

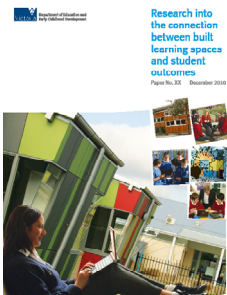


Welcome to the Research eLert

This edition of the Research eLert focuses on the topic of physical and virtual learning spaces and the links to student learning outcomes. A literature review commissioned by the Department provides information on the current research into the connections between learning spaces and student learning outcomes. This report will be available online shortly on our [Research and Innovation](#) website. To receive a copy in your inbox please subscribe via the [research mailbox](#).

Latest research

Research into the connection between built learning spaces and student outcomes



This literature review identifies the current state of research into the connections between learning spaces and student learning outcomes. It targets the most recent local and international literature and presents a conceptual framework to map the literature addressing four stages in the three dimensions: practitioners, learners and spaces. Available soon on the research [publications](#) page of our website.

Innovative Learning Environments (ILE)

Victoria is the only Australian state or territory participating in an OECD/CERI ILE research project, which aims to answer the question, 'How can today's schools be transformed so as to become environments of teaching and learning that makes individuals lifelong learners and prepare them for the 21st Century?' David Istance from OECD's Centre for Educational Research and Innovation (CERI) held workshops with departmental personnel and Victorian government schools participating in the project. David shared the status of existing OECD research and provided stakeholders with a five year OECD



plan. Representatives from John Monash Science School, Mordialloc College, The Lakes South Morang P-9, Mount Waverley PS and Courtenay Gardens PS spoke about the innovative learning environments at their schools. [More](#)

'Spaces shape and change practice. Engaging, adaptable spaces energise students, teachers and the community. Well-designed learning spaces inspire creative, productive and efficient learning' *MCEETYA Learning Spaces Framework*

Digital Learning Platforms Research Series

Paper 2: Connecting people

To support users of the Ultrahet, the Department is releasing the second paper of the Digital Learning Platform Research Series. Connecting people examines the communication functionality of learning platforms, and explores the benefits and challenges in supporting independent learning and collaborative practices. The paper explores the connectivity offered through Web 2.0 technologies in learning platforms (such as chat, messaging, blogs, wikis and forums), and discusses the implications of



these for the educational opportunities of students, parents, teachers and the broader community. Available soon on the research [publications](#) page of our website.

Building blocks for children

Architect, Sarah Scott undertook a Churchill Fellowship to study the design of 50 exemplary children's centres around the world to view how the wide range of educational philosophies and pedagogies influenced the innovative and inspirational building designs. The sites included were in: Scandinavia with its government provided free childcare and outdoor forest schools; Italy - home to the Reggio Emilia pedagogy; Japan's adventurous architecture and Shinto roots; and the UK with its comprehensive Sure Start program that combines early learning and adult outreach. Current thinking which looks at the child within the context of the family and community and how facilities can contribute to this interface has architectural implications. 'Along the way I discovered that architects can learn a lot from the disciplines of early learning and



teaching.' Sarah's book 'architecture for children' discusses what architecture can offer to early learning and what early learning requires from architecture. To read more on the study, see the article in November edition of [Education Review](#).

Facility design: The impact on student achievement and staff attitudes and behaviours

Researchers examined three new high schools that opened between 2006 and 2007 in Virginia USA to determine the attitudes towards the new buildings from those within the schools. Three shared themes emerged around improved student behaviours, improved staff and student morale, and beliefs on whether the new buildings impacted on student achievement. At all three locations participants expressed a belief that natural light had affected their overall performance, their individual moods, and, in some cases, their ability to maintain their levels of performance as the year progressed. [More](#)

'Design elements such as natural lighting and climate-controlled HVAC systems, as well as wide open hallways and shared student spaces do positively impact student behaviours and student and staff attitudes and behaviours.'

Dr Michael Bishop, *A Case Study on Facility Design*. George Washington University

Exploring opportunities for collaboration

Dr Elizabeth Hartnell-Young, Group Manager, Research Branch, recently undertook a research study tour to share Victorian practice and discover new tools and evidence relating to evaluating physical and virtual learning spaces and student outcomes. In her interview, Elizabeth answered questions such as:

Q. What are some of the concepts that drive the design of physical and virtual learning spaces?

A: Flexibility, openness and mobility were overarching concepts, and I saw some interesting and imaginative spaces in some schools, particularly in a school for the physically and intellectually disabled. To view a full interview with Elizabeth about this study tour, click [Here](#)



The Street, Nottingham University
Samworth Academy, UK



'Family house' in Kindergarten
Hameenlinna, Finland

Spotlight on...

New learning spaces

'Built on the premise of Learning Neighbourhoods that cater for the developmental stages of students rather than traditional age groupings, the welcoming atmosphere of each building presents a feeling of community involvement. With teaching and learning areas not confined by traditional walls and corridors, each learning community is able to utilise all available spaces.



The creative spaces are being used for small group work and for project based problem solving activities. The larger flexible teaching and learning spaces are being utilised for social interactions, team teaching and larger group work. Reflective spaces are being used for individual one on one work, reading and computing. Together, these spaces are providing opportunities for a range of different teaching and learning practices to be easily developed and implemented. The design of the buildings has enabled students to easily immerse themselves into inquiry based learning activities devised by their teachers. Surrounded by ICT rich resources, it is heartening to see students, parents, teachers and support staff working happily in unison, reflecting the College motto of: Preparing today's students for tomorrow's opportunities.'

Lino Pagano
Mt Ridley P-12 College



Linking learning to pedagogy

Extracts taken from school submissions to the 2010 School Design Awards on Criteria 4: *Responsiveness to linking learning pedagogy to space.*



The design develops learning communities with flexible spaces combining instruction, research, private study and informal social interaction –both internally and externally. *Point Cook Senior SC*

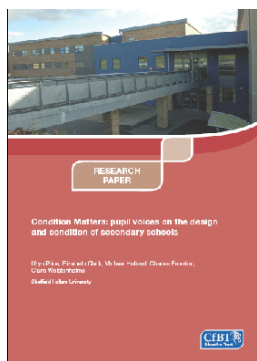


The new and refurbished bluestone building connected with existing buildings, shaded decks, earth amphitheatre and landscaped courtyards create gathering spaces that create diverse opportunities for outdoor learning. *Inverleigh PS*



The early primary years have been provided with learning 'commons' that are suitably scaled, protected and nurturing in character. Middle years are open and closely linked with the resource centre, while the senior primary open facilities enable students and teachers to work collaboratively. *Berwick Chase PS*

Condition matters: Pupil voices on the design and condition of secondary schools



This UK report compares the opinions of students in two schools on the facilities in their schools and how important they are to educational outcomes. One school is in an obvious state of disrepair and the other was constructed four years previously as part of a Private Finance Initiative. The findings showed that poor building conditions influence student outcomes both directly and through their teachers. It cites another study which assessed the quality of a range of secondary schools and contrasted the findings against standard attainment test results. The results suggest a correlation but do not prove causation. [More](#)

Teachers told us that physical conditions have direct positive and negative effects on teacher morale, feelings of effectiveness in the classroom and on the general learning environment.'

Condition Matters

Research partnerships

Smart Green prefabricated classrooms - strengthening our social and economic fabric

Multi-disciplinary approaches set the groundwork for major transformations of prefabricated classrooms in this ARC Linkage Project, which is led by the University of Melbourne in conjunction with DEECD. The use of advanced materials, smart information systems embedded in the classrooms, better placement on sites, and more efficient construction techniques will transform this Australian industry. [More](#)

Dynamic designs for the knowledge environment

'Some students from Wooranna Park now attend secondary schools and feedback from those schools suggests that these students are much more independent learners than students from a more traditional schooling background.'

Senior lecturer
Swinburne Faculty of Design

A Swinburne ARC Linkage study, with DEECD as an industry partner, focuses on the integrated design and educational programs of two schools, Wooranna Park and Bialik College. Giving consideration to historic practices, it evaluates how the physical environment can advance or impede the teaching and learning process. Preliminary results suggest that the design of spaces is important in changing

teaching practices and supporting teachers who wish to teach in a progressive manner. A publication arising from the study, *Designing learning spaces that work: A case for the importance of history* is available [here](#).

21st century learning spaces

This short *Education.au* resource outlines the key characteristics, design principles and challenges of innovative new learning spaces. It provides an overview of what 'new learners' are like and their requirements as well as what 21st Century learning spaces are and what they aim to achieve. [More](#)



Knowledge sharing: How to get the best outcomes from Victoria's new learning spaces?

Call for contributions

We are developing short publications by people using new spaces to assist others moving into new learning spaces. We are keen to hear your experiences in any of the following areas:

1. Your understanding and beliefs about how students learn
2. Designing and planning the new spaces
3. Working together and using the new space as an individual and/or team
4. Teaching and learning: changes, observations, student, teacher or parent comments
5. Any evaluation you are doing

Please include photos where possible.

Your contribution will be acknowledged (name and school). Send your contribution to [research mailbox](#)

Hot topics

Building Schools for the Future: UK findings

A recent report by PricewaterhouseCoopers found the impact of the BSF project on educational outcomes in the UK was initially positive. The findings come just as recent spending cuts to the overall capital budget have reduced the number of existing BSF school projects that are to receive funding. The PwC report says that most head teachers feel that the new buildings have had a beneficial impact on student attitudes and raising standards within the school but that it is still too early to measure the full impacts of the program. The independent review of capital expenditure, commissioned by the UK Department for Education was to target capital expenditure to those areas of greatest need and provide best value for money. [More](#)

Upcoming events

Education 2011 to 2021 Inaugural International Summit: *Global challenges and perspectives of blended and distance learning*

Dockside, Cockle Bay Wharf, Darling Harbour, Sydney
15-18 February 2011 [More](#)

eLearning and Instructional design

Rydges Melbourne

2 - 3 February 2011 [Two-day forum]

4 February 2011 [One pre-forum workshop] [More](#)

The How 2 of Web 2.0

Online Learning Program 7th March, 2011 [More](#)

Motivating the unmotivated: Reaching the hard to reach students (K to Primary)

Melbourne, Australia (venue to be advised)

16 to 18 May 11, 9:00am to 4:00pm [More](#)

Early childhood education conference: *Together we grow*

Caulfield Racecourse, Melbourne, Victoria

3-4 June 2011 [More](#)

Inclusive Learning Technologies® Conference 2012

Jupiters Gold Coast Convention Centre, Queensland

22– 25 May 2012 [More](#)

John Hattie Research to Policy and Practice Program 2010-11

The Education Policy and Research Division, in collaboration with the Catholic Education Office and the Independent Schools of Victoria, hosted a five day research and professional learning program for Victorian school leaders. The program commenced with a research forum where Professor Hattie presented 15 years of research and syntheses of the influences on student achievement. This was followed by a 3-day Master Class which focused on building individual and school capacity and the development of research projects. The final forum in this series will take place in February 2011 where over fifty participating schools will share their findings.

John Hattie has recently been appointed to the position of Director of the Melbourne Education Research Institute at Melbourne University's Graduate School of Education.

Research Branch

Visit the Research Branch publications webpage to read short research articles and interviews on topics relevant to Victorian education and early childhood development or to access the latest Research Branch reports.

To visit the webpage click [Here](#)

Research and Innovation

Research and innovation inform the strategic thinking of the Department. Together, they enable effective policy to be developed and best practice to be accelerated.

Research and innovation focus on areas that are most important to improve the quality, participation and outcomes of education and early childhood development for Victorians.

Research and innovation lead to improved workforce, better leadership, and best practice in education and early childhood settings.

- Conducting Research**
Information on research in the department including processes and permission to conduct research. [More](#)
- Innovation**
Information about innovation and innovative practices in schools and early childhood learning. [More](#)
- Publications and Resources**
A collection of publications and resources supporting research and innovation. [More](#)
- News and Events**
The latest news about research and innovation and opportunities to attend events. [More](#)
- Data Collection and Evaluation**
Data collected to monitor performance across schools and early childhood services. [More](#)
- Grants and Funding**
Information on the grants available to enable practitioner led research and innovation. [More](#)
- Virtual Conference Centre**
Video conference facility for meeting, learning and collaborating online. [More](#)
- Publications and Resources**
A collection of publications and resources supporting research and innovation. [More](#)

Let us know what you think

If you would like to share your views on any of the information presented in this edition of the Research eLert, please email the [research mailbox](mailto:research@mailbox).