

RESEARCH & INNOVATION IN DECD Newsletter



Government of South Australia
Department for Education and
Child Development

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This is the 6th newsletter providing an update about issues relevant to research and educational innovation in DECD, including involvement in an OECD international project. The purpose is to share ideas and to support all DECD birth-12 sites in their efforts to more effectively meet educational and care needs.

October 26 conference

Innovation and Learning from Research: Turning Schooling on its Head and Moving into the Future with Learners at the Centre

‘It’s good to see others with the air of change in the wind. For the past few years in my context, we have been crying for such change’

‘Dylan Williams is fabulous! We need to share practices from our schools every term’

‘Diversity of research projects is refreshing’

‘It was honestly one of the best professional learning days I have been to in quite some time. Often you can take away very valuable bits and pieces from many presenters but I took away so much from the whole day and can’t wait to have discussions with staff back at my sites to ultimately shift some thinking and student learning outcomes’.

These are some of the feedback comments provided regarding the October 26 Research and Innovation/ Dylan William conference at AAMI stadium, a joint conference organised through Policy and Communications and Teaching and Learning in DECD.

Over 350 people attended from schools, preschools, regional and corporate DECD, from metropolitan and rural locations. Honours education research students and academics from the universities also attended as presenters and facilitators in the research and innovation sessions. The keynote and several workshops were provided by Dylan William who is a US/ UK internationally-renowned speaker in regard to formative assessment and its importance in the learning process.

Practitioner researchers from various innovation schools presented sessions in regard to their DECD-funded research projects. Research choice topic sessions included:

- Relationship between pedagogy, engagement and literacy (Open Access College)
- Executive function: school-based learning experiences shaping working memory, inhibitory control and cognitive flexibility (Bridgewater PS)
- Game based learning (Woodville Gardens B-7)
- Learning spaces, learning advisor beliefs and impact on student wellbeing and engagement (Blair Athol B-7)
- Reconceptualised learning environments, changes to perceptions and redeveloping pedagogy (Alberton PS)
- Mentoring to build teacher technology skills (Glenunga International High School)
- Personalised learning in digital/creative environments and impact on staff and student engagement and wellbeing (Prospect PS)
- Student mentoring in building leadership skills for business (Mypolonga PS)
- Pedagogical practices having positive impact in Maths (Mylor PS).

Professor Geraldine Castleton (Dean of Education, UniSA) highlighted the action research process in which teacher researchers in a systematic way are able to investigate specific aspects of their own practices. They plan and collect data (look), analyse and reflect (think), before taking action involving making improvements and changes (act) and then again repeating the cycle, whilst also sharing results to inform others. Figure 1 depicts the Action Research Cycle.

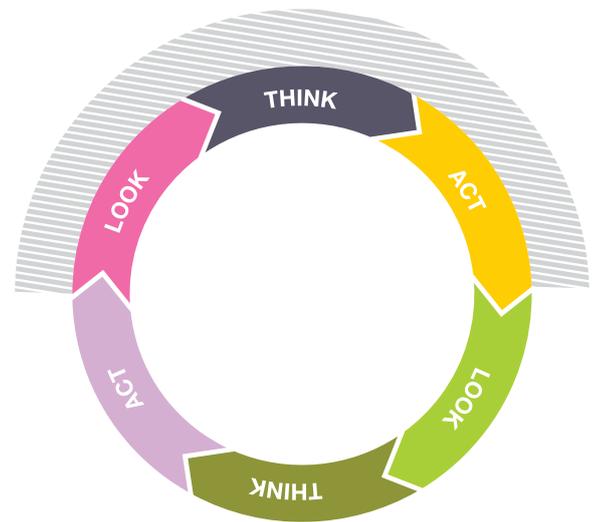


Figure 1: Action research cycle

Positives raised by practitioner researchers about their investigations included gaining a deeper understanding of their innovative practices; improved learner engagement and wellbeing due to the improvements made, and involving students in the data collection and analysis process.

Challenges for practitioner research included maintaining the research focus to ensure manageability; being open and willing to learn from what the data indicates; ensuring ownership of the data beyond those immediately involved in the research process; identifying and developing relevant data collection instruments beyond student achievement such as in relation to student engagement; keeping data collection and analysis manageable and timely.

More information about the practitioner research sessions and Dylan William workshops, including powerpoint presentations, is available on the innovation website at www.innovations.sa.edu.au (see Forums and Events).

Valerie Hannon (UK Innovation Unit) visit to SA (August 30-31)

Ms Valerie Hannon was a DECD - invited speaker to South Australia in August, conducting six sessions with various groups including education and care practitioners, DECD corporate and regional office teams and across-government leaders. The objective of the two day event, attracting over 350 people, was to update innovation knowledge and to design strategic plans for moving forward as a system with key reforms. “Redesigning System and Service Models to Support Improved Educational Outcomes” and “Split-Screen Approach to Innovation – Moving beyond School Improvement” were some of the key workshop sessions.

While innovation within individual education and care and corporate contexts is important, Valerie conducted an extended workshop as her final event. The focus of this event was about roadmapping to establish a systems approach to innovation. Key persons from the department’s Executive Leader’s Group, innovation sub-committee members and school-based representatives were involved. The roadmapping task had been used previously with education systems in Finland, South Korea, Ontario and in various parts of the United States.

Key propositions raised by Valerie Hannon in relation to establishing systems approaches to innovation were:

- engendering a research agenda through a culture of inquiry at all levels involving teachers, students and communities;
- having ‘spaces’ (and permissions) for genuine experimentation and transformation and is intentionally exploring innovation in a disciplined way;
- differentiating leadership of improvement and leadership of innovation through intense knowledge of the sector and preparedness to look outward and beyond; and
- focusing on data and establishing indicators, with resources and evidence being part of the process.

The cross-department innovation sub-committee which includes various department leaders and school-based representatives is currently considering future action in moving forward with developing a systems approach to innovation.

OECD perspective on building systems approach to innovation

Consistent with Valerie Hannon’s roadmapping work, the OECD model for upscaling innovation (figure 2) involves working beyond individual classes, schools and business units towards the building of networks. This is supported by the policies and frameworks at the bigger picture level which create the systems conditions for innovation to flourish.

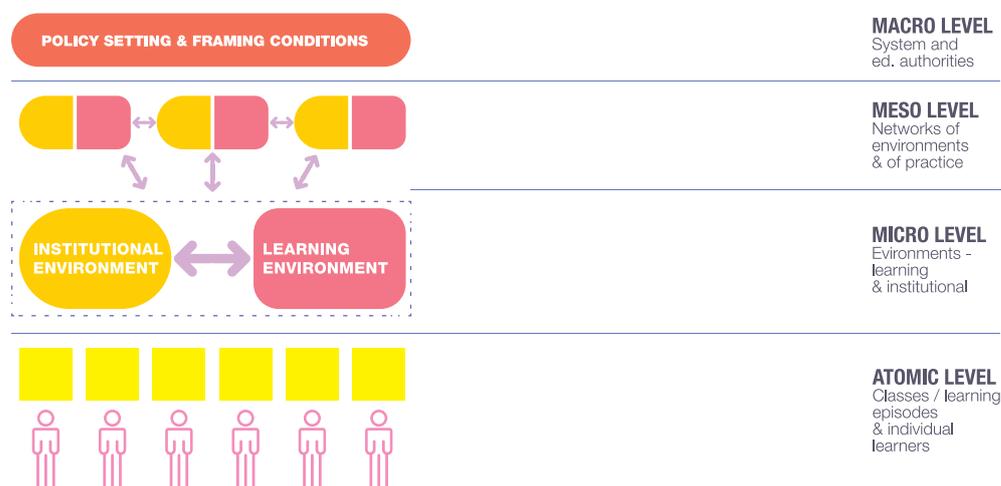


Figure 2: OECD model for upscaling innovation

Innovation: what does it mean?

DECD is part of the Organisation for Economic Cooperation and Development's (OECD) *Innovative Learning Environment* project involving over 26 countries.

The *Innovative Learning Environment* international research and 150 practical case studies of innovation from across 26 countries, including from DECD, highlight innovation being about significant changes in broad areas. These areas include Learners, Teachers, Content, Organisation of Learning and Resources (IT, physical space, community):

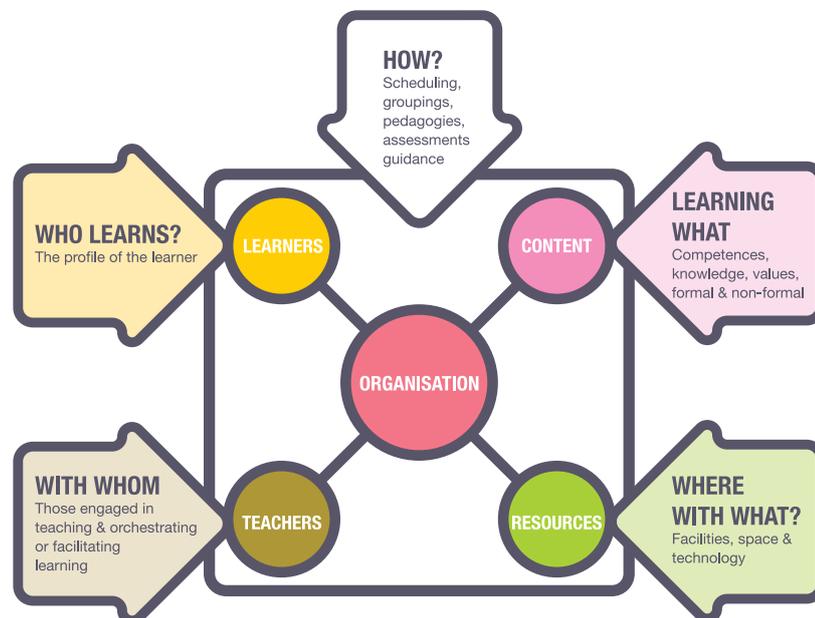


Figure 3: Innovative Learning Environment Broad Areas

Significant innovation usually occurs in at least 3-5 of these areas. Specific aspects may include multi-age student groupings, targeted instruction, content focused on values or interdisciplinary themes, teacher planning/teaching/assessing in collaborative teams, and facilities being redeveloped.

The OECD research has also indicated that, of critical importance in all innovative sites, are aspects such as:

- Some risk-taking but also an intentional departure from traditional approaches to better meet the needs of learners: being truly innovative.
- Settings that provide optimal learning and development in cognitive, meta-cognitive and socio-emotional terms.
- Addressing the contemporary learning and educational needs of all learners.
- Ensuring sustainability through establishing broad organisational support, rather than relying on the vision, understanding or personality of a single or small group of innovators to ensure sustainability.
- Using formal or informal evaluation of practice for the purpose of promoting continual improvement.

Beyond this, innovation is about more than structures and approaches; it actually involves a different way of thinking. A key paper (Innovation Leadership, 2009) contrasts the thinking process for logical versus innovative thinking. Logical thinking is about deductive reasoning, proof, quick decisions and right and wrong answers. But innovative thinking also involves intuition, asking what if, being unconstrained by the past, holding multiple possibilities, relishing ambiguity and seeking meaning. Innovative thinking skills (figure 4) include:

- paying attention and going beyond first impressions;
- personalising and tapping into personal experiences to gain fresh perspectives;
- imaging and bringing information to life through using metaphors;
- serious play and generating insights through exploration and experimentation;
- collaborative inquiry and fostering productive dialogue by embracing diverse viewpoints, and

- crafting and using synthesis, rather than analysis.

Research from the learning sciences also emphasises the need for learning to be:

- directed at deeper, conceptual understanding;
- based on connected, coherent and authentic (contextualised) knowledge;
- a collaborative process-whether between peers or with adults – that promotes the use of distributed knowledge;
- facilitated through inquiry-oriented or problem-based projects;
- supported by diverse knowledge sources;
- enriched by continual reflection that employs meta-cognitive understanding; and
- customised and personalised, tailored to the particular understandings, motivations and experiences of learners (Sawyer, 2006; de Corte, 2010; Dumont & Istance, 2010; Istance, 2011)

TWO SIDES OF THE SAME COIN

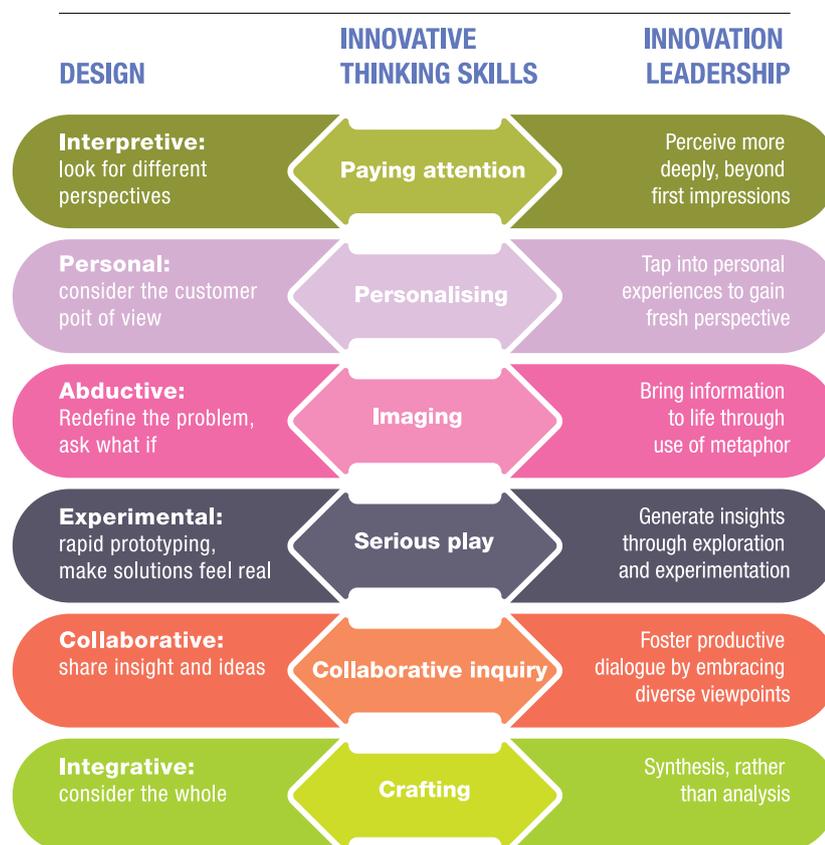


Figure 4: Innovation Thinking Skills

Mark Oliphant College B-12

Our featured innovation school for this newsletter edition is Mark Oliphant. Mark Oliphant College (Birth-Year 12) offers a single campus for families seeking one learning and care environment for their children. Redeveloped in 2011 as a visually stimulating, purpose-built and high technology school, the new 'state of the art' complex at Munno Para West provides separate but integrated learning hubs. The school comprises various sections: Early Years – Care (including long day care); Kindergarten; Reception to Year 2; Primary Years (Years 3-6); Middle Years (Years 7-9); Senior Years (Years 10-12).

ICT is an essential pedagogical tool for learning, with every child and young person accessing their own personal device such as laptops and Ipads to enrich and extend their learning and with integrated digital technologies being embedded into all aspects of the curriculum. ICT enrichment occurs through:

- Embedding the Virtual Learning Environment and Learner Management System through Studywiz, Cloud 4 technology
- Using Social Media and mobile technologies through Facebook, Linked In and Twitter
- Introducing Multi Media, Robotics, Digital Photography, Gaming Technology, for year 7-12
- Introducing V library (B-12), Clickview, TV and Radio channels
- Having textbooks downloaded to student digital devices including laptops, Ipads and digital phones.

All students now have a personal technology device. All teaching staff have laptops and all have undergone training and development, with teaching staff now seeing utilisation of digital devices and practice as part of the normal classroom learning process. Social media was introduced to communicate with students, parents and the community while the school buildings were being finalised, with these tools for learning continuing to extensively engage the current and former students and the wider community in Mark Oliphant's ongoing learning journey.

DECD Research

There have been some exciting initiatives and new partnerships formed on the research front which will contribute to our collective knowledge and understanding about children's learning, development and wellbeing and help us progress our commitment to give every chance for every child in partnership with families and communities. Highlights include:

- the establishment in September this year of the Fraser Mustard Centre, a powerful new research partnership between DECD and the renowned Telethon Institute for Child Health Research; and
- preparation and planning for a pilot of the Middle Years Development Instrument which will broaden our understanding of the in-school and out-of-school factors that influence students' school performance.

The **Fraser Mustard Centre**

collaboration brings together forward-thinking policy makers and world class health researchers and aims to:

- improve and promote the health and wellbeing of all children and young people in SA through the unique application of multidisciplinary research
- help shift the focus from the historical delineation between health and education services to an integrated approach with a focus on child development
- build capacity among public sector staff and academic researchers to design, undertake and use research to improve the environments in which children live and the service systems which support families
- attract funding for shared priorities for research that leads to improved developmental, education, health and wellbeing outcomes for children.

An initial project will be the development and implementation of a Three Year Evaluation of South Australia's Children's Centres. Other projects being considered for investigation in 2013 include: an audit

of child surveillance and monitoring tools; measures of families' needs and wellbeing in the first six months (Pathways to Parenting); and a South Australian analysis of the impact of gender differences on children's learning and wellbeing outcomes. This latter project is in response to international evidence about the growing gap in educational outcomes between boys and girls and a similar trend which appears to be evident in both SA and national data.

Learn more about the Fraser Mustard Centre and keep in touch with its work by linking to: www.frasermustardcentre.sa.edu.au

The **Middle Years Development Instrument** (MDI) is a population level

survey that children complete in Year 6 and asks how they think and feel about their experiences both inside and outside of school. The 76 item survey includes questions that focus on five areas of development:

- Social and emotional development
- Connectedness
- School experiences
- Physical health and wellbeing
- Constructive use of after-school time

The MDI is the first instrument of its kind in Australia to focus on children's developmental health and wellbeing, school experience and what they do with their after school time. It is both novel and innovative in its administration as the children respond directly to the questions themselves, thus providing much needed information about the psychological and social worlds of children during middle childhood.

Approximately 6000 students in South Australia and Western Australia will participate in the survey in early 2013. Once the data has been collected, the project team will partner with the Fraser Mustard Centre to analyse the data and produce reports that will provide schools, regions and jurisdictions with information that can be used to improve programs, inform school-community partnerships, undertake regional planning and inform policy development.

For further information visit: www.mdi.sa.edu.au or call the Project Manager, Anna Lewkowicz on 8226 0452.

The **Adelaide Thinkers in Residence** program is also providing a rich source of ideas and opportunities for research, particularly in relation to the Seligman and Carla Rinaldi residencies. Link to the ATIR website at www.thinkers.sa.gov.au for background information on each of the thinkers and watch for more information about related research developments in our 2013 newsletters.

DECD's support for and partnership with **Healthy Development Adelaide** (HDA) has been ongoing through 2012 and will continue again in 2013. HDA was established in 2004 by the University of Adelaide to foster research relevant to the healthy development of children and adolescents. Since then HDA has been developing relationships with cross-disciplinary teams to tackle the bigger research questions and enable researchers to work more effectively across universities, government, research organisations and the community. HDA runs an extensive and varied public event program throughout the year covering high priority research topics. These events have proved very popular and are well-attended by researchers, students, policy makers, health service professionals, teachers and the general community.

HDA also provides a small-scale School Education Program for senior secondary students. Through the program, senior researchers and PhD students visit schools and deliver interactive classroom sessions on topical research issues, the aim being to stimulate students' interest in and understanding of science and research as a career option. As the program is limited by the availability of research staff, schools should contact the HDA Executive Officer early in 2013 to register interest. For further information about HDA activities, link to: www.adelaide.edu.au/hda.

National research

DECD has also been active in the national research space and has led work on several national research projects.

For example, South Australia led the **Smarter Schools National Partnerships Key Reform Project: Parental Engagement in Schooling in Low Socio-Economic Status Communities**. This project has developed a comprehensive suite of resources to assist school communities in strengthening family and community engagement in student learning. These resources incorporate the work and findings arising from the project and include:

- The three publications from the school case studies project featuring findings, common themes and challenges in parental engagement in 15 schools in low socio-economic status communities around Australia.
- A comprehensive new resource entitled *Strengthening family and community engagement in student learning*, which is a toolkit of practical resources for school communities. It includes a new School Assessment Tool (Reflection Matrix) for school communities to use to assess where they are on a continuum of engagement and to prioritise areas for further action as part of the school planning and improvement cycle. Designed as an interactive PDF, key documents and proformas are embedded in the resource, which also includes hyperlinks to other relevant materials.
- Two companion documents which provide easy access to key resources and academic references to parental engagement.

These resources are available at: www.smarterschools.gov.au/parentalengagement/Pages/Home.aspx

Since the release of the resources in early 2012, South Australia is following up with a small action research project reflecting on the ways in which 5 school communities are using the resources to enhance parental engagement in their schools.

An ongoing National Partnerships funded project which is managed by the **Teaching for Effective Learning** (TFEL) team is also investigating which aspects of pedagogy have the greatest impact on learner engagement and achievement.

Throughout 2012 DECD has been part of an active online **National Education Research Network** comprising representatives of all state and territory education departments. Members have been working to develop a common solution to quality assurance and ethics related issues associated with external research conducted that is conducted in schools as well as improved processes for information-sharing and dissemination of research outcomes.

Want to keep up with current issues and research that is being conducted nationally and internationally?

Check out the latest Policy Scan and archive at the DECD Research website at www.decd.sa.gov.au/research or link to the Department for Communities and Social Inclusion research website at www.dcsi.sa.gov.au/pub/research for a range of research-related material and advice.

Do you have some research that you'd like to share, suggestions for research projects or other ideas? Email them to the DECD:Research Unit.

Look out for more research news and information as we update our website in 2013.

www.decd.sa.gov.au/research
