Implementing large-scale education assessments

Prof Geoff Masters AO is CEO of ACER.

ACER is helping education researchers, policymakers and practitioners understand the issues related to the inception, design, implementation and reporting of large-scale education assessments, as **Geoff Masters** explains.

A central question for governments and school systems around the world is what they can do to ensure that all students are equipped with the knowledge, skills and attributes necessary for effective participation in the future workforce and for productive future citizenship.

To answer this question, countries require quality information on current levels of student achievement, the performances of subgroups of the student population – especially socio-economically disadvantaged students, Indigenous students and new arrivals – and recent trends in achievement levels within a country.

Large-scale education assessments

It is also important to understand how well a nation's schools are performing in comparison with schools elsewhere in the world. Large-scale education assessments enable education policymakers, researchers and practitioners to investigate whether:

- some school systems are producing better outcomes overall
- some school systems have made improvements in achievement levels over time
- some school systems are more effective in ameliorating the influence of socioeconomic disadvantage on educational outcomes
- some school systems do a better job of developing the skills and attributes required for life and work in the 21st century.

Implementation of Large-Scale Education Assessments, edited by ACER's Petra Lietz, John Cresswell and Ray Adams, and Keith Rust from Westat and the University of Maryland, has been designed to support researchers, policymakers and practitioners in undertaking such investigations.

In the decades since the 1960s, international comparative studies of student achievement and the factors underpinning differences in educational performance in different countries have evolved from a research interest of a handful of academics and educational research organisations to a major policy tool of governments across the globe.

Monitoring progress and evaluating effectiveness

International surveys now include the OECD's Programme for International Student Assessment (PISA), implemented in 75 countries in 2015, and the IEA's Trends in International Mathematics and Science Study (TIMSS), implemented in 59 countries in 2015. Both are managed by ACER in Australia. Other international surveys are conducted in areas such as primary school reading, civics and citizenship and ICT literacy. Governments use the results of these as well as significant regional assessment programs, often alongside results from their own national surveys, to monitor progress in improving quality and equity in school education and to evaluate the effectiveness of system-wide policies and programs.

Since the 1960s, there have also been significant advances in methodologies for the planning, implementation and use of international surveys – in effect, the evolution of a science of large-scale assessment. *Implementation of Large-Scale Education Assessments* maps an evolving methodology for large-scale educational assessments. Progress in this field has drawn on advances in specific disciplines and areas of practice, including psychometrics, test development, statistics, sampling theory and the use of new technologies of assessment.

The science of large-scale assessments is continuing to evolve. The challenges faced by the field include the need to collect useful, internationally comparable data on a broader range of skills and attributes than have typically been assessed in large-scale surveys. National education systems and governments are increasingly identifying skills and attributes such as collaboration, innovativeness, entrepreneurship and creativity as important outcomes of school education. The assessment of such attributes may require very different methods of observation and data gathering, including by capitalising on advances in assessment technologies.

An ongoing challenge will be to ensure that the results of large-scale assessments continue to meet their essential purpose: to inform and lead effective educational policies and practices to better prepare all students for life and work in the 21st century.

In this issue

In this issue of *International Developments* we investigate a synthesis of research evidence that identifies the impact of interventions that offer high value in meeting education's greatest challenges in development contexts. We explore how ACER's school assessments are playing a part in supporting improvements in teaching and learning, and we examine the benefits of a program to collect evidence of education quality for governments, schools, communities and students in the Pacific region.

This issue of *International Developments* also looks at ACER's work with partners across South Asia to ensure inclusive and quality education for all, the development of a 'road map' for quality pre-primary education in Indonesia, work in Timor Leste to identify the impact of professional learning and mentoring on students' learning outcomes and efforts to address educational gender disparities in Malawi. ■

LINKS

For more information about *Implementation of Large-Scale Education Assessments*, visit https://shop.acer.edu.au/implementation-of-large-scale-education-assessments

For more information about PISA, visit www.oecd.org/pisa and www.acer.org/ozpisa

For more information about TIMSS, visit http://timssandpirls.bc.edu and www.acer.org/timss