Aptitude testing in university admissions

An ACER report released this week by the Australian Government Department of Education, Employment and Workplace Relations calls for the wider use of aptitude testing to ensure that senior secondary students with the capacity to do well at university are able to gain admission.

Report co-author, ACER Higher Education Research Director, Associate Professor Hamish Coates said there is a need to develop new approaches to university selection that are simple and transparent for prospective students, and that maintain practical benefits for institutions.

"Australia is actively seeking to boost participation in higher education with new funding and regulatory arrangements but nothing will change unless we seriously address admissions," said Coates. "This report provides strong evidence that information from aptitude testing can help institutions manage the rush of additional applications."

The report concluded that aptitude testing has the potential to increase diversity within the university population, especially in terms of gender and socioeconomic status. Importantly, aptitude test scores were shown to have significantly lower correlations with socioeconomic backgrounds than Year 12 academic results.

The ACER report was an evaluation of the government funded Student Aptitude Test for Tertiary Admission (SATTA) pilot program that began in 2007. The program involves the supply, management and evaluation of uniTEST – an aptitude test that assesses reasoning and thinking across the two broad domains of mathematics and science, and humanities and social sciences. The test was designed to complement existing selection criteria such as the Australian Tertiary Admission Rank (ATAR).

The report concludes that success at university is better predicted by uniTEST than by Year 12 results, but that the two in combination provide a more powerful means of predicting first-year performance than either measure on its own.
The study found that uniTEST identified students who would not otherwise have been offered a university place, and that these students performed on a par with students who entered university through other means, most commonly through Year 12 scores.

"Many Year 12 students who possess the ability to succeed at university do not achieve an ATAR that is high enough to gain entry," said Coates. "uniTEST has the potential to identify ‘latent talent’ and facilitate the inclusion of capable individuals in the system.”

Seven recommendations are made in the report, relating to aptitude test implementation and continued data analysis. The report details an implementation process that involves: the assessment being promoted by key agencies as a credible supplementary quantitative selection criteria for university entrance; candidates sitting the test during their senior secondary study, at some stage from the end of Year 10; the test being administered in a flexible mode, likely online, and in multiple sittings; and informative reports being provided to assist students and institutions with their course choice and admissions decisions.

Coates notes that such a test will vary in its relevance to institutions depending on factors such as selectivity, course characteristics and demographics, but recommends that it should be endorsed universally. The report finds that, as with current admissions practices, the process should be centrally coordinated – though not regulated – in a way that sustains institutional autonomy over selection decisions.

Study reveals nature of school-community partnerships

An analysis of applications for the inaugural NAB Schools First awards reveals almost all (98 per cent) of the 801 applications for an Impact Award made by primary and secondary schools from around Australia in 2009 were said to have benefited students.

ACER has analysed the rich database of information provided by schools in their applications to learn more about why schools are forming partnerships with business and community groups, the kinds of partnerships being formed, and the impact these partnerships are having in improving outcomes for students.

ACER chief executive Professor Geoff Masters said the study is unusual among international studies both in terms of the number of partnerships studied and the inclusion of evidence about the impact school-community partnerships are having.

The study found that almost half (45 per cent) of the partnerships were between schools and local community groups. Around 20 per cent of all partnerships were school-business partnerships. Just over half (53 per cent) of these partnerships were with state or national corporates and 47 per cent were with local businesses.

Catholic schools were slightly more likely (20 per cent) to be exclusively partnered with a business than schools in other sectors (14 per cent), while the majority of Independent school partnerships (54.8 per cent) were with community-based organisations.

A large majority of partnerships were focused on issues faced by ‘at risk’ boys in Years 9 and 10. Most partnerships were established with an aim to improve student engagement, improve academic outcomes, enhance social wellbeing or broaden students’ vocational skills and options.

Professor Masters said there were likely to be mutual benefits in encouraging stronger relationships between schools and businesses and urged more businesses to establish partnerships with schools.

“School-business partnerships can help prepare young people for future careers by giving them practical vocational experience and confidence. They can also help businesses develop an understanding of working with young people, some of whom may become future employees,” said Masters.

“It is pleasing to see local businesses supporting their schools. However, large corporations also have a role to play in partnering to support Australian schools. NAB’s $15-million investment in Schools First is an example. I expect we will see more examples of this kind over the next few years,” he said.
CEO of the Foundation for Young Australians (FYA), Jan Owen AM, likewise said the research highlights the need for industry, business and government to invest more heavily in school-community partnerships.

“This information compiled by ACER provides us with the strongest evidence yet that students thrive when schools partner with the community, and furthermore that these partnerships need to be invested in,” said Owen.

The analysis, School Community Partnerships in Australian Schools, by ACER Principal Research Fellow Michele Lonsdale was released on 27 April 2011 and is available from: http://research.acer.edu.au/policy_analysis_misc/7

NAB Schools First is a partnership between NAB, ACER and FYA. Further information about the program, including details of how to apply for 2011 awards, can be found at www.schoolsfirst.edu.au
First insight into coursework postgrad student engagement

Results from a new study of coursework postgraduate students’ engagement in education suggest that, while coursework postgraduates in Australasia tend to have higher levels of engagement than undergraduate students, Australian and New Zealand higher education providers could do more to improve student and staff interactions and provide enriching educational experiences.

More than 10 000 students from 15 higher education providers in Australia and New Zealand participated in the first full administration of the Postgraduate Survey of Student Engagement (POSSE) in 2010. ACER released a research briefing paper on the results in late April.

ACER Senior Research Fellow Dr Daniel Edwards said POSSE is the first major effort to collect meaningful data from postgraduate coursework students in Australia and New Zealand.

“The coursework postgraduate population is very important to higher education, but often these are the forgotten qualifications that come in between undergraduate and research higher degrees,” Edwards said.

POSSE is closely linked to the Australasian Survey of Student Engagement (AUSSE), the largest survey of current university students undertaken in Australia and New Zealand. The surveys provide internationally comparable data relating to student engagement and learning outcomes.

POSSE 2010 reveals that coursework postgraduate students have higher levels of engagement than undergraduate students, particularly in the areas of Academic Challenge, Work Integrated Learning and Higher Order Thinking. More specifically, coursework postgraduate students indicate greater involvement in synthesising ideas, blending academic learning with workplace experience and in making judgements about the value of information.

International students in coursework postgraduate studies have higher levels of engagement than domestic students on all engagement scales except Work Integrated Learning. Outcomes were more evenly split, with International students recording higher General Development, Career Readiness and General Learning Outcomes, while domestic students have higher levels of Overall Satisfaction, Average Overall Grade and Higher Order Thinking.

Engagement levels among postgraduate coursework students vary in relation to the field of education studied. Information technology students tend to have lower levels of engagement than those from other fields, particularly in Work Integrated Learning, Higher Order Thinking and Overall Satisfaction. Health students in coursework postgraduate degrees report very high scores on the Work Integrated Learning scale but much lower scale scores than the other fields for Active Learning.

In each field of study, less than 5 per cent of students said they ‘very often’ interact with teaching staff on other activities. This is a worrying finding given that research has shown the contact students have with staff are among the strongest influences on positive learning outcomes. Only in the science fields does students and staff working together outside of class appear to be evident, possibly as a results of experiments conducted in these fields that require extra time.
Science students are also substantially more likely to express a desire to continue on to a research degree while management, engineering and creative arts students show the least interest in further study involving research.

Departure Intentions are particularly high for architecture and information technology students. Coupled with relatively low satisfaction for postgraduates in this field, these results suggest that further efforts to engage and encourage these students might improve their university experience and retain them through to graduation. Early-departure intentions are also higher for later-year coursework postgraduate students than for those in their first-year. While the average score for this group is still relatively low, the finding here suggests that additional attention to supporting these students through the final stages of their degrees may be worthwhile.

POSSE is a collaboration between ACER and participating universities. The full briefing, Monitoring risk and return: Critical insights into graduate coursework engagement and outcomes, is available from http://ausse.acer.edu.au
Indigenous students highly engaged with university study

Indigenous university students experience similar or higher levels of satisfaction and engagement with learning than their non-Indigenous peers, according to a research briefing paper from the Australasian Survey of Student Engagement (AUSSE) released in May.

The analysis also reveals that Indigenous students rate their relationships with other students and teaching staff just as positively as non-Indigenous students do and are significantly more likely to report positive relationships with administrative staff.

Yet despite such positive findings, Indigenous students are significantly more likely to seriously consider leaving their current institution prior to completing their studies.

The paper focuses on the responses of more than 500 Indigenous Australian students collected as part of the 2009 administration of AUSSE, representing one of the largest collections of data from Indigenous students to date. The paper is co-authored by Dr Christine Asmar, Senior Lecturer at Murrup Barak, the Melbourne Institute for Indigenous Development at the University of Melbourne, and Associate Professor Susan Page, Director of Macquarie University's Warawara Department of Indigenous Studies.

"The puzzle is that, while Indigenous students are enthusiastic about their studies, and are engaged on similar or higher levels than their peers, they remain more likely to seriously consider leaving," said Associate Professor Page.

Around 37 per cent of Indigenous students and 29 per cent of non-Indigenous students report that they plan to or have seriously considered leaving their current institution before finishing their qualification. The authors note that only one in 50 Indigenous students deliberately plan to leave before completing, as opposed to considering leaving. Nevertheless, Indigenous students who are older, male, who have a self-reported disability, who are from a non-metropolitan area, are studying externally or are receiving financial assistance all have higher early departure intentions than those who do not have those attributes. For many Indigenous students (as for non-Indigenous peers) a number of these factors can and do overlap.

Importantly, the analysis found that Indigenous students who report a high level of support from their institutions are significantly less likely to have departure intentions than those who report a low level of support. In one third of students’ comments referring to Indigenous issues, Indigenous centres were rated as among the ‘best aspects’ of how their universities engaged them in learning, leading the authors to conclude that such centres play a vital supporting role. They note, however, that more data is needed on this aspect of Indigenous engagement since most surveys do not ask about Indigenous centres.

Institutional support also stems from students’ academic interactions with teaching staff. Compared with their domestic, non-Indigenous peers, Indigenous students are significantly more likely to ‘often’ or ‘very often’ report discussing grades with teaching staff, work with teaching staff on non-coursework activities and discuss ideas with teaching staff. Indigenous students are also significantly more likely to report having positive relationships with administrative personnel than are their non-Indigenous peers.
Indigenous students report markedly higher levels of engagement in relation to work-integrated learning than non-Indigenous students. The authors suggest this difference is probably due to the fact that Indigenous students are generally older, are often employed before commencing study and select courses directly relevant to their work. Around 43 per cent of Indigenous students say that their paid work is ‘quite a bit’ or ‘very much’ related to their field of study, compared with only 29 per cent of domestic, non-Indigenous students. Yet, again, the authors note that there is a lack of detailed data in this area.

The paper concludes by proposing new items for inclusion in national surveys, in order to deepen our understanding within the areas of significant difference between Indigenous and non-Indigenous students. Those areas include: how students’ studies relate to their employment; whether student interactions are mainly with Indigenous staff and students (or not); the roles of Indigenous centres and of community; and whether departure intentions are influenced by factors such as health.

“We have a clear picture of what Indigenous students think about university, but much less idea of why they think it,” said Dr Asmar. “Tapping into the ‘hidden stories’ of Indigenous engagement and success will help to better inform our efforts to attract, support, engage and retain our Indigenous students.”

AUSSE is a collaboration between ACER and participating universities. The full briefing, Dispelling myths: Indigenous students’ engagement with university, is available from http://ausse.acer.edu.au
Strengthening links between teacher pay and performance

In this opinion article, originally published in *The Sydney Morning Herald* newspaper, ACER Principal Research Fellow Dr Lawrence Ingvarson argues that the best reason for linking teacher pay and performance is to encourage teachers to develop their practice to the point where they can demonstrate they have attained high professional standards.

The worst reason is to "incentivise" teachers to focus exclusively on improving scores on national tests, which has been happening with the Teacher Incentive Fund in the US. A sound system for linking pay to performance must be based on a valid definition of good teaching. How do you define quality teaching? There is a real danger with the Labor government's bonus-pay scheme, Reward Payments for Great Teachers, that the definition will be reduced to "value-added" estimates based on gain scores on National Assessment Program - Literacy and Numeracy (NAPLAN) tests.

Gain scores are not a definition of good professional practice. They also depend on student ability and prior achievement, a family and social context supportive of learning, willingness and effort by the learner and a school context that provides opportunity to teach and learn.

The appropriate way to define good practice is in terms of professional standards. Well-written, research-based standards cover the full range of what good teachers know and do in their specialist area of teaching. (What, for example, should a primary teacher know about recent research on learning to read? What approaches to overcoming reading difficulties should they be able to demonstrate?) They therefore provide a more valid basis on which to assess a teacher's knowledge and skill.

The appropriate basis for evaluating teachers is in terms of the extent to which they can demonstrate that their practice is consistent with current research and best practice, as defined in the standards. This is typical of evaluation and accountability in the professions, not bonus-pay schemes based on quantitative measures of outcomes.

NAPLAN assesses students in May each year at grades 3, 5, 7 and 9. In primary schools, it follows that at least three teachers will have contributed directly to their scores to degrees that are impossible to distinguish. In practice, it will often be more. It is likely that proponents of the government's bonus-pay scheme will push for NAPLAN to assess students at every grade level every year. Scaling up NAPLAN to this extent would be very expensive and unlikely to gain support - and it would still not cover teachers who teach subjects other than literacy and numeracy.

Extensive social science research on accountability systems suggests the more that quantitative measures based on NAPLAN are used for "high stakes" purposes, the more likely they will distort the teaching practices they are supposed to be measuring.

Research shows bonus-pay schemes based on value-added measures in the US face continuing concerns about their validity, and rarely last.
These concerns include the non-random assignment of students, the effects of other teachers, the effects of student characteristics, the effects of school policies, the non-random assignment of teachers and the appropriateness of outcome measures for the students and curriculum taught. Recent research indicates gain scores are prone to error and that estimates of a teacher’s effectiveness vary significantly from year to year.

A recent article in the American Journal of Teacher Education reports that value-added estimates of teacher effectiveness in teaching reading varied significantly depending on the reading test being used and the timing of the test. The authors show that if employers were to reward teachers for their performance, they would reward a quite different set of teachers as the best performers depending simply on the test used and the timing of the test.

There is a much better way to link pay to performance, with benefits to students based on professional certification. Over the past 20 years new standards-based methods have been developed for assessing teacher knowledge and performance. These methods shift the onus on to the teacher to demonstrate to a professional body how they meet the standards in their school context.

Individual schools do not have the resources to conduct such rigorous assessments. Instead, teachers submit such evidence to an independent professional body for assessment by expert peers trained to use the professional standards consistently.

A common structure in the assessment tasks would help to ensure that the assessment methods are comparable across schools and manageable for teachers. If teachers can show they meet the high standards, it leads to a respected professional certification that employing authorities and unions can use to provide incentives for professional learning and career paths that reward quality teaching.

The Labor government’s Reward Payments for Great Teachers scheme calls for 250,000 teachers to be evaluated every year to identify 25,000 who will win a one-off 10 per cent bonus. This is a highly inefficient way to link pay to performance and will prove to be invalid as well as highly cumbersome for schools to administer.

When fully established, a national professional certification scheme would only need to handle about 10,000 applicants each year; teachers who believe they are ready to be assessed against the standards for highly accomplished teaching. This is a very manageable number for a national professional body. If certification was rewarded significantly by employing authorities, it would become one of the most effective strategies for lifting the quality of teaching in Australian schools.

This article was originally published in The Sydney Morning Herald on 13 May 2011 and can be read online at http://www.smh.com.au/opinion/politics/golden-apple-for-scores-not-the-way-to-improve-core-standards-20110512-1ekkb.html
ACER Update

Principal for a Day

Community and business leaders throughout Queensland will next week experience life as a school principal when they participate in the Principal for a Day program that is being held from 23 to 27 May to coincide with State Education Week.

Principal for a Day is a collaboration between schools and their communities that aims to increase and strengthen relationships, based on knowledge and understanding, between the private sector and education. It is a unique opportunity for business and community leaders to shadow a school principal to gain a first hand behind-the-scenes experience of the strengths and challenges facing our schools every day.

Victoria’s Principal for a Day event takes place this year on Tuesday 23 August. The program is a joint partnership between ACER and the Victorian Department of Education and Early Childhood Development (DEECD) and has been running in Victoria since 2001. Schools and community and business leaders interested in participating in the 2011 event can obtain more information from www.acer.edu.au/pfad or by contacting Ms Viv Acker on 03 9277 5617 or email .(JavaScript must be enabled to view this email address)

NAB Schools First

Only one week remains to enter the NAB Schools First Student Award. Implemented for this first time this year, the award gives students an opportunity to implement their own school-community partnership idea. There are five awards up for grabs, with each award including $2000 to help implement the school-community partnership idea, mentoring opportunities, support from the NAB Schools First team and an Apple iPad for the student. Applications close at 5pm on Friday 27 May 2011.

For the third consecutive year, schools are invited to apply for a Seed Funding and Impact Award and be in the running to share in over $5 million. In 2011, 60 Impact Award winners will receive $50 000 each and 50 Seed Funding winners will receive $25 000 each. Seed Funding and Impact Award applications open on 20 June and close on 29 July. The winners will be announced in September, followed by the announcement of State and National Awards in October and November.

To find out more about NAB Schools First and to download application forms, awards criteria, guidelines and Terms and Conditions visit www.schoolsfirst.edu.au or call 1800 649 141.
Research Conference 2011

The ACER Research Conference 2011 Indigenous Education: Pathways to success will be held in Darwin on 7-9 August. The conference will focus on what we can learn from research about creating and sustaining positive educational outcomes for Indigenous students.

Presenters will highlight the conditions, contexts, curriculum, pedagogy and practices that establish pathways to success for Indigenous students. The keynote speakers are: Professor Jeannie Herbert, Charles Sturt University, NSW; Professor Lester-Irabinna Rigney, Flinders University, SA; Professor Jonathon Carapetis, Menzies School of Health Research, NT; and Professor Lorna Williams, University of Victoria BC, Canada.

The conference will be relevant to those directly involved in Indigenous education as well as those concerned more broadly with what we can learn from research about creating and sustaining positive educational outcomes for Indigenous students. Early bird registrations close 1 July. For more information including the full conference program visit www.acer.edu.au/conference

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