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Working with UIS towards a global measurement scale for learning

Collaborative efforts are underway to develop a global scale that benchmarks student performance in reading and mathematics against a common measure. **Ray Adams** reports on progress.

ACER through the Centre for Global Education Monitoring (GEM), and the UNESCO Institute for Statistics (UIS) are collaborating to support global efforts to meet the fourth of the United Nations Sustainable Development Goals (SDG4) – 'Ensure inclusive and quality education for all and promote lifelong learning opportunities for all' – by 2030. Through their collaboration, the partners are developing tools, methods and approaches to obtain globally comparable measures of learning outcomes and to strengthen the capacity of countries to monitor learning.

The core of their work is the common learning metrics to describe and quantify learning progress in reading and mathematics. Such common metrics will be useful for learning assessment, but also to guide teacher development priorities, curriculum reform and the setting of national standards.

Describing and quantifying learning progress

The approach adopted by ACER and the UIS to develop the common metrics has been to draw on existing test items from multiple assessments implemented in a range of educational settings across the world, including:

- the OECD's Programme for International Student Assessment
- the IEA's Trends in International Mathematics and Science Study and Progress in International Reading Literacy Study
- the Analysis Programme of the CONFEMEN Education Systems
- the Latin American Laboratory for Assessment of the Quality of Education
- the Southern and Eastern Africa Consortium for Monitoring Educational Quality
- the Southeast Asia Primary Learning Metric and
- the Pacific Islands Literacy and Numeracy Assessment.

Analysis of items and empirical data from this range of assessments indicates that robust common metrics can be built.

Using empirical data to order items by increasing level of difficulty, and drawing upon theories of how skills, knowledge and understandings develop, ACER and the UIS have now drafted summary descriptions of learning progress for reading and mathematics.

These summary descriptions can be associated with defined points along numerical measurement scales, and together the numerical scales and associated summary descriptions make up the common metrics.

Validating and using the common metrics

One of the next steps will be to establish how results from different assessments relate to the common metrics. This will not only validate the metrics, but also serve as the foundation for the tools and methods that will yield fit-for-purpose international comparability of learning outcomes without imposing on countries universal measurement processes that may be inappropriate or unsuited to local contexts.

A further step will be to consult and negotiate with various stakeholders to agree on locations on the common metrics that define 'minimum proficiency' for learners at several different stages of learning. These agreed locations will become the benchmarks that will give shared meaning to one of the key indicators for SDG4, Indicator 4.1.1:

'Percentage of children/young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency levels in (i) reading and (ii) mathematics.'

Calling for your expert input and feedback

Before ACER and the UIS embark on the next steps, they are seeking expert input and feedback on the draft common metrics.

The draft versions of the common metrics for reading and mathematics will be available for download from the ACER website. They will be packaged in a prototype of the 'Learning Progression Explorer', an online tool ACER is developing to enable education stakeholders to study and explore the concept of learning progressions, of which the common metrics are examples. Visitors will be invited to register their interest in providing expert input and feedback, and will be advised as soon as the common metrics are available.

An initial version of common metrics for reading was unveiled in the prototype 'Learning Progression Explorer' at the second meeting of the Global Alliance for Monitoring Learning in Washington DC in October 2016.

To register your interest in providing expert input and feedback on the draft common metrics for reading and mathematics, visit the ACER GEM Centre at www.acer.org/gem/learning-progression-explorer You will be notified when the drafts are available. ■

LINKS

Read more about ACER's GEM research at www.acer.edu.au/gem

Read more about the UIS at www.uis.unesco.org/education

Read more on the United Nations Sustainable Development Goals at www.un.org/sustainabledevelopment/education