Outcomes on the move

As higher education grows in significance, so too does the need for insights into practice and outcomes. Stakeholders need evidence of the impact of higher education, and institutions need improved information to affirm the enormous contributions they make to individuals, and to society as a whole. Measuring the outcomes of higher education is not easy, but robust and rapid progress is being made.

This briefing updates research and assessments conducted over the last six months that have helped institutions, individuals and governments better understand higher education growth and outcomes. It reviews recent contributions on testing learning, educating academics, boosting learning, and engaging learners.

The briefing provides an update on ACER’s involvement in the OECD’s Assessment of Higher Education Learning Outcomes (AHELO), on work underway to assess generic and medical capabilities, and on comparing graduate outcomes internationally.

The quality of teaching and leadership accounts for much of what higher education achieves. ACER has partnered with researchers at the LH Martin Institute for Higher Education Leadership and Management to investigate how to boost the academic workforce, and visualise and enhance effective tertiary leadership.

While leaders and teachers play a formative role, so do learners in the co-produced activity that is higher education. Recent research explores the influence of paid work on study, the broader university experience, and steps institutions are taking to improve students’ engagement. Further studies have explored the nature of student dropout, and new ways to evaluate the quality of teaching.

ACER has launched a new higher education webpage – www.acer.edu.au/highereducation. This webpage integrates research, resources and services relevant to people working in this field.

ACER has launched a new resource for higher education. Joining the Dots (visit http://jtd.acer.edu.au) provides research briefings, monthly digests, and webinars.

We hope you enjoy this edition. As always, we welcome your feedback and ideas to highereducation@acer.edu.au.

Associate Professor Hamish Coates
Research Director, Higher Education
Testing outcomes
Content and assessment experts from 16 countries around the world have made significant progress towards investigating the feasibility of an international Assessment of Higher Education Learning Outcomes (AHELO).

The AHELO Feasibility Study is determining whether it is possible to measure at the international level what undergraduate degree students know and can do. The assessment aims to provide better information than is currently available to higher education institutions, governments, and other stakeholders including students and employers.

ACER is leading a consortium of international organisations in the design and implementation of the feasibility study on behalf of the Organisation for Economic Cooperation and Development (OECD).

Chair of the AHELO Feasibility Study Technical Advisory Group and Vice President at the USA National Centre for Higher Education Management Systems (NCHEMS), Dr Peter Ewell believes AHELO is significant because it is the first time anyone has tried to compare tertiary outcomes internationally.

“If institutions see a similar institution achieving better outcomes they want to know ‘what are we doing differently and how can we do things like them?,” said Dr Ewell. “Through AHELO we can start finding out what works.”

The AHELO Feasibility Study focuses on Economics, Engineering and Generic Skills. Progress is occurring at a rapid pace in each of the modules, with enormous interest and goodwill among both academic experts and countries, including those who are not directly participating.

In early 2011 the test instruments will be translated into the languages of participating countries and shown to focus groups. The feedback gained from students and faculty from a range of institutions in participating countries will be used to refine and improve the instruments.

The Educational Testing Service (ETS) in Princeton New Jersey has developed an Economics instrument which tests the skills and knowledge of final-year bachelor degree students. The framework and items are being revised in preparation for adaptation, translation and validation in 2011.

AHELO’s Economics Expert Group is chaired by Cecilia A. Conrad, Vice President and Dean of Pomona College in California, where she is also the Stedman-Sumner Professor of Economics.

Professor Conrad said she is happy that the Economics Expert Group was able to work out what questions would work across borders.

“With AHELO, we can learn what students need to gain a better understanding about so they will be able to compete with and work with graduates from other institutions around the world,” said Professor Conrad.

ACER has been working with colleagues from Japan’s National Institute for Educational Policy Research and the University of Florence to develop a framework and test for the field of Engineering.

AHELO’s Engineering Expert Group has reviewed 12 draft test units; each developed around a key engineering problem with a range of multiple choice and written response items. The best four items were selected and revised. The Expert Group also analysed a large set of items from the licensing exam for civil engineers in Japan and selected those most suitable to include in AHELO’s engineering test.

ACER worked with partner organisations to refine and validate the items in preparation for adaptation, translation and validation in 2011.

The AHELO Feasibility Study Engineering Expert Group is chaired by Robin King, Emeritus Professor of Engineering at the University of Technology, Sydney, and Executive Officer of the Australian Council of Engineering Deans.

In developing instruments for the assessment test in Civil Engineering, Professor King stresses the need for instruments that can measure both technical knowledge and how graduating civil engineers look at problems.

“We need to measure their technical capability to solve them and their understanding of the broader impacts of civil engineering in society, such as the social and environmental impacts of locating a dam,” said Professor King.

Despite the challenge of developing instruments which acknowledge the differing philosophies of engineering education around the world, and the need to ensure that all questions are appropriate to students in all countries, Professor King is optimistic about the potential for the AHELO Feasibility Study.

“Measuring the outcomes of education is very difficult but it’s really important,” said Professor King.
Assessing generic skills

Results from the pilot implementation of the Cognitive Skills Test at Imam Muhammad bin Saud Islamic University (Imam University) are informing groundbreaking Saudi Arabian educational practice.

The test of reasoning and problem solving skills is a collaboration between Imam University and ACER, designed to gain better understanding of the growth in generic skills attained by students over the course of their undergraduate studies.

ACER’s General Manager of Higher Education Assessment Services, Marita MacMahon Ball, said the test administration was the first of its kind at Imam University, perhaps even in Saudi Arabia.

“The pilot implementation was a groundbreaking institutional research and quality activity,” said MacMahon Ball.

Information gathered by the test will help Imam University provide students with the education and training they need and will support University monitoring and continuous improvement initiatives.

The test items and structure are based on the Graduate Skills Assessment, a similar assessment developed by ACER that is used by Australia’s higher education sector. Multiple-choice items assess students’ skills in two domains – Problem Solving and Critical Thinking.

In October 2010 a sample of around 2,200 students from Imam University’s faculties of Humanities, Science and Islamic studies were selected to sit the test, drawn from new students, students in year three and students in their final year.

Results showed there was variation in student outcomes, especially in terms of the faculty and fields in which they were studying, and their year level.

In general, males and females performed similarly. Students from the Sciences faculty recorded higher performance on both the Problem Solving and Critical Thinking components of the assessment than did students from the Humanities or Islamic studies faculties. Within the Science faculty, Medicine students recorded the highest outcomes.

Encouragingly, the average scores for each test component increased the longer a student had been enrolled at the university. This was apparent for all faculties. However, the difference in outcomes between first-year and second-year students were statistically significant, while the differences from third- to fifth-years were not.

The main purpose of the pilot was to examine the measurement properties of the test rather than yield performance data on students. Student scores were well spread, forming roughly normal distributions like those characteristic of valid and reliable assessments.

“In a pilot program it is a relatively normal outcome to find that certain types of items, items of particular contexts and issues of translation are problematic,” said MacMahon Ball.

“A valuable exercise that comes of this pilot will be a thorough review of those items that have performed well and a diagnostic review of those that have under-performed to inform the item development phase of the 2011 program.”

The 2011 test will incorporate significantly more material developed locally at Imam University to make the content more appropriate and relevant to the student population. Easier items will be included in the test along with items that tap into more conventional content-focused forms of performance. More discipline-focused items will be developed in order to yield faculty-specific performance information.

As part of the development of the Imam University Centre for Evaluation and Assessment (ICEA), ACER will work with Imam University to develop appropriately targeted test items for the 2011 Cognitive Skills Test.
Assessing medical education

Preparations are underway to establish an Australian Medical Assessment Collaboration (AMAC) to provide generalisable assessments of what medical students know and are capable of doing.

Despite strong accreditation and quality assurance measures in the medical profession, there remains a lack of consistent information about what medical students have actually achieved and whether they are capable to work as doctors.

The University of Queensland and Monash University, in collaboration with ACER, will initiate AMAC to meet the needs of Australian medical education.

Together they will establish a framework for developing a generalisable assessment of the learning outcomes for medical students. The assessment will include both Objective Structured Clinical Examination stations and multiple choice questions.

Research by the Department of Education, Employment and Workplace Relations has shown not all medical students are gaining the same skills and knowledge from their medical studies.

The framework and test items will therefore be developed in a way that assesses student ability to apply broad concepts to solve specific problems, rather than being based specifically on course curriculum and content.

From this framework, individual medical schools will be able to select assessment items relevant to their curriculum, confident in the knowledge that the items have been blueprinted, designed and standards set against appropriate national and international best practice.

The project will run over an 18 month period, starting in early 2011 and concluding in late July 2012.

A pilot of the items will be conducted towards the end of 2011, involving third or fourth year students.

The project will be conducted by a consortium that includes staff from the University of Queensland, Monash University and ACER. The project will be jointly led by Professor David Wilkinson, Dean of Medicine, and Head of the School of Medicine at the University of Queensland, and ACER Director Higher Education Research, Associate Professor Hamish Coates.
Comparing graduates internationally

Australian university graduates are less likely to have engaged in further study five years after bachelor degree completion than are their international peers, according to a research paper published in *Higher Education Quarterly*.

The paper, co-authored by ACER Director of Higher Education Research Associate Professor Hamish Coates and ACER Senior Research Fellow Dr Daniel Edwards, analyses the findings of the 2008 Graduate Pathways Survey (GPS) against comparable international studies.

Conducted by ACER for the Department of Education, Employment and Workplace Relations, the GPS is the first and only national study in Australia of bachelor degree graduate outcomes five years after course completion. More than 9,000 graduates from 39 of Australia’s 40 higher education providers participated in the survey.

The GPS results show that 31 per cent of graduates surveyed, who graduated in 2002, had completed a postgraduate qualification by 2008. By comparison, a 2005 UK study revealed more than half (57 per cent) of UK graduates had undertaken some form of additional education and training within four years of graduation. More than 9,000 graduates from 39 of Australia’s 40 higher education providers participated in the survey.

Edwards said the GPS results indicate that a substantial number of Australian graduates build on their qualification levels, although perhaps not quite to the same extent as their international peers.

“Given the global nature of today’s graduate workforce, it is important that we match the GPS findings with those of benchmark international studies to provide broader context for considering the outcomes of Australian graduates,” said Edwards.

Other GPS findings compared more favourably with international studies. In the 2005 UK survey, over two-thirds of graduates responded that they would do exactly the same course at the same university if they had their time again. The Australian GPS revealed that 70 per cent of respondents would ‘probably’ or ‘definitely’ choose to do the same degree and 85 per cent would attend the same university.

Nearly 80 per cent of GPS respondents indicated that their entire educational experience during their degree was either ‘good’ or ‘excellent’. Canadian research from 2004 shows an overall rate of positive response to the bachelor degree program by graduates five years after completion as a little over 70 per cent.

The 2006 study of US graduates showed that 90 per cent thought their degree was worth the time, cost and effort, compared with the Australian GPS result of 87.5 per cent. Seventy-eight per cent of the US cohort agreed that their degree prepared them for their work and career, while 72 per cent of Australian graduates believed that their degree would be ‘very’ or ‘quite’ beneficial to them achieving their long-term career goals.

Similarly, GPS results show 64 per cent of employed graduates saw a direct link between their degree and their jobs five years out from university and 83 per cent either ‘definitely’ or ‘probably’ saw themselves continuing in their current work for the next three to five years. By contrast, the 2005 UK study showed that, five years after graduation, 70 per cent of men and 66 per cent of women saw their jobs as being relevant to their long-term career goals.

“The GPS had similar findings to the international research on measures of satisfaction with work and links between the degree and the jobs of graduates,” said Edwards.

Testing outcomes
Boosting the academic workforce

There has been a significant amount of research into the growing workforce demand for PhD-qualified people, particularly within the tertiary sector. Less common, though, are research-based strategies for meeting the identified challenges. In the latest Research Briefing on the LH Martin Institute’s Changing Academic Profession research project, authors Hamish Coates and Leo Goedegebuure outline eight strategies for effectively managing the future academic workforce.

Coates and Goedegebuure contend that a fresh conceptualisation of academic work is necessary because the current organisation of academic work and the academic career structure no longer meet operational demands.

“Academic work is growing in significance while workforce capacity is shrinking, staff are being attracted to other sectors, and the tertiary landscape is changing,” Coates and Goedegebuure write.

“If academic life is to be an attractive future career choice for clever and dedicated people, then we need to be able to show them a realistic description of what becoming an academic means, coupled with a career structure that meets the reality and expectations of an increasingly diverse workforce.”

The authors outline the eight strategies as follows:

1. **Reconfigure academic workforce.** With a bit of imagination one can envisage an almost endless variety of career options that moves us away from the simplistic assistant – lecturer – senior – associate – professor ladder. To help understand and promote this diversity, there is a need for greater definition of academic capability and competence.

2. **Construct academic career profiles.** Traditionally, careers are treated as a vertical, pre-defined pathway. However people often take up different and distinct roles throughout their career that involve horizontal as well as ‘downward’ moves.

3. **Design attractive customised experiences.** Research has shown that the characteristics of a quality academic experience are (in no particular order): opportunity for research, workload, mobility, environmental support, salary, contract conditions, and overall job satisfaction and commitment to the profession.

4. **Design a measured experience.** The purpose of monitoring is to develop people to the best of their abilities in the context of what they are capable of and what the institution needs. Some possibilities for areas to be measured are: teaching
Educating academics

performance, research performance, industry and community engagement performance, and leadership and management performance.

5 Engage sessional academics. Engaging sessional academics involves: creating more entry-level early career positions; converting sessional staff onto fixed-term appointments; developing the capacity of managers to support sessional academics; involving sessional staff in professional learning opportunities; providing adequate on-campus flexible-office spaces so that sessional staff can interact with students; and creating better data sources and models for understanding the sessional workforce.

6 Refresh the research degree. To ensure that the PhD is designed to prepare people for the academic work of the future, it would be helpful to analyse the nature of academic work then set desired outcomes from the doctoral degree. Professional capability requirements could be ‘allocated’ to pre-vocational or professional stages of training.

7 Expand staff numbers with system growth. Staff numbers are growing at a lower rate than are student numbers. It is estimated that in the next five years the Australian university sector will need to replace almost half of its staff.

8 Engage leaders in capacity development. Building Australia’s future academic workforce requires engagement of a wide range of stakeholders, not least of all institutional managers and leaders. There is a need for an extensive stocktake of what is going on to generate important insights and create a sound basis for cross-institutional benchmarking.

The report offers steps to advance these changes. Serious discussion of contexts, challenges and potential solutions are the suggested first step, followed by research and development initiatives to flesh out the full picture of the current academic workforce.

“Now is the time for Australian higher education to draft and implement an agenda that proactively shapes future academic work and the profession,” say Coates and Goedegebuure.

The full research briefing, The Real Academic Revolution: Why we need to reconceptualise Australia’s future academic workforce and eight strategies for how to go about this, is available on the LH Martin Institute website.

Educating academics

Visualising Leadership

The Australian Vocational Education and Training (VET) sector faces a leadership succession crisis and must implement strategies to attract, identify and develop a new generation of leaders, according to a recent report.

*VET Leadership for the Future* details the findings of a collaborative research study, conducted in 2010 by ACER and the LH Martin Institute, to examine VET leadership.

Report co-author, ACER Higher Education Research Director Associate Professor Hamish Coates, said organisations and governments must make VET leadership an attractive proposition to a new generation of leaders as the current, older generation of leaders leaves the system.

"By attracting, engaging and retaining new people from both inside and outside the VET sector, we have the capacity to map out new conceptualisations of the leadership profession," said Coates.

A national survey of 327 practising VET leaders revealed telling insights into current perceptions of the profession. In addition to completing the survey, respondents were asked to provide an analogy that best describes what it is like to be in their current role.

Responses from CEOs included "being a magician" and "running a very small country". One senior executive said their role was like "Being a sheepdog – you have a whole flock of very keen people ready to run off in all directions and you need to keep them focused and heading in the right direction."

Senior managers spoke of "constantly moving goal posts" and "being given responsibility for a luxury car and not being allowed to drive it". Senior practitioners described their role as "skating on thin ice" and "a never ending journey, with great views of ever changing scenery, a relatively clear intended destination, but no map".

Generally, senior executives reported a capacity to steer their organisation forwards within manageable parameters, whereas leaders with more operational roles reported stress in trying to manage amid uncertain challenges and without the support or space required to deliver necessary outcomes.

Coates said these analogies support research findings that VET leadership involves complex navigation of uncertainty, initiating and dealing with change, working with cumbersome organisational cultures and processes, and dealing with the unexpected.

"The analogies put particular focus on the pressures and freedoms that shape leaders’ work," said Coates. "This reflects the complex and ever changing policy, funding and regulatory environment within which VET leaders operate."

Leaders in all roles said that managing organisational change is the most important aspect of their work. With the exception of those who identified as being directly involved in teaching, all other leaders flagged teaching and learning as the least important facet of their work.

The study found that in many respects the concerns of leaders are only loosely aligned with the broader pressures confronting the VET sector. In increasingly commercial contexts, VET leaders focus on planning and implementing change rather than graduate outcomes, quality and education standards.

"VET leaders are focused on input-side factors such as student numbers and funding," said Coates. "A challenge for the future involves developing a more outcomes-focused orientation, one centred on effective change implementation, on delivery, and on high-quality graduate outcomes."

The research findings underline the need to define the profession of the VET leader.

A review of prior research suggests a leadership framework should be comprised of personal, interpersonal and cognitive capabilities or qualities as well as role-specific and generic competencies, skills and knowledge.
Evidence from the 327 leaders who participated in the study supported this conceptualisation of leadership but indicated a disparity between the capabilities identified as important for effective leadership and the way leaders are identified and promoted.

“Arguably the most important implication of this study is the need to implement tested strategies for identifying and developing aspiring leaders,” said Coates.

Results from the survey indicate that only a moderate amount of professional development has been devoted to enhancing the capabilities that respondents identify as being the most important for effective leadership. Most leaders expressed a preference for practice-based, self-managed learning, rather than formal development activities.

The report suggests that new leadership programs, built on authentic and active modes of learning, should focus on working in complex environments and on change management skills.

“There is scope for the findings from this study to play a major role in reshaping the approaches which are used for leadership selection and development,” said Coates. “The VET sector needs research-based strategies for managing the looming leadership succession crisis.”

Dr Coates co-authored the report with Justin Brown and Tim Friedman from ACER, Professor Lynn Meek from the LH Martin Institute, and VET consultants Peter Noonan and John Mitchell.

The full research report, VET Leadership for the Future: Contexts, characteristics and capabilities, is available from http://research.acer.edu.au/higher_education/13/
Propelling learning
Work and study

Whereas once upon a time a student’s employment was seen to be a distraction from their studies, driven by economic necessity, in 2010 off-campus paid work appears to have become a natural and rewarding part of undergraduate life.

In a briefing paper to come from the 2010 administration of the Australasian Survey of Student Engagement (AUSSE), ACER Director of Higher Education Research Associate Professor Hamish Coates suggests that universities need to do more to support the large numbers of university students who work while studying.

Results from the last four administrations of AUSSE show that around two-thirds of Australian university students participate in paid work off-campus. Between 2007 and 2010 the figure for first-year students has varied from 63 per cent in 2009 to 69 per cent in 2008. For later-year students the figure jumped from 70 per cent in 2009 to 77 per cent in 2010. Taking part in paid work did not increase the likelihood of early departure.

“There are numerous reasons why students undertake paid work during their undergraduate studies,” said Coates. “Financial responsibilities, opportunities to socialise, reinforcing academic skills, career formation, meeting family expectations, cultural factors and sheer enjoyment are just some of the motivations to work.”

Personal demographics also influenced whether or not a student works. For example, more women work than men, and for longer hours. People who receive financial support from the government or their university work less than those who do not. International students work less than their domestic counterparts. Students from high or middle socioeconomic backgrounds work less than low SES students. Strikingly, students living with their parents are more likely to work than those living with partners or by themselves, or in on- or off-campus student accommodation.

AUSSE revealed a striking relationship between participation in paid off-campus work and academic performance. There was a positive connection between grades and paid work for students who work one to 10 hours per week. People working 11 to 20 hours per week tended to have average grades. The grades of students working more than 20 hours per week were fairly evenly spread, with a slight dip towards the upper achievement levels.

“If learning how to think is the primary purpose of university, then getting a job at the end likely comes a close second,” said Coates. “AUSSE shows that students who participate in off-campus paid work report greater development of employability skills and career readiness.”

Results from the Graduate Pathways Survey, Australia’s first census of bachelor degree students five years after graduation, similarly discovered students who participated in paid work were much more likely to move seamlessly into paid work after graduation and to receive higher salaries. One year after graduation 49 per cent of those who did not work for pay as an undergraduate were in full-time graduate employment, compared to 67 per cent for those who worked 21 to 30 hours and 78 per cent for those who worked 31 hours or more.

“Helping students develop the employability skills and professional capabilities they will need to make the transition into graduate roles is one of the most important aspects of university study,” said Coates. “For example, AUSSE shows that students who do work experience or an industry placement report significantly higher engagement and outcomes than those who do not.”

Students’ participation in and returns from paid work, however, are misaligned with the careers support they receive from institutions. While 66 per cent of Australian first-years worked for pay off campus in 2010, only 7 per cent consulted a careers service for advice, and only half (52 per cent) reported that their paid work had no or very little relation to their study.

Strikingly, 41 per cent of first-years and 27 per cent of later-years said that in the current academic year they ‘never’ blended academic learning with workplace experience, talked about career plans with academics (59 per cent first-years, 45 per cent later-years), or worked with academics on activities outside of coursework (76 per cent first years, 70 per cent later years).

Such misalignment is concerning and has the potential to cause inefficiencies in students’ education. The disconnected nature of students’ work and study creates conflict and fails to capitalise on opportunities for work-derived learning and using academic skills in the workplace.

“AUSSE clearly shows that students are participating in paid work, that such work yields positive returns for learners and graduates,” said Coates. “Institutions need to do more to support learners and capitalise on their vocational activities.”

The AUSSE briefing, Converting paid-work activity into graduate outcomes, and further information on AUSSE is available from http://ausse.acer.edu.au
A report released in November 2010 shares ideas on ways institutions can enhance student engagement.

“Student engagement is linked to high-quality learning outcomes,” said report co-author, ACER Senior Research Fellow Dr Daniel Edwards. “Institutions must make informed, professional decisions about what particular student engagement data they will act on and about how to take necessary action.”

Edwards said participating institutions use the information collected by the Australasian Survey of Student Engagement (AUSSE) as well as other surveys and programs to improve student outcomes, manage and monitor resources, programs and services, and help identify how to better retain students to graduation.

AUSSE is the largest, most comprehensive and well validated survey yet conducted to measure whether students are interacting with their institutions in the most educationally productive ways. Developing strategies to use this information for continuous quality improvement is an important part of the AUSSE.

Institutions from Australia and New Zealand have provided short descriptions of programs or projects they have developed with the specific aim of enhancing students’ engagement. These examples of programs provide other institutions with an insight into the level of activity relating to engagement within the higher education community and offer ideas for further implementation of support programs for students. A selection of the responses from institutions have been extracted from the report and summarised here (opposite).

Edwards said that, once an institution has implemented a strategy, it has a responsibility to measure its effectiveness.

“The AUSSE is being used effectively to evaluate and monitor the progress and success of support and engagement programs for students,” said Edwards. “It provides an evidence-base for such evaluation and enables institutions to identify key groups of students who would benefit from engagement strategies.”
### Academic strategies

In 2010 the University of Tasmania (UTAS) focused on improving engagement among first-year students. One of the initiatives to come out of this was the introduction of a Peer Assisted Study Session (PASS) Program, a free and voluntary academic assistance program that supports first-year students in traditionally difficult subjects. PASS differs from tutorials and lectures in that students work together to learn unit content and discipline-specific study skills from each other, through a collaborative approach to problem solving and learning. The program is facilitated by PASS Leaders - students who have previously completed the unit with distinction, and have undertaken PASS training. According to UTAS, attendance at PASS has repeatedly shown a significant improvement in students’ academic results. UTAS says institutional, national and international research indicates that PASS students earn higher subject grades, and withdraw less often, than non-PASS participants.

Swinburne University of Technology regards student engagement as central to improving graduate outcomes. Their Professional Learning Model (PLM) aims to encourage student engagement in curricular and co-curricular activities by providing a structured range of opportunities to develop their career profile, such as international study and work-integrated learning. By anchoring theory in real-world experiences, Swinburne says they motivate and engage students with their studies, while the global perspectives of PLM also develop student leadership and engagement, often in international environments. According to Swinburne, the PLM’s flexible curriculum further assists student engagement, as students can complete their degree faster by studying units in summer or winter term and can also adjust their enrolment to suit other co-curricular activities, such as representative sporting activities.

### Communication strategies

For Bay of Plenty Polytechnic (BoPP), student engagement begins each year with the powhiri (Māori welcoming ceremony) for new and returning students, where safety, boundary setting and initiation of whaka whanaungatanga (relationship development) occurs. Soon after, first-year students complete the First Impressions Survey. The survey ascertains how students are connecting with student life in the first few weeks of their program by asking whether they have had good or bad experiences in orientation, with timetabling, with access to information, and with feeling welcomed. BoPP contends that this type of survey has the potential to identify potential roadblocks for students in relation to facilities, processes and communication. The 2009 survey led to improvements in food service and quality. An outcome from the 2010 survey was for BoPP to ensure that students have early advice about their timetables to help them with personal planning.

In 2009, the University of Notre Dame Australia participated in AUSSE for the first time and performed comparatively higher than its benchmark groups in the area of staff and student interactions. However, when compared with the University’s own performance in many of the other areas, this was clearly an area of underperformance, especially for first-year students. AUSSE results and other University data sources have prompted: the provision of Campus-wide individual tutoring sessions through an Academic Help Desk; an increased focus on raising sessional staff awareness of expectations around the level and nature of students’ contact with teaching staff; tracking of first year student attendance at lectures and tutorials to identify students at risk due to non-contact with teaching staff; and new international students being contacted at the beginning and mid-semester points to determine how they are coping with studies and their new cultural environment.

### Technological strategies

The University of New England (UNE) is using technology to enhance its communication with students. According to UNE, purposeful communication from the institution to the student and a willingness to respond to the student voice are fundamental to engaging relationships. The UNE student online portal contains embedded YouTube podcasts that provide tutorial advice and support for a wide range of student-related activities. ‘Just-in-time’ and ‘just-in-case’ messaging pre-empts issues that traditionally arise for students leading into key milestones of the student lifecycle and is accessible via Blog, Twitter, Facebook and RSS feeds. Custom maps via Google Maps, a dynamic daily blog and “UNE101” preparatory orientation opportunities are also available online.

SMS text messaging is a tool used to support Bay of Plenty Polytechnic (BoPP) students at risk of disengagement. Since 2008 BoPP has contacted absent students via E-text message, as tutors have suggested that students are more responsive to text messages than to mail or email contact. One BoPP program team has built text message contact into normal classroom practice. In this program, students text their tutors if they are going to be absent or late for class and explain why. BoPP says this provides an ice-breaking opportunity for students to contact the tutor regarding something personal they may want to discuss. Tutors use text messages to acknowledge personal excellence or effort, always using the student’s name. At the end of every week of the program, the program coordinator sends out a positive quote to every student, most of whom reply.
TAFE loses post-school ground

Victorian school leavers are changing their preferences for TAFE courses in relation to other education and training destinations, according to a paper presented to a recent conference on the economics of education.

Dr Phillip McKenzie, ACER Research Director; Transitions and Policy Analysis, and Dr Sheldon Rothman, ACER Principal Research Fellow, Program Evaluation, used information from the Victorian Government’s On Track annual survey of school leavers to show how vocational education and training (VET) fits into the post-school landscape.

“TAFE has declined in relative importance as a destination for Victorian Year 12 completers between 2003 and 2010,” Dr McKenzie said. “However, TAFE is showing renewed take-up by early school leavers, particularly in programs for lower-level certificates.”

The proportion of Victorian school completers enrolled in a TAFE course in the year after leaving school has increased over the past two years to 21 per cent, following a decline from 23 per cent in 2003 to 15 per cent in 2006, where it plateaued until 2008.

Apprenticeships and traineeships increased as a destination for Victorian school completers between 2003 and 2010 and remained largely steady for early leavers. Among school completers, university has increased in importance as a destination in the year following school.

“The net effect is that VET enrolled smaller proportions of both school completers and early leavers in 2010 than in 2003,” Dr McKenzie said. “However, VET still remains a very significant sector, attracting about 25 per cent of school completers and 50 per cent of early leavers in 2010.”

Dr McKenzie explained that these changes in post-school destinations are occurring within the context of rising school completion rates and the diversification of the school study experience.

“Of all those people that are leaving school in Victoria, a higher proportion of them have finished Year 12 or equivalent,” Dr McKenzie said, referring to those who graduate with either the Victorian Certificate of Education (VCE), with or without a VET component, or with the Victorian Certificate of Applied Learning (VCAL).

In 2003, only one in seven students chose not to study ‘straight VCE’, or VCE without a VET component. Since then participation in VCE with VET has been growing by about 1.5 percentage points per year and participation in VCAL has been growing by about one percentage point per year. Consequently, now one in three students is not studying straight VCE.

“VET is far from losing its attractiveness,” Dr McKenzie said, “however its comparative position in the post-school education and training landscape has changed.”

Between 2003 and 2010, almost 310 000 young people participated in the On Track surveys. ACER has been contracted since 2008 by the Victorian Department of Education and Early Childhood Development for the overall management, design, analysis and reporting.

The 2010 Annual Conference of the Monash University-ACER Centre for the Economics of Education and Training (CEET), ‘Education and training for a more productive Australia’, was held in Melbourne on Friday 29 October at Ascot House, 50 Fenton St, Ascot Vale. The presentations are available from: http://www.education.monash.edu.au/centres/ceet/conferences/2010.html
Evaluating university teaching

Gathering feedback from students about the quality of teaching is a core part of continuous improvement in Australian universities. ACER recently assisted Flinders University to improve their Student Evaluation of Teaching (SET) survey.

The Flinders University Student Evaluation of Teaching (SET) survey adds to the understanding of teaching and learning, helping ensure high standards of teaching. The survey also provides staff with a means to reflect on their teaching practice, and information on which to plan their professional development.

Between July and November 2010, ACER reviewed the existing Student Evaluation of Teaching survey forms then developed an improved survey framework and new survey questions.

During the consultation process it was agreed that the new survey should be directly relevant to the discipline, mode of teaching and type of students that are found in particular subject areas.

To make the survey adaptable to these many different teaching contexts available at Flinders University, the survey is comprised of six core items, up to six additional items from a library of optional items refined by ACER and two additional open-response questions.

The decision to set a maximum number of items for the survey was based on careful consideration of the need to gain feedback versus the danger of overloading students and thereby reducing response rates.

A five-point survey response scale of agreement/disagreement replaced the nine-point scale used on the old survey, as longer response scales add to response burden, essentially multiplying the number of decisions they need to make. The ‘Not Applicable’ option was one of the points removed, as well-designed surveys of this nature should only include items that are applicable to all students.

New items were worded precisely in order to limit the possibility of students interpreting them differently to the desired meaning. For example, questions should focus on learning rather than satisfaction as the latter is often interpreted by students as ‘enjoyment’.

On completion of the review, the survey had been transformed from four separate survey forms to a single survey form that addresses both resources and teaching.

Professor Andrew Parkin, Deputy Vice-Chancellor (Academic) Flinders University, complimented the review, saying Flinders University staff and students from all parts of the University worked closely with ACER staff on the project.

“The work was done within a very short time and a number of complex elements were considered in arriving at an improved framework for the conduct of classroom evaluation surveys at Flinders,” said Professor Parkin. “This now positions us to deliver a contemporary surveying solution to provide a key source of student feedback to staff and students.

“The new approach is expected to strengthen student reflection on their learning and this is pivotal to Flinders’ ongoing commitment to the improvement of the overall learning experience.”
Engaging students with internationalism

International students are an integral part of Australia’s higher education sector. Despite difficult global circumstances, international trade in Australian higher education continued to grow in 2010, generating a record $10.6 billion.

Fears abound, however; that the bubble is about to burst. It is therefore more important than ever that institutions do everything they can to protect their valuable international student enrolments.

Although international students are more engaged with their university education than local students, and also report better outcomes, they are less satisfied with their experience of undergraduate study overall. This indicates that while Australian universities are generally successful at meeting the needs of international students, there are areas in which they need to do more. Identifying factors which negatively impact international students is vital and, if improvements can be made, has the potential to have a significant impact on the health of individual institutions and the higher education sector as a whole.

During a presentation to the 2010 Australian International Education Conference, held in Sydney last October, ACER Senior Research Fellow Sarah Richardson examined the current state of the international student experience by analysing results from the 2009 Australasian Survey of Student Engagement (AUSSE), and suggested a crucial factor which was undermining their satisfaction with their experience.

AUSSE revealed international students reported higher overall levels of engagement than local students. International students were more likely than local students to report feeling engaged in active learning, academic challenge, enriching educational experiences and supportive learning environments.

International student responses to the amount of staff-student interaction received — one of the strongest influences on positive learning outcomes — were significantly higher than was the case for local students. Significantly more international students than local students discussed grades and ideas from class with teaching staff, and worked with teaching staff on other activities.

Another aspect of the international student experience is that of student outcomes. In addition to engagement, AUSSE measures student perceptions of the development of higher order thinking, general learning outcomes, general development outcomes, and career readiness. International students scored higher than local students on each of these scales.

“Yet despite international students reporting higher levels of engagement and better outcome scores than local students, they report lower levels of overall satisfaction with undergraduate study,” said Richardson.

Around 71 per cent of international students rated their overall educational experience as ‘good’ or ‘excellent’, compared to around 81 per cent of local students.

Richardson found that student perception of their relationships with their peers partly explains the reasons for international students’ low levels of satisfaction. AUSSE shows that international students rate the quality of their relationship with other students much less positively than local students.
Engaging learners

with students who are very different in terms of their religious beliefs, political opinions or personal values.

Not only do these figures suggest that the amount of contact between students from different backgrounds is limited, they also demonstrate that these kind of contacts decline over time. AUSSE shows that the proportion of later-year students having these conversations is lower than the proportion of first-year students. In contrast, all other types of engagement and outcomes measured by AUSSE increase between first-year and later-year students.

Richardson offers a partial explanation for the declining prevalence of these conversations over time in the reports from students that institutions are less likely to encourage contact among students from different backgrounds in later-years of study.

Just 43 per cent of first-year students and only 35 per cent of later-year students said their institution encourages them to have contact with those from different economic, social and ethnic backgrounds either ‘quite a bit’ or ‘very much’. The amount of students responding ‘very little’ increased from 19 per cent of first-years to 27 per cent of later-year students.

“AUSSE suggests that first-year students are interacting with people from different backgrounds more than later-year students because their institution is encouraging them to do so,” said Richardson.

“Higher education providers need to maintain encouragement of interaction among students from different backgrounds at every year level so that all students can benefit from an international education.”

AUSSE is a collaboration between ACER and participating universities. The 2009 AUSSE involved more than 30,000 students from 35 higher education institutions.

Further information on AUSSE is available from http://ausse.acer.edu.au
The Australian Council for Educational Research (ACER) is one of the world’s leading educational research centres. Its mission is to create and promote research-based knowledge, products and services to improve learning across the lifespan.

ACER was established in 1930 and for 80 years has built a strong reputation as a provider of reliable support and expertise to education policy makers and professional practitioners. As a not-for-profit organisation, independent of government, ACER receives no direct financial support and generates its entire income through contracted research and development projects and through products and services that it develops and distributes. ACER has experienced significant growth in recent years and now has more than 300 staff located in Melbourne, Sydney, Brisbane, Perth, Adelaide, Dubai and New Delhi.

In recent times ACER has expanded on its program of research and development in support of learning in vocational education and training and in higher education institutions while maintaining and expanding work undertaken in support of schools.

ACER’s extensive research capacity is distributed across ten research programs:

- **Higher Education** focuses on admissions and outcomes testing, large-scale surveying, student engagement, research training and teaching quality, demographic modelling and planning, workforce and leadership capability assessment, designing quality assurance systems, analysis and reporting of complex data, and policy analysis and review.

- **Transitions and Policy Analysis** focuses on the interconnections between education and training, the labour market, and the wider society.

- **Assessment and Reporting: Humanities and Social Sciences** focuses on cross-curricular skills such as literacy, critical thinking, interpersonal development and verbal reasoning; and subject-based disciplines such as English and Studies of Society and Environment.

- **Assessment and Reporting: Mathematics and Science** focuses on cross-curricular skills such as numeracy and abstract, scientific and quantitative reasoning as well as mathematics and science subject-based disciplines.

- **National Surveys** conduct a number of large-scale surveys of nationally-representative samples of students that involves expertise in sampling, survey design and implementation, data analysis and reporting of results with a national focus to a variety of audiences.

- **International Surveys** conduct sampling, survey management, scaling methodology, survey data analysis and the interpretation and reporting of results from large-scale international comparative studies.

- **Systemwide Testing** identifies more effective ways of monitoring achievement across entire education systems.

- **Teaching, Learning and Leadership** focuses on the relationship between teacher professional development and improved student learning.

- **Program Evaluation** undertakes analysis of policies and practices for both government and non-government organisations to help them identify need, collect data, monitor programs, and measure the impact of their policies and practices in relation to their objectives.

- **Psychometrics and Methodology** provides high quality psychometric and data analytic support to projects, manages externally commissioned data analysis/methodology projects and undertakes, publishes and presents research on psychometric and other quantitative research issues.

In addition to being a national centre for educational policy research and advice, ACER develops and provides a range of research-based products and services to support the work of professional practitioners.

ACER provides secure, fee-for-service testing programs to schools, universities, employers and professional organisations. These programs include selection tests for entry to schools and universities, scholarship tests and tests for diagnostic and monitoring purposes, and recruitment tests.

The organisation also encompasses ACER Press, the Cunningham Library, and the ACER Institute.