 2 students, while in the Coast province, the proportion was more than twice as high. In Kenya, half of the poorest children in Grade 3 could read a standard Grade 2 Kiswahili text, compared with around three-quarters of the richest students. Although Namibia and South Africa have roughly the same average achievement, children from the wealthiest South African households are 10 times more likely than children from the poorest households to score well in reading. The wealth differential in South Africa is more than double the comparable wealth differential in test scores for Namibia.

Challenges stemming from poor quality and ineffectiveness are most pernicious at the basic levels of education, at which the majority of learners have the highest participation levels. Poor quality in basic education bequeaths not only poor quality at the post-basic levels, but also constitutes acute exclusion of the marginalized, thus aborting its social equity imperative. Poor-quality basic education also translates into significant under-representation of learners from marginalized groups in post-basic and higher education systems, and consequently in high-income jobs and lucrative work opportunities. Unlike access, inequity of education quality, of learning experiences, and of learning outcomes remain a formidable challenge for both developed and developing countries.

Development implications of system ineffectiveness and poor quality in education and learning

Poor educational quality and ineffective learning have far-reaching and dire consequences especially, though not exclusively, for developing countries. At an individual level, the failure of education systems to support learning significantly impedes personal development. It can result in disengagement and dropout at school. For children and students who do not persevere, it leads to high repetition rates and ultimately to failure in acquiring the

competencies commensurate with their educational attainment. Failure to acquire competencies translates into ‘capability poverty’, a form of exclusion affecting various spheres of life. For example, capability poverty leads to reduced functioning in modern knowledge economies in which effective participation requires high levels of functional literacy at least and advanced competencies at best. It can exclude people from the significant social dialogue critical for participatory democracy, especially in many African countries in which such dialogue is conducted in a foreign language acquired mainly through formal education. Capability poverty also limits possibilities for rewarding work and jobs and the income that goes with them (Hanushek and Zhang, 2006; UNESCO, 2005; Verspoor *et al.*, 2008; Marope, 2005). Low or non-existent earnings prevent people from meeting basic needs and buying basic social services – including nutrition, housing, and education itself – for themselves and their families. For women in particular, this limits their ability to take care of their own health and that of their families, to plan their families, take charge of their reproductive rights, exercise the right to choose who and when to marry, reconfigure strategic gender roles, be self-determining, and live life more equitably. Both low income and capability poverty often trap people in a vicious cycle of inter-generational poverty and exclusion. This perpetuates social inequality and can instigate social unrest and political instability. Considering that labour is often the only asset of the poor, the failure of education systems to add value to it through the effective development of competencies perpetuates the poverty trap. Extreme poverty can lead to tragic circumstances, including child trafficking, prostitution (especially for women), illegal activities and the resultant incarceration. By various means, ineffective learning opportunities and poor-quality education lead to multiple forms of poverty and, generally, a poor standard of living. In the future, the disadvantages of poor-quality education or no education whatever may worsen as a result of the rapid pace of change in the 21st century and the constant need to adapt, which both make higher demands on learning capability. Hence education and learning requirements are escalating very rapidly.

At national level, high repetition rates, school dropout, and failure to acquire essential competencies – especially but not exclusively at the basic levels – translate into an unaffordable wastage of resources that could have been invested in further expansion of access and quality improvement. Moreover, the cost of interventions instituted at higher levels of the education system to compensate for poor-quality provision at lower levels is often greater and less effective than that incurred in securing a strong foundation from the outset. Nevertheless, the costs of ineffective education systems are not confined to the education sector alone. Among these derived costs are those of the social safety nets necessary to rescue unemployed youth, adults and their children, the health bill accruing to the state because of citizens who cannot optimally take care of their health, the cost of incarcerated youth and adults, and unmanaged population growth resulting from poor or inadequate family planning. Most importantly, failure to further the development of relevant competencies denies countries the productive labour force needed to lead knowledge- and technology-driven productivity growth, and to encourage shared growth, global competitiveness, social coherence, national and global peace, and other broader dimensions of development, whether political, social, human, or cultural. Evidence shows that educational attainment is necessary but not sufficient to support growth and competitiveness (World Economic Forum, 2008, 2009). Although they are only proxy measures of educational quality, test scores have a statistically significant association with real gross domestic product (GDP) per capita growth, as one standard deviation in test scores correlates with 2 per cent average annual growth in GDP per capita (Hanushek and Wößmann, 2007). Since the majority of learners who receive poor-quality education are often from marginalized and poorer segments of societies, the current and persistent levels of poor-quality education deny developing countries not only the opportunity for growth but also the redistributive effects of education.

Poor-quality education is one of the key factors in global inequality and can be equated with the ‘modern boundaries’ between rich and poor countries. Persistently ineffective education systems, which exist mainly in

poor countries, can only sustain global inequalities and threaten global peace and stability.

Impediments to high and equitable quality and effectiveness in education and learning

Developed and developing countries alike are well aware of the twin challenge of poor and inequitable quality in education and learning. They are equally aware of the dire implications of this for development. There is hardly any education policy that does not include quality, equity, and relevance in its strategic and operational objectives. Most countries go through ‘cycles’ of education quality improvement projects or programmes, which often include the enhancement of equity, quality, and learning. The global EFA agenda identified educational quality as requiring attention. Yet the challenge persists, and the EFA quality goals are dauntingly off track. Moreover, the poor quality of education undermines the progress made towards expanding access.

The weak context-specific knowledge and evidence base

One of the main impediments to building effective education systems is the weak knowledge and evidence base required to guide interventions for equitable improvement of educational quality and learning within a specific context. To some degree, ‘sector studies’ – mostly undertaken as part of the due diligence of financing institutions – address this challenge. However, such studies may be at risk of emphasizing the priority areas of these institutions and of allowing priorities to emerge from their analysis. Furthermore, and despite the rhetoric, the studies tend to be entrusted to external agents – mostly hired by financing institutions – rather than the managers of education systems. This tends to limit ownership of the results and the commitment to acting on them. It also limits the extent to which the knowledge of managers or even their ‘institutional memories’ can guide the studies so that they are optimally responsive to the specific context. Countries also periodically commission studies of their education systems. The problem is that they tend to be

infrequent and indeed sometimes even decades apart. More often than not, they are the responsibility of eminent personalities, rather than the managers of education systems. Other contributors are independent researchers and think tanks investigating elements of interest in systems. Meanwhile, many topical studies are also carried out. The overall result is that comprehensive and systemic analyses of education systems are very few and far between. And it is even rarer for them to be undertaken by people responsible for making systems function effectively. Separating the creation of knowledge from its application weakens both the application and its relevance, as well as the ownership of that knowledge. Most importantly, it reduces the agility of systems managers in adapting and even discarding knowledge that has become less relevant or even obsolete as contexts change.

Insufficient analysis of specific education systems is often compensated for by using ‘generic’ knowledge about what works – or should work – in improving educational quality and learning. Technical advisors often come up with pre-packaged ‘solutions’ of what should work on the basis of extensive evidence which is not necessarily taken from the context concerned. Indeed, countries have gone through ‘cycles’ of quality improvement panaceas, including textbooks, constructivist pedagogy, teachers, and the assessment of learning outcomes.

***Weak knowledge brokerage and resultant
weak knowledge application***

Where ‘generic’ knowledge may have universal applicability, mechanisms for bridging knowledge creation and application are often weak. This is more so in the case of technically complex research-based knowledge, such as that on learning. For instance, the past few decades have witnessed substantial growth in research on learning facilitated by the combined application of advanced neuroscience and technology, both of which allow direct observation of brain activity during learning. While our evidence-based knowledge about learning is progressing rapidly, the improvement of learning continues to confound most education systems. Policy-makers and practitioners are searching for

knowledge of how to improve learning, while researchers are struggling to realize the optimal operational impact of the knowledge they generate. What seem to be lacking are: strong knowledge brokerage which simplifies complex research findings into applicable knowledge; an effective market place linking knowledge creators with potential users; and systematic ways of strengthening the capacity of education systems to identify significant knowledge gaps, close them, and effectively apply evidence and knowledge even when generated from within the system.

Impatience to strengthen 'local' or 'national' analytical capacity through use

The fact that analysis of education systems is largely conducted by external agents runs the risk of 'overlooking and undervaluing' the technical capacities of those who manage systems. Yet capacity is strengthened through use (Marope, 1997). Over-reliance on external experts also impedes the institutionalization of systems analysis, which becomes occasional contractual work instead of mainstream activity. Yet the constant and rapid change affecting education demands regular analysis and timely adjustments if systems are to remain relevant and up to date.

Partial and fragmented systems analysis

As noted above, comprehensive and systemic studies of education systems are rare. Many areas addressed are often included under the labels of 'sector analysis' or 'sector studies', including clusters of sub-sectors, single sub-sectors, or even topics. For a range of reasons, complexity is often used as an argument against comprehensive and systemic analysis or programmes. For financing institutions, simplicity or partial analysis of the sector ultimately results in easy-to-package projects, often with measurable indicators which become manifest within a short term and are relatively

easy to implement.⁵ For political expediency, anything that is medium- to long-term could be too ‘complex’ and risky. Those who ‘serve terms’ need to demonstrate results within their term of office. So why risk tackling an unwieldy system that is slow to change if you can train a specified number of teachers, purchase a specified number of books, construct a specified number of classrooms, and deliver ‘results’? For technocrats, so-called results-based management has done little to reduce their aversion to risk, since, while addressing challenges where results may take years to become evident, they have to provide evidence of them on an annual basis.

Simple though it is, fragmentation often leads to inherently inconsistent and sometimes contradictory policies, strategies, and programmes. It also often leads to uneven and unbalanced improvements in sub-systems or areas of the systems. Even worse, it creates an environment in which improvements made in some parts of the system can be frustrated or even undermined by weaknesses in others. For example, curriculum reforms have not always taken into account books and instructional materials, teachers, teaching processes, and the assessment methods required in order to give them effect. Changes in student curricula have not always taken into account the teaching and learning environments within which such curricula are to be delivered, or the teachers who are supposed to implement them. As such, excellent curricular frameworks and programmes can be reduced to ‘dead documents’ as teachers continue to teach what they can, what they know learners can handle, what can be delivered within their physical teaching and learning environments, and what they know is likely to appear in the upcoming national examinations. Conversely, changes to physical teaching and learning environments have not always taken into account the demands of various curricula or even the needs of teachers and learners that have to be met within such environments. What is often referred to as a system does not in fact qualify as a ‘system’, but comes through instead as a set of loosely coupled sub-systems and areas.

5. It is much easier to demonstrate the results of a simple intervention than to demonstrate progress in strengthening the capacity of a system to deliver quality education services and effectively facilitate learning.

***A serial approach to addressing factors behind inequitable
and poor quality in education and learning***

A consequence of fragmentation is that parts of the education system that interdependently, interactively, and iteratively work together to produce results are treated in a lockstep fashion. While strategic sequencing of interventions may be unavoidable, the approach is often not only serial, but the steps of the sequence are not necessarily linked. Furthermore, different experts often address different parts of the system at different times without necessarily articulating and integrating them. This further weakens the potential of parts of the system to cohere and reinforce each other as they should.

**A systemic approach to improving the level
and equity of educational quality and learning**

The systemic approach presented here stems from three premises. First, the attainment and sustenance of equitable high-quality education and effective learning experiences requires robust and effective education systems which are herein operationally defined as those which are effective for purpose, sustainably relevant or responsive to holistic development, equitable and inclusive, resource-efficient, and provide substantive rather than symbolic access to education and learning.

The second premise is that accountability for quality education and effective learning experiences exists at all levels and in all aspects of an education system, working interactively and repeatedly to optimize complementarity and impact. Third, the relative significance of each level and aspect of the education system varies from one geographical, demographic, or temporal context to the next. A textured understanding of the functioning of an education system, its impediments, and its enablers, within a specific context is basic to addressing the twin challenge of poor and inequitable educational quality and learning. Yet what seems to have been lacking so far are usable tools for systemic analysis and the identification of critical

constraints, which has prevented countries from attaining and sustaining their intended quality and learning. The lack of such tools is particularly pronounced in general education ('K to 12'), but less so in higher education and technical and vocational education and training. Other than in national and international examinations – which often have limited scope for longitudinal comparability – general education systems in most countries do not have a strong system-wide tradition of analysing, improving, and ensuring quality. The framework addresses this gap but is also applicable to all levels of systems.

Textbox 1

Development Goals

System development responsiveness or relevance

System contribution to equitable and inclusive development

Desired Learning Outcomes

System capacity to facilitate development-responsive competencies

System capacity to produce lifelong learners

Core Process

System capacity to facilitate learning

System capacity for effective teaching

System capacity for appropriate assessment

Core Resources

Learners

Teachers

Curricula

ICTs

Teaching and learning environments

Key Enablers and Support Systems

Governance

Financing

System efficiency

The systemic approach is fundamentally an analytical framework which aims to strengthen the capacity of countries to analyse, identify, prioritize, and address critical systemic constraints on equitable quality education and learning. It is *not* intended to ‘tell’ countries what is wrong with their education systems or how to fix them. As a framework, it aims to help countries raise key questions about what could be critical constraints on their education system and where they are situated within it. *Neither* is it a benchmarking or ranking tool to support cross-country comparisons. Instead, it is meant to support a country’s diagnostics and analysis of its constraints, and to prioritize the latter and show how best to address them in order to get on a trajectory of improving educational quality and learning. It also supports countries in operationally defining their desired level of quality and of learning. Once defined, it further supports countries in monitoring their own progress over time and against benchmarks set individually by and for themselves.

This framework takes national knowledge of education systems as a starting point and brings in international knowledge to enrich local or national knowledge as necessary. By helping countries themselves to raise and answer questions pertaining to their education systems, the framework acknowledges and respects local or national knowledge. It assumes the existence of sufficient intra-country expertise and experience to identify challenges, and design and implement responsive interventions. At the same time, the framework acknowledges the potential contribution of global forms of knowledge but only when they are, as it were, grafted to a resilient local root. Such resilience can come from them being well adapted to the national context.

Developing a ‘resilient local root’ initially means understanding the national and sub-national development context of education systems, including a deep understanding of the political economy of education. This framework therefore takes as its starting point a textured understanding of the development responsiveness or relevance – or the expected development impact – of an education system. It is the first step towards knowing what constitutes a quality education system within a specific context.

Acknowledging a ‘resilient local root’ or development relevance means acknowledging that quality education is necessarily contextual. As noted, the context has geographic, time, and demographic dimensions. Conditions differ from one country to another and also over time. Stakeholder expectations of education systems may also vary. Accepting this contextual nature impels ‘humble technical assistance providers’ to let the context define its quality and, once defined, to support the efforts needed to reach and sustain that contextualized quality. Meanwhile, accepting the contextual nature of quality entails the recognition not only of the immediate context, but also the national, regional, and global contexts. Thus, regional and global standards do still serve as critical points of reference.

In its application, the framework pays express attention to knowledge and evidence gaps that may stunt interventions intended to improve the quality of education and learning. Measures for addressing such gaps are identified and prioritized as integral to the success of promising interventions.

The framework adopts a comprehensive and systemic approach to education, and opposes the fragmentation of education systems. It comprises key elements of systems that are shown to work interactively and repeatedly, to enable the latter optimally to support quality education and effective learning experiences. These elements pertain to:

- the development goals that should guide key outcomes of an education system;
- desired outcomes of an education system;
- the core processes and core resources that produce those outcomes;
- support mechanisms that enable the production of outcomes.

The framework comprising 15 analytical tools that address each of these elements is summarized in *Textbox 1*. Although the elements and tools appear sequential for presentational purposes, in practice they are nested, interactive, repeated, and integrated.

Each analytical tool comprises questions leading to the identification of critical impediments to quality education and learning, which lie within

the element concerned or aspects of it. For example, analysis of critical impediments which may pertain to teachers as a critical element entails questions on the following:

- who can become a teacher or the ‘choice’ of the profession;
- admissions criteria;
- pre- and in-service education and training;
- recruitment;
- deployment;
- working conditions;
- management and utilization;
- continued professional support and development;
- salaries and incentives;
- retention and retirement.

Analysis of impediments that may pertain to learners includes questions on:

- their status at entry in terms of their socio-economic background;
- learning readiness;
- health conditions;
- nutrition and access to health services;
- access to legal and social protection services;
- admissions criteria;
- in-school academic and pastoral services;
- home environment.

The framework separates the teaching and learning environment into the physical and the psychosocial. The physical includes:

- infrastructure;⁶

6. Infrastructure covers a wide range of items which include the following: the manageable and safe access of learners to their school or institution (proximity of institutions to their homes, affordable and safe transport or boarding facilities, etc.); classrooms; the suitability of classrooms for the number of students and for curricular and teaching requirements; safe and healthy washing facilities; healthy food and nutrition facilities or services; security facilities or services; health facilities or services; administrative facilities; the working facilities of teachers while at school, as well as their housing, etc.

- furniture;
- equipment and related consumables;
- books;
- instructional materials;
- clean water;
- food and nutrition facilities or service providers;
- health facilities or service providers;
- ICTs and connectivity.

Aspects of the psychosocial environment include:

- academic support services;
- safety and security;
- codes of conduct of learners and educators;
- pastoral and career guidance and counselling services;
- health services;
- spiritual services.

The analysis raises questions identifying which elements of the teaching and learning environment and which aspects within the environment may be key constraints. Questions that seek to clarify whether financing or aspects of financing could be significant constraints include the following:

- sources;
- adequacy;
- allocation;
- equity;
- management;
- utilization;
- efficiency;
- sustainability.⁷

Questions on core elements of the framework are cross-referenced to each other when such cross-references are critical for understanding the

7. See the *Annex* for a summary of questions raised under each core element.

system as a *system*. The analytical tools that constitute the framework and the questions are generic and not tailored to any specific country. Countries or regional blocs using this framework therefore have to adapt it to the specific local or regional context.

To ensure fidelity to a systemic approach, this framework is comprehensive in its analysis or diagnostics, but targeted in the interventions that follow either. In metaphorical terms, it compels the builders of high-quality and effective general education systems to shake each pillar that supports system quality, and then enables them to focus their repairs on those pillars that shake the most and may threaten the system with collapse if not dealt with. However during their repairs, they remain aware of the possible forces exerted by weak pillars on strong ones and may constantly have to adjust the strength of old and new pillars alike. In other words, they safeguard the integrity of the system overall and remain loyal to the systemic approach, by ensuring that the ‘load-bearing’ strength of all pillars remains balanced, with the weights of the balance determined by the specific nature of system needs and priorities.

Expected impact

The adoption and application of a systemic approach to address the level and equity of educational quality and learning is expected to strengthen the analytical capacity of countries, thereby also strengthening the knowledge and evidence base needed to underpin interventions for improving the equity of educational quality and learning. More specifically, the approach is expected to strengthen the capacity of technical experts who actually manage education systems. Entrusting key managers with the main responsibility is expected to regularize and institutionalize system analysis. Countries using the framework are expressing a preference for integrating the analysis into their regular sector planning and monitoring. Mainstreaming the framework in this way may well be more conducive to keeping the system up to date and sustaining its development responsiveness. Analysis of it within its specific context and the use of national expertise should fortify the relevance of its contextual development. Meanwhile, the use of external knowledge

and expertise acknowledges the interconnectedness of countries and the commonality of their challenges and potential solutions. The framework therefore strives to balance the local, national, and global relevance of systems.

A comprehensive systemic analysis also establishes a solid knowledge and evidence base for the balanced and holistic development of education systems. It avoids potential contradictions, tensions, and the loose coupling of what ought to function as a *system*. Developing all key elements of the education system in an integrated way improves complementarity and mutual reinforcement of its elements, and thus lays the foundation for a more robust and effective system. Combining comprehensive analysis with targeted interventions makes for efficient use of resources by focusing them on the most critical challenges. The overall challenge remains considerable, and requires a sustainable effort of the kind proposed here.

Conclusion

This chapter has advocated a systemic approach to building effective education systems as the only chance of addressing sustainably the global twin challenge of poor and inequitable educational quality and learning. As long as the vast majority of countries *continue* to rely on their education systems as the ‘main’ mechanism for delivering educational services to learners and facilitating learning, it is vital for systems to perform their ‘core business’ effectively in order to address the *global crisis* of poor and inequitable educational quality and learning. The chapter has suggested that while addressing the twin challenge in a partial, fragmented, and lockstep manner may enable us to strengthen parts of a system, it will never be a way of strengthening them to work together to achieve their mutual reinforcement, as a *system* requires. A fragmented, partial, and lockstep approach may help to win skirmishes and battles, but not the war. The challenge, therefore, is not limited to reaffirming the central position of learning within education, as the current strong wave of the ‘learning renaissance’ sometimes seems to imply. It is even more important to ensure that systems supposed to

facilitate learning are capable of doing so, and that they have an adaptable and regenerative capacity geared to this end. To draw an analogy, it would be very difficult to have healthy people without an effective healthcare system providing them with quality health services. It is equally difficult to envisage the attainment of desirable levels of educational quality and learning in weak and ineffective education systems, including their schools.

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Annex: Summary of the Framework – questions on key areas

Development goals	Desired learning outcomes	Core processes	Core resources	Core enablers and support systems
System development relevance	Competencies required to support development	Learning	Learners	Governance
Contextual* conceptualization of development	Conceptualization of competencies	Conceptualization and positioning of learning	Perspective of learners	Governance at the institutional level
Individual-level relevance	Contextual relevance of competencies	Factors that support learning	Understanding the diversity of learners	Governance at the intermediate level
Labour market and world of work	Taxonomy of competencies	The place of research in enhancing learning effectiveness	Understanding diverse needs of learners	Governance at the national level
Country-level responsiveness	Reflection of competencies in policies and curricula	Equity of learning opportunities	Meeting diverse needs of learners	Monitoring and evaluation
Global responsiveness	Reflection of competencies in teacher preparation and CPD	Assessing learning	Equitable support of learners	
Intra-system responsiveness	Reflection of competencies in teaching		Optimizing learner effectiveness	
	Assessment of competencies			
	Responsiveness of the teaching environment to competencies			
	Responsiveness of learning environment to competencies			

Development goals	Desired learning outcomes	Core processes	Core resources	Core enablers and support systems
System contribution to equitable, inclusive, and sustainable development? Conceptualization of equitable development Conceptualization of inclusive development Factors of exclusion Factors of inequity Critical points of exclusion Manifestation of exclusion Manifestation of inequity		Teaching Conceptualization of effective teaching Equity of effective teaching Enabling teaching effectiveness Supporting effective teaching Monitoring effective teaching	Teachers Choice of the profession Education and training Deployment Management and support Continuous professional development Incentives Retention Retirement	Financing Sources Adequacy Allocation Distribution Utilization
	Lifelong learners Conceptualization of lifelong learning Conceptualization of lifelong learner Enabling environments for lifelong learning Enablers for lifelong learners Lifelong learning systems, plans, and programmes Integrated system of lifelong learning Vertical integration Horizontal integration Enabling environments	Assessment Assessment policies, frameworks, and methods Implementation of assessment Utilization of assessment results	Curricula Development relevance of curricula Curriculum planning Curriculum design Content Curriculum implementation Curriculum monitoring Curriculum evaluation	System efficiency Policies and strategies for resource efficiency Mechanisms for realizing efficiency gains Mechanisms for sustaining efficiency gains Monitoring and evaluation of system efficiency

Development goals	Desired learning outcomes	Core processes	Core resources	Core enablers and support systems
			ICTs Understanding ICTs from an educational perspective Policy development and implementation strategies for ICTs in education Access and utilization of ICTs in education	
			<hr/> Teaching and learning environment Infrastructure Furniture Equipment Books and instructional materials Equipment Consumables Support facilities (health, etc.) Water Sanitation Physical access Communication facilities Connectivity Safety and security Academic support Academic counselling Career counselling Pastoral care Code of conduct	

* Context here is understood to have temporal, geographic, and demographic dimensions.

II. Quality, learning, and cultural comparisons: Trade-offs in educational policy development

Daniel A. Wagner

With the advent of the United Nations *Education First* initiative, and considering the continued efforts to focus on the quality of education in low-income countries, there has been a renewed interest in the improvement of learning (as distinct from school attendance) in poor and marginalized populations (Wagner, Murphy, and de Korne, 2012).¹ There is a large and diverse empirical research base in the area of human learning. Yet much of the available research is substantially limited by *boundary constraints* of various kinds. Most prominent among them is the limited ability to generalize from findings in one population context to other distinct population contexts. Similarly, research methods may vary greatly between one set of studies and another, making it difficult to discern whether the findings vary due to the methods or to other factors. These are classic problems in the social sciences, and inevitably lead to substantive trade-offs in how policy development takes place in education.

Skills and population sampling

If a learning assessment needs to be representative of an entire population of a country, and for multiple countries in a comparative framework, then time and money is likely to expand significantly. Up to the present, time and cost have been controlled by delimiting the range of *skills* that would be assessed (the *skills sample*), and by constraining the *population* that would be included (the *population sample*). These two forms of sampling need to be understood in terms of technical and statistical requirements, as well as policy requirements and outputs.

1. Parts of this paper were derived from the Brookings Report.

It is widely accepted that humans learn by sampling their environment, beginning with built-in senses from birth onwards. Clearly, no infant, child, or adult could possibly survive by taking in the totality of information available in the environment. In other words, human systems are designed to discriminate in order to sample for information that will be effective in handling learning challenges. Indeed, parenting and socialization that effectively prepare a young child to adapt, learn, and survive, involve exposing the child to the range of situations they will encounter in their lives. Not all these learning environments may be positive, but exposure to them will be important. When it comes to scientific research in general, and learning research in particular, humans also sample their informational environment, whether in educational institutions or via word of mouth or, increasingly, via internet search engines such as Google. The relevance of this relatively simple observation should not be underestimated, since one of the most vexing problems in learning research and evaluation is how to generalize from one sample population to another or, just as importantly, from one research study to another.

All research on learning depends on the sampling of a finite set of skills, and knowledge of the contextual situations in which they occur. Skills sampling can be done in the traditional paper and pencil fashion, increasingly through online methods (e.g. the OECD Programme for the International Assessment for Adult Competencies [PIAAC], or orally between the child and a testing enumerator (as in Early Grade Reading Assessments [EGRA]). In designing learning research and evaluation strategies, the choice of contextual and demographic variables (e.g. age, year of schooling, gender, supplemental educational services [SES]), the selection of skills to be assessed, and the type of research methodology are highly complex decisions. Each option is tied to a set of assumptions and compromises, and the selections included in the final research design will influence the validity, reliability, and practical feasibility of the chosen approach (see Braun and Kanjee, 2006; Wagner, 2011a). Furthermore, research designs need to be responsive to dynamic changes over time, and as expectations of literacy, numeracy, and higher-order

skills adapt to changes in social and economic environments, the measurement methods must also adapt to align with evolving educational goals.

Population sampling also matters. For example, roughly 95 per cent of the world population today resides outside the United States, while nearly 95 per cent of scientific publications on psychological development are based on American population samples (Arnett, 2008). Other studies have shown that, in the USA, more than 80 per cent of research on psychological development is based on ‘majority’ ethnic groups (European origin), while this population is only about 50 per cent of the current USA population (Arnett, 2008). These are not unique occurrences. Global research on learning parallels the above findings, since much of the research reviewed here is constrained in important ways by scientific datasets and research studies drawn from population samples living mainly within mid- to high-level income countries.

The area of population exclusions is more problematic. Gender has been a leading factor in school non-participation in low-income countries, although significant progress has been made in recent decades. Nonetheless, in the poorest countries, girls continue to be less present in school than boys, at the point of both primary and post-primary school entry. Systematic exclusion of girls in poor low-income countries usually results in lower participation in schooling among adolescent girls, as well as depressed scores relative to boys in national assessments.² Similar trends show differences in national assessments when comparing rural and urban areas in low-income countries. In some low-income countries, the difficulty of literally tracking down nomadic children can make their inclusion onerous for authorities (UNESCO, 2010).

Language variation from one ethnic group to another exists in nearly all countries. Many of these groups – sometimes termed ‘ethno-linguistic minorities’ – are well integrated into a national mix (as in Switzerland), but at

2. In the SACMEQ regional assessment in Grade 6, undertaken in 2007, Saito (2011) found that boys generally outperformed girls in mathematics, when averaged over 15 African countries, while girls outperformed boys in reading. However, national differences in gender disparities varied widely in both reading and mathematics.

other times they may contribute to civil strife. Often, social and political forces help to resolve differences, and usually include policy decisions resulting in a hierarchy of acceptable languages to be used in schools and governance structures. In such situations, whether in OECD countries or low-income countries, it is not unusual for children who speak minority languages to be excluded from learning research and assessments. This may be particularly problematic in regions in which civil conflict or economic distress leads to substantial cross-border migration, or in which immigrant groups (and their children) are treated as transients, and children are provided with little or no schooling. As noted earlier, differences in language, and increasing multilingualism, are among the most challenging aspects for improving learning in schools.

In sum, both skills and population samples vary, as do the learning processes (structured and informal) that individuals deploy, and the contexts (formal and non-formal) in which they take place.³

Methodological credibility

Research that can be converted into policy depends on its credibility, which means that well-trained scientists and experts can achieve consensus on the merits of a particular set of findings, even if they might disagree with the interpretation of such findings. The two most oft-cited components of learning science are validity and reliability.

The validity of any learning measurement tool or test is determined by the degree to which skills can be credibly linked to the conceptual rationale for the test. For example, do questions in a multiple-choice test really relate to a child's ability to read, or to the ability to remember what he or she has

3. There are also those stakeholders who *do* the sampling. Whether policy-makers, psychometricians, or local teachers, all come to the task of sampling skills and populations with their own experiences and points of view. Choices about which skills to sample among which populations, languages, and in which contexts, also add potential bias to an already complex set of sampling issues. In order to address such biases, researchers can use methods such as tailored sampling and subsample designs, matching samples, oversampling of marginalized populations, and mixed methods designs.

read earlier? Validity can vary significantly with context and with population, since a test that might be valid in London may have little validity in Lahore. A reading test used effectively for one language group of mother-tongue speakers may be quite inappropriate for children who are second-language speakers of the same language. With respect to international large-scale educational assessments, there have been a number of critiques of content validity around the choice and appropriateness of test items, given their application to local cultures and school systems (Sjoberg, 2007; Howie and Hughes, 2000).⁴ While much learning research takes the form of quantitative testing, qualitative and ethnographic methods can also contribute, particularly with respect to cultural variation. Indeed, culturally sensitive research often requires qualitative approaches, given the uncertainty about learning processes in diverse contexts and the need to observe transitions between contexts.

Reliability is often measured in two quantitative ways. Generically, reliability refers to the degree to which an individual's results in a test are consistently related to additional times that the individual takes the same (or equivalent) test. High reliability usually means that the rank ordering of individuals taking a given test would, on a second occasion, produce a very similar rank ordering. A second and easier way to measure reliability is in terms of the internal function of the test items – do the items in each part of an assessment have a strong association with one another?⁵ Of course, reliability implies little about the validity of the instrument, wherein agreement must be reached concerning the relevance of the instrument for educational outcomes. Considered in a qualitative perspective, reliability would be achieved when context-sensitive ethnographers, for example, agree on a set of observations of learning processes that they have independently gathered in a particular

4. Sjoberg (2007) claimed that some test items deviated substantially from the stated PISA goal of evaluating competencies for the workforce. Howie and Hughes (2000) found that the TIMSS covered only a very small fraction (18 per cent) of the curriculum of science in Grade 7 in South Africa, but as much as 50 per cent in Grade 8.

5. This is inter-item reliability (measured by Cronbach's *alpha* statistic).

context.⁶ Considering that learning occurs in non-formal areas as well as formal ones, learning research cannot be limited to the sophisticated psychometric methods developed for formal learning sites, such as schools. Similarly, highly structured learning processes (guided by teachers) may be relatively easy to observe and monitor in the classroom, while informal (less structured) learning may be more difficult to determine and measure.⁷

Comparability of learning outcomes across contexts

Comparability is central to global education data collection, such as the large-scale data collection carried out by UIS. Nonetheless, if comparability is the primary goal, less attention is paid to the local and cultural validity of the definitions and classifications of learning, and therefore the data may become less meaningful and potentially less applicable at the ground level. This is a natural and essential tension between universalistic *etic*

6. 'Team ethnography' has become increasingly used in education research in the USA and Europe (see Blackledge and Creese, 2010; Bartlett and García, 2011).

7. The use of randomized control trials (RCT) is seen as one important way of increasing the credibility of research findings, by comparing interventions with control groups. Recent reviews by Kremer and Holla (2009), Banerjee and Duflo (2011) and Bruns, Filmer, and Patrinos (2011) assert the importance of this methodology for improving research designs in international development work. Other work (e.g. Burde, 2012; Castillo and Wagner, 2014) has begun to describe the limitations of the RCT approach in such settings.

Another credibility issue is what constitutes a 'sizeable' impact. Traditional statistics emphasize, through inferential statistics, the notion of a 'significant' difference. In international development interventions, some prefer the use of 'effect size' as a way of measuring impact, since 'effect size' is a way of quantifying the size of the difference between two groups. For example, with work on EGRA reading assessments, the effect size (moving from 1–5 words per minute on an oral reading fluency test to approximately 30 words per minute), is not only significant, but may also have a very large effect size, indicating a large difference in mean scores. However, the credibility of this large impact also depends on the nature of the assessment itself. EGRA's use of words per minute seems to be a very malleable score, especially since many children in poor communities do so poorly at the outset when this measure is used. With other measures, such as reading comprehension, the research evidence suggests a much longer gradient to achieve a high effect size. See Paris and Paris (2006) for an overview of skill measurement trajectories. A related critique of EGRA concerns the prevalence of 'floor effects' on statistical results, especially on correlations between key variables; see Hoffman (2012) who also provides a broad-based critique of EGRA's use in low-income countries.

and context-sensitive *emic* approaches to measurement, and is particularly relevant to marginalized populations.⁸

Can both comparability and context sensitivity be appropriately balanced in learning research? Should countries with low average scores be tested on the same scales with countries that have much higher average scores? If there are countries (or groups of students) at the ‘floor’ of a scale, some would say that the solution is to drop the scale to a lower level of difficulty. Others might say that the scale itself is flawed, and that there are different types of skills that could be better assessed, especially if the variables are evidently caused by race, ethnicity, language, and related variables that lead one to question the test as much as the group that is tested. Yet having different scales for different groups (or nations) seems to some to be an unacceptable compromise on overall standards.

To the extent that comparability can be achieved (and no learning assessment claims perfect comparability), the results allow policy-makers to consider their own national (or regional) situation relative to others. This seems to have most merit when there are proximal (as opposed to distal) choices to make. For example, if a neighbouring country in Africa has adopted a particular bilingual education programme that appears to work better in primary school, and if the African minister believes that the case is similar enough to his or her own national situation, then comparing the results of, say, primary school reading outcomes makes good sense. A more distal comparison might be to observe that a certain kind of bilingual education programme in Canada seems to be effective, but that there may be more doubt about its application in a quite different context in Africa. But proximity is not always the most pertinent feature: there are many cases (in the USA and Japan, for example) in which rivalries between educational outcomes and economic systems have

8. ‘Emic’ approaches are those that are consciously focused on local cultural relevance, such as local words or descriptors for an ‘intelligent’ person. ‘Etic’ approaches are those that define ‘intelligence’ as a universal concept, and try to measure individuals across cultures on that single concept or definition. Some also see this as one way to think of the boundary between the disciplines of anthropology (*emic*) versus psychology (*etic*). See Harris (1976).

been a matter of serious discussion and debate over the years (Stevenson and Stigler, 1982).⁹

The key issue here is the degree to which it is necessary to have full comparability in learning outcomes, with all individuals and all groups on the same measurement scale. Or, if a choice is made not to ‘force’ the compromises needed for a single unified scale, what are the gains and losses in terms of comparability? Can international goals (and statistics) be maintained as stable and reliable if localized approaches are chosen over international comparability?¹⁰ The way this question has been answered has led to situations in which some low-income countries, while tempted to participate in international learning assessments, nevertheless hesitate due to the appearance of very low results, or the feeling that the expense of participation is not worth the value added to decision-making at the national level.¹¹

In the end, global research on learning requires some form of comparability, but not necessarily in identical ways. For example, international and regional assessments are aimed specifically at cross-national comparability, while hybrid assessments are more focused on local contexts and increased validity. Hybrids offer some kinds of comparability that large-scale assessments do not, such as that relating to marginalized populations or younger children. Which types of comparability are most important depends on the policy goals desired, as well as timing and cost considerations. As in comparative education more

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9. In a more recent example, closer to present purposes, senior officials in Botswana were interested in knowing how Singapore came to be first in mathematics (Gilmore, 2005).
 10. Translation of international large-scale educational assessments (LSEAs) remains a problem, as it is often uncertain whether an equivalent translated item will have the same statistical properties as an indigenous word chosen independently. See Hambleton and Kanjee (1995) for a discussion on translation issues in international assessments.
 11. See Greaney and Kellaghan (1996) for a useful review of this issue. Others may participate because they do not want to be viewed as having ‘inferior’ benchmarks to those used in OECD countries. It should be noted that donor agencies often play a role in this decision-making by supporting certain assessments as part of a ‘package’ of support for evaluation capacity building.

generally, cultural context will determine whether and when research findings are deemed credible.¹²

Evidence uptake

Policy-makers, ministers of education, community leaders in rural villages, teachers, parents, and educational specialists should be held to account for what and how children learn. Until now, educational specialists and statisticians in most countries (and especially in low-income countries) have been the primary ‘guardians’ of learning processes and their importance for school and economic success. This restricted access to knowledge about learning is due, at least in part, to the complexities of the science of learning. But it is also due to insufficient knowledge – and at times erroneous beliefs – among both parents and children about the importance (or lack of importance) of learning and schooling on life’s chances.¹³

Today, it is more important than ever before to involve multiple stakeholders in education decision-making and in learning. Public interest in children’s learning and school achievement has grown in many countries, due in part to globalization, but also to the influence of international agencies, the efforts of NGOs, greater community activism, and parental interest. Some of the recent Pratham and EGRA field studies have involved strong community engagement that has led to significant government take-up of empirical findings.¹⁴

12. See Steiner-Khamsi (2010) for a discussion on comparability in comparative education.

13. Much evidence from many societies suggests that poor communities underestimate the value of learning and schooling. See Stevenson and Stigler (1982) for a comparison of parental beliefs in the USA, China, and Japan.

14. See Bhattacharjea, Wadhwa, and Banerji (2011) on India, and Piper and Korda (2009) on Liberia. Though solid research is lacking to date, several African countries have devoted considerable attention to the UWEZO initiative, which has adapted a version of Pratham’s community mobilization and accountability approach. See: www.uwezo.net/index.php?c=38 (downloaded 16 September 2012), and Pratham (2011), <http://pratham.org/file/Pratham%20Annual%20Report.pdf> (downloaded 2 November 2012).

This type of multilevel information exchange is another way of speaking about accountability and expectation. Whose problem is it if a child, teacher, school, district, or nation is not performing at a given level of learning? Indeed, how are such expectations even built? Whose expectations should be taken into account? Knowledge about the importance of learning – and how it can be achieved in formal and non-formal settings, and in structured and informal ways – has the potential of breaking new ground in policy development, community and family participation, and local ownership.

Choosing a research approach

Research can take many forms and have multiple approaches. This is not just a matter of methodological choice (e.g. quantitative vs qualitative) or disciplinary training (e.g. economics vs anthropology), though these two dimensions often get the most attention. Rather, in trying to address how research can improve learning, it is also important to understand three broad (and sometimes overlapping) approaches that continue to channel researchers' efforts, each of which has been utilized extensively in the study of education and development (see Wagner, 1986):

- *Knowledge-driven research.* This approach is most commonly seen in doctoral dissertations, in which the researcher usually follows in the footsteps of previous scientists in order to elaborate on a particular theory, hypothesis, or knowledge unit. Hence, knowledge-driven research is of the sort that is found in many scientific journals seeking to build up the knowledge base around particular topics. A good example from the present review is the role of phonics in reading, in which much of the research has been undertaken in OECD countries and in laboratories that explore the psychometrics of reading skill acquisition.
- *Decision-driven research.* Many implementation projects in development set aside some funds (or find external funding) for 'what works' research. Thus a project such as a pre-school intervention programme would seek to know, for example, whether the programme itself was implemented properly (classrooms available, teachers and children present, etc.), and

whether (say) learning outcomes tracked the instructional inputs provided (such as use of a national language in the classroom).

- *Context-driven research.* In holistic culture-specific work, researchers (especially ethnographers) focus on the special characteristics of particular contexts. The goal is to understand the unique relationships between factors that occur in a particular cultural context, rather than the sampling of common elements that might occur between contexts or ethnographic settings.

Conclusion

In sum, multidisciplinary and multi-method approaches to improving learning in low-income countries and marginalized communities are not *scientifically* more difficult than similar research done in wealthier communities. However, given where most scientific (human and fiscal) resources are located, it can be much less convenient for those with the advanced training needed to do the work. That fact, among others, is why so much remains to be known about learning in low-income countries. Multiple methodologies will need to be brought into play and debated. Limits (or boundary constraints) will be invoked to account for why one or another generalization can or cannot be made.

The challenge to policy development of working on learning and the quality of education in highly diverse cultural contexts is serious, especially for international agencies whose bias is towards international comparability. The main implication of this argument is that such comparability may be seen as a trade-off with validity in local contexts. The more that comparability is required, the less likely it is for results to be applicable to diverse settings.

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III. Opportunity to Learn (OTL): A framework for supporting learning?

Amy Jo Dowd, Elliott Friedlander, Jarret Guajardo

Progress, crises, and assumptions

Since 1990 when the global movement towards Education for All (EFA) began, great progress has been made. There is ample evidence that more children are going to school and completing a primary cycle. Average primary enrolment rates in low-income countries have risen from 60 per cent to over 80 per cent, and primary completion rates to 60 per cent since 1999 (World Bank, 2011). Yet, as educational investments have brought more children into schools for more years, we have learned the hard lesson that ‘just enrolling in and attending school does not guarantee mastery of even the most basic skills’ (Hewlett, 2012). Children are completing primary school in greater numbers, but the assumption that a primary school ‘graduate’ has necessarily acquired certain skills has not held. For example, ‘more than 30 percent of Malian youths aged 15–19 years who completed six years of schooling could not read a simple sentence; the same was true of 50 per cent of Kenyan youths’ (World Bank, 2011: 6). Building from similar statistics and trends from dozens of countries (see, for example, Gove and Cvelich, 2011; Ochoa, 2011), the Brookings Center for Universal Education (2011: 9) calls such findings representative of ‘a learning crisis around the world that risks reversing significant gains in access – and indeed in improving lives – in many countries’.

So while we celebrate the fact that high proportions of children now reach Grade 5, the actual skills with which they finish this level leave much room for improvement. The 1990 drive for expansion of access to education applied an assumption that expanding schooling outputs such as enrolment and completion would result in enhancing the outcome, i.e. that there would

be more children with more knowledge and skills. In the last few years, however, study after study using various rapid assessments, like the Early Grades Reading Assessment (EGRA) (Research Triangle Institute, 2010) and Assessment Survey Evaluation Research (ASER, 2012), have shown that this assumption cannot be sustained. Many recent studies focusing on basic skills like reading (Bhattacharjea, Wadhwa, and Banerji, 2011; Piper, 2010*a*, 2010*b*, 2010*c*; Uwezo, 2011) and to a lesser extent on simple mathematical concepts (Bhattacharjea, Wadhwa, and Banerji, 2011; Uwezo, 2011) prove that children are struggling to learn.

Capitalizing on this new wealth of evidence, bilateral organizations like USAID, and multilateral organizations like UNESCO and the Global Partnership for Education have reframed their goals and started initiatives challenging educators and the development community in general to propose new solutions and think about next steps. However, the agencies propose a narrow view of solutions to this learning challenge. For instance, in its 2010 EFA Global Monitoring Report, UNESCO stated that:

‘Children in the early grades are not mastering the reading skills necessary for further learning Reading skills can be improved relatively easily. Education ministries and teachers need to renew their efforts regarding these basic skills’ (p. 104, italics added by authors for emphasis).

Setting aside the questionable claim that reading skills development is relatively easy, it is not clear why the international education community should assume that only the institutions that have currently invested in supporting learning are the correct focus for further investments and impact evaluations. It is obvious that children require more quality opportunities to learn. It is not clear that all of the opportunities to learn need to – or even can – happen entirely inside school walls. To solve the problem of learning basic skills, we must expand the daily, weekly, monthly, and annual opportunities that children have to learn these skills.

This paper first presents the story of Grace, a representative Standard 2 learner in southern Malawi, to demonstrate the power of expanding the

current Opportunity to Learn (OTL) framework for effectively supporting learning. Next, it builds a case for expanding the OTL frame through two techniques: verifying that the developed world research findings also prove true in 11 developing country contexts; and formulating and testing new hypotheses for supporting reading skills development in developing contexts. The paper concludes with a call for further hypothesis testing along the lines of an expanded OTL framework to achieve EFA.

An expanded vision of opportunity to learn

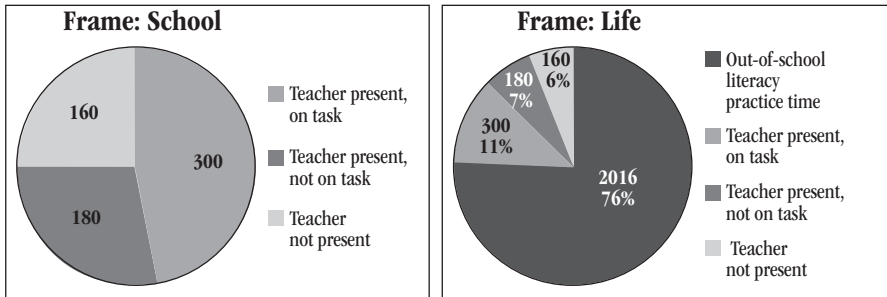
Consider Grace, a 10-year-old girl in southern Malawi. She lives not too far from a market town in a village dominated by round homes with mud walls and thatch roofs. Her home has no books and her parents do not read. She attends school as often as she can in a poorly lit classroom with bad acoustics and bad ventilation. On good days, she has a textbook to share and a view of the blackboard that lets her see most of what the teacher writes. In her Standard (Grade) 2 classroom, a minimally trained teacher works with Grace and 233 other children, using a curriculum which some experts claim cannot enable a child to learn to read.

When Grace goes to school, she spends about four hours in her classroom for eight months a year. Research on OTL tells us that during a quarter of that time, the teacher is not there (Gilles and Quijada, 2008). Furthermore, this research says that for about a third of the time during which both Grace and her teacher are in the classroom together, neither Grace nor her teacher are attending to the task of learning. In the end, Grace's 'opportunity to learn' is effectively only about two-and-a-half hours of on-task time a day for the six months a year that her teacher is there. Two-and-a-half hours, five days a week, for six months a year equals roughly 300 hours of learning a year.

However, this calculation focuses too narrowly on Grace's *in-school* OTL. *Figure 1* presents the enormous potential of expanding the concept of opportunity to learn to encompass time outside of school, in the company of others who are not necessarily teachers by training. As seen in the Figure,

during the eight months school is in session, Grace spends at least 20 hours a day **not** in that classroom. If she sleeps for eight hours, then looking only at classroom learning ignores the **12 hours** still available each day for learning. The darkest grey area in the ‘Life’ frame in *Figure 1* estimates that four of these 12 non-sleeping hours could conceivably be considered time for learning – even something as simple as singing or telling stories while working, for example. *Figure 1* shows the hours associated with the in- and out-of-school time available for learning when we frame OTL by life as compared to school.

Figure 1. Yearly hours available for learning by OTL frame



Source: Guajardo and Ochoa, 2012.

Impact evaluations that focus on Grace’s four hours in school and on how to make that experience of higher quality are missing out more than three-quarters of the time that could be considered in a broader framing of opportunity to learn.

Research in developed countries has shown that quality education is enabled by not only good policy and quality schools but also supportive home/community environments (Tikly, 2011). School-focused studies might improve existing policy and schooling, and may help more children and teachers to be on task for four hours, eight months a year. But framing a focus on learning around Grace’s *life* instead of the small time she spends in school offers more

intervention and investment options. This expands the range of hypotheses to be tested for helping children like Grace learn to read.

Data

This paper draws on the analysis of 11 distinct datasets collected by Save the Children (SC) as part of its routine programme evaluation. SC began investigating the reading and home literacy environment (HLE) in programme intervention settings in 2009, at programme sites that included basic or primary education interventions in which SC believed it could better maximize the potential for impact on learning by looking simultaneously inside and beyond school walls.

In all countries, data from student interviews and student reading assessments were gathered. In a smaller subset of countries, namely Malawi, Ethiopia, and Nepal, a subset of children's homes were visited, the literacy environment observed, and an interview conducted with the most senior or most literate member of the household present to shed further light on materials, reading, and writing in the home. *Table 1* offers an overview of the samples involved in the studies cited in this article. At each site, students were interviewed and their reading skills assessed. In most countries the students were in Grade 3, with exceptions noted above.

As also mentioned above, a variety of data were collected during student interviews and assessments. The students were asked about their background characteristics (age, home language, household possessions, household building materials, etc.) and about their family members and their reading habits in the week prior to the assessment (who they had seen reading, who had read to them, etc.). All students were then administered five sub-tests: concepts about print, letter awareness, vocabulary (reading of most used words), reading fluency and accuracy (words per minute read correctly and total percentage of a passage read correctly, both within the same sub-test), and either reading comprehension questions for those who could read independently or oral comprehension questions for those who could not.

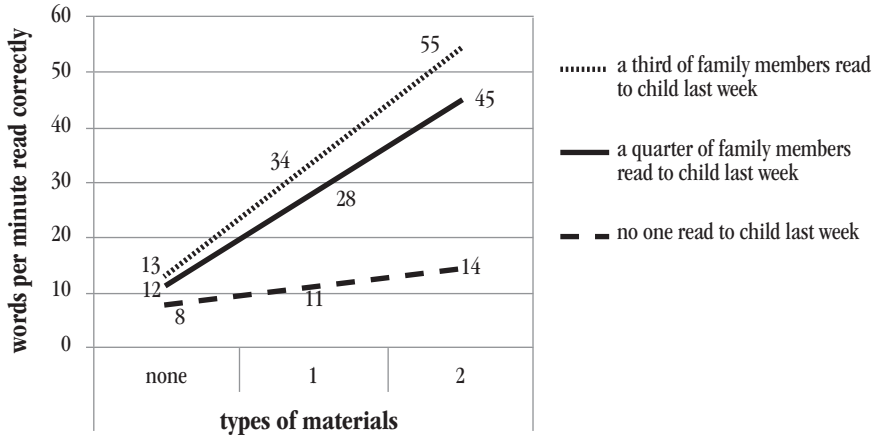
Table 1. Literacy Boost assessment countries and sample sizes

Country	Grade(s)	Number of children	Number of homes visited
Bangladesh	3	623	
Ethiopia – Dendi	3	395	200
Ethiopia – Tigray	3	400	
Guatemala	3	343	
Malawi	2, 4	612	101 (Grade 2 only)
Mali	3	1,158	
Mozambique	1, 2, 3	603	
Nepal	2	214	199
Pakistan	3	234	
Philippines	1, 3	1,426	
South Africa	2	273	
Uganda	3	533	
Viet Nam	3	944	
Yemen	1, 2, 3	659	
Zimbabwe	3	200	

Corroborating findings in new contexts

When SC broadened its research focus from schooling to learning, we discovered repeatedly and across contexts the same correlations found in the developed world that point towards the importance of the home or community environment for learning. For example, in many of our studies, if a child reported being read to by a household member at baseline, multivariate regression analyses accounting for clustering in schools verified that such a child had higher predicted reading skills. In addition, more variety of reading materials in the home significantly correlated with higher predicted reading scores. In *Figure 2*, we see that in Tigray, Ethiopia, material variety and reading at home jointly predict a student’s reading fluency in a positive relationship: the more material types and family members who read, the higher the predicted fluency.

Figure 2. Tigray, Ethiopia: fluency predicted by reading and reading materials



Source: Dowd *et al.*, 2011.

In fact, *Table 2* shows that the presence of reading materials and reading them to children almost always is significantly and positively related to children’s reading scores at baseline.

While the findings are correlational, this evidence led to tests of potential causal relationships. The result was a hypothesis that intervening to increase materials and/or reading activities outside the school might lead to better learning outcomes.

Table 2. Home literacy environment factors related to reading skills by country

	Materials	Being read to
Bangladesh	X	X*
Ethiopia	X	X
Guatemala	X	X
Mozambique	X	not asked
Pakistan	X	X
Philippines	X	X
South Africa	X	X
Uganda		X
Viet Nam		X
Yemen	X	X
Zimbabwe	X	X

*In the case of Bangladesh, we took this a step further to look at reading to others.

Hypothesis testing

The consistency of the significant correlations between HLE and reading skills produced new hypotheses and new strategies for effective intervention. SC hypothesized that more children will learn to read with comprehension if teacher training is combined with materials and opportunities to practise use of reading skills in daily life. To test this hypothesis, SC devised a toolkit to train teachers *and* extend reading opportunities outside the classroom: Literacy Boost. This intervention facilitates out-of-school access to reading materials through initiatives like Book Banks, which are essentially mobile community libraries that hold a collection of a few hundred simple, locally generated stories. Strategies to facilitate out-of-school access to reading activities include: Reading Camps, in which children and a young mentor gather in groups of 20 or so to read aloud and follow a curriculum of fun skill-reinforcing games; Reading Buddies, in which one older child pairs with a younger child to read weekly together to the benefit of both; and

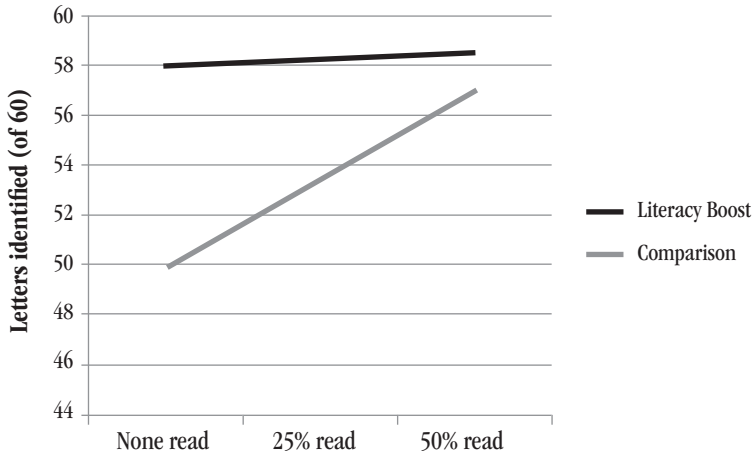
parent workshops, which raise awareness of how to read to children and why reading is important while offering concrete strategies to both literate and illiterate parents to support their children's literacy (Dowd *et al.*, 2010). SC followed the evidence to devise this home or community strand of intervention alongside teacher training. Once field tests began, new impact results led to astonishing discoveries.

Expanded opportunity to learn outside school leads to greater learning

We now go back to Grace. At the end of a full school year in Grace's school in Malawi, household visits showed that – controlling for baseline household literacy attitudes, habits, and actual reading – Grade 2 children who had participated in Literacy Boost reading camps and borrowed books from Book Banks made significantly higher vocabulary reading gains than their peers in the same target schools who did not do so (Wiener, 2010). Importantly, parents who read less with their children at home were as likely or more likely to have children who used these services. So, expanding materials and opportunities to read them enabled the learning of children with impoverished home literacy environments. Similarly in Nepal, Grade 2 children within the Literacy Boost group who reported attending reading camps consistently had significantly higher reading comprehension scores than those within the same group who did not attend regularly or at all (Pinto, 2010). And in Ethiopia, after a three-month intervention, letter knowledge among Literacy Boost students was at near mastery, regardless of the home literacy environment, as seen in the top black line in *Figure 3*.

In the comparison schools (grey slanted line), the home literacy environment remained a strong predictor of letter knowledge among students. This indicates that the Literacy Boost programme may compensate for inequalities in children's HLE.

Figure 3. Letter knowledge by home literacy environment and group

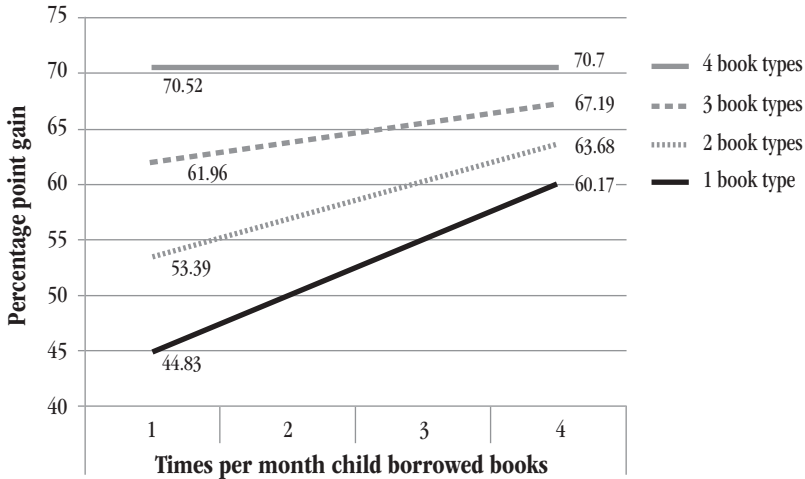


Source: Cao et al., 2011.

Finally, in Pakistan more active borrowing from Book Banks was associated with lower disparities in reading skill gains between students of rich HLE and students of limited HLE. With the same combination of teacher training alongside books to borrow and read in camps and with buddies, gains in Pashto reading accuracy of Literacy Boost students with four types of books at home, are flat in the grey solid line at the top of *Figure 4*. This indicates that more materials and book borrowing have close to no impact on children who already have a variety of books available in the home.

But the more often that children with just one book type at home (solid black line at the bottom of *Figure 4*) borrow books, the closer their gains are to those of peers who live in richer literacy environments. Access to books and reading opportunities helps to reduce the disparity in learning gains for these primary school learners. Findings in these four countries highlight the importance of a broader take on opportunity to learn to include time outside school for making progress in reading.

Figure 4. Pakistan: gain in Pashto reading accuracy by book types and borrowing frequency



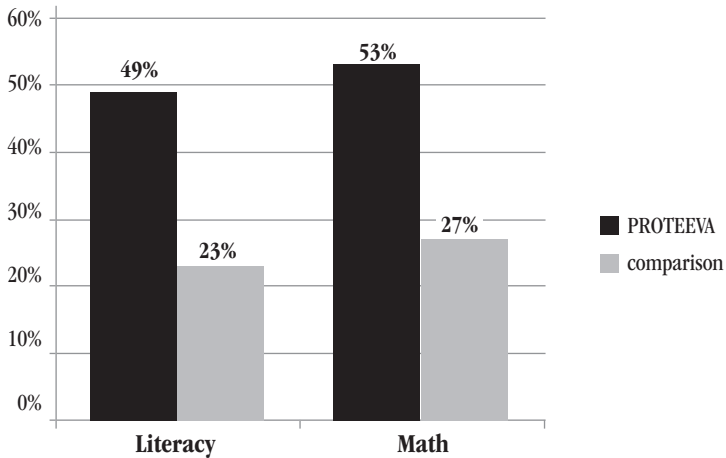
Source: Mithani et al., 2011.

To date, Literacy Boost’s focus has been on children attending primary school. A vast array of research also links oral language and emergent literacy with later academic success (Hart and Risley, 1995; Scarborough, 1998; Hood, Conlon, and Andrews, 2008; Lonigan, Schatschneider, and Westberg, 2008). With a similar toolkit for earlier ages, SC more recently began testing the hypothesis that better support for emergent literacy skills in the early years – at ECD sites and at home – can lead to greater skill levels for when a child does enter school. Only one field test has been completed thus far, with amazing results: in just eight months of the 2011 calendar year, the intervention – a part of the USAID-funded PROTEEVA project in Bangladesh – demonstrated significant impact on learning.

The model in *Figure 5* shows that intervention children significantly outperformed comparison students on all school readiness tests and subtests,

controlling for age, height for age, mother’s education, family assets, and baseline score, with very large effect sizes that range from 1.61 to 1.97.

Figure 5. Average endline school readiness



Source: Aboud and Akhter, 2012.

If the education and international development community keep thinking solely about how to be more strategic in less than a quarter of a child’s life – starting at the age of 6 and not before – and studying only that small time with our impact evaluations, then we are risking further failure in delivering on the promise of EFA. Framing the problem as only school-based and centring the ‘strategic’ investment in impact evaluations on how to make schools more effective misses the opportunity to understand and then influence how life intervenes to affect learning every day, most of the day.

It is convenient and comfortable to study institutions we are used to investing in, giving advice to, and collaborating with. However, given the timetable that the life and reality of someone like Grace presents for school-based learning, school-based interventions or studies of their impact

do not have the potential by themselves to ignite the kind of learning we are after, no matter how many impact evaluations we do around those four hours. Our evaluations, big or small, random or not, need to take into account how learning is used, promoted, or even inhibited in the daily lives of children. Once we understand this more fully, we can use impact evaluation to test changes in a broader range of enabling environments to maximize opportunities to learn, and establish solutions worth replicating. This will move us from schooling to learning.

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IV. Parental empowerment: Lessons from the AGE programme in rural primary schools in Mexico

Paul Gertler, Harry Anthony Patrinos, Eduardo Rodríguez-Oreggia

Introduction

The 1990 Jomtien World Conference on Education for All (EFA) marked a new beginning for many countries to reiterate their resolve to achieve parental empowerment.

Parental participation in school affairs can be seen as a moderate form of school accountability, within school-based management (SBM) programmes (Barrera, Fasih and Patrinos, 2009; Bruns, Filmer, and Patrinos, 2011). The empirical literature points to some impact on enrolment, dropout rates, parental involvement, and student achievement. Parental involvement appears to increase, although the evidence is not overwhelming (Jimenez and Sawada, 2003, 1999; King and Ozler, 1998; Ozler, 2001). The evidence on student achievement is mixed and in most cases, studies estimating the impact on this measure use weak designs. Previous evaluations from Mexico are limited. The urban school-based management programme, Programa Escuelas de Calidad (PEC), was analysed using panel data regression analysis and propensity score matching (Skoufias and Shapiro, 2006; Murnane, Willet, and Cardenas, 2006). Participation in PEC is found to lead to decreases in dropout, failure, and repetition rates. An evaluation of the rural parental empowerment programme Apoyo a la Gestión Escolar (AGE), using pre-programme data over time and the phased-in introduction to construct an over-time difference-in-difference estimator, and controlling for fixed effects, shows a significant impact on reducing failure and repetition rates (Gertler, Patrinos, and Rubio-Codina, 2012). Thus, while there is some evidence on the performance of SBM programmes, little is known about their benefits in terms of learning outcomes. Even fewer studies are based on rigorous impact evaluation techniques or investigate the mechanisms through which SBM

might affect student performance. It is also not clear, in cases in which the parental participation is funded through school improvement grants, whether the observed positive effects are due to the extra resources or the organization and empowerment of parents.

School-based management was a component of the Compensatory Education Programme. AGE started in 1996 and consists of monetary support and training to parent associations (Asociaciones de Padres de Familia – APF). The APFs can spend the money on the purpose of their choosing, although spending is limited to small civil works and infrastructure improvements. The AGE financial support consists of quarterly transfers to APF school accounts, varying from \$500 to \$700 per year according to the size of the school. The randomized experiment creates an enhanced AGE in which schools receive double the allocation (that is, on average \$600 per school) plus training. A third group of schools receive the training, but not the resources. Finally, there is a pure control group.

A three-year randomized evaluation of a parental empowerment programme that provides resources and training to parents to improve rural schools in Mexico took place. The main questions addressed in this research were:

1. What is the impact of doubling the financial resources that parent committees receive under the programme in terms of intermediate school attainment measures such as repetition, dropout, and failure rates, and in terms of outcomes such as learning as measured from standardized tests?
2. What is the impact of training of parent committees on organizational issues in terms of schooling outcomes?
3. What is the impact of school committees when empowered with resources, training, and both in terms of schooling outcomes?

This is a randomized experiment conducted across a representative sample of 400 government-run rural primary schools in four states in Mexico, namely Chiapas, Guerrero, Puebla, and Yucatan, including more than 20,000 primary school students and 400 APFs. Data come from the official school census

(administrative data) and official standardized learning assessment for primary school grades in Spanish and mathematics. For information on the behaviour, attitudes, and participation of teachers, principals, parents, and students, a series of surveys covered the president of the parent association, the principal, and samples of teachers and students from Grades 3 to 5.

Our main outcome measures have been standardized test scores in mathematics and Spanish from Grades 2 to 6. We have found overall improvements in learning outcomes of more than 0.20 standard deviations in schools in which the grant to the APF was increased. There are especially strong effects in standardized test scores for Grade 3 students. Commitment and involvement of parents are relevant according to the teachers. A separate component designed to test the impact of training parents to organize themselves – but with no cash grant – has also proved successful, in comparison with a group of schools receiving neither grants nor training. The effects of training alone are slightly higher than in the case of the cash grant, although the schools are not directly comparable, with a 0.34 standard deviation increase in scores.

This experiment tries to measure the extent to which empowering parents has an impact on education outcomes. Preliminary evidence suggests that this type of programme improves schooling outcomes, especially for those students who remain in the programme the longest. There is a positive effect on outcomes, especially for indigenous schools, in terms of reduced repetition and failure rates, and increased test scores. The programme provides lessons on the use of SBM. Such programmes have the potential to improve outcomes for the poorest. However, to have an effect on education systems, they would benefit from enhanced accountability measures. For instance, the programmes could provide more resources for school committees, and/or increase the level of decision-making at the school, for example, by allowing school committees to have a say in the hiring and firing of teachers.

Background

A three-year randomized impact evaluation of a programme that involves parents directly in the management of schools in highly disadvantaged rural communities was conducted in four high-poverty states in the south with a high concentration of indigenous peoples.

Improving school performance, especially in poor communities, remains a challenge facing most countries. According to the PISA results in 2009, Mexico, a middle-income OECD country, achieved a score of 425 points in reading and 419 in mathematics, comparing poorly with top-performing countries which scored as high as 556 and 600 points, as did the city of Shanghai in China. Mexico is about one standard deviation behind the OECD average and well over one standard deviation behind top performers.

One policy being examined by many developing countries is SBM, which decentralizes responsibility and decision-making powers to local school management committees, in the form of programmes to promote some level of school autonomy in exchange for some level of accountability.

Past research

This study contributes to a sparse but growing literature on school empowerment in developing countries. The empirical literature points to some impact on enrolment, dropout rates, parental involvement, and student achievement.

To take an example from a developed country, England's reforms in 1988 were subject to rigorous evaluation, using regression discontinuity design. Public school autonomy led to significant student achievement effects, with improvements of 0.25 of a standard deviation in pass rates on standardized examinations.

Previous evaluations from Mexico are limited, both in number and in robustness. Mexico's PEC has been evaluated as well, and in at least one state (Colima), modest but positive results have been found. The AGE programme

was evaluated previously, using a retrospective design, and we found positive effects in terms of reductions in repetition and dropout rates, but were not able to test for improvements in learning due to a lack of data at the time.

The AGE programme

The AGE programme decentralizes education decision-making through increased parental involvement in rural primary schools. Our evaluation has focused on variations of the AGE programme, which include doubling the grant and providing capacity building to APFs only.

We have taken advantage of the fact that standardized national test score information (the assessment is known by its acronym, ENLACE) is collected for all students enrolled in the last three years of primary school to assess the impact of the programme on student learning, among other education quality outcomes.

We have followed a sample of 250 experimental primary schools in four Mexican states in which we have randomized the allocation of the extra benefits for a period of three consecutive school years, from the 2007/2008 to the 2009/2010 school year. This experiment is the first one to use test scores to evaluate a rural school-based management programme in Mexico. We examined whether increased parental participation through AGE helped to create a more conducive learning environment and thereby improved student learning outcomes.

The increased parental presence and oversight in schools makes schools more accountable to their end users and, therefore, might ultimately affect student learning.

A unique partnership

The money for the additional funds was transferred directly to selected schools using a trust fund specifically established for this purpose, provided by the private sector as a public–private partnership. The private sector partners include media companies (Cinopolis), financial institutions (Deutsche Bank,

J.P. Morgan, and Western Union) and foundations (Televisa and Lazos). Supervision of the overall experiment was supported by the NGO Investing in Education Foundation. The public/private portion of the project originated with a donation from the royalties of our book published with G. Hall (Gertler *et al.*, 2006). The Mexican Secretariat of Public Education was in charge of implementing the project through the National Council for Education Development (CONAFE, Consejo Nacional de Fomento Educativo) and the state governments, and provided training to APFs on how to manage the funds, organize meetings, and use student assessment information – functions it already delivers to beneficiary schools.

Implications

Our qualitative results suggest that the pathways by which AGE improved performance were through increased parental participation in school matters, and improved relations and communication between parents and teachers. Parents in schools with AGE were more likely to observe and complain about teacher absence and poor teaching. They were also more likely to know when their child was not doing well and take corrective action. The AGE acts to change parental identity and gives them a seat at the table. Empowering parents in SBM is likely to strengthen the positive effects of decentralization.

Government has acted upon the results of this and the previous evaluation. It has consolidated its programmes and expanded AGE, and is now considering changes to the programme – altering funds received, strengthening training, and the graduation of schools. It is also envisaging further impact evaluations of its programmes.

Longer-term implications

However, while the quantitative effects of AGE are strong and consistent, they are modest. The relatively small size of the effects should not come as a surprise given that AGE is a very limited intervention. Interventions that greatly increase the power of parents could be considered and tested.

On the range of autonomy reforms, Mexico's main programmes can best be characterized as weak to moderate. However, on the other dimension of SBM, namely who is given responsibility for the devolved functions, Mexico has made solid efforts to increase community participation. Administrative and professional control models tend to display higher levels of autonomy. The APFs can spend the money on the purpose of their choosing, although spending is limited to small civil works and infrastructure improvements; they are not allowed to spend money on wages and salaries for teachers.

Despite being a limited version of SBM, the AGEs represent a significant advance in the Mexican education system, in which APFs have tended to play a minor role in school decision-making.

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V. Setting conditions on aid for education: Is it an acceptable practice in the 21st century?

Cesar Guadalupe

This paper is the result of a ‘debate’ that took place during the annual meeting of the 2012 International Working Group on Education (IWGE). During the exercise, we had to address a question that aimed to trigger exchanges between a supporting and a contesting team. I took part in the debate as a member of the contesting team and this paper summarizes the main issues I identified. I have decided to keep the colloquial and provocative character of a ‘debate’ in order to remain faithful to the original exercise. As the points I made verbally are now published here, I have amended the structure of my original notes as well as the wording and have also included some examples.

The question we had to address was posed in very simple terms: should countries be required to participate in international studies of student achievement in order to receive international aid for education?

While there are good reasons for countries to be interested in taking part in such studies (at present, more than 100 already do so, although many of them do not require international aid), and all those involved in the field of education could legitimately promote such participation, this is not the same as stating that aid should be tied to it. Ideas were therefore exchanged on this matter.

International studies on students’ learning achievement have been developed for a variety of purposes. Some studies have a more instructional focus like those conducted by the International Association for the Evaluation of Educational Achievement (IEA), or by regional consortia;¹ others, such

1. Examples are the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), the Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (LLECE), and the Programme d’analyse des systèmes éducatifs de la CONFEMEN – Conférence des Ministres de l’Éducation des pays ayant le français en partage (PASEC).

as the OECD-led PISA, are more interested in describing skills acquired by the labour force or by people entering the labour force, irrespective of their educational experiences. Notwithstanding these different attributes, studies of this kind are regarded as the best available source of cross-national comparable information on learning outcomes in participating countries.

While other available statistical information can also enlighten policy debates and decision-making processes, such studies provide evidence, even if only partially, on the most basic purpose of education, namely learning. For this reason, it is advisable for anyone interested in educational issues, and particularly those in charge of defining and implementing educational policies, to rely on the sort of information these studies yield. At the same time, information on learning levels is produced not only by these studies; it can also be produced by different national or international agencies that deploy their own methods. The main difference between the above-mentioned studies and many others is that, at the very least, the methodological attributes of the former are known, while others are conducted without a detailed methodological documentation. This element is important, because the reliability of the information these studies generate can be appraised on the basis of their methodological properties. For this reason, as well as a certain degree of ethnocentrism, some studies are regarded as much more reliable than others. Thus it logically follows that policies can be better informed by the information generated by certain studies, rather than by relying on other efforts.

Finally, given the sound methodological properties some studies have (or are assumed to have), participation in them is also a way of strengthening national teams, since they will be exposed to better practices in the field of educational testing.

Assuming everything that has been said is true, participation in international studies seems to be highly advisable. But advisable does not mean compulsory.

The statement we discussed was not about the benefits or how commendable participation in these studies could be, but about making this

participation a condition for receiving international aid for education. Thus the statement presents several problems for debate by addressing three different questions:

1. *Should international aid for education be conditioned in any way?*

This is a discussion addressed by many practitioners working in international development, especially humanitarian relief. Current trends favour a horizontal relationship between those who provide aid and those who receive it. In a horizontal situation, mutual agreement is more suitable than conditioning since the latter entails an asymmetrical relationship between the parties. An excellent example of current considerations on this matter is given by the *Principles and Good Practice of Humanitarian Donorship* approved by the International Meeting on Good Humanitarian Donorship in Stockholm, June 2003.²

However, it is important to emphasize that international aid should not be wasted as it is funded by taxpayers who are entitled to see their resources used adequately, and also because wasting money has a huge opportunity cost, especially given the high level of human needs that should be addressed on a global scale. From that point of view, it would appear reasonable to consider that aid should be conditioned in order to safeguard and make the most of it. This leads to the second question.

2. *If the answer is yes, who is entitled to set the conditions?*

In order to make the most of international aid resources, it makes sense to establish certain conditions. But conditions can either be imposed by someone who is more powerful (because this person is managing the resources), or negotiated and mutually agreed among the parties.

Thus conditions that are set by mutual agreement in a horizontal setting should not be problematic, but then this is in a context of agreements among states that mandate the bureaucracies to proceed in a given way (when talking about multilateral agencies), or negotiations between two states in a peer-to-peer situation.

2. www.goodhumanitarianandonorship.org

3. *What are the implications of choosing a particular set of conditions?*
Finally, setting conditions for countries also has other consequences that should be spelled out. The most important one is that a ‘condition’ entails a view about what is good, desirable, or even the ‘truth’. For instance, what would happen if a country was seriously interested in measuring student achievement but wanted to do it in a way that was fully aligned to its national curriculum and was not interested in cross-national comparability? Imposing participation in international studies sends a clear message: that a legitimate national option is not as desirable, good, or reliable as the studies someone has decided to choose as the epitome of educational testing. Is there any real and legitimate rationale for sending this message?

Thus, in summary, I suggested that the statement we discussed should be rejected on the basis of democratic principles. Neglecting these principles would lead to serious legitimacy issues.

From a more pragmatic point of view, one should consider that the above-mentioned statement can create a complex dilemma: should we allow countries to continue not being able to guarantee their people’s right to quality education just in the name of democratic principles? Should we allow them to fail in the education they provide as well as to waste the resources that are needed to face the problems, only in the name of democratic principles? Would it not be better to have a small, affordable, democratic fault in order to ensure a better educated society, which in turn will largely atone for that fault? Is this a choice between two evils?

I believe that such a dilemma does not exist, as it would imply choosing between an *actual* evil (acting against basic democratic principles) and a *hypothetical* evil, since no one can ascertain that by not participating in these studies, countries will continue failing in the provision of quality education.³ By

3. Some countries have been able to provide a good education to their citizens long before standardized testing became fashionable, in the same way that a person can be extremely healthy without ever having a blood test or an X-ray image of his or her lungs.

the same token, the actual violation of democratic principles is justified on the basis of *hypothetical* benefits since there can be no guarantee that by making information on learning levels available, policy-making will be improved in any way. Information is not a sufficient condition for modifying practices and, therefore, there is no certainty that information on student achievement will necessarily translate into better policy-making. This expectation is based upon one contestable assumption, namely that some governments fail because they lack information, and most likely that is not the unique or most important reason for this situation.

For the foregoing reasons, I was somewhat amazed to even be part of a debate on this statement. The very fact that the original question was even posed for debate should make us wonder why professionals working at a global level could consider it feasible to ponder such a non-democratic option. I believe one reason for this is related to the fact that these types of practice are not alien to international affairs. Indeed, we have witnessed these practices in the educational arena and outside it in the past. The following provides an example of each case.

1. **In the field of education:** the Education for All Fast Track Initiative (EFA-FTI) was established in order to ensure rapid progress in achieving education for all for children in low-income countries. The main objective was to honour the promise that no country committed to achieving EFA should be prevented from doing so due to a lack of financial resources. This great purpose was served by channelling financial resources to support countries' education sector plans. In this effort, the FTI Secretariat created an 'indicative framework' which we know was the euphemistic name given to a conditionality tool used in the same fashion as the corresponding 'conditionality matrix' used by the World Bank in its loan operations.

This 'indicative framework' was based on some research findings and at least two additional elements, namely good will and lack of understanding of causation in human affairs. The combination of these two elements led the authors to prescribe certain 'benchmarks' that

countries 'should' achieve only because other more successful countries had done so in the past.

The construction of this 'indicative framework' neglected a basic fact of human affairs: if something works in one place, one should not assume that it will necessarily work in the same way in a different time and place.

Thus, among other things, the framework prescribed that countries should be led by the fact that in some 'successful countries' the average salary for a teacher in primary education was equivalent to 3.5 times the GDP per capita. Is this good advice? Would not the size of the GDP per capita matter? As far as I understand, 3.5 of a very small number is most likely a small number, and 3.5 times a big number will certainly be bigger.

In the same way, the framework prescribed that a '100 per cent primary completion rate' was equivalent to the universal primary completion goal. This sounds reasonable until one reads the small print: the 'primary completion rate' used to measure this phenomenon is not what the name suggests (the proportion of people who actually complete primary education), but a relative measure of the size of the population that has access to the last grade of primary education (therefore, to begin with, it is a ratio, not a rate). The problem is that the size of the population that reaches the last grade of primary education increases for good reasons (more individuals are retained by the school and do not drop out before that point in their school trajectory, or more people access the system), and also for negative reasons (a higher grade repetition leads to a larger number of students being held back by the system). Conversely, it can also decrease for good or bad reasons. Thus if a country reduces grade repetition (and other factors are constant) this 'rate' (actually a ratio) will go down and, following the framework, we will be further away from reaching the goal. Finally, since it is a ratio that measures the relative size of a population against a reference population, it can go beyond 1 (or 100 per cent, as mistakenly portrayed in the framework) which can lead to a complete misunderstanding of the situation if the value of the

indicator is, for instance, 1.14 (or 114 per cent as portrayed there). Does this value mean that 114 per cent of the children in a given country are completing their primary education? What is blatant is that, while the suggested way of reading the indicator in a situation such as this is absurd, if the indicator were 100 per cent the situation would be worse since it would give the impression (if portrayed as in the framework) that the goal has been achieved, even though there is no certainty of this at all.

2. **Outside the field of education:** the best example of setting conditions on aid to countries that really need it comes from the field of macroeconomic policy. In the early 1980s, a set of macroeconomic policies was established by a few international organizations and one national government, as the successful recipe for bringing these countries out of economic turmoil. These measures became known as the ‘Washington Consensus’, which seems incongruent, since it was not a consensus at all (but rather an agreement among three powerful organizations that put themselves above the whole world, so that the ‘consensus’ was only among themselves) and it was applied in many places except Washington DC, in which the largest fiscal deficits in the world are validated by the US Congress every year.

Beyond that situation, the policies advocated by the ‘Washington Consensus’ have been heavily criticized almost everywhere and their validity is contestable (as is the case with any policy option). Indeed, they are almost universally regarded as an authoritarian practice which led to particularly harsh living conditions for many people in the world. It can be argued that these ‘social costs’ were a reasonable price to pay for more economic stability, paving the way for economic growth. Nevertheless, I find it particularly difficult to have this discussion when those who advocate – or rather impose – such policies, do so for others and not for themselves. This latter element makes the whole ‘Washington Consensus’ one of the most ethnocentric and colonial events in recent human history.

These examples are intended to illustrate that due respect for countries’ sovereignty is not only an essential democratic principle and moral imperative

for anyone working at an international level, but also valid from a very pragmatic point of view. Entrusting an international bureaucracy with rights to impose policies on countries can have devastating consequences, because bureaucrats – even when highly trained and honestly motivated – can (like anyone else) make serious mistakes caused by their lack of knowledge of concrete situations, or their assumption of certain ideologies or political views that can be legitimately contested.

There is no reason to make the international arena a place in which legitimate views on policy issues are simply transformed into illegitimate arrogance or, even worse, colonial policies.

VI. Impact evaluations in education: Some reflections

Jeffrey M. Puryear

Impact evaluations have become an important tool in the practice of international development and are increasingly being applied to education. They focus on a single question: what impact does a particular intervention have on an outcome of interest? To answer that question properly requires comparing outcomes when the intervention is present with outcomes when the intervention is not present (via a control group or counterfactual). If the outcomes are significantly different, then the intervention has had an impact.

Impact evaluations have at least three uses: they can determine what works, improve efficiency, and promote accountability. In education, however, their ability to determine what works is probably their most important feature. This is because education programmes have typically been evaluated in terms of process (did implementation go as planned?) or intermediate goals (were textbooks provided?), rather than in terms of whether they have met their fundamental objectives (did learning increase?).

The recent emphasis on impact evaluations in the development community reflects a growing – and highly positive – emphasis on results and evidence. The assumption is that policy based on evidence, and on careful impact evaluations, is more likely to achieve its goals than policy based simply on theory or on good intentions. Focusing on results is particularly important for programmes designed to help the poor, whose well-being may depend heavily on whether those programmes produce specific results. Children from poor families, for example, who attend school but fail to reach adequate levels of learning, have little chance of escaping poverty. Knowing which programmes improve learning, and which do not, is crucial.

Not surprisingly, impact evaluations work best when their findings can be easily and rapidly incorporated into education systems and taken to scale. They offer a blueprint for getting results and can help avoid wasting resources on programmes that are ineffective.

Like any useful tool, however, impact evaluations can be misused. The danger lies in focusing too much on inputs that are easily measured, and not enough on inputs that are hard to measure but may be crucial to improving outcomes. An excessive focus on what impact evaluations do well can foster a ‘quick-fix’ mentality and cause decision-makers to ignore at least four key issues.

Context – Success in education is usually a slow process that depends on many inputs working together. Unlike the field of health, in which medicines and vaccines can have an immediate impact on millions of people, education does not have pills that make people smart, or shots that prevent ignorance. Very few discrete techniques, interventions, or materials will significantly increase learning all by themselves. Success requires some broader combination of human and institutional resources (such as watchful supervisors, talented and highly motivated teachers, or performance incentives) that enable specific interventions to make a difference.

Impact evaluations, however, tend to focus on a single intervention, and risk ignoring broader, contextual factors that may condition results. An intervention that succeeds in one context may fail in another. What works for middle-class students may not work for the poor. What works in urban schools may not work in rural schools. Identifying the broader combination of factors that explains the success (or failure) of any single intervention is crucial to understanding results and making good policy decisions.

Evidently, good impact evaluations make a conscious effort to determine the role of context – that’s what control groups are all about. But not all impact evaluations do a proper job of identifying the necessary and sufficient conditions that explain their results. Decision-makers need to realize that key factors explaining success or failure are not always obvious, and may not have

been identified. For example, an evaluation may demonstrate conclusively that an in-service training programme designed to improve teacher performance has no impact. But the explanation may lie less with the programme than with the fact that most teachers have been recruited from the bottom 30 per cent of their graduating cohort, and are not likely to become good performers. If so, then the proper response may not be to develop a new in-service training programme, but to consider a new approach to recruiting teachers.

Impact evaluations do not naturally generate these kinds of conclusions. They are very good at answering the questions they ask, but less good at identifying questions that ought to be asked. Like fish, they may not notice the water. Development professionals need to recognize the limited ability of impact evaluations to address contextual issues, and make a conscious effort to think outside the scope of any particular evaluation.

Action – In a recent discussion on social policy, a senior Mexican official pointed out that ‘it is not enough to know; we have to act’. Changing outcomes requires more than knowing what to do. Agreements must be reached, decisions made, and policies adopted. Without action, good ideas are unlikely to have much impact.

But in far too many countries, perfectly good education policies have simply not been adopted. Sometimes this is because governments do not know what to do. In those cases, impact evaluations can fill the gap, lead to action, and change outcomes.

More commonly, however, governments fail to act because action is difficult. Powerful interest groups may oppose new policies. Ministerial bureaucracies and teacher unions may resist changes that require them to perform at higher levels, give up power, or cut jobs. University students may oppose efforts to raise tuition or graduation requirements. In these cases, the issue is not whether impact evaluations argue in favour of a given intervention, but whether groups whose privileges are threatened have enough power to prevent the intervention from being adopted.

These kinds of problems are particularly common in education, in which power is often concentrated in a few groups, such as education ministries and teacher unions. Governments face pressure to keep such powerful groups happy. As a result, reforms are more likely to focus on measures not opposed by powerful groups, like spending, enrolments, books, computers, and teacher training. Governments do not face pressure from other groups, such as parents and employers. Parents who send their children to public-sector schools tend to be poor, have little information on how well schools are doing, and have little power to influence policy. Those parents who might have the power to influence policy – middle- and upper-class parents – usually opt out of the public system, sending their children instead to private schools. Employers (i.e. the business community) have other priorities when pressuring governments, and tend not to spend their political capital on promoting education reform. The result is a system that favours the status quo and is remarkably resistant to recommendations based on impact evaluations.

In these cases, the obstacles to improvement are more political than technical, and require political solutions. Arguments must be marshalled and communicated, coalitions must be built, and strategies for reform must be designed and implemented.

Impact evaluations seldom address politics, however. They focus on the technical side of education – on interventions that experts can design and control. And because they offer clarity in a field in which clarity is rare, they invite overemphasis on technical interventions. It is easy to focus too much on determining what works, and not enough on how to turn what works into policy. Good policies need to be adopted, not just identified. Doing that is more of a political than a technical endeavour. The practice of international development needs to move beyond the certainty offered by impact evaluations to address the uncertainty that accompanies the political economy of education reform.

Execution – Even when governments recognize and adopt good policies, they often lack the capacity to implement them. Ministries of education may have very limited ability to provide high-quality services. Their leaders may

be mediocre – or worse. They may fail to recruit talented professionals, reward success, or sanction failure. They may be lethargic or corrupt. Standards may be low, evaluation weak, and consequences non-existent. Schools may lack the authority and accountability necessary to provide quality education. These are failures of execution, rather than of policy. They are caused by weak institutions. They are common. In public policy, as Francis Fukuyama has noted, ‘the big failures really come in the execution’.¹

When this is the case, impact evaluations are usually not enough. They are best at assessing particular programmes and interventions. They ask what would happen if those receiving the intervention had not received it. But education institutions are usually different from particular programmes or interventions. Most interventions take place within them. They are broad, complex phenomena that aggregate all sorts of factors that might influence impact, but are difficult to disentangle and evaluate separately. They do many things at once. They change slowly and vary immensely from one country to another. Their complexity makes it hard to identify the link between cause and effect.

Although complex, institutions are crucial. They convert policy into services. They determine whether teachers show up for class, whether books reach classrooms, and whether training influences practice. ‘It is institutions,’ as a recent book on development points out, ‘that determine the fate of nations’ (Acemoglu and Robinson, 2012). Institutions get things done.

For failures of execution, moreover, the question is not whether an intervention has an impact, but why it does not have an impact. The answer usually has less to do with the intervention than with the institution in which the intervention takes place. But impact evaluations focus principally on interventions. They can tell us whether a particular intervention works within a particular institution, but are seldom appropriate for telling us how to make that institution stronger and more effective. Using impact evaluations to

1. Francis Fukuyama, Commencement address, Pardee Rand Graduate School, 23 June 2012.

address institutional weakness evokes the law of the hammer: ‘If all you have is a hammer, everything looks like a nail’ (Maslow, 1966: 15).² Failures of execution, and the institutional weakness that causes them, require other tools.

Long-term effects – Education is by nature a long-term proposition. Some of the most effective interventions in education may not pay off for years, or even decades. We know, for example, that teachers are the most important factor in increasing learning. We also know that successful education systems (e.g. Finland, the Republic of Korea, and Singapore) recruit teachers from the top 10 per cent of graduating cohorts. Only the most talented become teachers in these countries. But policies like recruiting only the best to become teachers take decades to change outcomes, and prove their worth. They are almost never the subject of impact evaluations.

The problem here is not so much that impact evaluations cannot be done, but that doing them is likely to take long periods of time. Since policy-makers tend to have short-time horizons, they have little interest in – and provide little support for – long-term impact evaluations. The danger is one of focus. Impact evaluations risk concentrating too much of our attention on the short term, where they excel, to the detriment of long-term interventions that may ultimately have a greater impact on improving learning. Impact does not always happen quickly.

For all these reasons, impact evaluations are insufficient in the practice of development. At the micro level, they can do a great job of telling us what works and what does not work. The danger is that they may keep us from recognizing that knowing what works is not enough. Success in education requires moving forward on many fronts. That includes not only identifying what works, but understanding what explains success and failure, getting governments to act, strengthening their capacity to execute, and having the patience and foresight to invest strategically in measures that make a major

2. A similar concept in the field of psychology is known as *déformation professionnelle*.

difference over time. Impact evaluations are a necessary but not sufficient part of the complex recipes for achieving education goals.

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Annexes

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II. Schedule of presentations

Tuesday, 12 June 2012

- ***Planning Committee Meeting***

Wednesday, 13 June 2012

- ***Welcome and Opening:***

Welcome remarks : Tamar Manuelyan Atinc (Vice President of HD Network, World Bank)

Statement on behalf of IIEP: Khalil Mahshi (Director, IIEP)

Introduction to the programme: N.V. Varghese (IWGE Secretariat)

- ***Show and Tell: What's Going On***

Seven small round table thematic discussions will take place: access and equity in conflict-affected fragile states; ECD; education for sustainable development; gender and equity; ICT; learning outcomes; teacher policies; and tertiary education.

- ***Presentation: The Poor State of Student Learning***

Lant Pritchett (Harvard University)

Discussants: Maureen McLaughlin (US Department of Education);

Kathy Bartlett (Aga Khan Foundation); Demus Makuwa (IIEP/SACMEQ)

- ***Plenary: Effective Systems for Improving Learning Outcomes***

Chair: Mmantsetsa Marope (UNESCO)

Discussants: Mary Jean Gallagher (Ontario Ministry of Education);

Halsey Rogers (World Bank)

Thursday, 14 June 2012

- ***Planning Committee Meeting***

- ***A Conversation on Impact Evaluation***

Chair: Suzanne Grant Lewis (IIEP)

Discussants: Ariel Fiszbein (World Bank);
Jeff Puryear (Inter-American Dialogue)

- ***A Debate on Student Assessment***

Chair: Alberto Rodriguez (World Bank)

Affirmative team: Marguerite Clarke (World Bank); Luis Crouch (GPE)

Negative team: Dan Wagner (University of Pennsylvania);
Cesar Guadalupe (UIS)

- ***Investment Priorities and Interventions to Enhance Learning Outcomes***

Chair: Peter Colenso (Children's Investment Fund Foundation)

Discussants: Paul Glewwe (University of Minnesota);
Harry Patrinos (World Bank); Felipe Barrera (Harvard University);
Amy Jo Dowd (Save the Children)

- ***Moving beyond the MDG Agenda in Education***

Chair: Elizabeth M. King (World Bank)

Discussants: Dzingai Mutumbuka (ADEA); Kevin Watkins (Brookings Institution); Nick Burnett (Results for Development Institute); Karen Mundy (Ontario Institute for Studies in Education); Katie Donohoe (Acting Director of Education, USAID); Susan Durston (UNICEF)

- ***Conclusion and Closing*** (World Bank and IWGE Secretariat)

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Evaluation – innovation – supervision

Different levels of formal education

Primary to higher education

Alternative strategies for education

*Lifelong education – non-formal education – disadvantaged groups –
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