Culture-fair assessment issues examined

A greater emphasis on more ‘culturally inclusive’ assessment and teaching methods for Indigenous students may help to address their pattern of under-achievement in national benchmark data and international testing programs according to a paper presented at the Australian Council for Educational Research (ACER) conference in Perth earlier this month.

The presentation, by Professor Val Klenowski from Queensland University of Technology and Ms Thelma Gertz of the Catholic Education Office Townsville, was based on an Australian Research Council (ARC) Linkage research project examining equity issues as they relate to the validity and fairness of assessment practices.

“There is consistent data across all levels – school, state, national and international – to conclude that Australian schools are not addressing equity issues effectively with Indigenous children scoring significantly lower than non-Indigenous children,” Professor Klenowski said.

“The differential performance of students from different cultures may not be due to bias in the choice of test content or design alone, but may be attributable to real differences in performance because of these students’ differing access to learning, different social and cultural contexts, or real differences in their attainment in the topic under consideration due to their experiences and socio-cultural background."

According to Senior Indigenous Education Officer of Townsville Catholic Education, Ms Thelma Gertz, the real issue is language understanding and use. "For most Indigenous children, Standard Australian English is an additional language, which presents a real challenge in the everyday classroom and even more so in a testing situation such as NAPLAN,” Ms Gertz said.

"Current standardised assessments significantly underestimate the abilities of our children. Put simply, it is not our children failing the tests; rather it is the testing procedure that is failing our students.”
Ms Gertz called on the Rudd Government to take up the challenge of addressing this in line with their overall Indigenous health and education strategy.

Professor Klenowski and Ms Gertz will presented a case study of mathematics learning involving a group of Indigenous students from Queensland to illustrate that the learning experience can be modified by teachers for particular students to achieve engagement, participation and improvement in learning.

The teacher and Indigenous support staff development program began four years ago with specialist maths teacher Eva Devries. The research, which began in February of this year, involves regular visits to schools by visiting mathematics specialists and researchers. The specialists give classes on effective strategies for teaching maths to Year 4 and Year 6 students.

The conference paper and presentation slides may be downloaded from the conference web page.
Whatever the source - assessment data can inform teaching and learning

While some educators argue that information from system-wide tests is not useful for improving learning, good quality data from a range of sources can and should be used to inform teaching, according to a paper to be presented at the ACER Research Conference in Perth on 17 August.

"What matters is the quality rather than the source of information," said Dr Margaret Forster, Research Director of the Assessment and Reporting Research Program at ACER. "And that means the diagnostic power of the assessment – the power of the assessment to illuminate strengths and weaknesses in students’ understandings. Informative assessment, assessment that can drive teaching and learning, bypasses the division between assessment of learning and for learning."

From the teacher’s perspective, quality assessment reveals, at different levels of specificity, how students think as well as what they know; and this includes their pre-existing, sometimes incomplete understandings. This information assists teachers to identify appropriate starting points for personalised teaching.

"Research shows that effective teachers recognise that learning is most likely to occur when a student is challenged just beyond their current level of attainment. Effective teachers understand, therefore, the importance of first determining students’ current levels of attainment rather than working from what we expect them to know and understand given their age or year level."

From the learner’s perspective, quality assessment assists the student to understand what is valued, to know where they are now in their learning and to know what to do next to move forward effectively in their learning.

"When it comes to learning," said Dr Forster, "research shows that learners learn best when they understand what they are trying to learn, and what is expected of them; and when they are given regular feedback about their work and how to make it better. If the feedback is to be effective, it must be focused on what the individual student needs to do to improve rather than performance relative to others."

Students as well as teachers need to understand what it means to progress in an area of learning so they can see where they have come from and are going to in their learning journey. Since the 1990s, the monitoring of learning has been facilitated by well-constructed learning continua, known as progress maps or learning progressions. Informative assessment draws on these understandings of growth as well as the research that underpins assessment for learning, research on high performing school systems, and research on highly effective teaching. "Informative assessment," argued Dr Forster, "uses quality assessment data, whatever its source, as a central driver for teaching and learning."

Dr Forster’s conference paper and presentation slides can be downloaded from the conference web page.
Measuring non-academic outcomes of schooling

One essential flaw in the way many schools and systems attempt to improve some non-academic outcomes of schooling is the assumption that simply providing students with the opportunity to demonstrate the outcomes will be enough for the students to develop them, according to a paper presented at the ACER Research Conference on 17 August.

Authors ACER Senior Research Fellow Prue Anderson and Principal Research Fellow Julian Fraillon identify three main challenges in measuring non-academic outcomes of schooling: defining the outcome, measuring the outcome and improving outcomes.

The academic outcomes of schooling are typically defined in curriculum documents and supporting materials both at a system and school level. By contrast, the non-academic outcomes of schooling are typically less well-described. Before devoting time and energy to measuring the non-academic outcomes of schooling, it is essential that the outcomes are clearly defined in a way that makes sense to all those who use them. Commonly used terms such as ‘well-being’ and ‘resilience’ often are poorly defined which can diminish their usefulness in schools.

There are four main issues in measuring non-academic outcomes:

- Determining the most feasible, valid and reliable ways of collecting information about student outcomes as you have defined them.
- Providing sufficiently challenging and appropriate opportunities for students to demonstrate what they can do.
- Collecting evidence of student performance that can be used to support teaching.
- Taking into account the high level of context dependency in students’ demonstration of outcomes. It is not sufficient to assume that if a student can demonstrate proficiency in an outcome in a given context that they will naturally transfer this capacity to different contexts.

Finally, schools should not assume that non-academic outcomes necessarily require less formal teaching of content, skills and applications across contexts than are typically devoted to teaching of academic outcomes. Experiential learning, such as group work and outdoor education programs, play a key role in students developing many non-academic outcomes. However, without a solid foundation of knowledge and skills and the opportunity to make informed self-reflection it is likely that the experience in itself may not be sufficient to facilitate lasting change in many students.

The full paper is available from the Research Conference 2009 web page.
How can an international large-scale test help our students and teachers?

Large-scale testing programs are sometimes criticised because they are not used to effect change, and may narrow the curriculum as teachers “teach to the test”. However, the framework for the test and interpretation of its results can be used to improve the teaching of reading, according to a paper presented at the ACER Research Conference on 17 August.

The paper, by ACER Principal Research Fellow Juliette Mendelovits, Senior Research Fellow Dr Tom Lumley and Research Fellow Dara Searle, focuses on the Organisation for Economic Co-operation and Development’s Programme for International Student Achievement (OECD PISA), which assesses 15-year-olds in several domains including reading every three years. In the current cycle, PISA will be administered in 75 countries. This study can be useful to teachers through international comparisons, the opportunity to compare frameworks, and monitoring new areas included in the PISA survey of student proficiencies.

While Australian students performed well in comparison to other countries in 2000, their results were worse than expected in narrative reading and in the reflecting and evaluating aspect of reading. In PISA 2006, Australia’s average reading proficiency fell significantly, when compared to 2000 and 2003. The decline was most marked in the top one-quarter of the population. In light of these results, it may be useful for teachers to look closely at the PISA reading framework in relation to the Australian curriculum.

If it is judged that the reading construct described in PISA is one that Australian education subscribes to, teachers might like to think about the following in their classroom practice:

- Reconsidering approaches to reflective and evaluative reading;
- Changing the emphasis of what is done with narrative texts; and
- Making particular efforts to challenge the most able students.

PISA might also be useful to teachers who want to learn more about elements of reading that are not addressed explicitly in national frameworks. A case in point is electronic reading, which is included in the expansion of the reading framework in PISA 2009.

The PISA electronic reading assessment (ERA) is being administered in 20 countries in 2009, including Australia. Skills in reading electronic texts are increasingly called upon in many school and non-school activities, and PISA ERA is the first attempt in a large-scale international survey to assess the skills and knowledge required to read in the digital medium.

Electronic reading is more likely than print reading to traverse different kinds of texts from different sources. There is a greater onus on the reader to evaluate this kind of text, because electronic texts have not typically undergone the scrutiny that is involved in the publication of a print-based text. There is also a greater onus on the reader to select and construct the text, as the non-linear nature of texts in the digital medium means that readers create their own reading sequence.
PISA 2009 will potentially be useful in contributing to educators’ understanding of print and electronic reading, and continue to guide Australian teachers in ways that help students to develop as critical, reflective and astute readers.

The full paper is available from the Research Conference 2009 web page.
High regard for education a key to Finland’s success

Possible reasons behind Finland’s continued success in international tests of student achievement were presented to ACER’s Research Conference by Professor Patrik Scheinin from the University of Helsinki. He presented the case of the Finnish comprehensive school to discuss strategic questions of educational policy, teacher education and teaching.

Finland has been a top performer in the OECD Programme for International Student Assessment (PISA) since its inception. The country’s education system has been closely scrutinised by educators around the world, keen to find the answers to why some countries perform better than others on PISA.

Professor Scheinin told conference delegates that how the school system of a country manages the students’ learning potential counts more than the amount of money a country spends on education or other socioeconomic factors such as parents’ education or students’ attitude towards school.

“The countries with the best PISA results do all manage to ensure that the weaker students are not left behind,” Professor Scheinin said.

“What makes the Finnish school system specially interesting from the perspective of educational policy is that it is the only comprehensive school system with top PISA results.”

Professor Scheinin attributed Finland’s success to a combination of factors including the nation’s high regard for education and the teaching profession; the high standard of applicants for teacher training; a nationally coordinated curriculum and the nation’s inclusive comprehensive school system that provides all students with a high quality general education.

“The role of schooling as part of the Finnish history and cultural heritage is remarkable,” Professor Scheinin said. “Education of the people was used as a strategy in creating the nation and teaching has been and still is a highly regarded profession.”

Patrik Scheinin is a Professor of Education and the Dean of the Faculty of Behavioural Sciences at the University of Helsinki. He is a Vice Director and a founding member of the Centre for Educational Assessment and a member of the steering group of the Finnish PISA project.

Professor Scheinin’s conference paper, slides from his presentation and a brief video interview can be found on the Research Conference 2009 web page.
National assessment data meaningful for schools

National assessment programs are useful for improving education, University of Western Australia Dean of Education Professor Helen Wildy told the Australian Council for Educational Research (ACER) annual conference on 18 August.

Professor Wildy has drawn on the experience of several projects conducted in WA over the last 10 years that have aimed to improve the skills of primary and secondary school teachers and leaders to interpret the results of student assessment in meaningful ways.

She found that where skilled teachers and school leaders have used comparable information on student achievement, such as that from the local WALNA and now the NAPLAN programs, in a meaningful way, they can improve teaching, learning and school management.

"In our work we provide each school with WALNA and NAPLAN data in such a way that allows teachers and principals to examine its long-term performance. This powerful overview of school performance allowed school leaders to address weaknesses highlighted by the results, and to see their achievements in context," Professor Wildy said.

Teachers and leaders use the student assessment results to compare the performance of year groups over time; to identify the impact of interventions on subgroups, such as low-performing students and on individuals; to question the effects of organisational and cultural changes; and to link what they learn to school goals and strategies, Professor Wildy said.

"Schools that have performed relatively well are digging into the results to find areas for further development. Schools that are not performing well are less defensive. Instead they are using the results to improve," Professor Wildy said.

Professor Wildy’s paper drew on the experience of projects including the Data Club and the NuLit and NAPNuLit projects, which provided workshops to enable teachers and school leaders to interpret results from the WA Literacy and Numeracy Assessment (WALNA), the Monitoring Standards in Education at Year 9 program (MSE9), and the National Assessment Program – Literacy and Numeracy (NAPLAN).

Professor Wildy’s conference paper, presentation slides and video interview can be found on the Research Conference 2009 website.
ACER UPDATE

Conference proceedings and additional papers available online

The full conference proceedings and additional individual papers from Research Conference 2009 are now available online. Power Point presentations are also available from most sessions. These can be downloaded from the conference web page.

Research Conference 2010

ACER’s fifteenth annual research conference will take place in Melbourne from 15-17 August 2010 at the Crown Promenade Hotel. The theme for Research Conference 2010 is Teaching mathematics? Make it count: What research tells us about effective mathematics teaching and learning. Further information about the conference will be posted on the Professional Learning section of the ACER website as it becomes available. Download the conference flyer.

Introduction

Research Conference 2009 special edition

The following articles are based on papers presented at the ACER Research Conference 2009, Assessment and Student Learning: Collecting, interpreting and using data to inform teaching.

Copyright © Australian Council for Educational Research 2015

All rights reserved. Except under the conditions described in the Copyright Act 1968 of Australia and subsequent amendments, no part of this electronic publication may be reproduced, stored in retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without written permission. Please address any requests to reproduce information to communications@acer.edu.au

Subscribe

Australian Council for Educational Research
Private Bag 55, Camberwell, Victoria Australia 3124
Tel: + 61 3 9277 5555
Fax: + 61 3 9277 5500
Web: www.acer.edu.au