Testing in the UAE
Graduate capability

Partner focus
AusAID

Regional focus
India and
Bangladesh
South East Asia
Australian Council for Educational Research

The Australian Council for Educational Research (ACER) is one of the world’s leading educational research centres.

For 80 years ACER has developed a solid reputation as a provider of reliable support to education policy makers and professional practitioners. ACER’s extensive research capacity is conducted across nine research programs:

- Assessment and Reporting (Humanities and Social Sciences)
- Assessment and Reporting (Mathematics and Science)
- National Surveys
- International Surveys
- Systemwide Testing
- Teaching, Learning and Transitions
- Policy Analysis and Program Evaluation
- Higher Education
- Psychometrics and Methodology

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 by developing and distributing products and services. The organisation has offices throughout Australia, as well as branches in Dubai and New Delhi.

**International influence**

ACER works in an increasingly international context, providing research and assessment services, consultancy, support and professional development programs to governments and educational organisations in numerous countries. In addition, ACER develops, implements and evaluates regional, national and international assessment programs for a broad range of international clients.

ACER is engaged in significant collaborative work with the Organisation for Economic Co-operation and Development (OECD) as the leading partner in a consortium responsible for the OECD’s Programme for International Student Assessment (PISA). More recently, ACER became involved in leading the OECD’s Assessment of Higher Educational Learning Outcomes (AHELO) and will lead an international consortium for a feasibility study this year.

ACER also collaborates on a number of international development projects with organisations such as the World Bank, AusAID and the United Kingdom Department for International Development (DFID), contributing to educational evaluation and reform in a number of countries.

Further, ACER is the International Study Centre responsible for the IEA International Civic and Citizenship Education Study (ICCS) and jointly conducts the IEA Teacher Education Development Study (TEDS) with Michigan State University.
A clearer picture: National and international testing in the UAE

Partner focus
Good neighbours

Regional focus
India and Bangladesh

Regional focus
South East Asia

Graduate capability

Snapshot
Current international projects
A national assessment program developed by ACER is helping to improve teaching and learning in the UAE school system. Alan Egbert explains.

The Ministry of Education of the United Arab Emirates (UAE) has recently introduced the UAE National Assessment Program (UAENAP), developed by the Australian Council for Educational Research (ACER) in partnership with the ministry, to monitor student achievement and progress, in order to inform policy and curriculum development for the nation.

ACER developed and is administering the assessment program to address the specific educational goals identified by the UAE’s Education 2020 policy.

UAENAP aims to investigate the progress of students against the standards defined in the national curriculum and to gather data to inform decisions about the allocation of resources, curriculum development and teacher development to improve the learning outcomes of UAE students.

The results of the assessment program are providing the ministry with evidence about how the system is performing in meeting its Education 2020 goals, and will contribute to enhancing teaching methodologies to ensure that students are well prepared.
to meet the challenges of living and working in a global economy.

The program includes tests in the core subject areas of Arabic, English, mathematics and science.

Under UAENAP, reports are provided to all levels of the educational community. At the highest level, the Minister and the ministry receive an overview of the performance of students across all the participating Emirates, including information about strengths and weaknesses in their current learning. This information can be used to inform policy and curriculum development for the nation.

At each level of the education system there are reports to assist educators in improving student learning, with reports to education zone directors, the principal of every school and each classroom teacher about the performance of students in their care. Parents also receive a report that shows their child’s results in each subject, addressing both their success in terms of individual knowledge and skills, and an overall indication of their standard in the subject. The standards statements indicate to parents the types of skills that students need to acquire in order to improve their learning outcomes.

More than 40,000 students from 285 schools participated in the November 2010 assessment, which tested all students in Grades 3, 5, 7 and 9 in the Emirates of Ajman, Dubai, Fujairah, Ras Al Khaimeh, Sharjah, and Umm Al Quwain.

Results from the November 2010 UAENAP revealed considerable
The UAENAP results show that there is room for improvement in the areas of writing and spelling, both in Arabic and English and especially for boys. Variation in the performance of students. Results show students’ reading skills in Arabic and English overall are higher than expected, while their performance in science and maths is at expected levels, but their performance in writing and spelling in Arabic and English is lower than expected.

On average the mean performance of girls is better than the mean performance of boys, but boys are well represented in the top-performing students. The UAENAP results show that there is room for improvement in the areas of writing and spelling, both in Arabic and English and especially for boys.

The results also provide a clearer picture of the national state of education, by establishing a set of averages for schools, Emirates and the country. Teachers will be trained to use the test results to measure progress and develop personalised learning approaches for students. Schools and zones will be able to use the data to see how schools perform, and improve in performance, relative to other schools.

According to UAE Minister of Education Humaid Mohammad Obaid Al Qutami, speaking to Gulf News reporter Rayeesa Absal in May, 2011, ‘The findings of the assessment will be used to overhaul the curriculum. ‘The assessment will help the ministry get a clear picture of the quality of education offered in these schools. It will also allow the officials and policy makers to study the strengths and weaknesses of educational zones, schools and individual pupils,’ the Minister said.

The UAENAP tests have been developed to assess students on their thinking, reasoning and problem-solving skills. They not only show students and their teachers, parents and other stakeholders how students have fared but also identify expected levels of educational attainment. This will help students and their teachers
Results from the 2010 UAENAP point to some long-term and short-term recommendations that need to be implemented, the most immediate being to modify the curriculum and to focus on writing activities in schools.

ACER has conducted a series of workshops with education zones and schools to enable education zone heads, supervisors and teachers to interpret data from the 2010 UAENAP and create student-specific courses.

Ghassan Jarara, the English Supervisor of the Sharjah Education Zone, said the tests were necessary to judge the level of achievement of students and schools. ‘According to the results, we can put together remedial courses and follow-ups to improve the outcome of the students,’ he said. Some of the previous tests conducted by the ministry showed some schools to be performing below the benchmark, he added. ‘With more training on analysing the results, schools should be able to work on their shortcomings,’ he said.

While the national results this year indicate a good overall performance, results from the 2007 Trends in International Mathematics and Science Study of the International Association for the Evaluation of Educational Achievement and the Organisation for Economic Cooperation and Development’s 2009 Programme for International Student Assessment (PISA) indicate Dubai public school pupils are achieving below the international average in the key subjects.

Ayesha al Marri, Director of Assessment in the Ministry of Education, told Abu Dhabi-based newspaper the National in May 2011 that PISA provides a comparative international measure of curriculum standards.

Dubai’s Knowledge and Human Development Authority (KHDA) contracted ACER to implement PISA in 2008. As KHDA Director General Dr Abdulla Al Karam told the National’s Afshan Ahmed in December 2010, Dubai’s low 2009 PISA results reflect the standard of education in public schools across the UAE.

Measures in the UAE’s Education 2020 policy include:
- curriculum reform
- the development of practical and real-life knowledge and skills in curriculum resources
- increasing the use of information and communication technology in the curriculum
- the restructuring of kindergarten, primary education and secondary education
- developing a recruitment system for educational staff in public and private schools
- developing performance evaluation tools for educational institutions linked to individualised training plans for educational staff
- introducing incentive systems linked to performance
- introducing registration
- developing and implementing a program to develop school leaders, and
- tracking improvements in student outcomes.

Parents received a detailed report of their child’s UAENAP performance in April 2011 so they could begin working with teachers to address any identified problems and improve student outcomes.

Mahmoud Mohammed, a parent of Grade 5 pupil Majed at a public school in Ajman, said information from assessment programs that are skill-based and not restricted to questions in the textbook provide a better picture of his son’s progress.

Alan Egbert is the Manager of ACER Middle East.
Researchers at ACER are ensuring Australia’s international aid program in support of quality education is as smart as it can be, through its work with AusAID. Leila Ismail reports.
Ensuring access to quality education is one of the main priorities of the Australian Agency for International Development (AusAID). It’s also one of the fundamental aims of the Australian Council for Educational Research (ACER). It makes sense, then, for ACER to provide rapid and reliable responses to requests for research and advisory support from staff in AusAID’s overseas posts, as well as research and advice to support AusAID’s strategic and policy priorities.

By providing expert consultancy on educational best practice, we’re able to help AusAID to design and deliver effective international aid programs, and that’s a good thing.

ACER’s longer-term work includes research commissioned by the Review of the Papua New Guinea University System to inform the PNG-Australia Partnership for Development strategy to strengthen higher education in PNG. Daniel Edwards, a Senior Research Fellow in the Higher Education Division based in Melbourne, has played a key role in undertaking that research. His colleague in the Higher Education Division, Sarah Richardson, is leading a study on the impact of AusAID higher education scholarship recipients on their return to their home country.

ACER has undertaken work investigating the provision of technical and vocational education and training in the South Pacific region, and we’re undertaking ongoing work with the Secretariat of the Pacific Board of Educational Assessment in Fiji and also more generally for AusAID’s Pacific-wide programs. Sydney-based Chris Freeman, Research Director of the Systemwide Testing Division, and Perth-based Jocelyn Cook, a Principal Research Fellow in the Assessment and Reporting Division, are providing ongoing advice to the Secretariat of the Pacific Board of Educational Assessment.

Jocelyn Cook has also undertaken a capacity building consultancy in Nepal. Melbourne-based Justin Brown, a Senior Research Fellow in the Teaching, Learning and Transitions Division, has recently completed research work looking at the provision of technical and vocational education and training in the South Pacific.

David Slattery, a Senior Research Fellow in the Policy Analysis and Program Evaluation Division, Margaret McGregor, a Research Fellow in the...
Assessment and Reporting Division, Marion Meiers, a Senior Research Fellow in the Teaching, Learning and Transitions Division, and others undertake literature reviews.

John Ainley, a Principal Research Fellow in the Educational Monitoring and Research Division, and Phillip McKenzie, Research Director of the Teaching, Learning and Transitions Division, have also contributed to a series of ERF ‘Current Issues in Education’ papers.

In support of AusAID’s strategic and policy priorities, ACER hosted an education roundtable in 2010, which brought together senior AusAID staff and leaders from the key non-government organisations (NGOs) in the aid sector to identify areas where Australian expertise can contribute to education in developing countries, and explore ways to use and grow that expertise.

The goals of Australia’s international aid program for education are to enhance access and equity by contributing to global efforts to get the remaining 72 million out-of-school children into primary school; improve teaching quality, infrastructure, curricula, teaching and learning materials, and information management systems; and improve the transition from primary to secondary to post-secondary education. ACER’s work with AusAID is helping to deliver on those goals.

The work for the ERF increases ACER’s research capacity because it provides international development experience for ACER staff and the organisation as a whole, and promotes cross-divisional collaboration. It also leads to stronger links with AusAID staff, including those at overseas posts, and contributes to AusAID’s strategic direction. By providing expert consultancy on educational best practice, we’re able to help AusAID to design and deliver effective international aid programs, and that’s a good thing.

Leila Ismail is the Education Resource Facility Project Director at the Australian Council for Educational Research.

Australia’s international aid effort: Key results

According to the 2011–12 Commonwealth government budget, Australia’s international aid priorities are education, health and economic growth, in Indonesia, Papua New Guinea, Solomon Islands, Afghanistan and Vietnam.

Key results from Australia’s major education programs of assistance in 2008–09 include:

- In Indonesia, the construction of more than 2,000 schools to lift the enrolment of children in the poorest 20 per cent of households.
- In the Philippines, improved access to education supported by training for more than 13,500 primary school teachers and more than 900 teacher trainers and supervisors in Mindanao to provide education for more than 50,000 Muslim students and more than 5,000 indigenous students.
- In PNG, the construction of more than 100 school buildings with another 135 in 2010; in-service training for 33,000 teachers; and leadership and school management training for 400 community women.
- In the Pacific, the Australia-Pacific Technical College graduation of 949 students with internationally recognised technical and vocational qualifications, with a further 1,407 students enrolled on campuses in Fiji, PNG, Samoa and Vanuatu.
- In Bangladesh, the training of more than 3,000 teachers; opening of 3,000 new primary and pre-primary schools and assistance to help 42,000 children complete the pre-primary course.
ACER India expands operations

ACER India increased the size of its workforce in 2011 and now boasts more than double the number of staff employed in 2010.

The expansion increases the capacity of ACER India in terms of data analysis with a focus on international achievement studies, state monitoring programs and evaluation studies, as well as in terms of publication and marketing.

The increased capacity means ACER India is well placed to independently undertake educational research and development work in India and beyond.

International assessment conference

ACER India and the Indian Central Board of Secondary Education (CBSE) in 2011 conducted an international conference, ‘Development in Assessment: Scope of Assessment in Teaching and Learning,’ in Delhi.

Kapil Sibal, Union Minister Human Resource Development and Communication and Information Technology, Government of India inaugurated the conference.

Given assessment reforms like the Continuous and Comprehensive Evaluation (CCE) scheme introduced by the CBSE in 2011, the main aim of the conference was to highlight assessment needs in Indian schools and address assessment best practices. Presenters at the conference addressed:

- research on developmental assessments
- best assessment practices
- the use of assessment to monitor teacher effectiveness to encourage school improvement
- how to develop support systems for using assessments in the classroom, and
• policy changes in the new educational framework for improved assessments.

ACER India Manager Ratna Dhamija explained the conference was undertaken to support CBSE’s agenda to strengthen school-based assessment and implement CCE in schools at the primary, middle and secondary level.

‘CBSE is in the midst of reforms, particularly in the areas of assessment,’ Dhamija said. ‘The CBSE has, through its various interventions, brought about many initiatives in the area of curriculum, pedagogy and assessment.’

The conference followed the signing of a Memorandum of Understanding between CBSE and ACER in Melbourne in April 2010 to collaborate on programs and initiatives that apply international best practices in educational research and assessment to support educational development.

Sarva Shiksha Abhiyan

ACER has been working with the Indian Government since 2007 to help strengthen its national assessments. The Sarva Shiksha Abhiyan – in Hindi, ‘Education for All’ – is a large, World Bank-sponsored reform project and part of the Indian Government’s plan to provide universal elementary education through community ownership of the school system.

ACER was commissioned to prepare a technical note for the project, which includes advice on increasing learning under the Sarva Shiksha Abhiyan project as well as strategies to boost school attendance.

Primary school curriculum reform in Bangladesh

The World Bank has engaged ACER to work with the Directorate of Primary Education in Bangladesh following recent primary school curriculum reform.

After a national sample assessment of students in Grades 3 and 5 was conducted by the Directorate of Primary Education in 2006, ACER stepped in to provide advice and quality assurance of the national primary assessment.

ACER’s consultancy involved providing short-term practical support to the Directorate of Primary Education in delivering an improved assessment program in 2010 and identifying long-term strategies to support capacity-building within the system.

The practical nature of the consultancy work focused on delivering a world-class, system-wide assessment program for Bangladesh primary education. Further assistance is being provided to improve the Bangladesh education system at the secondary level as well.

ACER is working with the government to develop a national Secondary School Quality Learning System Assessment (SSQLAS) that will measure student learning in secondary and higher-secondary schools, and in turn evaluate the performance of the education system.

As well as monitoring the health of the secondary education system, the SSQLAS will provide data for policy makers, provide feedback for curriculum development, build local capacity and enable comparisons with relevant international standards.

ACER is providing expertise and skills to the Bangladesh National Learning Assessment Board with the aim of embedding a world-class assessment culture in the country.

Interactive teaching in Bangladesh

ACER India, in collaboration with Dhaka-based RTM International, has evaluated the extent to which trained teachers understand and use interactive teaching, in particular:

• the extent to which teachers understand interactive teaching
• the extent to which teachers use interactive teaching in their classrooms, and
• the problems teachers encounter in using interactive teaching.
Foreign Ministers at the sixth East Asia Summit (EAS) in Bali, Indonesia, in July 2011 welcomed the convening of the first EAS Education Ministers meeting. The meeting of the Education Ministers of the 18 EAS countries was agreed at the previous EAS meeting in Hanoi, Vietnam, in October 2010. The ministers agreed to pursue further cooperation to enhance the quality of education, and promote educational exchange and innovation in the region.

The Australian Council for Educational Research (ACER) prepared an Education Policy Paper and Action Plan, commissioned by the Commonwealth Department of Education, Employment and Workplace Relations, for the inaugural EAS Education Ministers meeting.

Australia’s representative at the meeting, Commonwealth Minister for Tertiary Education, Senator Chris Evans, said Australia would:

- fund three projects to assist countries in the region in developing a quality assurance regime for vocational education
- support EAS countries to ratify the United Nations Educational, Scientific and Cultural Organization Regional Convention on qualifications recognition, and
- investigate the merit of a regional facility for monitoring education quality in schools.

Members of ACER’s research division, and psychometric and methodology division, recently completed the Quality of Education in Madrasah study into various dimensions of education in Indonesian Madrasah (Islamic Schools) regulated by the Ministry of Religious Affairs, which operate alongside the schools regulated by the Ministry of National Education.

The collaboration 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, which ran from April 2009 to June 2010, was funded under the Australia-Indonesia Basic Education Program.

The study investigated the quality of education of Year 9 students in Indonesian Madrasah in terms of 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 6,000 students from 150 Indonesian Madrasah 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 relationships between school facilities, student achievement and student attitudes.

ACER’s final report to CSAS and the Ministry of Religious Affairs will play an important role in informing policy recommendations aimed at improving the quality of education in Indonesian Madrasah.

Collaboration between ACER and the Ministry of Education in Brunei, meanwhile, is establishing an assessment and monitoring system for government schools called the National Study of Student Competencies in Mathematics and English, and building capacity in test development and psychometrics in Brunei.

ACER is examining the Brunei curriculum, developing assessment instruments in line with the curriculum, constructing reporting scales, and training staff in item writing and marking, interpretation of results and use of data analysis software.

The capacity building component of the project has included workshops for teachers and Ministry of Education staff on the principles of ACER methodologies as well as on the interpretation of student and school reports, the processes of selecting items in the preparation of tests, data entry and data management.
Graduate capability

Is it feasible to produce a generalisable assessment of higher education learning outcomes to demonstrate the capability of graduates? In a word, yes. Hamish Coates explains.

The Australian Council for Educational Research (ACER) is working with international experts from hundreds of organisations in 16 participating countries to build 90-minute tests of the capacity of final-year bachelor degree students to solve complex and realistic problems.

The work began in late 2009, when the Organisation for Economic Cooperation and Development (OECD) engaged an ACER-led global consortium to design, implement and evaluate the feasibility of an international Assessment of Higher Education Learning Outcomes (AHELO). ACER’s work seeks to produce generalisable information on learning beyond data available on research and other facets of higher education.

Assessing graduate capability

ACER is developing the AHELO 90-minute test for students of
The assessment material generated from the validated items will:

- provide intrinsically useful assessment data
- link with local disciplinary, curriculum and other contexts
- help bolster the quality of internally developed assessments
- provide a foundation for benchmarking, and
- yield baseline data for follow-up assessments.

ACER will be able to support teachers and institutions in the design of exams, selecting items from the library, adapting items to suit local contexts, scoring, and analysing and reporting results.

**New perspectives**

Developed systems around the world are moving into an era that places greater emphasis than ever before on understanding the outcomes of higher education, and on using results for monitoring and continuous improvement. This calls for assessments that yield valid and reliable data, and that are efficient to implement, analyse and report.

Assessment may rarely be considered intrinsically appealing, but it matters enormously. Poor quality assessment yields poor quality data that can have damaging consequences. AHELO aims to foster significant capacity to develop assessments that are technically sound, and that yield robust and relevant insights into what people achieve through university education.

Hamish Coates is the Research Director of the Higher Education Program at ACER.
Improving student numeracy in Norway

ACER is working with staff from the Norwegian Centre for Mathematics Education on training and assessment initiatives designed to improve student numeracy levels, addressing:

- the rationale for the use of interactive digital test items in large-scale assessment
- the challenges of developing test items for an interactive digital medium
- the decisions and practices that ACER has adopted in the development of interactive digital test items in large-scale assessments, and
- education systems and practices in Australia and Norway.

Student assessment in India

Researchers from ACER’s Assessment and Reporting program are working with staff from the Azim Premji Foundation in Bangalore, with a focus on developing and analysing student assessments across a range of subjects as part of an ongoing program to support the Azim Premji Foundation’s assessment work.

Cataloguing and observing learning outcomes in 20 countries

ACER and partner, the UNESCO Institute of Statistics (UIS), is working on the pilot phase of the catalogue component of the UIS Observatory of Learning Outcomes.

The pilot will compile indicators of achievement among students in primary and secondary schools in about 20 countries. After the pilot, the UIS and ACER may extend their collaboration for the execution of the entire Observatory over the following two years.
Benchmarking educational quality in the Arab States

ACER and the United Nations Educational, Scientific and Cultural Organization Beirut Office are collaborating to develop a common regional learning assessment framework to be used as a benchmark for measuring educational quality in the Arab States. The framework will:

- outline the context and define terms for a common regional educational improvement initiative
- propose a management structure
- identify appropriate measures, and
- develop a model for calculating these measures and interpreting results.

Student assessment in Spain

Spain’s largest university, Universidad Complutense de Madrid, is using tests prepared by ACER to assess the mathematics and Spanish reading skills of students in Grades 4 and 8. The tests consist of items from the International Schools’ Assessment (ISA) and the Programme for International Student Assessment (PISA) so that results can be related to PISA standards. As well as the test forms and the ISA items, ACER is providing administration training and consultancy on analysis and reporting.

Beginning teacher standards framework for Saudi Arabia

ACER is assisting the Saudi Arabian National Centre for Assessment in Higher Education (NCAHE) with the development of a framework for beginning teacher standards.

ACER Principal Research Fellow Dr Lawrence Ingvarson is chairing the international advisory committee responsible for assisting in developing a model for teacher professional standards in Saudi Arabia. The committee counts ACER Principal Research Fellow Dr Glenn Rowley and ACER Senior Research Fellow Dr Elizabeth Kleinhenz among its members.

The beginning teacher professional standards will describe the skills, knowledge and values necessary for effective teaching. The standards will be used to design assessment tools for the purposes of selection among teaching candidates and will determine training needs for accredited beginning teachers.