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Call for strengths-based approach to school readiness for Aboriginal and Torres Strait Islander kids

A new paper highlights the need for a strengths-based approach to school readiness for Aboriginal and Torres Strait Islander children, in order to recognise the skills, cultural knowledge and understandings they already have when they transition to formal learning.

The study, a joint project by the Australian Council for Educational Research (ACER) and the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA), reviews the literature and uses a strength-based analysis of information from Footprints in Time: The Longitudinal Study of Indigenous Children (LSIC) to examine Aboriginal and Torres Strait Islander children's abilities and knowledge at 4-6 years of age.

"There is a continual message of gaps, failures and 'lack'," said co-author of the paper, ACER Principal Research Fellow Dr Michele Lonsdale. "We need a more positive approach."

The authors believe that school readiness is as much about schools recognising the existing capabilities and knowledge that Aboriginal and Torres Strait Islander children have when they arrive at school as it is about supporting children and families to become ready for formal learning.

The study confirms that family support, strong cultural identity, good health, positive self-identity and engaging in shared activities such as storytelling are likely to lead to resilience in Aboriginal and Torres Strait Islander children. Furthermore, responses of LSIC parents and carers show the critical importance of family and connections to land and culture in developing children who are resilient.

The authors make the point that resilience is critical for successful transitions from home to school, as Aboriginal and Torres Strait Islander children who possess the resilience attributes of social competence, autonomy, mastery, optimism and problem-solving skills are better able to adapt and learn.

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But while LSIC shows strong and rich interactions between children and their parents and carers, and shows the importance of cultural knowledge and identity in the development of resilience, the paper's authors note that these factors are not currently being reflected in testing and checklists used to measure children's wellbeing and school readiness.

The authors therefore call for the use of a strengths-based approach to support children as they make the transition from home to school. Among other things, such an approach would involve:

Recognising and valuing the factors that contribute to building resilient young Aboriginal and Torres Strait Islander children, namely: shared activities, family support, strong cultural identity, health and positive self-identity.

Developing appropriate assessments that reflect a strengths-based approach, in which children can experience success, show what they can do, learn from what they cannot yet do, grow in confidence and look forward to the next challenge that is presented.

Developing resources and activities that reinforce and build upon the knowledge, understandings and skills that already exist in children.

"Some of the strengths of Aboriginal and Torres Strait Islander children identified in the literature include being independent from an early age, having well-developed visual-spatial and motor skills, and having the capacity to self-judge and to take risks," said Dr Lonsdale.

The full report, *Starting School: A strengths-based approach towards Aboriginal and Torres Strait Islander children*, is available from http://research.acer.edu.au/indigenous_education/27/

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Enhancing student engagement in a competitive environment

The expansion, diversification and digitization of higher education is creating challenges for understanding and leading students' engagement in effective learning, as Hamish Coates explains.

Associate Professor Hamish Coates is Higher Education Research Director at the Australian Council for Educational Research (ACER) and Program Director at the LH Martin Institute, University of Melbourne. He will be presenting at the [4th National Student Engagement Conference](#), 29-31 October in Melbourne.

Engaging people in tertiary education has never been more vital for universities, the sector and Australia. With new regulatory and competitive contexts emerging here and around the world there is an urgent need to be efficient, to grow and to improve.

Student engagement taps into the heart of education strategy and practice. It links with tertiary education quality, the management of academic risk, how academics can use technology to support learning, aspects of the student experience that can be publicly reported, and funding reform. Authoritative, imaginative and practical discussion of these issues is vital for leading and managing opportunities for success.

Australian higher education – institutions, government, faculty, learners, stakeholders – must steer student engagement with poise and dexterity over the next few years. Significant changes in policy and contextual dynamics have combined to make this more important, and difficult, than ever.

As forecast, shifting from a quota-driven system to one in which institutions are free to determine the quantum of students they will enrol, coupled with demand-driven funding, has been a game changer. Universities are enrolling more students. This has immediate implications for engaging students in the system, and for keeping students involved through to course completion.

Opening access to higher education does not just increase student numbers, it also changes the student mix. We move from an 'elite class' to a 'whole population' system, which has immediate and non-ignorable implications for student engagement. Institutions have to consider each student on their merits and shape provision accordingly.

Opening access to top-quality coursework materials to anyone with an internet connection is another significant shaper of student engagement. With the exception of a few selective fields, the capacity of universities to act as gatekeepers to information appears over. The 'engagement experience' is becoming a more important differentiating factor in how institutions guide students' management of learning.

Online provision – servicing just-in-time, just-for-me learning – helps institutions, teachers and students manage new permutations and patterns of provision. But by 'virtualising' the higher education experience university study further blurs with a tapestry of competing online activities and commitments. The lecture or seminar is replaced by the hand-held screen and earpiece, creating even greater challenges for understanding and leading students' engagement in effective learning.

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The overall growth in student numbers goes to staff/student ratios, and to casual academic appointments. Looming retirement booms and generational change make it all the more important to understand how to teach today's students. Thought must be given to new forms of teaching, and managing the academic workforce.

Expanding, diversifying and digitizing higher education carries numerous benefits, but also carries risk that new open structures and asynchronous processes decrease the interpersonal facets of learning. The key challenge is to identify the approaches that large and complex institutions take to create the social and academic conditions that help people develop.

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Language, literacy and numeracy beyond 2012

The Commonwealth Government in August called for feedback to support its review of elements of its Language, Literacy and Numeracy Program. ACER's submission focused on the assessment of language, literacy and numeracy skills, as Dave Tout explains.

Dave Tout is a Senior Research Fellow in the Assessment and Reporting research program at ACER.

ACER's submission to the Commonwealth Government's *Creating a More Flexible LLNP in 2013-16* discussion paper argues that the assessment of language, literacy and numeracy (LLN) skills is the key to effective teaching and learning in the VET sector.

There's now a general consensus across industry, VET and governments that improving the LLN skills of Australians is vital to our economy and society. Recognition that Australia has a significant core skills gap and that core skills are directly related to workforce training and productivity has resulted in a number of key reports on the challenges, and programs and strategies to improve the LLN skills of the Australian workforce.

As the 2011 *No more excuses* report from the Industry Skills Councils and AgriFood Skills Australia noted, the challenges are manifold. According to the *No more excuses* report, we need to better identify the LLN skills of learners before they commence training, and target funding to address identified LLN skill gaps. We need to include clear advice on LLN skill requirements in Training Packages. We need a strategy to develop greater national awareness of LLN issues, including the de-stigmatisation of LLN skill development. We need to increase capacity in the VET system to support the LLN skill development needs of learners and workers. In sum, we need better-targeted solutions for building the LLN skills of learners and workers.

Research indicates that assessment plays a critical role in effective teaching and learning. ACER Chief Executive Professor Geoff Masters has described the process that teachers take in addressing the learning needs of their students as a 'decision making loop' in which a teacher's understanding of a student's current level of understanding, knowledge of how to address the situation and the resources required are translated into action, which leads to improved learning outcomes.

This approach needs to be encouraged and supported in the LLN sector within VET. Consistent and effective methods of assessing and reporting allow trainers to better understand individual learner strengths and weakness; set goals and targets for learners; direct attention, resources and expertise; and adapt teaching practice to achieve greater student success.

However, as the ACER submission noted, evidence suggests that there are low levels of knowledge of effective LLN assessment practices among the VET training workforce. This includes a lack of high-level understanding of the Australian Core Skills Framework (ACSF). While the ACSF is a useful and effective tool for the assessment and benchmarking of adult LLN skills, there are a number of challenges in using it for assessment, particularly given the complexity of the framework and its breadth of content and levels. Trainers require specialist LLN knowledge and experience in order to unpack and translate the ACSF into practice.

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As well, the ability to develop and write good assessment tasks, that are valid, reliable and fair, is not an easy task, and is one that is often undervalued. To write good assessment tasks against a sophisticated framework as the ACSF is an added challenge. Given the concerns over VET workforce capacity in LLN this is a critical issue we need to address and support.

Another critical issue that the ACER submission highlighted was the need to target numeracy explicitly. The shortage of qualified and experienced trainers with expertise in numeracy means that training providers need to carefully manage and monitor the provision of numeracy teaching and support for effective LLN service provision.

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Australian Bureau of Statistics (2008). Adult literacy and life skills survey, summary results. Canberra: Australian Bureau of Statistics.

Industry Skills Councils (Australia) & AgriFood Skills Australia. (2011). No more excuses: an industry response to the language, literacy and numeracy challenge. Industry Skills Councils, Australia.

Masters, G.N. (2008) Understanding and Leading Learning Victorian Principals' Big Day Out. Melbourne: Victorian Department of Education and Early Childhood Development.

Read the Commonwealth Government's Creating a More Flexible LLNP in 2013-16 discussion paper at

<http://www.innovation.gov.au/Skills/LiteracyAndNumeracy/LanguageLiteracyAndNumeracyProgram/Documents/LLNPDiscussion2013.pdf>

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Teaching numeracy with adults

It is well known that the 'N' in LLN is a barrier to learning and workplace achievement for many adults. Yet it has tended to be the poor cousin in LLN training. Jim Spithill explains how LL supports N in adult numeracy training.

Jim Spithill is a Research Fellow in the Assessment and Reporting: Mathematics and Science research program at the Australian Council for Educational Research.

The internationalisation of perspectives on adult numeracy has been a feature of the last two decades. The OECD has picked up on the significance of numeracy from economic, social and personal perspectives. In late 2013 it will release the report on the first survey in its Programme for International Assessment of Adult Competencies, PIAAC. This data will provide evidence on where 26 countries, including Australia, stand in relation to their LLN skills and capacities.

There is now more consensus on what is meant by adult numeracy. In PIAAC,

'Numeracy is the ability to access, use, interpret, and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life.'

Closer to home, in the Australian Core Skills Framework (ACSF),

'Numeracy is about using mathematics to make sense of the world and applying mathematics in a context for a social purpose.'

There is also consensus on describing and understanding how a numerate person tackles a problem that includes some mathematical information. The OECD Programme for International Student Assessment survey of 15-year-old students identifies three *processes* that pertain to the use of mathematics in context:

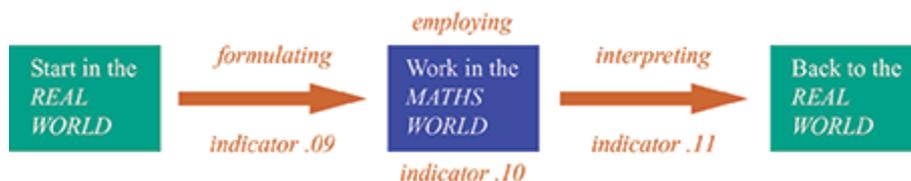
- *Formulating* mathematics involves identifying opportunities to apply and use mathematics.
- *Employing* mathematics involves applying mathematical reasoning and using mathematical concepts, procedures, facts and tools.
- *Interpreting* mathematics involves reflecting upon mathematical solutions or results and interpreting them in the context of a problem or challenge.

The ACSF describes three *indicators* of numeracy:

- .09 Identifying mathematical information and meaning in activities and texts.
- .10 Using and applying mathematical knowledge and problem solving processes
- .11 Communicating and representing mathematics.

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We are looking at how numeracy applies across the life cycle of a problem:



Throughout this process, of course, there is a strong interaction with literacy skills in being able to read and interpret a numeracy problem and describe its solution. The Newman *Error analysis* method recognises that as much as 50 per cent of errors occur before the learner even starts to apply a standard mathematical method or algorithm.

Anne Newman's work arose from research into language issues in mathematics in the 1970s. It influenced teaching programs such as 'Counting On' in NSW schools. It provides a structured model for numeracy study.

She proposed an 'interview' model as a means of addressing the literacy issues that affect numeracy performance. The trainer asks a series of prompts that help the learner to understand the problem.

Please read the question to me. If you don't know a word, leave it out.

Tell me what the question is asking you to do.

Tell me how you are going to find the answer.

Show me what to do to get the answer. Talk aloud as you do it, so that I can understand how you are thinking.

Now, write down your answer to the question.

The point is to be patient with a problem and take time to understand it, rather than rushing to apply rules haphazardly. Practical problem solving is not something that occurs in isolation or in the abstract. Actively engaging the *Ls* leads to better performance in *N*.

Numeracy practitioners seeking more information on these developments should consider a workshop offered through the ACER Institute: A Beginners Guide to Writing Numeracy Items in Assessments for Adults.

Find more information on the workshop at

<http://www.acerinstitute.edu.au/workshops/a-beginners-guide-to-writing-numeracy-items-in-assessments-for-adults>

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ACER Update

Higher education student engagement conference

ACER and the LH Martin Institute are co-hosting the 2012 National Student Engagement Conference, on the topic 'Enhancing retention and outcomes in a competitive environment'. The conference will bring together stakeholders from across the sector to discuss how Australian tertiary education can assure and enhance students' engagement in effective educational practices to boost quality and productivity.

The conference takes place in Melbourne on 30-31 October. Further information, including a list of speakers and registration details, is available from www.acer.edu.au/highereducation/courses-and-conferences/

LLEAP and student engagement

According to LLEAP (Leading Learning in Education and Philanthropy) 2011, there's a large gap between those in schools who know how to engage with philanthropy and those who do not, with nine out of 10 schools in Australia having 'never' or 'only once' connected with philanthropy.

Drawing on data from the second national LLEAP study, Drs Michelle Anderson and Emma Curtin say student engagement is a key focus for schools, not-for-profits working in education and philanthropic foundations and trusts. The second LLEAP Report will be released in November.

Further information on LLEAP is available from <http://www.acer.edu.au/lleap>

Creative arts

Creative Arts in the Lives of Young People by Robyn Ewing, Foreword by Andrew Upton and Cate Blanchett, Artistic Directors of the Sydney Theatre Company, will be launched on 13 November at the Sydney Story Factory, Redfern, by Cath Keenan, former journalist and co-founder of the Sydney Story Factory.

Further information on *Creative Arts in the Lives of Young People* is available from <https://shop.acer.edu.au/acer-shop/product/A5262BK>

International assessment reports

The 2011 reports for the Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) will be released in December.

Further information on TIMSS and PIRLS is available from <http://www.acer.edu.au/timss/overview>

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Excellence in Professional Practice Conference

ACER invites you to share and learn with the best in the profession at the inaugural Excellence in Professional Practice Conference for teachers.

The conference to be held in March addresses the theme, 'Teaching the Australian Curriculum: Excellence and innovation in the classroom' by drawing together teachers from across Australia to share their professional practice and expertise, and learn from one another about best practice in teaching the Australian Curriculum from classrooms across the country.

The Excellence in Professional Practice Conference takes place on the Gold Coast on 17 and 18 March, 2013. Further information is available from <http://www.acer.edu.au/eppc>

Vocational and workplace education and training: Building on evidence to improve skills

The second National Adult Language, Literacy and Numeracy Assessment Conference 2013, addressing the theme, 'Building on evidence to improve skills,' to be held in May will bring together evidence-based research with industry and training perspectives in order to share and discuss issues around the assessment of language, literacy and numeracy (LLN) and implications for effective vocational and workplace education and training (VET).

Speakers at the conference will include researchers, managers and coordinators with local and international expertise in LLN skills and adult learning, from industry and the VET sector, along with policy makers from industry, industry skills councils and government.

The second National Adult Language, Literacy and Numeracy Assessment Conference 2013 will take place at Ultimo College, Sydney Institute, on 9 and 10 May, 2013. Further information is available from <http://www.acer.edu.au/nallnac>

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