Learning from learning assessments to leave no one behind

15 June 2016

The Research for Equitable Access and Learning (REAL) Centre at the University of Cambridge

Learning from learning assessments
to leave no one behind

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REAL Centre Conference: Wednesday 15 June 2016
Faculty of Education, University of Cambridge, Room DMB GS4

Of the world's 650 million primary school age children, 250 million are not learning even basic skills in reading and mathematics. World leaders have committed to overcome this 'global learning crisis' by ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all by 2030 (Education Sustainable Development Goal 4). The global goal focus on leaving no one behind is vital, with some evidence showing that inequalities in learning within countries are wider than inequalities across countries.

The aims of this event are threefold:

1. to identify lessons for public policy using existing international and regional learning assessment data, with a focus on countries furthest from achieving global goals.
2. to highlight innovations needed in learning assessment data, both in relation to the measurement of learning as well as different forms of disadvantage (notably poverty, gender and disability).
3. to promote ways to ensure learning tools and data are publicly available, enabling researchers to maximise methodological rigour in the use of the data and widen the policy debate.

Programme

9.30 – 10.00   Registration and Coffee

10.00 – 10.10 Welcome and opening remarks

   Pauline Rose, Director of REAL Centre, University of Cambridge

10.10 – 10.30 Opening keynote address:
   Why a data revolution in education is needed to leave no one behind

   Kevin Watkins, Director, Overseas Development Institute

10.30 – 12.00 Panel 1: Using learning data to inform public policy

- **Ricardo Sabates**, University of Cambridge:
  Patterns of learning inequalities within countries: Lessons for public policy in low and lower middle income countries
- **Caine Rolleston**, Young Lives/UCL Institute of Education:
  Assessment for Effectiveness and Equity: Lessons from a Longitudinal Study
- **John Jerrim**, UCL Institute of Education:
  From PISA to policy to practice: learning from England

   Chair: **Anna Vignoles**, University of Cambridge

12.00 – 13.15 Lunch

13.15 – 14.45 Panel 2: Measurement and analysis to leave no one behind

- **Justin Sandefur**, Center for Global Development:
  Girls' Schooling vs Girls' Education
- **Nidhi Singal**, University of Cambridge:
  Including children with disabilities in the assessment of learning
- **Monazza Aslam**, University of Oxford and REAL Centre Associate Member:
  Evaluation: more than an after thought? India's Activity-based Learning programme

   Chair: **Christopher Colclough**, University of Cambridge

14.45 – 15.00   Coffee and Tea Break

15.00 – 16.30   <u>Panel 3: New approaches to assessing learning to leave no one behind</u>

- **Lucy Lake**, Camfed:
  Assessing learning at secondary level: Lessons from Camfed's experience
- **Luning Sun**, University of Cambridge:
  New developments in assessing reasoning ability using open source approaches
- **Anna Vignoles**, University of Cambridge:
  Creating longitudinal data from databases in developing countries: Lessons from existing efforts

Chair: **Philippa Lei**, Malala Fund

16:30 – 17:15   <u>Closing remarks: Lessons learnt and next steps</u>

- **Ed Davies**, DFID
- **Mary Metcalfe**, Open Society Foundations
- **Silvia Montoya**, UNESCO Institute for Statistics
- **Pauline Rose**, University of Cambridge

17.15 – 19.00   Drinks reception – Room GS1

Abstracts

Panel 1: Using learning data to inform public policy

- **Ricardo Sabates:** *Patterns of learning inequalities within countries: Lessons for public policy in low and lower middle income countries*
  While improving learning and reducing learning inequalities are at the heart of the Sustainable Development Goal for Education, there is little empirical evidence about patterns of learning inequalities in low and lower middle income countries that can inform public policies. Although lack of data may be seen as a potential limitation, we argue that current data on learning inequalities can be used wisely to effectively draw public policy lessons. Using different sources of learning data, both cross nationally and longitudinally, we present 4 key strategic uses of data to inform public policies. First, data on learning and learning inequalities has to account for access otherwise inequalities in learning are likely to be underestimated. Secondly, progress in learning for the poor has to be measured in terms of their absolute progress, and also relative to progess for the rich. We show that improving learning for the poorest children in absolute terms and closing the learning gap between the poor and the rich over time has been possible for a number of countries. Thirdly, tracking progress longitudinally is a powerful tool for understanding the changing nature of learning inequalities over the course of educational trajectories. Finally, data that enables linking children learning to schools, classrooms and teachers makes it possible to identify the role of educational quality for reducing learning gaps between poor and rich in the context of resource constrained systems.

- **Caine Rolleston**: *Assessment for Effectiveness and Equity: Lessons from a Longitudinal Study*
  Recognition of the existence of a 'global learning crisis', alongside the development of the SDGs to include 'learning goals' have drawn attention to the scarcity of learning outcomes data in many and middle income countries, few of which have been involved in international assessment exercises such as PISA. While cross-sectional studies are essential to establish and benchmark achievement levels, a more thorough understanding of the extent to which the 'learning crisis' is due to a widespread 'crisis of school quality' requires longitudinal data. Young Lives is a comparative study of four countries – Ethiopia, Peru, India and Vietnam, which has followed 12,000 children since 2002, collecting data at households, schools and communities. The data permit identification of the 'value-added' by education systems, schools and teachers to children's learning progress in comparative perspective. Findings show that there are very large differences in educational effectiveness (and apparently cost-effectiveness) between countries and that furthermore, differences in effectiveness are often linked to axes of advantage society, potentially compounding the effects of disadvantage due to poverty on educational

outcomes. In Peru, findings show that disadvantaged pupils in the same schools as more advantaged peers appear to benefit less from improved school quality, while in Vietnam, the public school system is found to have a comparative pro-equity orientation.

- **John Jerrim**: *From PISA to policy to practice: learning from England*
  This talk will discuss the strengths and weaknesses of PISA as a tool for education policy. It will discuss this in the context of two European countries (Spain and England) and give a personal opinion of how we should move from policy to practice.

Panel 2: Measurement and analysis to leave no one behind

- **Justin Sandefur**: *Girls' Schooling vs Girls' Education*
  This presentation will show that (a) girls' schooling is a poor predictor of literacy rates, and (b) the conventional wisdom about the high social returns to girls' schooling actually reflects an even higher return to girls' learning. For example, fertility and mortality rates decline when schooling generates literacy, but does not otherwise.

- **Nidhi Singal**: *Including children with disabilities in the assessment of learning*
  This presentation will draw attention to the need to include children with disabilities in international assessment efforts, particularly given that assessment is key to monitoring quality of learning for achieving the education SDG. Based on research done with partners in ASER Pakistan, it will highlight significant learning gaps among children with disabilities when compared with those without disabilities. I will then present current efforts being made in the Teaching Effectively All Children (TEACh) Project to adapt and broaden measures of learning to include children with disabilities. The presentation will conclude with reflections on what to learn from this on-going work.

- **Monazza Aslam**: *Evaluation: more than an after thought? India's Activity-based Learning programme*
  The quest to provide quality schooling for all has led many governments to choose innovations in pedagogy as an instrument of choice for boosting learning. Activity Based Learning (ABL) - a child-centric and activity-based pedagogy – provides an example of a pedagogical innovation that has been at the forefront of educational reform. What makes the ABL story exceptional is that not only was it a significant departure from the status quo, but it was accepted, supported and then replicated in an exceptional manner. From its humble beginnings as merely an idea, to being piloted in only 13 schools in Chennai district, this then became the norm of schooling across a state – Tamil Nadu – far larger than many countries. This initiative has then emerged in various guises the world over despite limited robust evidence of its effectiveness. Whilst the pedagogic evaluation studied in this research attests to many positive features that have been achieved through

the ABL programme and that have been shown to be transplantable to other contexts, the evidence on learning outcomes is less convincing. This is in part due to lack of availability of good quality data. Whilst a lack of conclusive positive evidence on the merits of this intervention in terms of improved student outcomes has been less important in the roll out (and subsequent enthusiasm) across Tamil Nadu and within India, this lack of evidence has been a critical factor constraining international scale up. This study argues that to truly assess whether a programme have met its targets, evaluation needs to be an 'initial' rather than an 'after thought' with tools for assessment clearly designed to be informative and diagnostic and with care taken to ensure a multi-faceted evaluation is achieved. This necessitates generating quality data.

Panel 3: New approaches to assessing learning to leave no one behind

- **Lucy Lake**: *Assessing learning at secondary level: Lessons from Camfed's experience*
  This talk will discuss the strengths and weaknesses of PISA as a tool for education policy. It will discuss this in the context of two European countries (Spain and England) and give a personal opinion of how we should move from policy to practice

- **Luning Sun**: *New developments in assessing reasoning ability using open source approaches*
  Fostering the development of reasoning ability is one of the fundamental objectives of the formal education. However, assessing reasoning ability has been challenging, due to limited reliability and validity of the measurement instruments. Recent advancement in psychometrics has provided a number of useful solutions, which remarkably benefit the research and practice of reasoning ability assessment. Particularly, using open source approaches, we are able to efficiently share knowledge and effectively contribute to the development of new assessment methods. For instance, International Cognitive Ability Resource (ICAR), a public-domain and open-source tool, aims to provide a large and dynamic bank of cognitive ability measures for use in a wide variety of applications. Another example is Concerto, an open-source online testing platform. It allows users to create various online assessments, from simple surveys to complex IRT-based adaptive tests. Lastly, R software provides a powerful language and environment for statistical computing and graphics, which revolutionises the research in reasoning ability assessment.

- **Anna Vignoles**: *Creating longitudinal data from databases in developing countries: Lessons from existing efforts*
  An important need that emerges while surveying existing large-scale databases is the lack of longitudinal data. Longitudinal data, when available, have been effectively used in education research to provide empirical evidence and improve theoretical understanding of

the importance of early environmental factors on a child's development from birth (and indeed even pre birth with pregnancy conditions influencing aspects of children's early development). Such longitudinal data has also been used to model the impact of educational institutions and resources on educational and labour market outcomes. Most of this research has however, relied on data from developed countries. Creating high quality longitudinal data sets with which to study child development in a developing country context is essential and indeed some progress has already been made with data sets such as Young Lives. These longitudinal data can also potentially be substantially enhanced by linkage to administrative data sets and there may be opportunities to create useful longitudinal data sets which blend survey and administrative data. In this presentation, the presenter answers two key questions: Why are longitudinal data essential to better understand the factors that influence children's educational achievement and resulting inequalities in developing countries? What can we learn from existing longitudinal data collection efforts elsewhere in the world to develop similar quality data sources in developing countries that are context sensitive and cost effective?

Biographies

Monazza Aslam is an Education Economist whose research over the last decade has investigated children's learning outcomes and teacher effectiveness in India and Pakistan. In addition to serving as an Associate Fellow at IDEAS Pakistan, Dr. Aslam is also an Honorary Senior Research Associate at the Institute of Education (UCL)and a Senior Research Fellow at Idara-Taleem-o-Agahi (ITA) which houses and implements the Annual Status of Education Report (ASER), an annual assessment of children's learning outcomes in Pakistan. She is also an associate researcher at the REAL Centre, University of Cambridge.

Christopher Colclough is Emeritus Professor of Education and International Development and Life Fellow of Corpus Christi College, University of Cambridge. A development economist, he has published extensively on problems of education, human resources and development. He was the founding Director (2002-4) at UNESCO of the Global Monitoring Report on Education for All. At Cambridge he was, until 2014, Director of the Centre for Education and International Development where, inter alia, he headed a five-year multi-country research programme on education outcomes and poverty (RECOUP). Earlier research, as a Professorial Fellow of IDS, included work on the linkages between primary education and economic development, on social-sector financing, on development theory and on economic adjustment, particularly in Africa.

Edward Davies is currently education adviser in the Department for International Development's Education Policy Team in the UK and will be taking up the role as team leader and senior adviser for DFID's education programmes in Pakistan. Previously he was DFID education adviser in Serra Leone, Education Development Planner for the Government of Montserrat and Director of the Western Region for CFBT in Abu Dhabi. Prior to embarking on international work Edward was a teacher and held senior roles in schools and Camden local education authority in England. He has undergraduate and postgraduate qualifications from the universities of Newcastle-upon-Tyne, King's College London, University of York and the Institute of Education where he has contributed to the teaching of the masters programme.

John Jerrim is a Reader in Educational and Social Statistics at the UCL Institute of Education. He has worked extensively with the OECD datasets, including PISA, PIAAC and TIMSS. He is a Thomas J Alexander fellow, and is leading the PISA 2015 national reports for three countries: England, Wales and Northern Ireland.

Lucy Lake is Chief Executive Officer of Camfed International, an organisation dedicated to supporting girls through education and young women to step up as leaders in Africa. Camfed's model has been acclaimed internationally, most recently by the OECD which has recognised Camfed for best practice in taking development innovation to scale. For a recent article describing Camfed's impact, see Jordan Shapiro in Forbes, 'How some of the poorest girls in the world get exactly the education they need'. Lucy took up the position of CEO in 2012 having previously been Camfed's Director of Programmes & Deputy Executive Director over 18 years. During this time, Lucy led Camfed's development as a transformative model of investment in girls' education through which its clients – as educated young women – take the reins and join forces with local and national government authorities to lead change for the younger generation of girls. Lucy is a founding member and former Co-Chair of the Global Advisory Committee of the United Nations Girls' Education Initiative (UNGEI).

Philippa Lei is Director of Policy and Advocacy at Malala Fund, developing and leading the organisation's advocacy for girls' quality secondary education. She has worked in development policy, advocacy and programming for the past 13 years, with a particular focus on child protection and education, most recently as Head of Education Policy and Advocacy at Save the Children UK. Most of Philippa's education work has centred on education in emergencies, education in the post-2015 development agenda and education for children with disabilities. She has written several papers on international education, including Save the Children's viewpoint paper for the Post-2015 Consensus project and the Malala Fund's Beyond Basics and Not Lost reports.

Mary Metcalfe has worked in education since 1974 as a teacher, principal, and lecturer. She served as the Provincial Minister of Education in Gauteng in South Africa after the first democratic elections in 1994 until 1999, and then for Agriculture, Conservation, Environment and Land Affairs from 1999 - 2004. She was the Head of the School of Education at the University of the Witwatersrand from 2004 to 2009 before joining the Department of Higher Education and Training as Director General in 2009. She worked as the Lead Sector Specialist in Social Infrastructure at the Development Bank of Southern Africa between 2011 and 2013 in which time she worked on conceptualising systemic improvement in education in a broad collaborative process within the sector. She is a Visiting Adjunct Professor at Wits School of Governance and serves on several South African not-for-profit boards including Corruption Watch. She is the chairperson of the General Education Advisory Board of the Open Society Foundations and serves on the advisory committee of the TJ Alexander Fellowship Programme of the OECD. She is currently the Stakeholder and Change Director of the Programme to Improve Learning Outcomes, an NGO established to pilot-at-scale a model for education system improvement which is being implemented in 1 500 schools in South Africa. In addition, she currently is the Deputy Chair of the Gauteng Premier's Eminent Persons Group on Social Cohesion, and is serving on the mediation panel to resolve conflict in Vuwani, Limpopo.

Silvia Montoya became the Director of the UNESCO Institute for Statistics (UIS) in 2015. She represents UNESCO as the co-leader of the Sustainable Development Goal 4 and co-chairs the UNESCO Technical Advisory Group on thematic indicators for education. Prior to joining the UIS, Ms Montoya was the Director-General of Assessment and Evaluation of Education Quality at the Ministry of Education, Buenos Aires where she oversaw the creation of the first comprehensive education quality index produced in Argentina and coordinated Argentina's participation in several major international assessment programmes. Ms Montoya was professor and researcher at the Catholic University of Argentina. She holds a Master's and PhD in Policy Analysis from the Pardee RAND Graduate School, and a Master's in Public Administration from Kennedy School of Government at Harvard University. Ms Montoya is the author of many publications on education, vocational training and labour market issues.

Caine Rolleston is Senior Lecturer in Education and International Development at University College London Institute of Education (UCL-IOE). He has worked on education and international development in a range of countries including Ghana, Vietnam, Ethiopia, Peru, India and Sri Lanka and is currently Senior Education Associate for the Young Lives comparative international study of childhood poverty, based at the University of Oxford. At Young Lives Caine leads the development of school surveys and research on school effectiveness. His research interests include issues in the economics of education in developing countries, educational access and equity, privatisation, learning metrics and trajectories, longitudinal studies in education and development, cognitive and non-cognitive skills development and survey design

Pauline Rose joined Cambridge University in February 2014 as Professor of International Education, where she is Director of the Research for Equitable Access and Learning (REAL) Centre in the Faculty of Education. She is also Senior Research Fellow at the UK Department for International Development. Prior to joining Cambridge, Pauline was Director of the EFA Global Monitoring Report (from August 2011) during which time she directed two reports on youth, skills and work, and on teaching and learning. Pauline is author of numerous publications on issues that examine educational policy and practice, including in relation to inequality, financing and governance. She has worked on large collaborative research programmes with teams in sub Saharan Africa and South Asia examining these issues. She is currently Principal Investigator on a project funded by the Economic and Social Research Council (ESRC) and DFID on Teaching Effectively All Children (TEACh) in India and Pakistan, and leads the education theme on the ESRC-DFID Impact Initiative. Throughout her career, she has worked closely with international aid donors and non-governmental organisations, providing evidence-based policy advice on a wide range of issues aimed at fulfilling commitments to education for all.

Dr Ricardo Sabates is Reader in Education at the University of Cambridge. His research interests include issues of education in the context of development, in particular the role of parents, schools and other institutions in narrowing educational inequalities over time. Ricardo has produced important evidence in the field of education using large scale datasets, applying quantitative methods to policy relevant questions. In particular, Ricardo has published about educational access in Sub-Saharan Africa, determinants of school dropout and the role of school exclusion in increasing inequalities.

Justin Sandefur is a senior fellow at the Center for Global Development. Prior to joining CGD, he spent two years as an adviser to Tanzania's national statistics office and worked as a research officer at Oxford University's Centre for the Study of African Economies. His research focuses on a wide range of topics, including education, poverty reduction, legal reform, and democratic governance.

Nidhi Singal is a Senior Lecturer in Inclusive Education at the Faculty of Education. Her research is focused on addressing concerns around educational access and participation of children with disabilities in Southern contexts. She is particularly keen on exploring models of inclusive and innovative pedagogy in mainstream classrooms in these settings. She has lead on various international research projects, such as the Disability, Education and Poverty Project, under the aegis of RECOUP, which was a five year project across India, Pakistan, Ghana, and Kenya (2005-2010). Among her current projects are the Teaching Effectively All Children (TEACh): India and Pakistan and The Impact Initiative, both funded by ESRC-DFID. She is a member of the REAL Centre and leads on the Access, Teaching and Learning strand.

Luning Sun is Research Director of The Psychometrics Centre. He completed his PhD at the University of Cambridge in 2014 with the support of a Gates Scholarship. He is currently working on an ESRC-funded project to develop international cognitive ability resource. He is also a visiting scholar at the Oliver Zangwill Centre for Neuropsychological Rehabilitation, where he applies advance statistical methods and psychometric analysis to secondary data of neuropsychological evaluation.

Kevin Watkins is Executive Director of the Overseas Development Institute. He is a non-resident senior fellow at the Brookings Institution and a senior visiting research fellow at the Global Economic Governance Programme at Oxford University. Previously, he was the director and lead author of UNESCO's *Education for All Global Monitoring Report* (2007 to 2010) and the UNDP Human Development Report, where he led the research on reports covering global poverty and inequality, the global water crisis, and climate change. Prior to working with the United Nations, he worked for thirteen years with Oxfam, where he authored major reports on African debt, international trade and Oxfam's Education Report. He holds a BA in Politics and Social Science from Durham University and a doctorate from Oxford University. His research interests include poverty and inequality, education, approaches to equity in public spending and inclusive economic growth.

Anna Vignoles is Professor of Education and Director of Research at the Faculty of Education, University of Cambridge and a trustee of the Nuffield Foundation. Anna has extensive experience of using large scale administrative data to study factors relating to pupil achievement and students' outcomes from education. She has published widely on widening participation into higher education and on the socio-economic gap in pupil achievement. Her research interests include issues pertaining to equity in education, school choice, school efficiency and finance, higher education and the economic value of schooling. Anna has advised numerous government departments, including the Department for Education, the Department of Business, Innovation and Skills and HM Treasury.

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