Over the past decade, the Australian Council for Educational Research (ACER) has greatly increased the range and reach of its educational research and assessment work around the world, and as a result ACER’s international reputation has grown rapidly. This and future issues of our International Update will examine in more detail some of these areas of work, to highlight the many ways in which ACER contributes to education globally through examples of our international projects.

ACER, along with our Indian subsidiary - Australian Council for Educational Research (India) - and our United Arab Emirates Office, has developed mutually beneficial and enduring links with other international and local organisations such as Ministries of Education, universities, schools, development and non-government organisations. ACER has built, for example, long-term ties with Indian organisations including most significantly the Central Board of Secondary Education and the National Council for Education Research and Training, as discussed in this International Update. A key aspect of ACER’s approach to relationship development is the building of capacity in various national governments and organisations. ACER has facilitated the growth of expertise and skills in assessment and educational practice in countries such as Papua New Guinea and Saudi Arabia, giving these countries the knowledge to make good educational policy decisions.

Proper assessment and evaluation is also vital, in order to enact appropriately targeted educational policies and reforms to improve educational systems at the micro and macro levels. ACER specialises in producing quality test instruments to monitor and evaluate student learning for international use. ACER is the lead consortium partner in the implementation and analysis of the Organisation for Economic Cooperation and Development’s Programme for International Student Assessment (PISA), as well as the OECD’s Assessment of Higher Education Learning Outcomes (AHELO). ACER is also the international coordinating centre for the International Civics and Citizenship Education Study. There has been increasing use of ACER-developed testing instruments at the national level in other countries as well, including individually tailored national and regional assessment programs in Brunei, Hong Kong, Colombia, the United Arab Emirates and Mexico.

From the sample of work discussed in this International Update, it can be clearly seen that international work is an integral part of ACER’s vision and identity. In the future, ACER will continue to look outward and to use its expertise and experience to raise education standards and outcomes around the world.

Foreword

Peter McGuckian, Director International Development
Engaging international students

International fee-paying students are a large and important group within the higher education sectors of Australia, New Zealand and the United States of America. In 2006 these three countries enrolled nearly 30 per cent of all international tertiary education students worldwide. The USA has the largest share (20 per cent of all students), but Australia and New Zealand also have a high concentration of international students. Figures from the Organisation for Economic Cooperation and Development show that in 2006, almost 20 per cent of all enrolments in Australian universities and 15 per cent in New Zealand universities were international students. By contrast, the figure for the USA was three per cent.

Despite this high proportion of international students, a recent research briefing from the Australasian Survey of Student Engagement (AUSSE) suggests that Australian universities still have much to learn about the experiences of this cohort – and with international and institutional reputations on the line, and nearly 15 per cent of all income of Australian tertiary providers derived from international student fees, there is much to lose if they do not.

The briefing, *International students’ engagement with effective educational practices: A cross-national comparison*, prepared by ACER Senior Research Fellow Dr Daniel Edwards, shows that international students in Australian universities have lower levels of engagement with their institution when compared to international students enrolled in US universities. While the AUSSE data shows that within a national context the international student group is relatively well engaged, in a global context – which is essentially the context in which the international student market operates – there appears to be some room for improvement within higher education institutions for lifting the engagement of international students to the levels witnessed elsewhere in the world.

Student engagement is an idea specifically focused on learners and their interactions with university: on aspects of teaching, the broader student experience, learners’ lives beyond university, and institutional support. It is based on the premise that learning is influenced by how an individual participates in educationally purposeful activities. While students are seen to be responsible for constructing their knowledge, learning is also seen to depend on institutions and staff generating conditions that stimulate and encourage involvement.

The largest difference between Australian, New Zealand and US international students was related to student and staff interactions. About 12 per cent of later-year international students in Australia and 13 per cent in New Zealand ranked their relationships with teaching staff as seven on a scale of seven. This compares with 30 per cent in the US.

Students’ participation in broadening educational activities also appeared to be higher in the US than in Australia or New Zealand. Australasian-based international later-year students were more likely to have ‘never’ tutored other students (59 per cent for Australia) when compared with those in the US, where only 33 per cent indicated that they had not had any experience tutoring.

International students studying in Australian and New Zealand institutions also had notably different responses to the US-based international students in relation to feedback, support and involvement in class activities. For example, about eight per cent of first-year international students based in Australia and six per cent of those in New Zealand said that they asked questions in class ‘very often’. In the US, this figure was about 24 per cent.

Within Australia and New Zealand, few international students indicated that they received feedback on their academic performance ‘very often’ (about seven per cent and three per cent respectively). However, US international students seemed to fare better with 21 per cent receiving regular feedback on their performance.

The AUSSE analysis also found that:

- the growth in engagement with their institution between first and later year students among the international cohort is stronger among those enrolled in USA than those in Australia or New Zealand
- among Australasian university students the international student group on average have higher levels of engagement than domestic students, and
- when compared cross-nationally, the engagement score difference between international students in Australasia and international students in the US is larger than the gap between domestic students from these countries.

This AUSSE briefing suggests that international students are learning through their cross-national educational experiences, but clearly these students also influence the academic, professional and social contexts in which they move. Recent events in Australia have highlighted that careful management of the international student experience is imperative, both for individual success and for
the health of the system as a whole. In a global context, there is room for improvement in the engagement of international students in Australia and New Zealand.

The AUSSE was conducted with 25 Australasian universities in 2007, 29 in 2008 and 35 in 2009. This particular briefing paper uses data from the 2008 AUSSE and 2008 US National Survey of Student Engagement (NSSE).

AUSSE Research Briefing, Volume 5 is available from http://ausse.acer.edu.au in the reports section.
Internationally some 135 million students are enrolled in 17,000 higher education institutions – twice as many as just a decade ago. Almost three million of these students have enrolled in universities outside their home countries. From one country to the next, each institution offers a very different experience, with its own unique program, style and approach. With such diversity on offer, students need guidance in choosing a university that best suits their needs and aspirations. Higher education institutions need points of reference to help track and improve their performance. But global information on what students have learned and are capable of doing does not currently exist.

To fill this need, the Organisation for Economic Cooperation and Development (OECD) has announced it will run the Assessment of Higher Education Learning Outcomes (AHELO).

AHELO has the potential to be the most comprehensive international assessment of university learning outcomes. Unlike current research- and reputation-focused rankings, AHELO aims to measure how well students are learning the kinds of ‘above content’ capabilities that underpin much contemporary knowledge work.

The OECD has launched a feasibility study in anticipation of a full-scale AHELO. About 200 higher education students at 10 institutions in six countries are expected to take part in the study. The Australian Council for Educational Research (ACER) is leading a consortium of international organisations that will design and implement the feasibility study.

Higher education is multidimensional by nature, and AHELO has been designed to mirror this complexity. One strand of work, led by the Council for Aid to Education (CAE) based in New York, concentrates on measuring generic skills. Other strands measure students’ capacity to reason and think in the fields of engineering and economics. Development of the economics assessment is being led by the Educational Testing Service based in Princeton, with engineering along with overall project management by ACER. If it is feasible to develop such assessments, then a full-scale AHELO might significantly increase the number of disciplines assessed.

The feasibility study will be completed in 2011. In light of the findings, OECD member countries will at that time decide whether to proceed with a full-scale AHELO.

For more information, visit www.oecd.org/edu/ahelo
Three members of the Central Board of Secondary Education India visited ACER from 9 - 15 June.

The visitors were CBSE Director Vineet Joshi, Head of Innovation and Research Dr Sadhana Parashar and Senior Consultant Rampaul Sharma. ACER India Manager Ratna Dhamija accompanied the group.

The visit included meetings with ACER staff regarding assessment, evaluation, curriculum standards, professional development and school accreditation.

The visitors met with the ACER Board during its Futures Planning meeting on 10 June.

The Indian delegation also visited other organisations in Melbourne and Sydney.

While in Sydney they visited the ACER marking centre of the National Assessment Program – Literacy and Numeracy (NAPLAN).

This series of meetings builds on the relationships established between ACER and Indian officials earlier in 2010 when ACER Chief Executive Officer Geoff Masters, Director of International Development Peter McGuckian and ACER India Manager Ratna Dhamija met with Indian Minister for Human Resource Development Kapil Sibal in Delhi in January.

ACER hopes to work with the Central Board of Secondary Education India in future on educational reforms, assessment programs and professional development.

A Memorandum of Understanding between ACER and the Central Board of Secondary Education was approved by the Indian Minister for Human Resource Development Kapil Sibal and signed by Central Board of Secondary Education Director Vineet Joshi.

ACER Chief Executive Officer Geoff Masters signed the Memorandum in the presence of Minister Sibal and Australian Prime Minister Julia Gillard (then Deputy Prime Minister) on 8 April.
ACER Director of International Development Mr Peter McGuckian and Senior Research Fellow Dr Andrew Stephanou travelled to Brunei to meet with the new Brunei Minister of Education, the Honourable Pehin Dato Hj Bakar, in June.

The ACER delegates also met with Brunei Ministry of Education Permanent Secretary (Higher Education) Hj Mohd Daud and his Deputy Dr Junaidi.

Brunei Institute of Technology Vice-Chancellor Dr Hj Omar bin Hj Khalid who initiated the collaboration between ACER and the Ministry of Education facilitated the visit and accompanied ACER staff to the meetings.

The purpose of the meetings was to discuss the work undertaken to date and future developments.

The collaboration between ACER and the Ministry of Education aims to establish an assessment monitoring system in government schools, the National Study of Student Competencies in Mathematics and English (NSSCME), and to assist in building test development and psychometrics capacity.

ACER’s input is the examination of the Brunei curriculum, development of assessment instruments in line with the curriculum, construction of reporting scales, and training of staff in item writing and marking, interpretation of results and use of data analysis software.

In 2008 ACER assisted with the assessment of mathematics and English (reading and writing) skills of 15,000 students in Years 4 and 6 of primary school and Year 2 of secondary school.

Earlier this year students in secondary Year 4 sat the mathematics and English tests with links to PISA scales for international comparisons. Longitudinal data for these students, who were assessed also in 2008 when they were in Year 2, are now available for analysis.

The comprehensive capacity building program of the project includes three workshops offered last March in Brunei: a two-day workshop for 50 teachers to explain principles of ACER methodologies and how to interpret student and school reports produced in the national study; another two-day workshop to explain the processes of selecting items in the preparation of tests; a third workshop to train a group of Ministry of Education officers in data entry and data management. In addition, three ACER staff members conducted marker training in Brunei in May.

In September and October, eight teachers and officers from the Ministry of Education spent three weeks at the ACER offices in Melbourne to participate in the analysis of the main study data.

Reports will be delivered to schools in a data interpretation workshop in Brunei early next year when ACER will present the project reports with the findings of the 2010 study to the Brunei Ministry of Education.
The need for tertiary graduates to enter the workforce with highly-developed generic skills has been a key concern of employers around the world in recent years. Generic skills – such as effective communication, critical reasoning, problem solving, and adaptability to change – are essential to graduates’ employability and success in the workplace.

Many universities have invested considerable effort into nurturing these skills in their students, and education systems are increasingly recognising the need to measure the extent to which graduates develop them.

In Colombia, the Colombian Institute for the Promotion of Higher Education (ICFES) is addressing the issue by evaluating the growth in students’ generic skills over the course of their degrees.

ICFES is the Colombian agency responsible for the assessment of skill achievement, knowledge and competencies of students across Kindergarten, primary, secondary and tertiary levels.

In the last two years, ICFES has contracted ACER to provide a version of the Graduate Skills Assessment. Originally developed for the Australian higher education sector, the Graduate Skills Assessment consists of a two-hour multiple-choice test, and a one-hour written communication test; it is designed to measure critical thinking, problem solving and interpersonal skills.

The Colombian Graduate Skills Assessment was prepared by ACER and translated into Spanish by the ICFES. In 2009, more than 3700 students from 10 fields of study sat for the test at 16 universities in Colombia.

The ICFES is also working with ACER to build staff capacity in item writing and assessment.

ACER Senior Research Fellows Drs Jennifer Bryce and Doug McCurry travelled to Colombia in May and June to conduct a workshop for ICFES item-writing specialists.

The workshop aimed to develop staff skills in writing standardised psychometric test items to assess critical thinking, problem solving and interpersonal skills, like those in the Graduate Skills Assessment.

The first week was spent discussing theory, examining the rationale for each of the constructs of critical thinking, problem solving and interpersonal skills, examining similar constructs, looking in detail at the Colombian Graduate Skills Assessment constructs and then discussing the characteristics of good stimulus material and questions to test each construct.

The second week of the workshop was devoted to participants’ item writing. The aim was for each participant to produce a folio of panelled and edited items.

In the course of the workshop ACER consulted with ICFES staff on how the Generic Skills Assessment writing test scripts had been marked in the past and how they might be marked in the future; as well as of linking Year 11 student assessment with the Generic Skills Assessment.

Drs Bryce and McCurry also made three presentations to different audiences while in Colombia.

The first was aimed at students and covered generic skills and what students need to know about the Colombian Graduate Skills Assessment.

The second presentation was aimed at ICFES staff and covered the art of generic skills item writing.

The third presentation, aimed at stakeholders and the general public, covered generic skills and generic skills assessment, with a focus on the interests of ministry and university staff rather than the potential candidates.

Visit www.acer.edu.au/gsa-uni for more information about the GSA.
English-language assessment in Hong Kong

An ACER consultancy for the Hong Kong Polytechnic University will assist in testing graduates’ capacity to speak English in the workplace.

ACER Senior Research Fellow Dr Tom Lumley’s work with the Polytechnic University on the development of the English-language version of the Graduating Students’ Language Proficiency Assessment (GSLPA) involves ongoing quality assurance, item development, statistical analysis and interpretation, psychometric advice, staff training and associated research.

The GSLPA consists of tests of written and spoken English, and is designed to be a reliable and accurate assessment of candidates’ proficiencies in English for workplace communication.

The written language component requires students to demonstrate their reading and writing abilities through tasks such as reading and responding to professional correspondence, such as a memo, business letter or report. The spoken language component requires students to demonstrate their listening and speaking skills through role-playing tasks such as sitting a job interview, taking and summarising meeting notes, making a short business presentation, leaving a phone message, and conversing with employers, personnel department staff, colleagues or clients.

The candidates are normally students in their final year of tertiary education, though alumni can take the test.

The GSLPA provides potential employers with a clear statement about candidates’ current abilities.

Dr Lumley says the assessment speaks to the perceived need for English-language skills in Hong Kong society.

‘There’s a lot of concern in Hong Kong about the English proficiency of graduates,’ he says.

Dr Lumley says, ‘Most students who complete a Polytechnic University undergraduate course are now required as a condition of their graduation to take this test. Students who take the test get a certificate scoring their proficiency for their written language and for their spoken language, each with a brief descriptor, and the purpose of the certificate is to give some information to employers about prospective employees.

‘The test is also a conscious-raising exercise, to try to send a message to students to emphasise the importance of English,’ he says.

ACER is also working to link the GSLPA to the Common European Framework Reference, an international framework describing levels of language proficiency, designed to promote consistent standards.
Collaboration between the Mexican Ministry of Education and ACER aims to measure the success of reforms in Mexico’s lower secondary schools.

A team of ACER researchers visited Mexico in February 2010 to begin work on the Evaluation of Secondary Curriculum Reform in Mexico for the Mexican Ministry of Education.

The Mexican Ministry of Education (Secretaría de Educación Publica - SEP) recently completed its six-year roll-out of reforms to the curriculum in years 1, 2 and 3 of all secondary schools in the country.

The reform included ongoing professional development programs for teachers, principals and other support staff to apply and promote the new curriculum.

ACER’s role in the Evaluation of Secondary Curriculum Reform in Mexico is to measure the effectiveness of these professional development programs, including an assessment of whether the reforms have so far resulted in improved student learning outcomes.

ACER will administer questionnaires to students, teachers and principals in a sample group of 300 schools, as well as running the SEP-ISA student assessment program, consisting of International Schools Assessment and items from the OECD Programme for International Student Assessment (PISA).

The focus of the evaluation will be on teaching learning in the subjects of Spanish, mathematics and science. A measure of teaching practices will be constructed using student and teacher questionnaire items. The teacher questionnaires incorporate teaching scenario items similar to those used in the IEA Teacher Education Development Study (TEDS).

This will be followed by interviews with state education officers, teachers and principals.

The evaluation aims to link teachers’ questionnaire and interview responses to students’ questionnaire responses and, where possible, examine their links to students’ test performance.

This will show whether teachers have changed their teaching practices as a result of reform and professional development. It will also show whether teacher professional development and teaching practices are correlated with student achievement.

ACER will report to the Mexican Ministry of Education at the end of the evaluation. The Directorates for Curriculum Development, Teacher Professional Development and Policy Planning and Evaluation are particularly interested in the outcomes of the evaluation.
Initial findings from International Civics and Citizenship Education Study released

Initial findings from the largest international study on civic and citizenship education ever conducted were released in Gothenburg, Sweden on 29 June.

The International Civic and Citizenship Education Study (ICCS) involved more than 140 000 Year 8 students in more than 5000 schools from 38 countries. The main survey was conducted in 2008 in southern hemisphere countries and 2009 in the northern hemisphere.

While Australian students did not participate in the study, the Australian Council for Educational Research (ACER) acted as the international coordinating centre for the study. ACER worked with the National Foundation for Educational Research in the United Kingdom and the Laboratorio di Pedagogia sperimentale at the Roma Tre University in Italy, to conduct the study under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). ACER Deputy Chief Executive Officer Dr John Ainley was the project coordinator and ACER Principal Research Fellow Dr Wolfram Schulz was the research director.

The study aimed to determine how well prepared students are to be citizens in a fast-changing world and how much they have learned about civics through their formal education. It reports on student knowledge and understanding of civics and citizenship as well as student attitudes, perceptions and activities related to civics and understanding of civics.

IEA Chair Seamus Hegarty launched a report on the initial findings.

The study found that different approaches to civics and citizenship education were evident in the participating countries. These approaches include providing a specific subject, integrating relevant content into other subjects and including content as a cross-curricular theme.

Students from Finland, Denmark, Korea and Chinese Taipei showed the strongest results in civic knowledge. Substantial gaps in achievement were found between the higher and lower achieving countries as well as within countries. In almost all countries, girls outperformed boys in their knowledge and understanding of civics.

Fifteen participating countries had taken part in a previous IEA study of civic education – known as CIVED – in 1999. In seven of those 15 countries there has been a significant decline in civic content knowledge since 1999. In only one (Slovenia) has there been a significant increase.

On average about 60 percent of students across participating countries expressed trust in their national governments, the media and people in general, whereas 75 per cent of students had at least quite a lot of trust in schools.

Political parties were typically the institution least trusted and on average half of the students did not express any preference for a political party.

The study found a strong endorsement of gender equality; however, females were more supportive of gender equality than males in all participating countries.

Speaking at the launch the study’s research director Dr Wolfram Schulz stressed that the study was about more than creating international league tables of achievement.

‘Ranking countries is just one aspect of the study to allow for comparisons between countries,’ he said.

‘The comparative nature of the study provides insights and identifies patterns that are not obvious from national surveys.’

Dr Schulz noted that the study had collected rich datasets that will allow further reports and analyses over time, not only by those who conducted the study but by other researchers as well.

‘We are very optimistic that further interesting results will come out of this study,’ he said.

The report, Initial Findings from the International Civic and Citizenship Education Study, is the first in a planned series of reports from the study. This initial report will be followed later this year by an extended report and detailed analysis of student knowledge and attitudes. There will also be three regional reports for Asia, Europe and Latin America focused on their specific civic and citizenship issues.

Further information about ICCS, including the report on initial findings, can be found at www.iea.nl/icces.html.
Under the direction of ACER Senior Research Fellow Dr Julie Kos, a team of ACER researchers have completed a study with the Indonesian Ministry of Religious Affairs and the Indonesian University of Education on the Quality of Education in Madrasah.

The word madrasah is Arabic for ‘school’, but in Indonesia the term refers specifically to the formal education institutions that make up the Islamic education system governed by the Ministry of Religious Affairs, which operate alongside the general education system that is regulated by the Ministry of National Education.

The study was a collaborative task between ACER, Indonesia’s Ministry of Religious Affairs, AusAID’s Contractor Strategic Advisory Services (CSAS), the Indonesian University of Education and the Basic Education Capacity Trust Fund. The project, which ran from April 2009 to June 2010, was funded under the Australia-Indonesia Basic Education Program. Some funding was also provided by the Basic Education Capacity Trust Fund.

The aim of the study was to obtain a picture of the quality of education of Year 9 students in Indonesian madrasah. This was measured by the level of student achievement, students’ views of their schooling experience and the extent to which madrasah meet the draft Minimum Service Standards being developed by the Ministry of National Education.

More than 6000 students from 150 Islamic Junior Secondary Schools participated in the study. Students from Java and the East and West of the country were represented equally.

Students completed achievement tests in mathematics, science, Indonesian and English as well as ACER’s School Life Questionnaire, designed to measure their attitudes towards learning, teachers, other students and school in general. ACER developed an assessment of students’ background characteristics in order to observe whether they are related to student achievement. A Principal Interview Schedule and School Inventory were also developed by ACER to identify any relationships between school facilities, student achievement and student attitudes.

ACER’s research staff have analysed the results of these assessments and surveys, and have submitted the final report to CSAS and the Ministry of Religious Affairs. The report will play an important role in informing policy recommendations aimed at improving the quality of education in madrasah. The report will be published later this year. Distribution will be through the World Bank, Jakarta Office.
An ACER consultancy to the Mexican Ministry of Education (Secretaría de Educación Pública) has developed a test of students’ reading and mathematics skills in the second and third years of secondary school in Mexico.

The test, developed by an ACER team led by Senior Research Fellow Dr Tom Lumley, draws on material from ACER’s International Schools’ Assessment program, supplemented by test items from the Organisation for Economic Cooperation and Development (OECD) Programme for International Student Assessment (PISA).

‘Mexico takes part in PISA, which is run every three years. Mexico performs at a similar level of achievement to many of the other Spanish-speaking countries in the region, but this is a relatively low level compared to most other OECD countries. As part of a process of education reform in Mexico, the Ministry wants to raise this level of achievement,’ explains Dr Lumley.

‘One aspect of the reform is that the Ministry wants to gather more data, and wants to measure student performance against the OECD average more frequently than every three years, and across a wider range of year levels. To assist the Ministry, ACER created a PISA-like instrument with a range of difficulties that we estimated would be suitable for the Mexican population. We also trained Ministry staff in test development, coding and analysis. Analysis of the results from the testing program will guide further reform to the education system,’ he says.

A pilot of the testing program, conducted in 2008, assessed reading and mathematics in Years 8 and 9, and reporting will use the PISA scale. The new version of the test will be administered to students in all three year levels of secundaria, or junior secondary, the last three years of compulsory schooling.

Students in the first year of bachillerato, or high school, will also sit the test. The Ministry will include bachillerato students because the majority of PISA participants are from this year level, and so this will provide a valuable comparison.

The Ministry also plans to track a national sample of students, representing all the Mexican states and school types, each year from 2009 to 2011, as they move from Year 6 through to Year 8, before PISA is again administered in 2012 to a population of mainly Year 9 students. This project will provide information to support the ongoing improvement of the country’s educational policies and programs.

A further ACER-developed test, also based on material from the International Schools’ Assessment, is planned for Tec de Monterrey, Mexico’s largest online university.

Tec de Monterrey delivers professional development to teachers throughout Mexico. Tec de Monterrey offers diplomas for practising teachers in teaching the skills assessed in PISA.

ACER has been commissioned to conduct an evaluation of the effectiveness of these diplomas. This will involve a longitudinal study of students of teachers who have taken the Tec de Monterrey courses, comparing their performance on tests of reading and mathematics with control groups of students whose teachers have not taken these courses. This project will assess students in the first and second years of secundaria in 2010, then follow these students through in 2011, adding a new cohort of students in first year of secundaria, with a final round in 2012.
ACER advises PNG system on courses and curriculum

Analysis of Papua New Guinea’s university sector by Australian researchers will inform the development of higher education policy and planning.

The research, comprising a needs analysis and an analysis of courses and curricula, has been conducted by the Australian Council for Educational Research (ACER) and Massaro Consulting. This research has been conducted for AusAID through the AusAID Education Resource Facility, of which ACER is a consortium partner.

This research has been commissioned to inform the Review of the Papua New Guinea University System being undertaken by Professor Ross Garnaut and Sir Rabbie Namaliu as part of the PNG-Australia Partnership for Development.

In the context of PNG’s population of approximately 6.5 million people, the current size of the university sector is relatively small. Development strategies will aim to promote growth in the university sector so as to increase the education levels of the nation and to facilitate the growth of the economy.

The ACER research explores a number of scenarios of growth in the university sector and increased rates of university attainment. The research considers factors that will affect university sector growth, such as retention within university, university intakes, school retention and graduation numbers, workforce issues for schools and universities, and infrastructure.

The needs analysis examines the PNG higher education system and its role in providing graduates that satisfy the needs of the PNG economy. It aims to identify industry needs within PNG and how these relate to graduate output, including the demand for and quality of graduates, the demand for and quality of research from universities, and the relationships between education, research and industry.

The analysis of university courses and curricula focuses on the provision of education from PNG’s university sector. It projects the future needs of PNG and the extent to which course and curricula currently mirror these needs. It also explores the potential for courses that could nurture future leaders, with specific reference to public administration and governance.

The review by Garnaut and Namaliu will report to the PNG and Australian governments with recommendations on options for PNG to strengthen the university system and opportunities for PNG and Australia to work together to support improvements in the PNG university sector.
The Australian Council for Educational Research has entered into an agreement with the Imam Muhammad bin Saud Islamic University (Imam University), a major institute in Saudi Arabia, to help establish an Imam University Centre for Evaluation and Assessment (ICEA). Once established, the new centre will be influential in the educational processes that take place within the university and will potentially improve and invigorate higher education throughout Saudi Arabia.

As part of the project, ACER will support the establishment of the ICEA by providing guidelines, assisting local staff with skills development and conducting seminars to build the capacity of staff.

ACER Higher Education General Manager Marita MacMahon Ball said the project further expanded the organisation’s growing body of work in the Middle East, as well as that of the Higher Education division of the company.

Ms MacMahon Ball said the project would also highlight the technical capacity of Imam University and contribute to its growing reputation among Middle Eastern universities.

‘The project will pave the way for Imam University’s ICEA to become one of the world’s best centres specialising in sophisticated assessment, evaluation and reporting. University leaders and administrators, academic staff and university students will all benefit,’ she said.

Under a separate agreement ACER will develop a Cognitive Skills Test for Imam University to measure both critical reasoning and problem solving. The test will be used to gain a better understanding of the growth in generic skills attained by Imam University students over the course of their undergraduate studies.

The project agreements were signed during a visit to ACER’s Melbourne office by a delegation from Imam University in early January.

Imam University was established in 1974 and now has more than 1,300 academic staff and 25,000 students based at 10 campuses, encompassing a wide spectrum of learning areas from Shari'ah, Computer Science and Arabic Language, to Economics, Science and Medicine.
A delegation of professionals from India’s National Council for Educational Research and Training (NCERT), led by Professor Avtar Singh, recently participated in a series of workshops over a two week period at ACER’s head office. The purpose of their visit was to receive training in the preparation and analysis of large-scale surveys to better monitor changes to educational outcomes under the Government’s reform program.

Recognising that decisive action was required to achieve universal primary education for boys and girls by the year 2015 in line with the United Nations Millennium Development Goals, in 2001 the Government of India embarked on a nation-wide program called Sarva Shiksha Abhiyan (SSA). SSA’s main goals are to enrol all children aged six to 14 years in school, to bridge all gender and social category gaps evident in schools, to achieve universal retention and to focus on elementary education of satisfactory quality with emphasis on education for life.

According to the World Bank, who supplies funding toward the program, SSA is the largest ongoing Education For All program in the world. SSA is responsible for reducing the number of out of school children from 25 million in 2003 to 8.1 million in 2009. The current enrolment rate is more than 98 per cent of children in the age cohort.

Professor Singh, the Head of India’s Department of Educational Measurement and Evaluation, said, ‘We established SSA firstly to enrol the children in the schools, secondly to retain them in the schools and subsequently provide them with education of reasonable quality.’

Having made significant progress on enrolment and retention, the focus is now heavily on the issue of quality.

‘We already have a plan of action for implementing the learning.’

Spurred by the success of his team’s visit, Professor Singh has reported he is open to exploring the possibilities of further collaborations with ACER as NCERT work towards fulfilling the aims of SSA; enrolment, retention, equity and quality.

Professor Singh identifies the supply of qualified and educated teachers as the biggest challenge India faces in providing all children with quality education.

Singh said, ‘We have children in the schools, now we need teachers in the schools.’

‘Right to Education stipulates that there must be one teacher for every thirty students,’ Singh said, referring to the 2009 Act of Parliament that outlines the State’s obligations in providing free and compulsory education to all children.

‘To meet that requirement we need one million teachers.’

Professor Singh is confident that India can achieve the goals of SSA.

‘It’s a developmental process,’ Singh said. ‘It cannot be done overnight but we will do it.’

However, definitions of quality are of little use unless there are processes in place to measure whether or not it is being achieved.

Under SSA, NCERT has a mandate to conduct a National Achievement Survey of Grades 3, 5 and 8 every three years. Two assessment cycles have been completed since 2002. Each of these assessment cycles utilised Classical Test Theory.

‘For the third assessment cycle we want to improve the quality of the survey,’ Singh said. ‘We want to use Item Response Theory.’

Data collection for the Grade 5 cohort has already taken place. In need of further training in survey analysis and measurement theory, NCERT turned to ACER. Unlike Australia’s NAPLAN, India’s National Achievement Survey is a sample survey conducted on approximately one per cent of the student population.

Realising that ACER’s experience conducting international sample assessments such as PISA would be invaluable, Professor Singh travelled with six colleagues to ACER’s head office in Melbourne. There, highly-qualified ACER staff delivered a series of workshops on topics such as sampling, test development, field operations, analysis, reporting and report dissemination.

Professor Singh said his colleagues had benefited from their participation in the fortnight of workshops at ACER.

‘It was a very useful exercise,’ Singh said on the final day of workshops.

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Professor Singh is confident that India can achieve the goals of SSA.

‘It’s a developmental process,’ Singh said. ‘It cannot be done overnight but we will do it.’
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 is celebrating its 80th year in 2010. Over these past 80 years ACER 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.

ACER works in an increasingly international context providing support through consultancies and professional development programs to several countries establishing national assessment programs, undertaking commissioned research and providing assessment services to a broad range of international clients.

**International studies**

ACER leads a consortium of research organisations that manages the Organisation for Economic Cooperation and Development Programme for International Student Assessment (PISA) project to assess the mathematical, scientific and reading literacy skills of 15-year-olds in more than 60 countries. ACER has also been responsible for the Australian component of studies conducted by the International Association for the Evaluation of Educational Achievement (IEA), including the Trends in International Mathematics and Science Study (TIMSS) and the International Civic and Citizenship Education Study (ICCS).

**International assessment services**

A number of ACER’s assessment services have been adapted or specially developed for international clients. The International Schools Assessment (ISA) was developed by ACER researchers to measure the reading, mathematical literacy and writing (narrative and exposition) achievement of students in Years 3 to 10 in international schools worldwide. The International Benchmark Tests provide pencil and paper tests for students in Years 3 to 10. The tests measure student performance in the generic skills that underpin the teaching of English, mathematics and science. The program is administered by schools in India and the Middle East. A number of universities in the United Kingdom and Ireland now use ACER-designed tests for entry into medical schools, and mature-age university admissions.

**Development projects**

ACER has extensive experience in providing professional development programs for ministries of education and institutions throughout the world and through agencies such as Australia’s overseas aid program (AusAID) and the World Bank. ACER has undertaken a broad range of consultancy work to support aid-funded projects. Recent examples include:

- a significant number of projects under the AusAID-funded Australian-Indonesia Basic Education Program: Contractor Strategic Advisory Services, including evaluation of the impact of teacher certification policy, research into the national examinations and item development training;
- a report for the Secretariat of the Association of Southeast Asian Nations (ASEAN) on behalf of the East Asia Summit, which outlines strategies for promoting regional economic competitiveness and community building through cooperation in education across the 16 member countries.
- work for the Ministry for Public Education in Mexico to develop a test for students in two secondary school levels, incorporating PISA items, that will allow them to compare their students’ achievement with data gathered from PISA and provide a progress monitoring tool.
- work for the World Bank and the Ministry of Education in Tajikistan to design and set-up a new National Testing Centre, which will be responsible for all national assessments in the country.