iletc

INNOVATIVE LEARNING ENVIRONMENTS AND TEACHER CHANGE

A 2016-2019 ARC LINKAGE PROJECT

WWW.ILETC.COM.AU

"Can altering **teacher mind frames** unlock the potential of **innovative learning environments?**"

Australian Government
Australian Research Council

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LEARN

A COMPLEX **PROBLEM**

In recent years, considerable investment has been made in Australia and New Zealand to develop, what our project refers to, as innovative learning environments (ILEs). ILEs have been conceptualised and designed to support the move from traditional teacher-focused instruction, to active competency-based, student-centred ways of working. These, it is argued, accommodate the socially oriented, participatory, independent learning approaches required of the '21st century student'.

However, there is concern that this massive investment in ILE infrastructure is not being mirrored by commensurate changes in teaching practices. Is this actually the case? And if so, what might be its cause and possible solutions?

SEEKING **CHANGE**

The project will interrogate how teachers enable learning most effectively in ILEs. It will develop 'good practice' stratigies for implementation of these across a wide range of educational sites in Australia and New Zealand. It will create robust data to verify this impact and guide future pedagogic, infrastructure and design developments.

A **UNIQUE RESEARCH PARTNERSHIP**

Led by the University of Melbourne's *Learning Environments Applied Research Network (LEaRN)*, the four-year I*nnovative Learning Environments and Teacher Change* (*ILETC*) Australian Research Council Linkage Project is a partnership between National, State, Territory, and Education departments, a regional Catholic educational authority, key 'industry' partners including furniture designers, technology and acoustics specialists, school designers and their professional bodies, museums, and leading research-focused schools.

BENEFITS **FOR ALL**

ILETC will collect a range of data from educators using ILEs to provide a robust evidence base which will enable the design, testing and implementation of practical tools and strategies to assist teachers to maximise the use of ILEs. Beginning with focused research in selected schools, ILETC will expand to thousands of schools across Australia and New Zealand. Eventually, all schools will benefit from this unique knowledge.

Image credits: (Top) Marist College Bendigo Y2 Architecture, Bill Conroy Photography; (Bottom) Anglican Church Grammar School, Brand and Slater Architects.

BEING **INVOLVED**

Schools and teachers are the central focus of this project. The research team believes we must involve you in the research as much as possible! This includes providing you with information from our work to help improve classroom practices, but also working to gain from your experience and insights.

WHAT CAN YOU **DO NOW?**

- Visit our growing website (www.iletc.com.au) to find out what is happening, including upcoming research activities and events.
- Sign up to the ILETC Network mailing list for our regular bulletin (see contact details below).
- Contribute to the Australasian conversation about ILEs via our blog (www.iletc.com.au).
- Consider submitting an informal 'case study' about you or your school, for our website. This helps to spread information about quality grassroots learning environments activity.
- Write to us individually with any queries.
- Ask us to send this ILETC Project Overview brochure to a colleague who may be interested.

HOW CAN **YOU CONTRIBUTE TO THE RESEARCH?**

- During October 2016 every principal in our partner schools will be invited to complete an initial 5-minute questionnaire. Encourage her/his participation.
- Submitting this easy survey allows us to sample schools for ongoing participation in ILETC.

"Capturing the significance of school design features that include, not only physical space design but also approaches to schooling, is essential if we are to truly meet the needs of young people in preparing them for their future.

(Teacher, Australian Science and Mathematics School)"

"Our kids love these spaces, making me feel I need to push my thinking and adapt my teaching to use them properly…

(Teacher, NZ)"

CONTACT US

We welcome involvement from researchers, practitioners, and teachers at all stages of the project.

www.iletc.com.au
info@iletc.com.au
@projectILETC

JOANN CATTLIN
Project Manager
+61 3 9035 8694
joann.cattlin@unimelb.edu.au

A/PROF WES IMMS
Lead Chief Investigator
+61 3 8344 8783
w.imms@unimelb.edu.au

Image credits: (Top) Our Lady of the Assumption Primary School, BVN Architecture, John Gollings Photography; (Bottom) Officer Secondary College, Clare Hopkins Clarke Architecture, Rhiannon Slater Photography.

THE PLAN

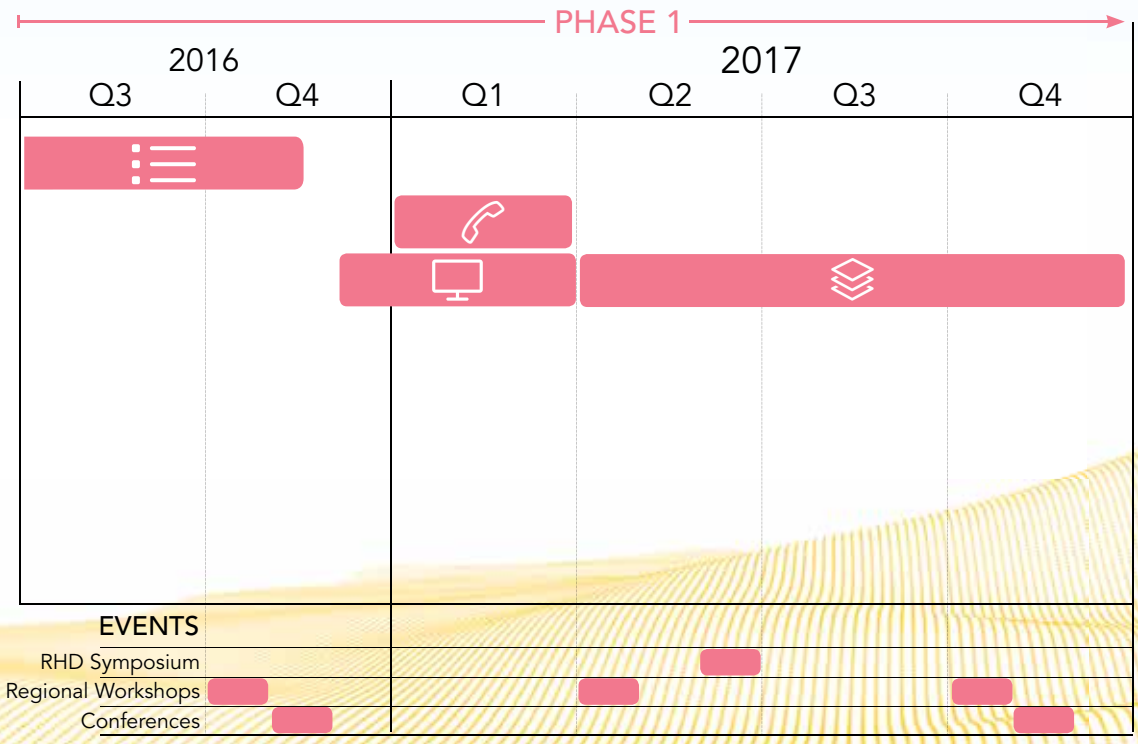
PHASE 1
EXPLORATORY

The first stage involves defining key concepts and collecting baseline data. This will involve a preliminary, whole-population, 15-20 item, **web-based survey** as well as **systematic reviews** and **meta-analyses,** to establish base line data relevant to the broad research question related to 'ILE affordances', 'teacher mind frames' and 'deep learning characteristics'. This baseline data will be used to develop the sampling frame for Phase 1 of the study.

The second stage, the **telephone census** will fill in missing ILE data and recruit school sites for case studies.

The third stage, a detailed participant **web-based survey** will be developed and administered to teachers in schools identified by stage one and two of the study. The detailed survey will be designed to identify the dependent and background variables to be investigated at potential case study research sites.

The fourth stage, the **case studies**. By selecting a sample of great diversity of information-rich cases, the researchers will ensure high-quality, in-depth insights into issues of central importance to this research. These case studies may not be of specific schools, rather 'clusters of sites, participants and activities' that exhibit the required ILE characteristics relevant to each PhD project.



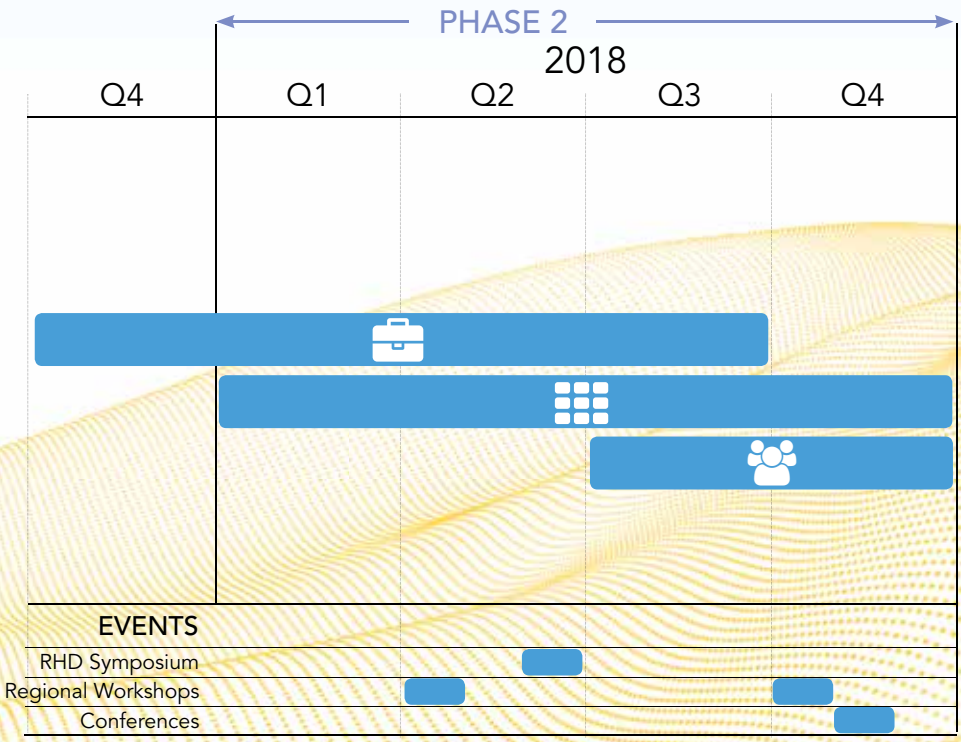
"ILETC will implement a three-phase mixed methods research design. Purposeful sampling will occur from all schools linked to the project through the relevant partner organisations."

PHASE 2
DEVELOPMENT

The first stage of Phase two is the development of a multi-faceted **resource**, containing; (1) *knowledge tools*; (2) *strategy tools*; (3) *evaluation tools*; and (4) *professional development tools*. This resource is intended to build teacher's spacial competenceof teaching and learning activities.

The second stage will be the development of a **matrix** describing teacher mind frame activities across a two-dimensional axis comprising ILE proficient/non ILE proficient, and Graduate/Lead teacher measures. This matrix will be used to test the resource strategies across a limited but representative sample of schools.

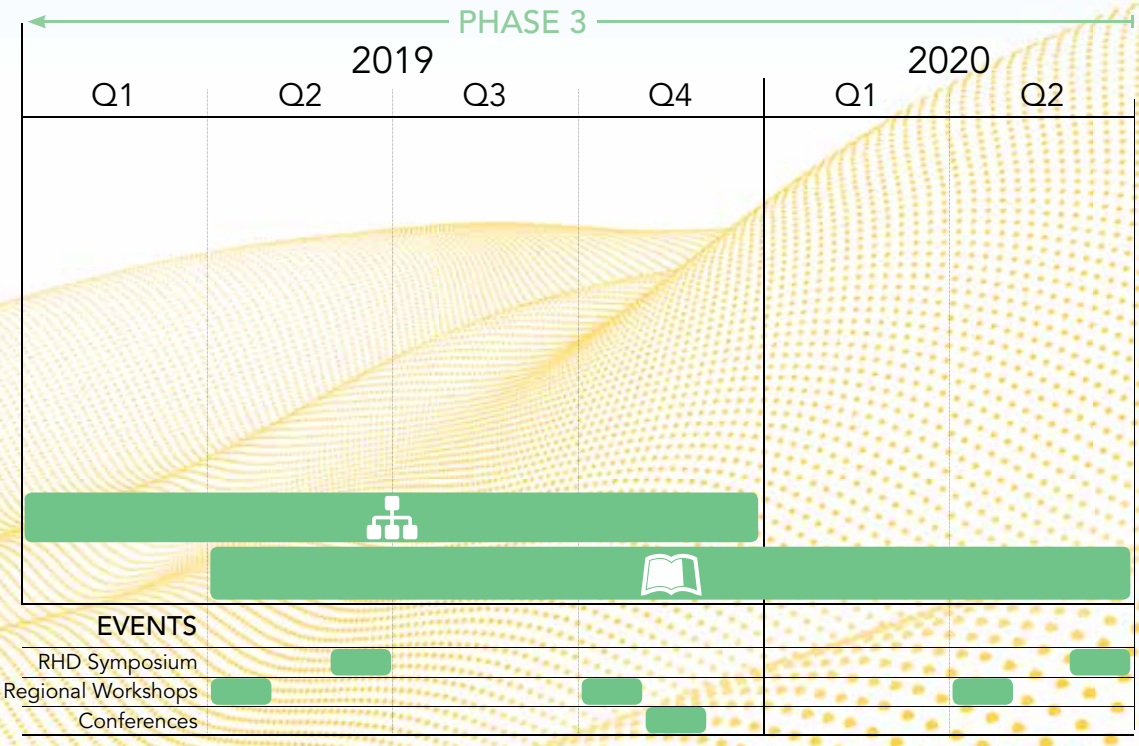
The third stage will **pilot the resource and matrix** in a number of trial sites. This stage will involve the refinement of the resource and matrix, which will clarify and exemplify opportunities for sustainable adoption. Positioned and delivered with deep reference to evidence-based research, the resource and matrix will provide practical strategies for teachers and schools to maximize the use of ILEs to improve teaching practices.



PHASE 3
INTERVENTION

The first stage will involve implementing the resource in a series of **intervention** case study sites across the widest possible array of educational settings, including geographical, (rural/urban/remote), socio-economic and differing school systems. Employing a mixed-method quasi-experimental design, evaluation approaches will include inferential analyses and qualitative approaches to address the main research question.

The second (and final) stage involves **analysis** and **reporting**. Changes in teachers' behaviors, lessons, interactions, activities, and assessments will be measured over time to chart progress in changing mind frames, and effecting deeper learning with students. The final report will consolidate the results of each phase of the project.



THE RESEARCH **TEAM**

THE **CHIEF INVESIGATORS**

ASSOCIATE PROFESSOR **WESLEY IMMS**

is the lead Chief Investigator. He is an educator with significant experience in practical and theoretical aspects of school curriculum, and expertise in the evaluation of ILEs.

PROFESSOR **DAVID CLARKE**

and his *International Centre for Classroom Research* brings to the project unparalleled expertise in the capturing and evaluation of teacher practices in the classroom.

DR **BEN CLEVELAND**

has extensive expertise as an applied researcher in learning environments, developing a recognised specialisation in the alignment of space and pedagogy.

ASSOCIATE PROFESSOR **KENN FISHER**

is an international leader in facility design across all education sectors, with expertise in designing research to interrogate the impact of these spaces.

PROFESSOR **LISA GROCOTT**

has an extensive background in design which includes a specialisation in applying design thinking theory to investigate how professionals develop and evolve their beliefs about their practice.

PROFESSOR **JOHN HATTIE**

brings to ILETC his well-recognised thinking on visible learning and visible teaching. His input will drive the project's focus of pedagogic practice being the critical factor in making ILEs 'work'.

PROFESSOR **TOM KVAN**

is a skilled educational leader and an architect who specialises in linking design practices to digital technologies. Tom provides ILETC extensive expertise in bringing together multi-disciplinary teams within learning environment research.

ASSOCIATE PROFESSOR **CLARE NEWTON**

is an architect and academic who has led two ARC Linkage Projects on learning space design. Her ARC on prefabricated learning spaces, Future Proofing Schools brought together designers, educators, and infrastructure experts and led to the establishment of PrefabAUS.

THE **PhDs**

The majority of the research will be conducted by ILETCs project PhD students. Each project addresses a core component of the research issue. A number of 'satellite' PhDs with strong links to ILETC will conduct their independent research while utilising as much as possible the support of the project. They will contribute unique knowledge through collaborative presentations, publications, and attendance at events.

MANAGEMENT

JOANN CATTLIN

ILETC Project Manager, brings a wealth of experience from similar management roles in research, in addition to her training in information management.

DR **MARIAN MAHAT**

ILETC Research Manager, is a skilled researcher in mixed method designs, and brings highly relevant experience from her previous roles in higher education.

THE **RESEARCH FELLOWS**

TERRY BYERS

based in Queensland, is a specialist in measurement of impact of teaching in ILEs and will monitor this aspect of the project as well as facilitate and supervise fieldwork in his region.

CHRIS BRADBEER

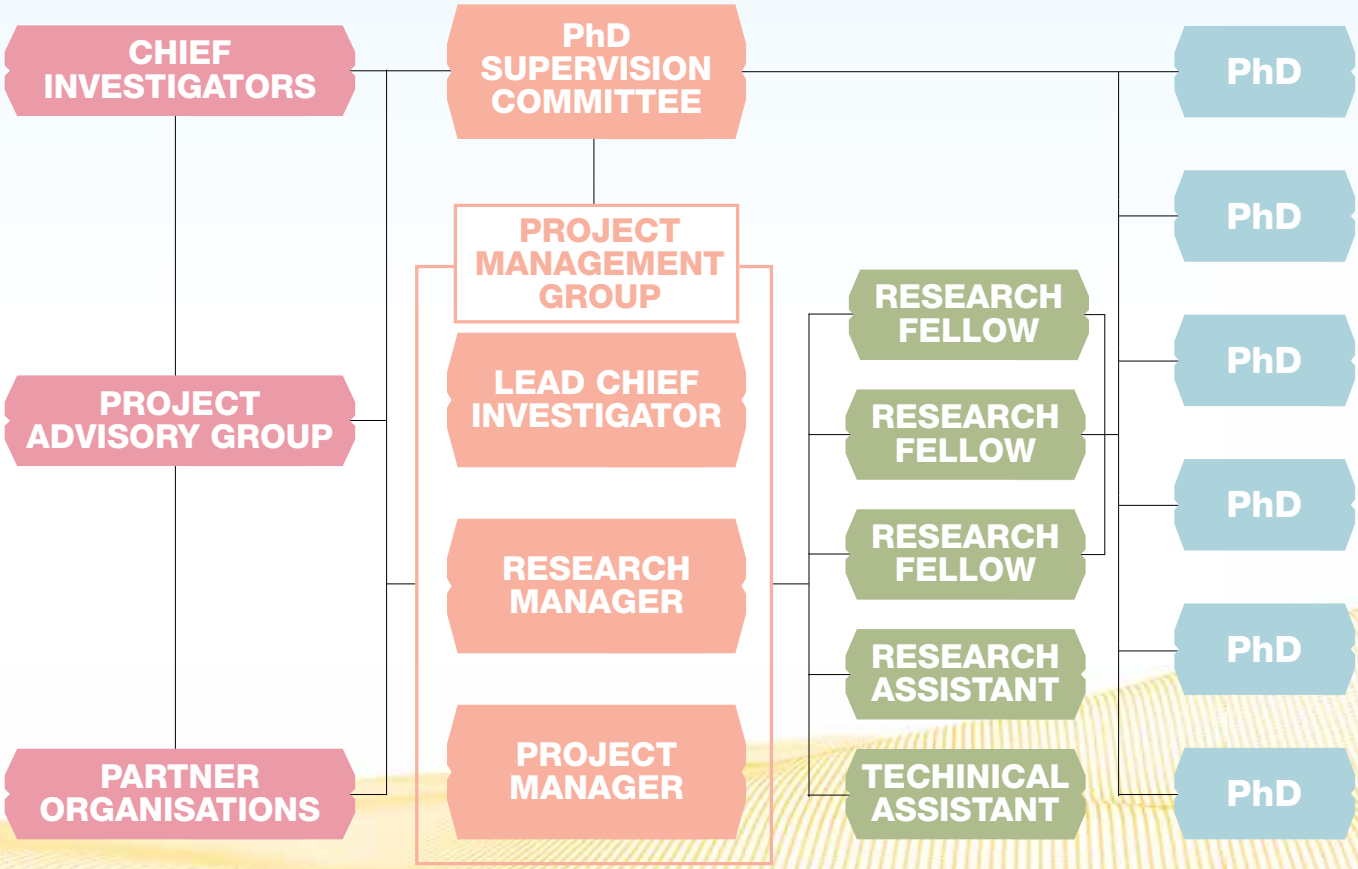
based in New Zealand, is a specialist in teachers' collaborative teaching in ILEs, and will monitor this aspect of the project as well as facilitate and supervise fieldwork in his region.

PROJECT ADVISORY **STRUCTURE**

Led by prominent academics at the University of Melbourne, the project brings together 15 partners with expertise in education and learning environments who share a passion for supporting teachers in developing the most effective practices in modern classroom environments. The Chief Investigators and Project Advisory Group provide leadership and expertise in their key research areas.

Each Partner Organisation brings to ILETC a unique and valuable body of knowledge and expertise. This includes previous research on this topic, practical advances in ILE development and use, and considerable work around making such spaces educationally successful. The core research team—Research Fellows and PhD students—will conduct the bulk of the fieldwork with directions from the Project Management Group. This multidisciplinary expertise is mirrored within the team, as illustrated in the Project Advisory Structure below.

Image credits: Marist College Bendigo, Y2architecture, Bill Conroy Photography.



PARTNERSHIPS & COLLABORATION

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Te Kāwanatanga o Aotearoa

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IT'S HOW WE CONNECT

+61 3 9035 8694

info@iletc.com.au

www.iletc.com.au

@projectILETC

Cover image: Stonefields Primary School, Jasmax Architecture, Alex de Freitas Photography.