



Australian Association
for Research in Education



UNIVERSITY of
TASMANIA

**College of
Arts, Law
and Education**

co-hosted with

AARE Theory Workshop – May 31-June 2, 2019

Venue: The University of Tasmania, Launceston, Tasmania

THEME: *ENACTING COLLABORATIVE INTERDISCIPLINARY RESEARCH AGENDAS FOR REAL WORLD PROBLEMS - PRIORITIES, PROVOCATIONS AND POSSIBILITIES*

Our research in education aims to address issues that are contemporary and important. This often requires collaboration with diverse stakeholders, each with their own context specific objectives and ambitions. Such collaborative ventures see researchers traversing a range of ontological, epistemological, methodological, theoretical and contextual challenges. In the workshops presented this weekend by researchers with expertise in their field, you will have the opportunity to learn how they are negotiating and enacting such agendas to address issues, with cross/inter/trans disciplinary approaches in mind.

Part of the distillation process for the theme derived from inquiry lines that you might like to consider in your own work, and ones that will be taken up by presenters include:

- Curating cross/inter/transdisciplinary research collaborations;
- Ways of knowing and points of entry for collaborative cross/inter/transdisciplinary research;
- Scoping the enablers and inhibitors for cross/inter/transdisciplinary research;
- Brokering epistemological and ontological relationality across the college/institution/sectors.

WELCOME AND ACKNOWLEDGEMENTS:

AARE and the University of Tasmania are pleased to invite you to the Theory Workshop weekend at Newham campus. The University of Tasmania wishes to acknowledge the traditional owners, the palawa people of the land upon which this campus was built. We acknowledge the Tasmanian Aboriginal community, who have survived invasion and dispossession, and continue to maintain their identity, culture and Aboriginal rights. We also recognise the value of continuing Aboriginal knowledge and cultural practice, which informs our understandings of history, culture, science and environment; the University's role in research and education, and in supporting the development of the Tasmanian community.

It is a pleasure and honour for us to have Aunty Nola Welcome us all to Aboriginal land. The University of Tasmania and AARE would together like to thank Aunty Nola Hooper for Welcoming us to Country this weekend. Aunty Nola is a respected Elder with strong connections to Country, family and Community in lutruwita/Tasmania. Aunty Nola is a Board member of the Tasmanian Aboriginal Elders Council and is active in the Tasmanian Aboriginal Community. We pay our respect to the local palawa people present and emerging, and recognise the strength, resilience and capacity of Aboriginal people of this land - the first teachers and storytellers.

As part of your story, participating in this workshop is a wonderful opportunity for early career researchers and higher degree research students to meet and be immersed in research practices including methodology, how theory applies to and is emergent from their research, and ethical considerations. You will get to engage in discussions with, and learn from, experienced researchers in their field. Interested experienced researchers who are not presenting are also attending, so ask many questions and leave with additional knowledge and stronger friendships.

Congratulations to those awarded bursaries and scholarships. Do let your colleagues know about these and their benefits.

Many thanks to those at UTAS, in the School of Education and the AARE office who worked hard behind the scenes to support this meeting. In particular the co-convenor Abbey MacDonald from UTAS and Deborah Cracknell from AARE. And finally, from all of you who are participating and making the weekend spacetime what it is, from the generosity of presenters and the focus of all participants, welcome, I look forward to meeting you, and thank you in advance.

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UTAS Theory Workshop Host Convenor



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SPECIAL SPEAKER –

Lila Landowski - Collaboration and communication: a neuroscientist’s perspective

WORKSHOP PRESENTERS:

- Professor Sharon Fraser & Dr Vesife Hatisaru - Analysing variation in understandings through drawing: Getting to the heart of educators’ perceptions of science, mathematics and STEM learning environments
- Professor Annette Woods – Working with theories, methodologies and partners across a research program: Literacy, poverty and an inquiring profession
- Dr Jane Hunter - Laying out priorities: How research in STEM education in schools creates cross/inter/trans/disciplinary possibilities for teaching and learning
- Dr Melitta Hogarth - Cross/inter/transdisciplinary research: Doing Indigenous research right
- Dr Geraldine Burke - Working with uncertainty: Generating relational insights with, in and through arts-based research
- James Riggall – Lessons from the startup community: What the lean startup, human centred design and design thinking can teach us about interdisciplinary collaboration

Program: Venue: Sir Raymond Ferrall Centre, Building X, Newnham Campus

Date/day	Event	Speaker/s	Description
FRIDAY			
4.00pm	Refreshments and registration Sir Raymond Ferrall Foyer	Meet presenters and other delegates Sign in and consents	
4.20pm	Welcome to Country Welcome to UTAS NHX. 138 Lecture Th5	Aunty Nola Hooper Vice Chancellor Rufus Black	
4.45pm	Special speaker NHX. 138 Lecture Th5	Dr Lila Landowski	Collaboration and communication: a neuroscientist’s perspective
5.30pm	Presenter panel NHX. 138 Lecture Th5	All	Brief introductions and response to speaker
7.30 pm	Informal meal and drinks		Toong Thong Thai Yorktown Square, Launceston (03) 6334 4879 Menu: toongthongthai.com.au Register when you sign in Friday at first session. At delegate’s own expense.

SATURDAY			
9.00am-10.30am	Workshop 1 NH. X130	Dr Melitta Hogarth	Cross/inter/transdisciplinary research: Doing Indigenous research right
10.30am-11.00am	Morning tea		
11.00am-12.30pm	Workshop 2 NH. X130	James Riggall	Lessons from the startup community: What the lean startup, human centred design and design thinking can teach us about interdisciplinary collaboration
12.30pm-1.30pm	Lunch		
1.30pm-3.00pm	Concurrent Workshops 3A NH. X130	Professor Annette Woods	Working with theories, methodologies and partners across a research program: Literacy, poverty and an inquiring profession
1.30pm-3.00pm	Concurrent Workshops 3B NH. X130	Professor Sharon Fraser & Dr Vesife Hatisaru	Analysing variation in understandings through drawing: Getting to the heart of educators' perceptions of science, mathematics and STEM learning environments
3.00pm-3.30pm	Afternoon tea		
3.30pm-4.30pm	Concurrent Workshop 3 cont.		
4.30pm-5.30pm	Plenary panel NHX. 138 Lecture Th5	Workshop presenters	Navigating the politics of collaboration
7.30pm	Dinner	Free to organise	TBC
SUNDAY			
9.00am-10.30am	Concurrent workshops 4		
	Workshop 4A NH. X130	Dr Jane Hunter	Laying out priorities: How research in STEM education in schools creates cross/inter/trans/disciplinary possibilities for teaching and learning
	Workshop 4B NH. X130	Dr Geraldine Burke	Working with uncertainty: Generating relational insights with, in and through arts-based research

10.30am-11.00am	Morning tea		
11.00am-12.00pm	Concurrent workshop 3 (cont)		
12.00pm-1pm	Plenary presenter panel and Q&A	All presenters	Defining the key enablers and inhibitors of interdisciplinary collaborative research
	NHX. 138 Lecture Th5		
1pm-2.00pm	Lunch, discussion and farewell		

SATURDAY Workshop 1

DR MELITTA HOGARTH

Cross/inter/transdisciplinary research: Doing Indigenous research right

The complexities and intricacies of Indigenous research when researching Indigenous anything cannot and should not be from one discipline or field. That is, it should be cross-disciplinary. There is a need to accept that socially inclusive approaches considering Indigenous ways of knowing, being and doing is necessary; that an alternative lens to dominant ideologies and assumptions for current circumstances is pertinent. It involves providing a comprehensive perspective on the problem/question or issue. Therefore, it needs to be interdisciplinary. It also needs to include Aboriginal and Torres Strait Islander peoples in the research and involves a case study approach. Inevitably, Indigenous research becomes transdisciplinary. Either way we look at Indigenous research, whether it be deemed cross/inter/transdisciplinary research, ethically we are bound to involve and build a reciprocal relationship with Aboriginal and Torres Strait Islander communities. In this workshop, we will explore some of the issues raised when investigating Aboriginal and Torres Strait Islander peoples. A historical synopsis to illustrate the extent to which Indigenous peoples have been researched and the importance of the inclusion of Indigenous peoples and voices is shared. Participants are invited to share potential projects they are intending to conduct to explicate some of the varying and often ignored considerations. In conjunction with Dr Abbey McDonald, we will share the rudimentary project idea we are currently ‘courting’ to provide example of what we would like to suggest is ‘Indigenous research done right!’

About the presenter

Melitta Hogarth is a Kamilaroi woman who is also the Indigenous Education Lecturer at the University of Southern Queensland within the College for Indigenous Studies, Education and Research. Prior to entering academia, Melitta taught for almost 20 years in all three sectors of the Queensland education system specifically in Secondary education. Melitta’s interests are in education, equity and social justice. She recently completed her PhD titled “Addressing the rights of Indigenous peoples in education: A critical analysis of Indigenous education policy”.

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Workshop 2

JAMES RIGGALL

Lessons from the startup community: What the lean startup, human centred design and design thinking can teach us about interdisciplinary collaboration

In this workshop, I will be aiming to put a collaborative research lens on tools that startups use to ensure that their product is fit for market, solving a real problem and how they codesign their products (and company) in collaboration with their customers. The workshop would pivot on the importance of empathy and meeting your collaborators where they are. I will use design thinking as the framework to talk about that.

About the presenter

James is a Tasmanian entrepreneur who found his start as a teacher at the Human Interface Technology Laboratory (HITLab) in Launceston where he taught courses in virtual reality, augmented reality, entrepreneurship and videogame design. In his teaching career, James worked with international professors and facilitated many guest lectures from international speakers, including staff from Microsoft, Valve Software and Gas Powered Games. He is the Managing Director for Bitlink who have been focusing on tech education, particularly STEM/STEAM education programs for Tasmanian students and teachers. Since 2015, Bitlink has been developing and delivering a range of STEAM education programs in Tasmania, that have developed a strong reputation and loyal following in the state. In 2017, James was awarded a prestigious Fulbright Scholarship to travel to Seattle where he worked with Bellevue College staff to help build additional momentum around technology and business education.

<https://www.jamesriggall.com/> or james@bitlink.com.au

Workshop 3A Concurrent

PROFESSOR ANNETTE WOODS

Working with theories, methodologies and partners across a research program: Literacy, poverty and an inquiring profession.

In this workshop, I detail decisions made, theories drawn together, partners engaged, across time and place, and across different facets of a research program that has aimed to investigate what high quality, high equity schooling in communities of high poverty and cultural diversity might look like. With a narrative of my own route(s) taken across research projects, across time, places, partners, and always assisted by a necessarily expanding 'tool box' of theoretical, methodological and interactional resources as the backdrop, the workshop will engage participants in considering the material, discursive, and interdisciplinary dimensions of their own past, present and future research endeavours. There will be time for discussion and activity with colleagues to ensure the workshop is relevant and timely to participants needs

About the presenter

Annette Woods is a professor in the Faculty of Education, Queensland University of technology. She researches and teaches in social justice, literacies, curriculum, pedagogy and assessment. Her current research projects include an investigation of learning to write in the early years of schools in communities of high poverty (DP150101240 Woods, Comber, Kervin & Baroutsis); an investigation of literacy and sustainability in the pre-school years (DP160101008 Somerville, Woods, Duhn, Rautio & Powell); a participatory study of cultural identity and well-being of Aboriginal and Torres Strait islander young people in secondary schools (Lowitja Grant Shay, Sarra, Woods et. al.) and a study of



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possibilities of bringing imagination to literacy curriculum and pedagogy (Comber, Woods, Kerkham, Trimboli, Grant, Drought, Wells).

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Workshop 3B

PROFESSOR SHARON FRASER & DR VESIFE HATISARU

Analysing variation in understandings through drawing: Getting to the heart of educators' perceptions of science, mathematics and STEM learning environments

For almost 40 years educational researchers have explored the perceptions students have of scientists (e.g. 'Draw-a-scientist test [DAST]', Chambers, 1983) and mathematicians (e.g. Draw-a-mathematician test [DAMT], Picker & Berry, 2001) through drawing. To do so, students are asked to draw a picture of a scientist or mathematician and then to explain their drawing. These instruments are used as an alternative to written text to examine, analyse and evaluate students' conceptual images of scientists and/or science or mathematicians and/or mathematics. Such instruments have identified that students hold stereotypical images of both scientists and mathematicians and that such perceptions influence subject and career choices and are difficult to change. More recently, the authors have patterned a new instrument, adapted from the DAST and DAMT, entitled 'Draw a STEM Learning Environment Test' [D-STEM] and implemented it with a small sample of participants. In this workshop, we will present the D-STEM instrument and rubric and outline the key elements, strengths and limitations of using drawing instruments such as the DAST, DAMT and D-STEM to explicate participants' thinking and/or perceptions. Finally, workshop participants will reflect upon ways in which using the drawing approach might be useful in their own research

About the presenters

Professor Sharon Fraser is a lecturer in science education in the School of Education in the College of Arts, Law and Education. Sharon began her academic career as a scientist. After a number of years working in related fields, and teaching in secondary schools, she proceeded into the area of science and more recently mathematics and STEM (Science, Technology, Engineering and Mathematics) education research. Her research spans science and mathematics curriculum and pedagogy, both school and higher education, as well as teacher education and professional development of educators, with professional learning and capacity building, the conceptual drivers. Sharon's research focuses on building the capacity of teachers (from early childhood to university) to teach science and integrated STEM effectively. Enabling an enhanced understanding of science through a focus on Epistemic Insight (EI) and how the enhancement of Science Pedagogical Content Knowledge (PCK) of teachers improves learning in science are areas of interest. Sharon has widespread experience in the quality assurance and enhancement of learning and teaching and expertise in the development, conduct and management of strategic education and research projects in higher education.

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After teaching mathematics at secondary schools for ten years, Vesife pursued post-graduate degrees in mathematics education. Currently, Vesife is a postdoctoral research fellowship in mathematics and science education at University of Tasmania. Her research interest includes teacher pedagogical content knowledge for teaching mathematics and its link with student learning outcomes. Vesife also conducts research related to student affective outcomes such as student attitudes, feelings or emotions about mathematics and mathematicians examining students' drawings.

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SUNDAY Concurrent Workshop 4A

DR JANE HUNTER

Laying out priorities: How research in STEM education in schools scope cross/inter/transdisciplinary possibilities.

In this workshop I plan to use examples from my current research on how middle leaders in primary schools used a pedagogical framework to create innovative cross/inter/trans/disciplinary teaching and learning programs for students. Key socio-cultural theories of Piaget, Vygotsky and Costa & Garmston's notion of 'teacher agency' underpinned the studies. Details of the most recent study will be shared alongside de-constructing the approaches school teams took to teaching in new ways where content knowledge of the disciplines played a secondary role to pedagogies that fostered critical problem solving and deep inquiry. If sociocultural theory focuses on how adults influence individual learning, then how do cultural beliefs and attitudes towards professionalism and the disciplines impact how instruction and learning take place. What kinds of research design, methods, data collection and analyses suit such contexts? Participants will engage in an interactive podcast recording if they wish to explain their own insights while also having the opportunity to discuss and share relevant experiences and insights from the field

About the presenter

Dr Jane Hunter is a senior lecturer in the STEM Education Futures Research Centre at the University of Technology Sydney. Her research was deemed high impact in the recent 'ARC National Report on Engagement and Assessment 2018-19'. She is currently conducting a series of studies to build teacher and middle leader capacity in STEM and STEAM in schools using inquiry pedagogies. Her work reinforces the importance of pedagogy, teacher agency and continuous professional learning through ongoing school-university partnerships. The pedagogical framework for technology enhanced learning featured in her book "Technology integration and High Possibility Classrooms: Building from TPACK" is leading innovation and changes to practice in Australian schools. She is a requested speaker at national and international conferences and more recently her work has embraced end user affordances and likely impacts of artificial intelligence on school education, young people and learning. Catch her on Twitter @janehunter01
jane.hunter@uts.edu.au

Concurrent Workshop 4B

DR GERALDINE BURKE

Working with uncertainty: Generating relational insights with, in and through arts-based research

Participatory arts-based research (ABR) is at the core of my pracademic (Posner, 2009) approach to collaborative projects and causes me to consider the role of inter/transdisciplinary and relational approaches to knowledge. Central to this way of working is the notion of 'uncertainty' as an innate force within the research trajectory. In this presentation/workshop I explore how (ABR) as understood through a/r/tography, is always in a state of becoming (Spinggay, 2008; Irwin and O'Donoghue, 2012). When taking on an a/r/tographic disposition I too am in a state of flux with the research process as waves of uncertainties disrupt assumptions and expectations, and touch un/known possibilities. Events from my PhD research and two recent ABR projects reveal disruption, flux, and shifts as ABR, provoked by important current issues, moves into action. This presentation will refer to Museums, Arts and Wellbeing (MAW), a spearhead project funded with a 2018 *Robert Blackwood Seed Grant, where I worked in a research team with colleagues from Monash University and Museums Victoria to draw intergenerational connections between



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museum and community for health and wellbeing. We aimed to build a pedagogy of restoration among seniors and school children while connecting community and museum contexts. The presentation will also explore an ongoing initiative, the Plastic Pacific Provocation (PPP), an event where educators/students from Tokyo Gakugei and Monash University met and continue to explore the vital materiality (Bennett, 2010) of single-use and washed-up plastic while thinking on the shared plastic/ocean that joins Japan and Australia. The presentation/workshop will include a presentation and participatory arts-based activity.

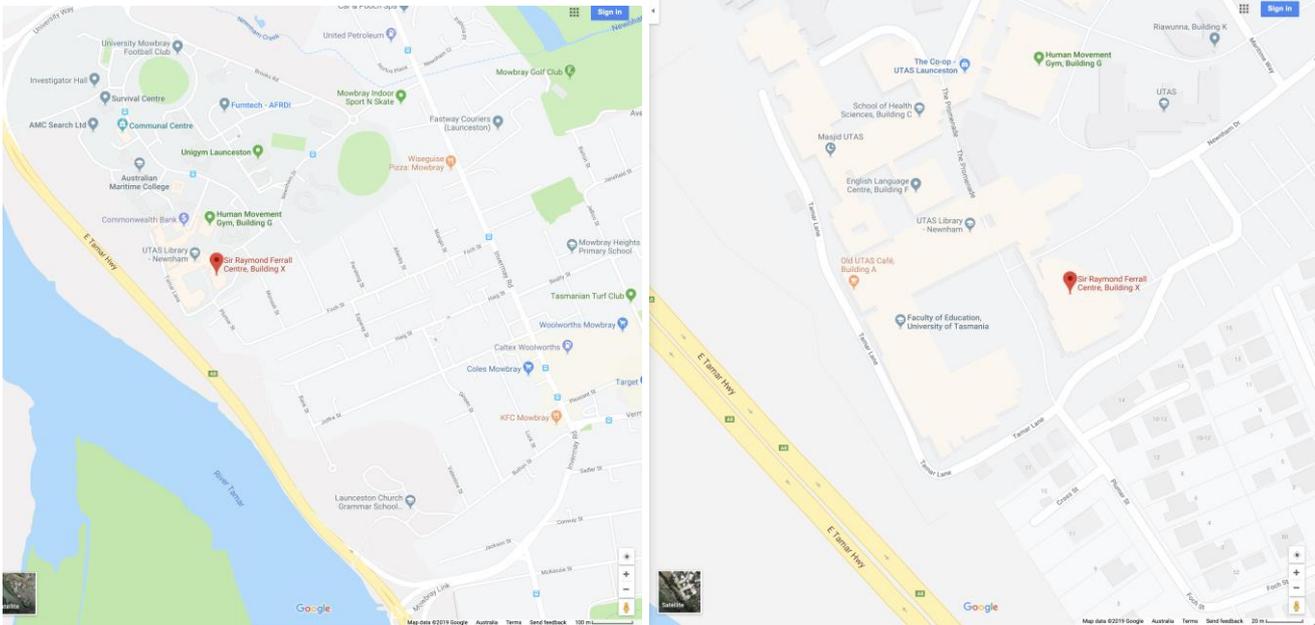
* The Museums, Art and Wellbeing project was supported by a Robert Blackwood Seed Grant (2017/18) as part of the Monash University and Museums Victoria seed funding scheme. The Research team consisted of: Laura Alfrey, Geraldine Burke, Clare Hall, Justen O'Connor (Monash University) Alexandra Price, Linda Sproal and Nadya Tkachenko (Museums Victoria).

About the presenter

Geraldine Burke lectures into art/community/environment and creative arts/design education, Monash University (Melbourne, Singapore). Passionate about community, intergenerational, and environmental projects that intersect through art, research, and teacher education, she has an enduring interest in how local knowledge/s, place and immersive a/r/t inform each other. Geraldine's Masters (Art and Design) was by exhibition/exegesis, and Ph.D. by photo-book/exegesis. Her recent ABR explores art and wellbeing through intergenerational/community/museum connections; intergenerational arts-based pedagogy within trans-cultural contexts; and the Plastic Ocean Provocation. Email: Geraldine.Burke@monash.edu

VENUE:

We will be working across all areas of the *Sir Raymond Ferral Flex Centre* for the entirety of the event. It is very close to the car park.



MAPS/PARKING:

[This link](#) takes you to the UTAS website where details pertaining to parking on Newnham campus can be found. Scroll down to the most useful information re parking/maps as follows:

Location of Parking Areas

[Download Sandy Bay campus parking zones map \(PDF 345.3KB\)](#)

[Download Newnham campus parking zones map \(PDF 373.8KB\)](#)

NOTES: