

Trends and perspectives in data reporting, dissemination and use for policy and practice in Africa

Sally Robertson, Research Fellow,
Australian Council for Educational Research
TALENT Workshop, Dakar
27-30 November 2018



Presentation Overview

- ACER's Centre for Global Education Monitoring (GEM)
 - Purposes of assessment
 - Assessment data reporting, dissemination and use for policy and practice in Africa
- 



ACER and the Centre for Global Education Monitoring (GEM)

ACER

- Australian Council *for* Educational Research
- Established in 1930 as a not-for-profit research organisation
- *ACER's mission:* Creating and promoting research-based *knowledge, products and services* to improve learning



Australia



India



Indonesia



Malaysia



United Arab
Emirates



United Kingdom

ACER research



Centre for
Global Education
Monitoring



Centre for
Education Policy
and Practice



Centre for
Assessment Reform
and Innovation



Centre for
Science of Learning
@ ACER

ACER Centre for Global Education Monitoring (GEM)

- The GEM Centre supports the monitoring of educational outcomes worldwide to inform evidence-based education policy aimed at improving educational progress for all learners.
- Collaboration between ACER and DFAT



GEM key areas



System Strengthening

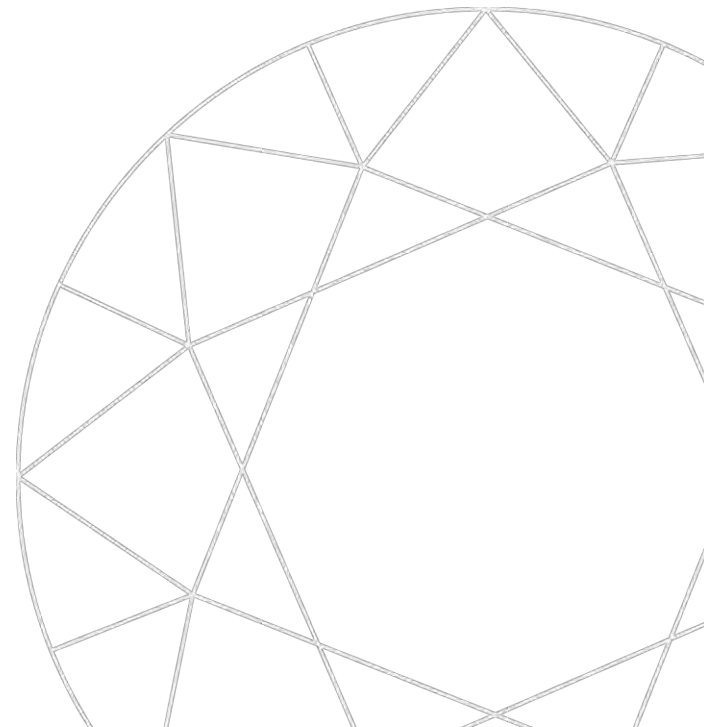


Education 2030



Reviews and Analysis


Purposes of assessment





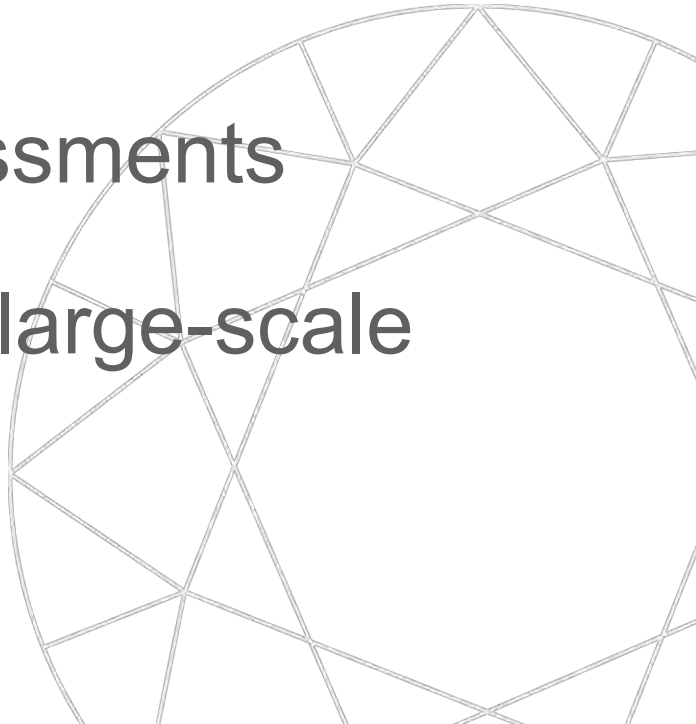
Assessment purpose

“The fundamental purpose of assessment in education is to establish and understand where learners are in an aspect of their learning at the time of assessment.”
(Masters, 2014, p. 1)





Components of an assessment system

- Classroom based assessments
 - Examinations
 - National large-scale assessments
 - International and regional large-scale assessments
- 

Classroom based assessments

- For monitoring the progress of individuals and providing information to determine appropriate pedagogical response



Examinations

- For monitoring the progress of individuals and to aid the selection of future educational pathways



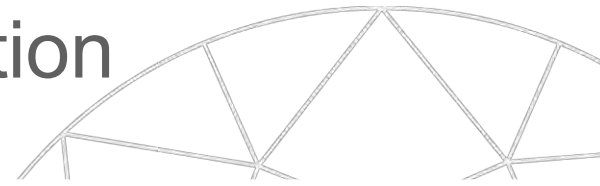
National large-scale assessments

- Census based: For monitoring the health of the education system
- Sample based: For monitoring the progress of individuals, for accreditation purposes, or to aid the selection of future educational pathways
- For making sub-national comparisons of educational outcomes such as between provinces



International and regional large-scale assessments

- For benchmarking national performance against that of other countries
- Can be used for sub-population monitoring purposes



Regional assessments

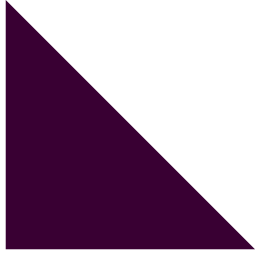


Source: <http://www.seaplms.org/seaplms/index.php/countries>



International assessments

- PISA (Programme for International Student Assessment)
 - TIMSS (Trends in International Mathematics and Science Study)
 - PIRLS (Progress in International Reading Literacy Study)
 - ICCS (International Civic and Citizenship Education Study)
 - ICILS (International Computer and Information Literacy Study)
- 

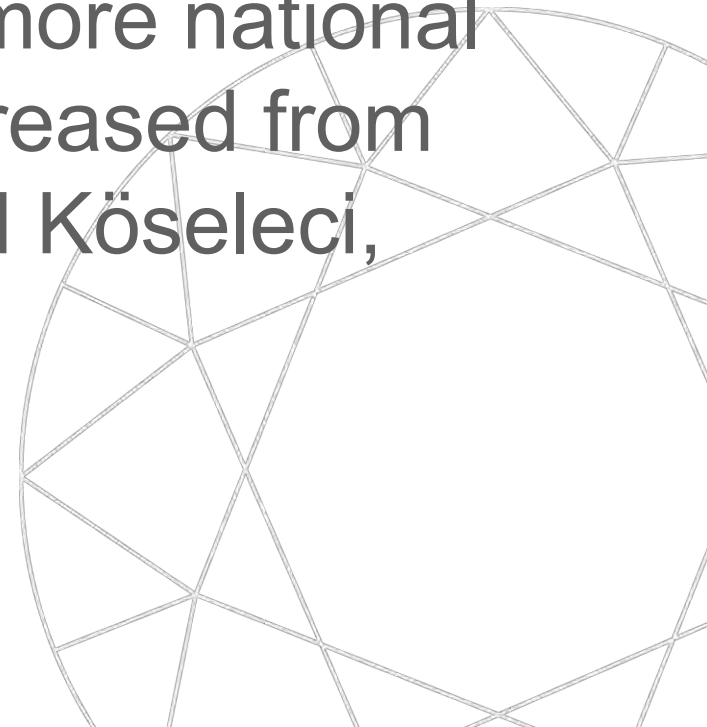


Assessment data reporting, dissemination and use for policy and practice in Africa



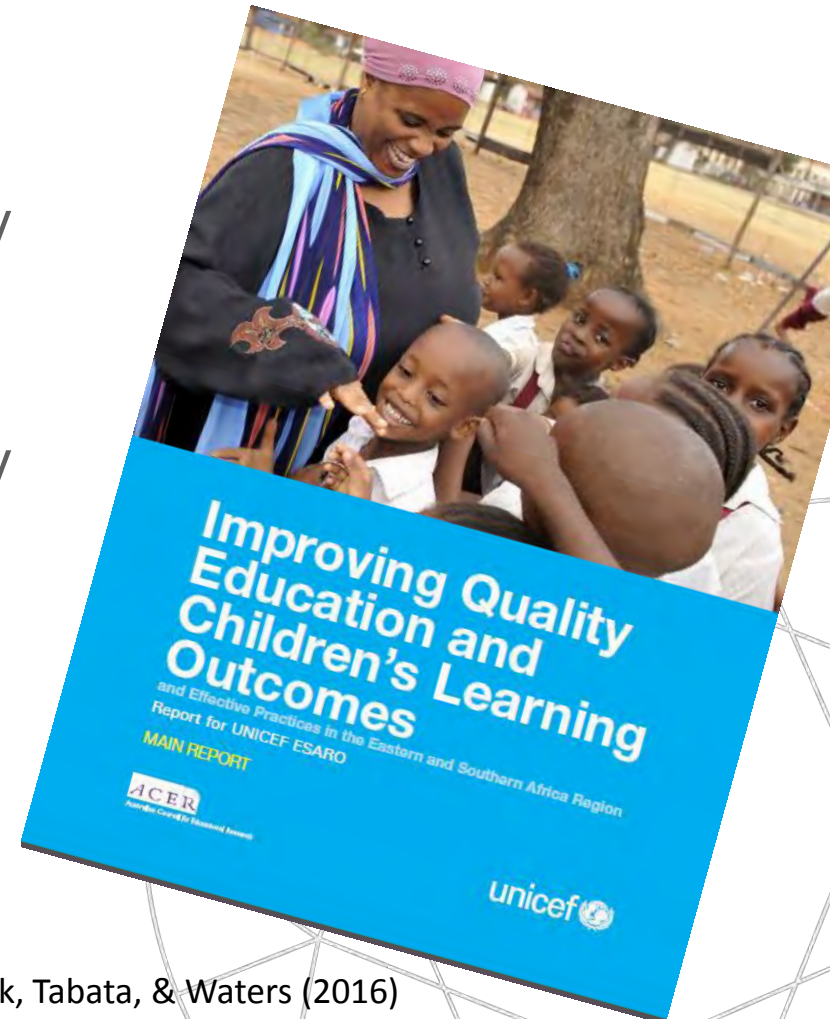
Sub-Saharan Africa: Participation in large-scale assessments

- Between 1990 and 2013, the percentage of countries in Sub-Saharan Africa conducting one or more national learning assessments increased from 35% to 61% (Benavot and Köseleci, 2015)



Improving Quality Education and Learning Outcomes and Effective Practices: Eastern and Southern Africa

1. Analysis of the existing assessments of student learning outcomes in literacy and numeracy in primary education in the region
2. Characteristics of children experiencing limited learning outcomes in literacy and numeracy
3. Effective country-level practices in the region that could improve learning outcomes in the literacy and numeracy of disadvantaged children in primary education.

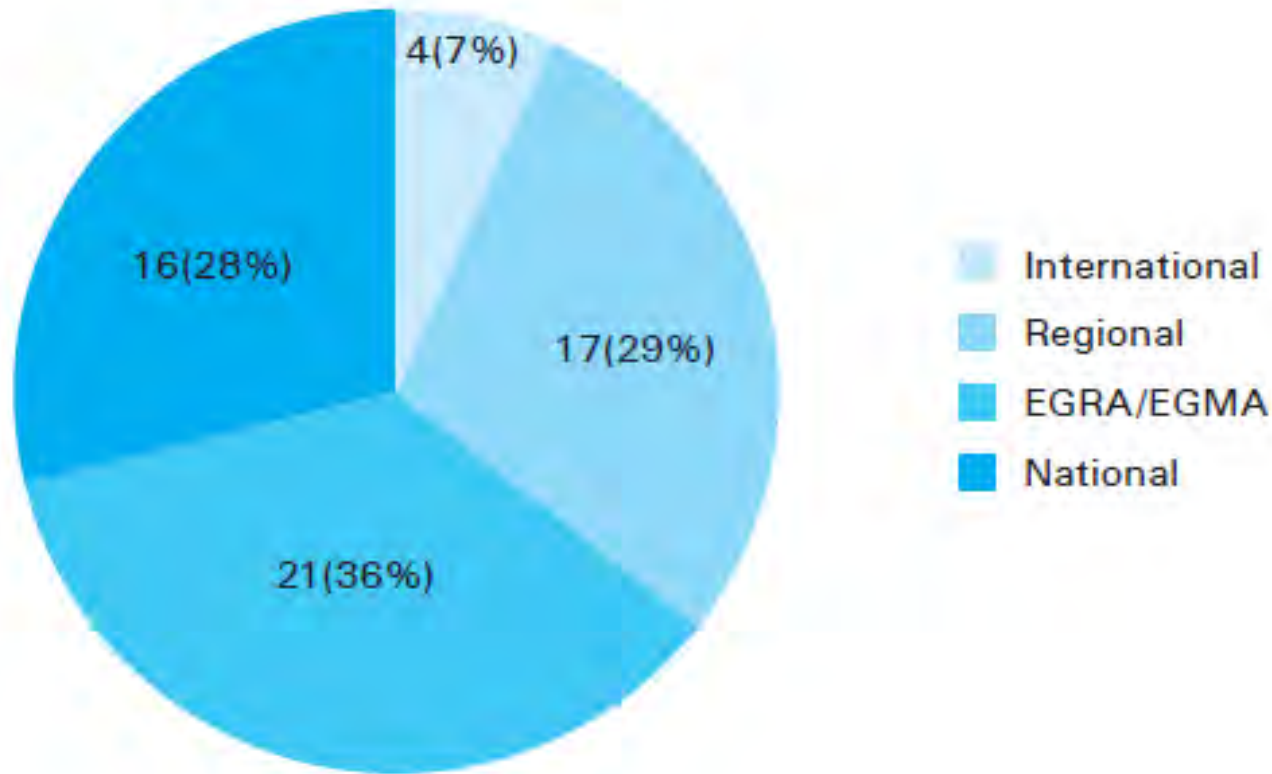




Assessment stock-taking

- Eastern and Southern Africa region
 - Study covered 23 countries and identified 58 existing assessment systems
 - Assessments implemented from 2007 up to 2014/2015
- 

Assessments from the stock-taking by type of assessment



Stock-taking: Participation in different types of assessments

- 2 countries have participated in international assessments (TIMSS, PIRLS, prePIRLS)
- 14 countries have participated in regional assessments (SACMEQ, PASEC, Uwezo)
- 13 countries have national assessments
- 12 countries have completed one or more implementations of EGRA/EGMA

Stock-taking: Purposes of assessments

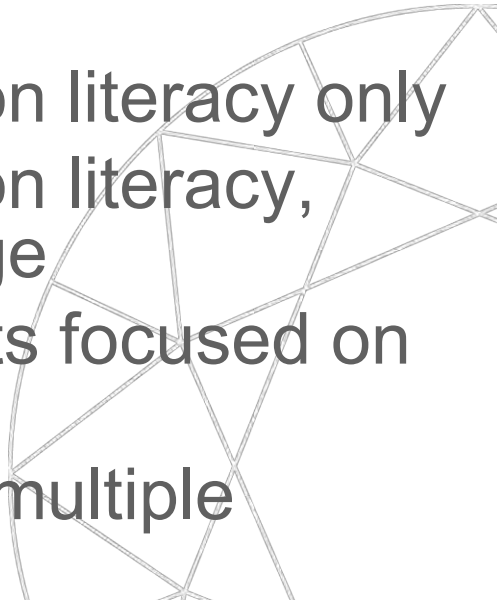
Assessment purpose	Number of assessments
System-level monitoring	38
Programme evaluation	10
System-level diagnostic	9
System-level diagnostic and monitoring	1
Total	58

Stock-taking: Assessment target grades

Target grade	Number of assessments
Grade 1	4
Grade 2	20
Grade 3	20
Grade 4	12
Grade 5	8
Grade 6	18
Grade 7	4
Grade 8	2
Grade 9	4
Age-based	3
Unknown	3



Stock-taking: Cognitive domains

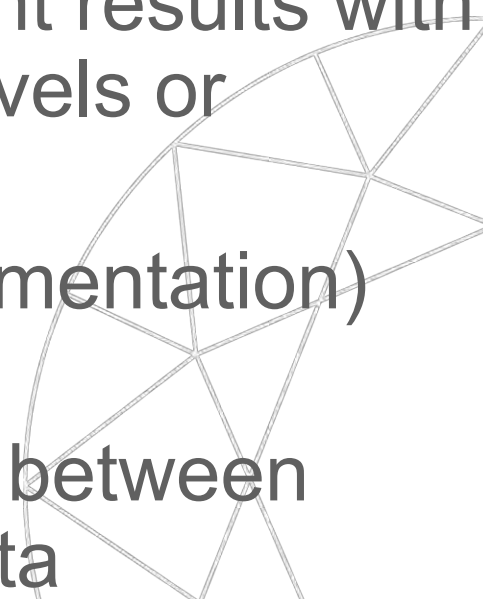
- Comprehensive assessment frameworks were publicly available for three assessments
 - 33% of assessments focused on literacy and numeracy
 - 29% of assessments focused on literacy only
 - 21% of assessments focused on literacy, numeracy and health knowledge
 - Remaining 17% of assessments focused on other combinations
 - 40% of assessments tested in multiple languages
- 

Stock-taking: Contextual instruments

- Contextual data collected in almost all of the assessments
- Types of contextual data collection: classroom observation and classroom and school inventories; questionnaires for students, teachers, parents
- Contextual data collected at the student, classroom and school levels



Stock-taking: Data analysis

- PIRLS, TIMSS, PASEC and SACMEQ, and 5 national assessments used IRT
 - 55% of assessments present results with reference to competency levels or benchmarks
 - All assessments (with documentation) used frequency analysis
 - 59% explored relationships between contextual and cognitive data
- 

Stock-taking: Reporting and dissemination: Results reports

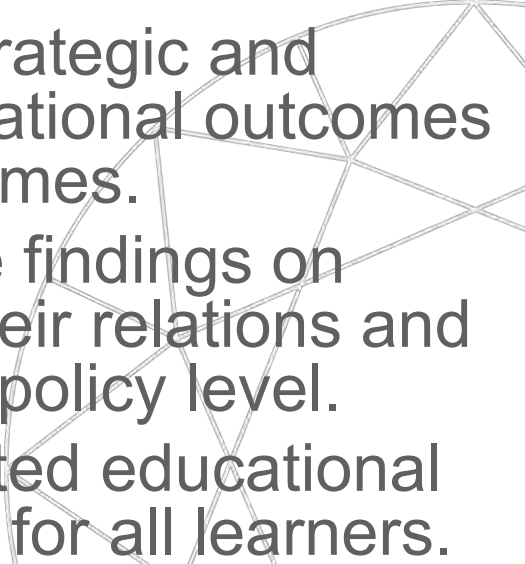
- For 71% of assessments the results were publically available
- For 54% of assessments, dissemination products in addition to the main results report were provided
- Large-scale international and regional assessments (e.g. TIMSS, PIRLS, SACMEQ and Uwezo) provide a wide range of dissemination products.
- Where results were not publically available, sometimes other dissemination methods were used (e.g. workshops, teacher materials).

Stock-taking: Reporting and dissemination: Databases

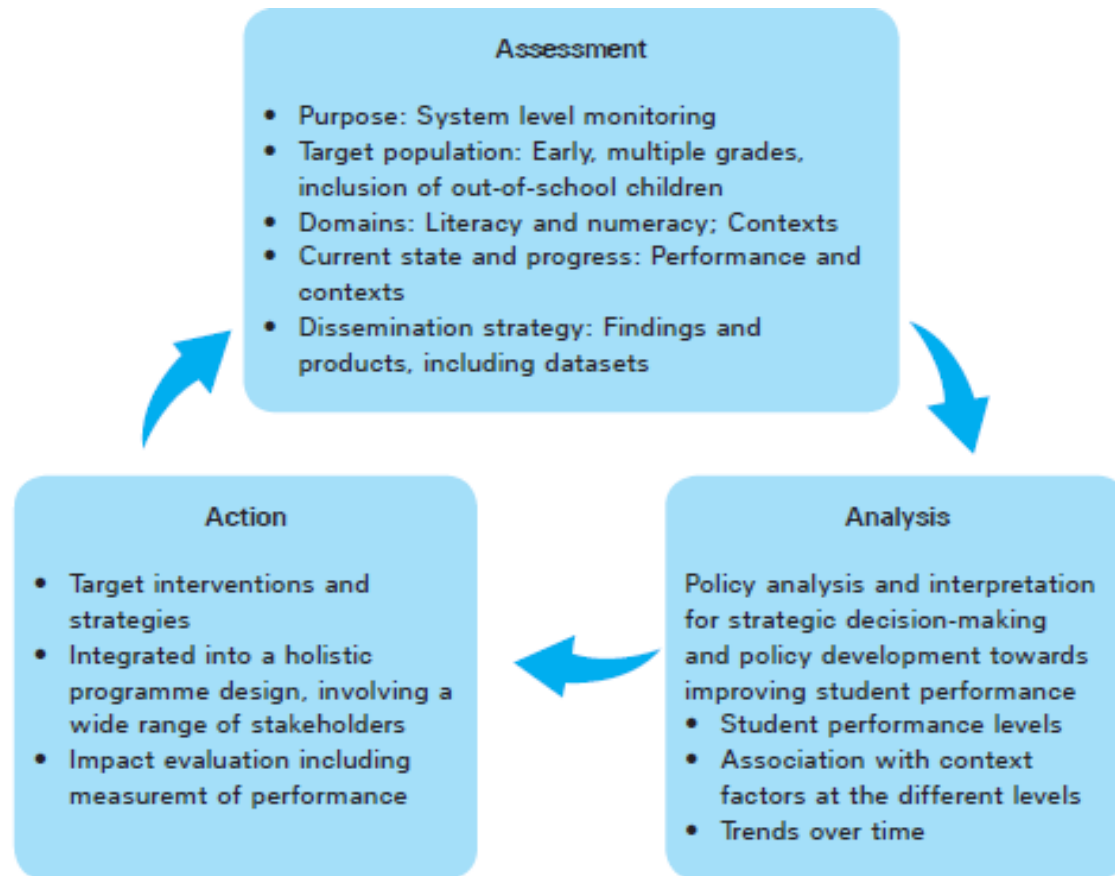
- Full datasets available from four regional and international assessments:
 - Uwezo, PASEC, TIMSS, prePIRLS (7 countries)
- Due to time between main data collection and release of international dataset, the most recent databases were from:
 - Uwezo 2012, PASEC 2008–2009 and PIRLS/TIMSS 2011



A macro theory of change

- Evidence-based monitoring and intervention cycle of assessment, analysis and action forms the basis of long-term and sustainable change in student performance
 - **Assessments**, the systematic, strategic and regular collection of data on educational outcomes and factors related to these outcomes.
 - **Analysis** and interpretation of the findings on student performance, contexts, their relations and trends over time at the education policy level.
 - **Action**, the development of targeted educational interventions to improve progress for all learners.
- 

Evidence-based monitoring and intervention cycle



Impact of large-scale assessments on education policy in developing countries



- 54 studies, 73 countries
- Included studies from Sub-Saharan Africa

Best, Knight, Lietz, Lockwood, Nugroho, & Tobin (2013)

Purposes of large-scale assessments



Evaluating and monitoring the **quality** of the education system



Ensuring **equity**



Exercising **accountability**

Use of assessment data to inform education policy

- Most often used for agenda setting, implementation and evaluation stages of the policy cycle
- Less frequently used during the policy formulation stage.

Policy impacts of large-scale assessments

- System level policies – most common impact
- Resource allocation policies
- Teaching and learning policies – less often observed

Factors that facilitate the use in education policy

- Media and public opinion
- Appropriate dissemination to stakeholders
- Soundness of the assessment program
- Program's integration into policy processes

References

- Benavot, A. & Köseleci, N. (2015). *Seeking Quality in Education: The Growth of National Learning Assessments, 1990-2013*. UNESCO. Available from: <http://unesdoc.unesco.org/images/0023/002337/233733e.pdf>
- Best, M., Knight, P., Lietz, P., Lockwood, C., Nugroho, D., & Tobin, M. (2013). *The impact of national and international assessment programmes on education policy, particularly policies regarding resource allocation and teaching and learning practices in developing countries. Final report*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.
- Friedman, T., Schwantner, U., Spink, J., Tabata, N., & Waters, C. (2016). *Improving Quality Education and Children's Learning Outcomes and Effective Practices in the Eastern and Southern Africa Region: Main report*. Nairobi: UNICEF ESARO. Available from: https://research.acer.edu.au/monitoring_learning/25
- Masters, G. (2014). *Assessment: Getting to the essence*. Melbourne: Australian Council for Educational Research.
- For information about ACER see: <https://www.acer.edu.au/>
- For information about ACER's GEM Centre see: <https://www.acer.edu.au/gem>

Thank you 😊

