

## The Andrich Report – A synopsis

### Who is Professor Andrich?

David Andrich is a Professor of Education who has worked as UWA and Murdoch University. He is a leading international expert in educational assessment and measurement who has published extensively in the field. He is an elected Fellow of the Australian Academy of Social Science.

Professor Andrich has a comprehensive knowledge of the Western Australian context, including the origins and evolution of outcomes frameworks in WA. He has provided expert advice to government on educational measurement over the course of many years, and has written previous reports for the Curriculum Council (CC).

### What is the Andrich report?

In 2005 the CC commissioned a report from Professor Andrich. He was asked to advise how the CC can ensure:

- (i) that the assessment process of each course has the sufficient rigour to achieve the highest academic standard; and
- (ii) that the measurement of student achievement is valid and reliable, particularly where university entrance is involved.

### What is the main recommendation?

Professor Andrich recommended that both school-based and external assessments should be made using marking strategies that arise directly from the specific assessment task. He recommends this approach for student assessment in each unit of a course, and for each course as a whole at the end of Year 12.

### Why did Professor Andrich make this recommendation?

- \* Professor Andrich considers frameworks useful for administrative and organisational purposes as conventions
- \* He observes that the number of learning areas is arbitrary, but consistent with conventions
- \* However, he concludes that outcomes frameworks are too general and lack the specificity required for developing teaching programs and for precise assessment.
- \* He concludes that there is no convention for prescribing a particular number of outcomes in a particular learning area, and that the classification of each outcome into exactly eight levels is entirely arbitrary.

- \* Research cited in the report shows that assessments using the outcomes and level classifications are substantially cruder than the judgements teachers can reliably make using marking strategies arising directly from assessment tasks.
- \* Assessment using the broad level classifications of descriptions in the Outcomes and Standards Framework (OSF) is therefore not precise enough to achieve the required rigour, validity and reliability.

What were the main findings of research cited in the report?

- \* Assessment of writing against outcomes and levels divides many thousands of students into just three or four levels (Case Study 1)
- \* Multiple assessments against outcomes only reinforce a global assessment in a broad level classification (Case Study 1)
- \* Research based on mathematics assessment shows that considerable uncertainty surrounds classifications of statements into levels.

What does this mean for school-based and external assessments?

- \* Both school-based and external assessments should employ marking strategies arising directly from assessment tasks, and should be specific to the teaching program.
- \* It is not possible to generate great precision by aggregating results from assessments each of which uses broad categories ( eg grades or levels). As an analogy, it is not possible to measure a student's height to the nearest 0.01 metres (ie centimetre) by measuring several times to the nearest metre.
- \* Classifications such as 6.2, 6.5 and 6.8 do not provide greater precision and the numbers are labels, not measurements.

What does the report mean for moderation and making consistent judgements?

- \* The use of outcomes and levels does not achieve comparability across schools and courses, lacks credibility as a method, and unnecessarily drains resources.
- \* Fine-grained assessment resulting in marks should be used in combination with methods of scaling for the purpose of moderation. Marks may be converted to percentages when required.

What are the recommendations on reporting of student performance?

- \* The language of outcomes and levels should not be used for communicating with students, parents and the community.
- \* Detailed feedback based on analysis of performance in school-based assessments should be provided to students.
- \* Broad classifications such as grades should be based on fine-grained assessment and resulting marks or percentages.
- \* However, fine-grained assessment must take precedence over broad classification. By analogy, measurements of height in centimetres can be translated to descriptions such as “tall” and “very tall” but descriptions do not provide the primary basis for assessing height.

What does the report say about teacher judgement?

- \* Considerable emphasis is placed on teacher judgements throughout the report.
- \* Teachers can make considerably finer distinctions between students’ performances than is possible using broad level classifications of outcome statements.

Isn’t the report relevant only to courses such as physics and mathematics?

- \* The analysis and recommendations relate to all courses and learning areas.
- \* Research cited as Case Study 1 was based on the assessment of student writing. Holistic judgements were an integral facet and complementary to analytic components of the assessments.

What does Professor Andrich see as the implications for the system?

- \* Professor Andrich concludes that if tertiary selection is not accounted for credibly within the school education system, independent selection processes may be imposed.
- \* If imposed, such processes would inevitably have a greater impact on teaching and learning than current processes.
- \* There is a pressing need for professional development in assessment and educational measurement.

The full report is available at :

[http://newwace.curriculum.wa.edu.au/pages/publications\\_report.asp](http://newwace.curriculum.wa.edu.au/pages/publications_report.asp)