

Classroom Acoustics - How Innovative Learning Environments are Changing the Educational Playing Field

Wednesday 9th November 2016 8:30am to 3:15pm
Brisbane Convention & Exhibition Centre, South Bank

ABOUT

This short course is a special event being hosted by the Australian Acoustical Society and the Acoustical Society of New Zealand as part of ACOUSTICS 2016. The short course will examine how the acoustic design of learning facilities has changed over the years, the latest design philosophies being adopted around the World and how acoustics impacts on learning. While it will include presentations from key experts, the major emphasis will be on collaboration and discussion, as that is what innovative learning is all about!

Acoustics
9-11 November
Brisbane, Australia **2016**

WHO SHOULD ATTEND?

The short course has been designed for acousticians, government agencies, architects, educational facility managers, educationalists, principals, teachers and anyone else who is committed to improving the educational environment and promoting enhanced learning outcomes for the current and future generations of students.

THEMES AND TOPICS

Welcome and introduction (James Whitlock)

Why children need new learning environments (Terry Byers)

The acoustic design of "traditional-style" classrooms (Lisa Horton, James Whitlock)

The case for Innovative Learning Environments (ILEs) (Terry Byers)

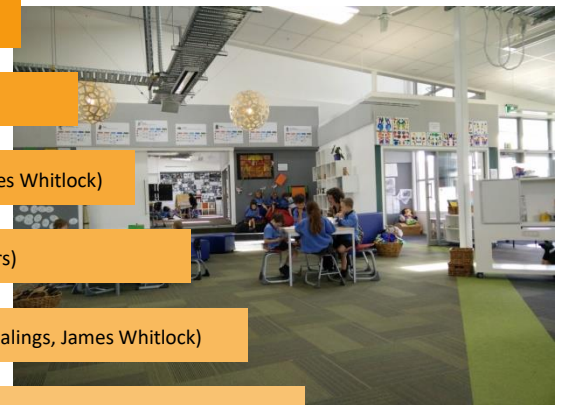
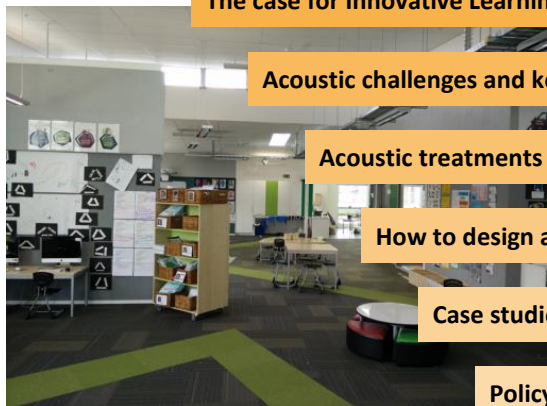
Acoustic challenges and key considerations of ILEs (Kiri Mealings, James Whitlock)

Acoustic treatments and how they work (Robert Jones)

How to design a fully-functioning ILE (group discussion led by James Whitlock)

Case studies: where they got the recipe right (Terry Byers, Lisa Horton)

Policy making and real change (Richard London)



LEARNING OUTCOMES

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| 1. An appreciation of ILEs and why they are important | 2. Understand what is needed acoustically to achieve great learning outcomes |
| 3. Awareness of potential pitfalls and dangers (acoustic or otherwise) | 4. Generation of new ideas via cross-discipline discussions |

COST

The cost to attend the short course is **\$250 (including GST) until 30th October 2016**. Registrations after that date will be **\$275 (including GST)**. Register online at <https://www.registernow.com.au/secure/Register.aspx?E=19544>. The registration includes morning tea, lunch and course materials.

PRESENTERS:

Dr Terry Byers

Director of Innovation in Learning at the Anglican Church Grammar School (Churchie) in Brisbane, Queensland



Terry is focused on the effective integration of technology with teacher pedagogies to best increase student's engagement and academic outcomes. At the same time, he is uncovering ground-breaking insights into the critical role that the classroom environment plays in this equation. Together these developments have led to the creation of dynamic and responsive tools that provide teachers with data-rich visualisations. These visualisations enable teachers to understand better their pedagogical practice in technology-enabled contemporary learning environments and how this affects student learning outcomes and gains.

Terry recently completed his Ph.D. within the 2013-2016 Australian Research Council Linkage Project 'Evaluating 21st Century Learning Environments' (E21LE). The thesis titled 'Evaluating the Effects of Different Classroom Spaces on Teaching and Learning' derived quantitative methods to ascertain the empirical impact of different learning spaces on teachers and students.

In addition, Terry is a Research Fellow in the 2016-2019 Australian Research Council Linkage Project 'Innovative Learning Environments and Teacher Change' (ILETC). The ILETC project is one of the largest educational-focused ARC grants awarded.

Lisa has a Bachelor of Interior Architecture (Hons) from Monash University and is an interior designer and a specialist in education and learning settings. With a strong focus on the research and design of contemporary learning environments, Lisa provides integrated design solutions that support schools in their transition to progressive pedagogies.

With experience across projects varying in value from \$0.2M to \$85M, Lisa drives the process for innovative thinking and design to encapsulate project objectives in functional and creative outcomes. From setting the vision and guiding principles through to detailed design and delivery, Lisa works effectively at both a strategic level and in detailed resolution. She brings particular expertise in establishing a clear and focused strategic brief in the provision of bespoke facilities for purposeful and differentiated learning.

Through both project work and research, Lisa is actively engaged in emerging developments and collaborates with designers and educators at a local and international level.

Lisa Horton

Associate with Hayball



Robert Jones

Market Development Manager at Autex Pty Ltd



Robert has more than 18 years of experience in the building industry, 15 of these with the Autex Group (in both NZ and Australia) providing technical support and performance specifications from manufacturing, building design through to installation. This includes product development, product evaluation and laboratory and in-situ testing and compliance to ISO and local building standards.

Robert also has 25 years of experience in audio/visual, music and theatre production and is qualified as an electronic technician. He is conducting ongoing studies in general building and room acoustics with the primary focus being product development for education and commercial applications.

Richard graduated Victoria University with a Building Science degree and Auckland University with an Architecture degree with honours. He is involved with the development of policy and guidelines for the design and specification of New Zealand Schools, including acoustics, lighting, heating and ventilation.

Richard has over 15 years of experience working with building legislation and implementing regulations and policy. He has previously worked for the Ministry of Business, Innovation, and Employment as a Senior Advisor, interpreting the New Zealand Building Act and developing the New Zealand Building Code. Prior to joining the Ministry, Richard spent 6 years working as a Senior Building Officer in the commercial building team for Wellington City Council and 3 years in the UK as a Building Control Officer in the Royal London Borough of Greenwich. Richard also worked for 4 years as an acoustic engineer developing consumer electronics and high end audio equipment for Sound Lab. His 'Volare' speaker design, with its aluminium chassis and carbon fibre detailing, continues to turn heads and inspire engineers to push the boundaries of audio performance and aesthetics.

Richard London

Senior Technical and Engineering Project Advisor, for the New Zealand Ministry of Education



Dr Kiri Mealings

Research Scientist at The National Acoustic Laboratories, Sydney



Kiri has a PhD in Linguistics at Macquarie University, Sydney. Her PhD research involved an investigation into how the acoustics of open plan and enclosed classrooms affect speech perception for Kindergarten children.

Kiri is interested in how the acoustics of open plan classrooms affect young children's ability to hear their teacher/classmates and to learn. Kiri is keen to use multidisciplinary research to develop more effective ways to enhance communication in the classroom.

Kiri is currently investigating the role of brain rhythms in auditory resolution and speech perception. To date Kiri has published multiple articles in international peer reviewed journals and presented over 20 papers at local and international conferences.

James has a Bachelor of Science (Physics) and a Masters of Architectural Studies (Acoustics). He is a consultant involved in all aspects of acoustics including noise and vibration assessment, prediction and design and is currently the President of the Acoustical Society of New Zealand.

He has maintained an active interest in classroom acoustics since his Masters' thesis in 2003, carrying out research on acoustical mechanisms that influence the learning environment (particularly the Lombard Effect). More recently he has been advising the NZ Ministry of Education in their revision of the Designing Quality Learning Spaces – Acoustics guideline document.

James' enthusiasm for acoustics comes from a background in music. He studied classical music on piano and violin from a young age, which has led to drumming and percussion for various semi-professional orchestras and bands.

James Whitlock

Associate at Marshall Day Acoustics (Auckland)

