

RMIT School of Education 2020 PhD and Master by Research Projects

The Development of Mathematical Reasoning in the Early and Middle Years	2
Pedagogy as Research: Expanding Notions of Pedagogy in the Early Years.....	4
Vocational Education for Sustainable Development	6
Social Justice, Diversity and Education	8
Enhancing the School Environments through Leadership and Student-centred Pedagogies.....	10
Gender-diversity & Digital Literacy Education in Contemporary Australian Schools.....	12
STEAM and Creativity in the 21st Century	14
Mathematics Education: Understanding and Improving the Quality of Mathematics Teaching and Learning.....	16
Educational Leadership: Understanding, Exploring and Critiquing Influence in Schools and School Systems.....	18
Teacher Pedagogy, Practice and Policy	20
Extending the Boundaries of STEM	22
Co-constructing ITE Curriculum through Social Learning Systems.....	23
Engaging Sustainability Through Education	25
Young People, Well-being, Resilience and Enterprise: Critical Perspectives for the Anthropocene	27
Language Education: Pedagogy and Practice	29

Project Title

The Development of Mathematical Reasoning in the Early and Middle Years

PROJECT DESCRIPTION

Across all fields of endeavour but particularly science, technology and engineering, there is very little of any substance that can be achieved without the capacity to recognise, represent and reason about relationships between quantities, that is, to think and work mathematically. Mathematical reasoning, the capacity to apply mathematical knowledge in problem solving situations, is a key aspect of further study in mathematics and vital for the development of STEM related disciplines. Research in mathematics education found that many students are disengaged with school mathematics and international studies have consistently shown that 20% of Australian 15-year olds are unable to demonstrate the competencies needed to participate effectively and productively in society. In particular, student performance is strongly and positively related to socioeconomic background and the quality of teaching. There is a strong association between early training and subsequent improvement in all aspects of mathematical knowledge in the later years. Accurate measurement of learning at scale and design studies that investigate learning in contexts provide valuable insight on how mathematical reasoning is developed. This can then help informed teachers on ways to provide targeted teaching instructions that support and nurture reasoning across mathematical domain. The project is grounded in practice and framed by a sociocultural and cognitive science perspectives of mathematics learning. Its primary focus has been on developing evidence-based learning progressions and teaching advice for nurturing mathematical reasoning. It also recognizes the importance of teacher development and student attitudes, motivations, and beliefs in the teaching and learning of mathematics.

RELEVANT LITERATURE

- **Seah, R., & Horne, M.** (2019). The construction and validation of a geometric reasoning test item to support the development of learning progression. *Mathematics Education Research Journal*. doi:10.1007/s13394-019-00273-2
- **Seah, R., & Horne, M.** (2019). A learning progression for geometric reasoning. In D. Siemon, T. Barkatsas, & R. Seah (Eds.), *Researching and using progressions (Trajectories) in mathematics education* (pp. 157-180). Leiden, Netherlands: Brill Sense Publishers.
- **Seah, R.** (2016). Developing conceptual understanding: Effective instructions for teaching students with special educational needs. In T. Barkatsas & A. Bertram (Eds.), (pp. 29-56). Rotterdam, Netherlands: Sense Publishers.
- **Siemon, D., Tasos, B., & Seah, R.** (Eds.). (2019). Researching and using progressions (Trajectories) in *Mathematics Education*. Leiden, Netherlands: Brill Sense Publishers.

SUPERVISORY TEAM

Primary Supervisor Dr Rebecca Seah

Associate supervisors Asso Prof. Marj Horne, Dr Angela Rogers

FOR CODE

- **130208** Mathematics and Numeracy Curriculum and Pedagogy

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Social Change
 - Transformations in work
- Urban Futures
 - Understanding and engaging communities

Project Title

Pedagogy as Research: Expanding Notions of Pedagogy in the Early Years

PROJECT DESCRIPTION

This project will use the notion of 'pedagogy as research' to frame research that makes a difference to the lives of infants, toddlers and young children as learners, those that care for them and those that make decisions for/about them. While quality early childhood education and care is now widely viewed as the 'magic bullet' to positive outcomes for children, more attention has yet to be granted to the nature of pedagogies that underpin successful learning in these early years. Pedagogies traditionally view teaching and learning as either an art or a science, involving certain beliefs, methods and techniques oriented towards assimilation of valued knowledge (Farquhar & White 2014). This project will stretch these boundaries, taking a view of pedagogy as a political, philosophical, cultural, transformative and creative intersubjective act that is deeply concerned with 'being, belonging and becoming' young learners and their families in and across societies.

Through this expansive route we will explore pedagogies as diverse ways of seeing teaching and learning for our youngest - in and through dialogue, culture, curriculum, routines, transitions, community engagements and, importantly, in play. We aim to re-locate pedagogies as compassionate encounters between young learners and the people (adults, peers, virtual communities etc), places (landscapes, cultures, eco- environments) and things (tools, technologies) that orient their lives. Part of our focus will be to critically explore pedagogy as a form of governmentality, juxtaposed with its potential to create new possibility spaces for transformative practices. We see the project as a way to address the extant (false) dichotomy of care and education globally and progress understandings of how and why pedagogical practices are so deeply implicated in early childhood education. There is scope for generating new pedagogies and giving voice to previously silenced pedagogies through this work.

This project will encompass a number of existing studies and international partnerships with the view to expand and diversify. Key methods include, but are not limited to, polyphonic methods, discourse analysis and visual ethnography. Orienting disciplines include early childhood education and care, infant and toddler pedagogy, inclusive and alternative pedagogies, education philosophy, digital inquiry and education policy sociology. Key theoretical frameworks include post-structural, dialogic, inter-cultural and feminist approaches which seek to expand rather than limit the potential for alternative ways of viewing pedagogy as research.

RELEVANT LITERATURE

- **White, E.J.** (2016). More than meets the 'I': A polyphonic approach to dialogic meaning-making. *Video Journal of Education and Pedagogy*.
- <http://videoeducationjournal.springeropen.com/articles/10.1186/s40990-016-0002-3>
- **Ng, J., Nyland B.** (2017) Critical examination of internationalisation: a case study of collaboration between an Australian and a Chinese university In: *European Journal of Higher Education*, 1-6.

- **Acker, A. & Nyland, B.** (2017). Music as a platform for intercultural understanding: early childhood curriculum and a growing neoliberal imperative In: *Intercultural Studies of Curriculum Theory, Policy and Practice*, Cham, Switzerland
- **Hunkin, E.** (2018) If not quality, then what? The discursive risks in early childhood quality reform. *Discourse: Studies in the Cultural Politics of Education*. DOI:10.1080/01596306.2018.1453780

SUPERVISORY TEAM*

Primary Supervisor Dr Jayne White

Associate supervisors Dr Josephine Ng, Dr Aleksandra Acker, Dr Elise Hunkin

*Adjunct Professor Berenice Nyland will be a project advisor, and may also be involved in supervision

FOR CODES

- **1301** Education Systems
- **1302** Curriculum and Pedagogy
- **1303** Specialist Studies in Education

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Design and Creative Practice
- Social Change

Project Title***Vocational Education for Sustainable Development*****PROJECT DESCRIPTION**

UNESCO UNEVOC @ RMIT is located in the School of Education with governance by a Management Committee drawn from TVET expertise across RMIT University, the VET sector and industry. UNEVOC@RMIT is accountable through a two-year workplan cycle registered with UNESCO-UNEVOC headquarters in Bonn, Germany.

Aspirations for UNEVOC @ RMIT

Focused on being part of an inclusive, global learning network of institutions and organisations involved in technical and vocational education and training (TVET) in UNESCO's Member States. Positioning RMIT and Australia as a leader and enabler in the region (Asia Pacific, North Asia and South Asia) in applied research, network building and evidenced-based interventions and policymaking in VET.

Leveraging the work being conducted at other UNEVOC Centres around the world for the benefit of Australia and Australian future workforces and industry. Enabling further brand and reputation building for RMIT and its leading position in the VET sector in Australia and internationally.

Delivering research impact through establishing stronger links with end users and beneficiaries of research being conducted by RMIT in the area. Contributing, through concrete, applied, and research-based activities, to meeting the [UN Sustainable Development Goals](#), including: (4) quality education, gender equality, (8) decent work and economic growth, (9) industry, innovation and infrastructure, and (10) reduced inequalities.

Research focus:

The research focus for UNEVOC at RMIT is multidisciplinary, and is initially focused on three key areas:

- Young people, social enterprise and VET for Sustainable Development
- Applied research and the transformation of VET learning and teaching for Sustainable Development
- Gender diversity, equity and participation in VET for Sustainable Development

RELEVANT LITERATURE

- **Kelly, P., Campbell, P and Howie, L.** (in press, 2018) *Rethinking Young people's Marginalisation: Beyond neo-Liberal Futures?* Routledge.
- **Kelly, P., Campbell, P., Harrison, L. and Hickey, C.** (editors, in press, 2018) *Young People and the Politics of Outrage and Hope*, Brill, Amsterdam/Boston.
- **Kelly, P. and Pike, J.** (editors) (2017) *Neo-Liberalism and Austerity: The Moral Economies of Young People's Health and Well-Being*, Palgrave, London
- **Kelly, P. and Kamp, A.** (editors) (2015) *A Critical Youth Studies for the 21st Century*, Brill, Amsterdam/Boston

SUPERVISORY TEAM

Primary Supervisor Prof Peter Kelly

Associate supervisors Dr Seth Brown, Dr Emily Gray, Dr Rohan Nethsinghe

FOR CODES

- **130108** Technical, Further and Workplace Education;
- **160809** Sociology of Education

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Social Change

Project Title***Social Justice, Diversity and Education*****PROJECT DESCRIPTION**

This project focuses on issues of diversity, difference and inclusion in both formal and informal educational spaces and seeks to ask what are the hopes and possibilities for social justice in an increasingly fractured world? We ask what role education plays in order to address issues of inequality for minorities across the globe.

In 2004 and in response to 9/11, Judith Butler wrote of a rise of anti-intellectualism, an acceptance of media censorship and a growth of the notion that some lives are more grievable, and therefore more important, than others within Western contexts generally and the US specifically (Butler 2004). We have witnessed successive Western nations reject liberal progressivism to embrace a particular brand of right-wing populism that reflects Butler's concerns about the rise of anti-intellectualism. This oppositional populism can be understood as 'a "thin ideology," that sets up a hypothetical confrontation between right-wing populists championing the "people" against an elite accused of favouring a third group of their choice' (Speed and Mannion 2017, 249-250). Such a rise has been accompanied by the ascendance of a right-wing populism that actively encourages dogmatic approaches to understandings of nation, border security, LGBTIQ rights, women's rights, racial inequality and financial (in)security (Lyons 2017; Wilson 2016).

This project seeks to imagine different possible futures within which education meets the needs of individuals and communities in order to ameliorate educational inequalities and therefore to address inequality more broadly.

RELEVANT LITERATURE

- **Gray, E.M.** (2013). Coming out as a lesbian, gay or bisexual teacher: negotiating private and professional worlds. *Sex Education: Sexuality, Society and Learning*. 13. 6: 702-714.
- **Crowhurst, M., & Emslie, M.** (2018). *Working Creatively with Stories and Learning Experiences: Engaging with queerly identifying tertiary students*. Palgrave MacMillan, Cham, Switzerland.
- **Brooks, J. S. & Watson, T. N.** (2018). School leadership and racism: *An ecological perspective*. *Urban Education*. DOI: <https://doi.org/10.1177/0042085918783821>.
- **Brown, S., Clark, P., Gilling, m., & Waitere, H.** (2014). Through the eye of a needle pass the multiple threads of biculturalism. In A. St. George, S. Brown, & J. O'Neill (Eds.), *Facing the big questions in teaching: Purpose, power, and learning*. (2nd ed., pp. 56-64). Melbourne, Australia: Cengage.

SUPERVISORY TEAM**Primary Supervisor**

Dr Emily M. Gray

Associate supervisorsDr Michael Crowhurst, Dr Seth Brown,
Prof. Jeffrey S. Brooks

FOR CODE

- **1303** Specialist Studies in Education

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Social Change

Project Title

Enhancing the School Environments through Leadership and Student-centred Pedagogies

PROJECT DESCRIPTION

This project aims to examine ways educators can build leadership capacity to support teacher education and professional development to enhance students' health, well-being and learning within a school context. We welcome proposals that explore the use of creative student-centred pedagogies, global mobility to enhance cross-cultural perspectives, and leadership capability and improvement in school environments. The primary research designs of the project may employ a combination of descriptive research (namely Survey, Developmental research, Case Study, Focus group, Observational and Correlational), quasi-experimental and qualitative research. The project will draw from a wide range of sociocultural, behavioural and educational theoretical perspectives to explore the potential of health & physical educator's capacity to impact on students' health, well-being and learning within a school context.

International comparisons of PISA data for student outcomes relating to a range of academic performance indicators ranked Australia among the lowest in the world. Research has shown direct links between school leadership and student achievements (Barber, Whelan & Clark, 2010). In addition, the Active Healthy Kids Global Alliance report in 38 countries across 6 continents found that overall physical activity and sedentary behaviour in Australia are low/poor (graded D-). This project recognises that school health and physical education programs, co-curricular initiatives and environments play vital roles in shaping young people's experiences, health, well-being, learning and development which impacts on these achievements. Overall, the project will use this empirical base to contribute to scholarship on the impact of school leadership, global mobility experiences and student-centred pedagogies on students' health and well-being and achievements.

RELEVANT LITERATURE

- **Hilland TA, Ridgers ND, Stratton G, & Fairclough SJ.** (2011). *Associations between selected demographic, biological, school environmental and physical education-based correlates, and adolescent physical activity.* *Pediatr Exerc Sci*, 23(1), 61-71.
- **Kriemler, S., Meyer, U., Martin, E., van Sluijs, E. M., Andersen, L. B., & Martin, B. W.** (2011). Effect of school-based interventions on physical activity and fitness in children and adolescents: a review of reviews and systematic update. *British Journal of Sports Medicine*, 45(11), 923-930.
- **Janssen, I., & LeBlanc, A. G.** (2010). Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *International Journal of Behavioral Nutrition and Physical activity*, 7(1), 40.
- **Oh K, & Nussli N.** (2014). Challenging, eye-opening, and changing U.S. teacher training in Korea: Creating experiences that will enhance global perspectives. *Journal of the Scholarship of Teaching and Learning*, 14(4), 67-87.

- **Barber, M., Whelan, F., & Clark, M. (2010).** *Capturing the leadership premium: How the world's top school systems are building leadership capacity for the future.*

SUPERVISORY TEAM

Primary Supervisor A/Prof Amanda Telford

Associate supervisors Dr Toni Hilland, Dr Jason Wong, Dr Melanie Nash

FOR CODE

- **130313** Teacher Education and Professional Development of Educators

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Social Change
- Urban Futures

Project Title

Gender-diversity & Digital Literacy Education in Contemporary Australian Schools

PROJECT DESCRIPTION

Following the recent tumult of the Marriage Equality and Safe Schools debates, the increasing visibility of young gender and sexuality-diverse (GSD) students has become a socio-political minefield for schools. In addition, they are mindful of being responsive to sexist practices made recently more prominent by popular hybrid online/offline social movements like #MeToo. The complexities of contemporary gender politics are made more challenging by the pervasive presence of social media in young peoples' lives, especially as it intersects with school environments, relationships, and practices (i.e. bullying that can start at school and continue into the home via social media).

Mainstream curriculum and government mandated initiatives like 'Young and e:safe' (a program of the Commissioner for Cybersafety) continue to address online safety and sex education with risk averse 'if in doubt, don't'. These are coupled with punitive legal consequences for transgressors. Such approaches fail to resonate with young people in their everyday practices. With only ad hoc education department guidance, schools and teacher-training institutions are left to grapple with how to productively support students, teachers and parents. Processes and frameworks of whole- child and initial teacher education (ITE) are consequently vexed.

This proposal will use applied methods that include workshop practice with young people and educators, and ethnographic engagement with communities of interest. Rich media and social media data sources, as well as research outputs, will amplify impact. We aim to create an interdisciplinary space spanning education, gender and digital media studies for establishing a general but interconnected program of research around digital media and gender diversity in and through education contexts.

RELEVANT LITERATURE

- **Harris, A.** (2016). *Creativity and Education*. Palgrave Macmillan UK. Retrieved from <https://books.google.com.au/books?id=cN16DAAAQBAJ>
- **Riggs, D. W. & Bartholomaeus, C.** (2017). *Transgender young people's narratives of intimacy and sexual health: Implications for sexuality education*. *Sex Education*, 1–15. <https://doi.org/10.1080/14681811.2017.1355299>
- **Shaw, A. & Sender, K.** (2016). Queer technologies: affordances, affect, ambivalence. *Critical Studies in Media Communication*, 33(1), 1–5. <https://doi.org/10.1080/15295036.2015.1129429>
- **Vivienne, S.** (2016). *Reflections from outside the comfort zone: Digital self-representation, vulnerability and pedagogy*. Arts and Humanities as Higher Education, (December 2016). Retrieved from <http://www.artsandhumanities.org/journal/reflections-from-outside-the-comfort-zone-digital-self-representation-vulnerability-and-pedagogy/>

SUPERVISORY TEAM

Primary Supervisor A/Prof Anne Harris

Associate supervisor Dr Annette Gough

FOR CODES

- **130201** Creative Arts, Media and Communication Curriculum & Pedagogy
- **200205** Culture, Gender, Sexuality
- **200102** Communication Technology and Digital Media Studies

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Design and Creative Practice
- Social Change

Project Title***STEAM and Creativity in the 21st Century*****PROJECT DESCRIPTION**

There is ample evidence that creativity is now a ubiquitous economic and education across curriculum development, teacher training and policy. The need for creative change comes directly out of the Australian Government's Inquiry into Innovation and Creativity (Commonwealth of Australia, 2017), Recommendation 10 (2.94), which "recommends that the National Innovation and Science Agenda explicitly recognise the importance of STEAM, creative digital skills, the creative industries and the arts more generally" (p. 40). We will work with other state-based Education initiatives to build a national and indeed international STEAM-based creative education framework for compulsory creativity enhancement across the sector. We take a 'creative ecologies' approach and draw on new materialist, systems and creativity theory. Our impact focus is education, economic and arts policy change.

The methods will vary according to the successful candidates, but the project is transdisciplinary in nature and will build upon Associate Professor Harris' ARC Future Fellowship (2017- 2021) into intercultural creativity across higher education and workplaces in Australasia. We are keen to grow this research node to match the current national push toward a standardized approach to growing creativity in schools, and an international attention to creative skills and capacities in emerging workforces. It is a timely and expansive area of research, and confirming a project in this area means the considerable resources already committed through Creative Agency will continue to pay dividends in both research and impact terms.

RELEVANT LITERATURE

- **Harris, A. M.** (2014). The creative turn: Toward a new aesthetic imaginary (Vol. 6). *Springer Science & Business*.
- **Harris, A. & de Bruin, L.R.** (2018). Secondary school creativity, teacher practice and STEAM education: An international study. *Journal of Educational Change* 19: 153. <https://doi.org/10.1007/s10833-017-9311-2>
- **Harris, A. & de Bruin, L.** (2017) *Training teachers for twenty-first century creative and critical thinking: Australian implications from an international study, Teaching Education*, DOI: [10.1080/10476210.2017.1384802](https://doi.org/10.1080/10476210.2017.1384802)

SUPERVISORY TEAM**Primary Supervisor** A/Prof Anne Harris**Associate supervisor** A/Prof Patricia McLaughlin**FOR CODES**

- **130201** Creative Arts, Media and Communication Curriculum & Pedagogy
- **130212** Science, Technology and Engineering Curriculum and Pedagogy

- **130313** Teacher Education and Prof Development of Educators

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Design and Creative Practice
- Social Change

Project Title

Mathematics Education: Understanding and Improving the Quality of Mathematics Teaching and Learning

PROJECT DESCRIPTION

Across all fields of endeavour but particularly science, technology and engineering, there is very little of any substance that can be achieved without the capacity to recognise, represent and reason about relationships between quantities, that is, to think and work mathematically. However, many students are disengaged with school mathematics and international assessments of mathematical literacy reveal that 20% of Australian 15-year olds are unable to demonstrate the competencies needed to participate effectively and productively in society. The same data also reveal that student performance is strongly and positively related to socioeconomic background, that Indigenous students achieve on average at a level approximately two years below their non-Indigenous peers, and approximately one-third of the Australian females reported they did not think mathematics was important for later study compared to one-fifth of the males. These inequities are untenable where an estimated 75% of the fastest growing employment opportunities require some level of mathematics, science, technology or engineering education. This project is concerned with addressing these inequities through research that investigates how students learn mathematics and the pedagogical and organisational practices needed to ensure all students have the opportunities they need to learn mathematics with understanding and confidence. To date, the primary focus has been on developing evidence-based learning progressions for the big ideas in mathematics, but the project is also concerned with teacher development and student attitudes, motivations, and values in the teaching and learning of mathematics. The project is anchored in practice and framed by a sociocultural perspective of mathematics learning.

RELEVANT LITERATURE

- **Barkatsas, A., & Gialamas, V., & Orellana, C.** (2016). The complex nexus of secondary students' confidence, engagement, achievement and attitudes toward learning mathematics with Computer Algebra Systems (CAS) calculators: Testing the model using Structural Equation Modelling. In Barkatsas, A. & Bertram, A. (Eds), *Global Learning in the 21st Century*, pp. 121-137. Sense Publishers: Rotterdam.
- **Rogers, A.** (2014). *Investigating whole number place value assessment in Years 3-6: Creating an evidence-based Developmental Progression* (Unpublished Doctoral Dissertation). RMIT University, Melbourne, Australia.
- **Seah, R.** (2016). Developing Conceptual Understanding: Effective Instructions for Teaching Students with Special Educational Needs. In B. Tasos & B. Adam (Eds.), *Global learning in the 21st century*. Rotterdam, Netherlands: Sense Publishers

- **Siemon, D.** (2017). Developing learning progressions to support mathematical reasoning in the middle years: Introducing the Reframing Mathematical futures II project. In A. Downton., S. Livy., & J. Hall (Eds.), *40 years on: We are still learning!* (Proceedings of the 40th annual conference of the Mathematics Education Research Group of Australasia, Melbourne, pp. 651- 654). Adelaide: MERGA

SUPERVISORY TEAM

Primary Supervisor Prof Dianne Siemon,

Associate supervisors Dr Tasos Barkatsas, Dr Angela Rogers, Dr Rebecca Seah

FOR CODE

- **130208** Mathematics and Numeracy Curriculum and Pedagogy

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Social Change

Project Title

Educational Leadership: Understanding, Exploring and Critiquing Influence in Schools and School Systems

PROJECT DESCRIPTION

Throughout Australia and around the world there is increased recognition that leadership plays an important role in shaping the processes and outcomes of schooling. In this project, leadership is conceived as both formal and informal behaviours that people throughout an organization practice to influence followers. Leadership includes the development of conceptual, technical and relational skills. Importantly, we see leadership as a fluid phenomenon enacted by people regardless of position or rank—everyone is potentially a leader or a follower in different situations, and the nature of this distribution of leadership evolves over time. This project is focused on the various ways that leaders influence (and are influenced by) educational, ethical, social, cultural, political, organisational and equity dynamics in primary schools, secondary schools and the school systems in which they operate. The project is transnational in scope—to date it has included studies in Australia, United States, Thailand, The Philippines, Indonesia, Bangladesh, Malaysia and Saudi Arabia—we welcome proposals from other contexts as well. The primary research designs of the project are ethnography and case study, with a heavy emphasis on qualitative methods, but also employing mixed methods or quantitative methods as research questions demand. The project has drawn from a wide range of sociological, anthropological and educational theoretical perspectives to explore educational leadership in schools, but consistently recognizes the importance of local and organizational context.

RELEVANT LITERATURE

- **Brooks, M. C. & Brooks, J. S.** (in press). Culturally (ir)relevant school leadership: Ethno-religious conflict and school administration in the Philippines. *International Journal of Leadership in Education*.
- **Brooks, J. S. & Sutherland, I. E.** (2014). Educational leadership and poverty: A case study of the Philippines. *Planning & Changing*, 45(3/4): 339-355.
- **Brooks, J. S.** (2012). Black school, white school: Racism and educational (mis)leadership. Teachers College Press: New York, NY.
- **Brooks, J. S. & Normore, A. H.** (2010). Educational leadership and globalization: Toward a global perspective. *Educational Policy*, 24(1): 52- 82.

SUPERVISORY TEAM

Primary Supervisor Prof Jeffrey S. Brooks

Associate supervisors A/Prof Anne Harris, Dr Juliana Ryan, Dr Josephine Ng

FOR CODE

- **130304** Educational Administration, Management and Leadership

ENABLING CAPABILITY PLATFORM ALIGNMENT

- Social Change
- Urban Futures

Project Title***Teacher Pedagogy, Practice and Policy*****PROJECT DESCRIPTION**

This project involves candidates who are interested in the teaching profession, pre-service and in-service teaching or higher education teaching, and those with a specific interest in pedagogy, practice and policy.

In relation to policy, candidates could be interested in current Teacher Education policy, such as that emerging from the 2015 TEMAG review. One key area of reform has been around stronger quality assurance of teacher education courses, leading to the revision of the national accreditation standards and procedures and a greater emphasis on accountability, demonstration of impact and improvement. Candidates may be interested in School Education policy, as it relates to international, national or state developments such as the 2018 Gonski 2.0 review, the Australian curriculum or 2016 Victorian F – 10 curriculum or specific curriculum developments such as the use of educational technologies or literacy initiatives.

In relation to pedagogy, candidates could have an interest in current and emerging pedagogies and their impact on schools, teachers or learners. This could involve pedagogies associated with pre-service or in-service teaching or pedagogical developments around 21st century skills, literacy and ICT.

In relation to practice, candidates would be interested in how schools, teachers and learners enact practice in specific contexts, and the complexity in their decision making. Candidates may pursue specific examples of practice as they relate to a particular cohort of learners or a curriculum area. Candidates may be interested in professional practice and how it connects to coursework in Teacher Education or how it is enacted in particular school sites and the use of specific pedagogical models or frameworks.

Candidates may be interested in the provision of quality placement, the role of the teacher mentor in supporting this leaning experience, and the broader role of partnerships between schools and providers.

RELEVANT LITERATURE

- *Teacher Education Ministerial Advisory Group (TEMAG) (2015)* <https://www.education.gov.au/teacher-education-ministerial-advisory-group>
- **Gonski 2.0 Review (2018)** <https://www.education.gov.au/review-achieve-educational-excellence-australian-schools>

SUPERVISORY TEAM**Primary Supervisor**

Dr Kathy Jordan

Associate supervisorsDr Heather Fehring, A/Prof Patricia McLaughlin,
Dr Geoff Shacklock**FOR CODE**

- **1300** Education

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Social Change

Project Title***Extending the Boundaries of STEM*****PROJECT DESCRIPTION:**

The proposed research program, STEM Education, will focus attention on four areas:

1. Conceptualisations of STEM education: There are debates that argue that the term STEM is too diffuse and ill-defined and that there should be a return to the individual disciplines (Siekmann, 2017); debates that current conceptualisations of STEM should be expanded to include a wider range of disciplines, such as Art (Spoehr, Barnett, Molly, Dev & Hordacre, 2010); and debates that STEM education should reflect amore integrated, problem-based learning approach geared towards solving societal problems.
2. Participation and equity - considerations related to access and participation in STEM education by marginalized groups, including indigenous students, students from socio-economically disadvantaged groups, women/girls.
3. How STEM education is enacted at different levels of education, including: how education institutions engage with industry and community to develop STEM education to contribute to how society grapples with 21stcentury problems and trends; and how STEM education is positioned as a vehicle for curriculum and pedagogical renewal (inquiry,problem-basedlearningand21stcentury skills) and student re-engagement.
4. How teacher education institutions are preparing new graduate teachers to engage with the STEM education agenda in their practices.

RELEVANT LITERATURE

- **Barkatsas, T., Carr, N. & Cooper, G. (2018).** *STEM Education: An emerging field of inquiry*. Springer.

SUPERVISORY TEAM

Primary Supervisor Dr Tasos Barkatsas

Associate supervisor Dr Nicky Carr, A/Prof Patricia McLaughlin, Dr Grant Cooper

FOR CODES

- **1301** Education Systems
- **1302** Curriculum and Pedagogy
- **1303** Specialist Studies in Education

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Social Change
- Urban Futures

Project Title	<i>Co-constructing ITE Curriculum through Social Learning Systems</i>
----------------------	--

PROJECT DESCRIPTION:

This project aims to develop and document effective strategies that facilitate the co-construction of initial teacher education (ITE) curriculum and pedagogy through school/industry-university partnerships. Social learning perspectives see humans as enmeshed with the world as active agents in interdependent relationships with social, cultural and material contexts (Billet, 2006). Researchers may be interested in collaboration, knowledge building, interdisciplinarity, joint agency and generative practices in education settings.

Objectives:

The major objectives of the project are to:

- Make links between theories that underpin effective pedagogies taught at the university, with the day-to day practice of teaching and learning in schools, industry or education settings.
- Investigate effective teaching practices using expert and innovative guidance and mentoring models for student teachers.
- Explore, develop and evaluate emergent models of professional experience and ITE curriculum through distributed expertise and interdisciplinary collaboration.
- Create conducive conditions for learning that enable co-constructed practice and flexible learning opportunities.
- Enhance the relationship between schools/industry and tertiary ITE providers.

Methodology:

Social learning theories could include situated theories such as Communities of Practice (Lave & Wenger, 1991), socio-cultural theories such as Affordance theory (Greeno, 1994), Cultural Historical Activity theory (Engestrom, 2008), Relational Agency, (Edwards, 2015) or Actor-Network theory (Latour,). In the context of partnerships theories of boundary crossing (Akkerman & Bakker, 20) and Third Space theory (Bhabha, 1994; Gutierrez, 2008)

Projects could adopt mixed methods of research to suit the particular investigation and contexts.

RELEVANT LITERATURE

- **Akkerman, S.F., & Bakker, A.** (2011). *Boundary crossing and boundary objects. Review of Educational Research*, 81(2), 132–189.
doi:10.3102/0034654311404435
- **Blackmore, C.** (2010). *Social Learning Systems and Communities of Practice*. Springer, London.
- **Edwards, A.** (2010). *Being an expert professional practitioner: The relational turn in expertise* (Vol. 3). London, England: Springer Science & Business Media.

- **Gutierrez.** (2008). Developing a sociocritical literacy in the third space. *Reading Research Quarterly*, 43(2), 148-164
- **Zeichner, K.** (2010). Rethinking the connections between campus courses and field experiences in college and university-based teacher education. *Journal of Teacher Education*, 61(142), 89–99. doi:10.1177/0022487109347671.

SUPERVISORY TEAM

Primary Supervisor Dr Nicky Carr

Associate supervisors Dr Alison Lugg, Dr Thembi Mason, Dr Melanie Nash

FOR CODES

- **130313** Teacher Education and Professional Development of Educators

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Urban Futures
- Social Change

Project Title***Engaging Sustainability Through Education*****PROJECT DESCRIPTION**

This project is focused on engaging sustainability at all levels of formal, nonformal and informal education. While there is a strong focus on environmental sustainability (environmental problems are social problems), this is complemented through consideration of all 17 United Nations' Sustainable Development Goals and how these intersect with education. However, among the research conducted in this project will be a recognition that there is a need to consider the more-than-human and have a biocentric orientation to counter the anthropocentrism that can come to dominate in sustainability contexts.

Research within this project will be consistent with the Urban Futures and the Design and Creative Practices ECPs' focus on engaging the community in order to achieve the transformation required for a sustainable future. Indeed, social transformation is a central concern for this research.

Research in this project area will generally be trans, multi or interdisciplinary (although it may sometimes focus on a single discipline such as science education) and informed by a broad range of theoretical frameworks including positivism, interpretivism, critical theory, feminist theory, new materialism, poststructuralism, posthumanism, and intersectionality. Research will often involve participants from across all age groups and learning contexts where sustainability is being engaged, but it will also, at times, be theoretical and literature/policy based. Thus research methods will span the three types of evidence-gathering techniques: listening to (or interrogating) informants, observing behaviour, and examining historical traces and records.

RELEVANT LITERATURE

- **Gough, A.** (2018). Sustainable Development and Global Citizenship Education: Challenging Imperatives. In I. Davies, L-C. Ho, D. Kiwan, C. Peck, A. Peterson, E. Sant & Y. Waghid (Eds.), *The Palgrave Handbook of Global Citizenship and Education* (pp.295-312). Palgrave.
- Gough, A. & Whitehouse, H. (2018, online). New vintages and new bottles: The "Nature" of environmental education from new material feminist and ecofeminist viewpoints. *The Journal of Environmental Education*.
<https://doi.org/10.1080/00958964.2017.1409186>
- **Gough, A.** (2017). Searching for a crack to let environment light in: Ecological biopolitics and education for sustainable development discourses. *Cultural Studies of Science Education*, 12(4), 889-905. <https://doi.org/10.1007/s11422-017-9839-0>
- **Gough, A.** (2016). Tensions around the teaching of environmental sustainability in schools. In T. Barkatsas & A. Bertram (Eds.), *Global Learning in the 21st Century* (pp.83-102). Sense Publishers.

SUPERVISORY TEAM

Primary Supervisor Prof Annette Gough

Associate supervisors Dr Jose Roberto Guevara, Dr Grant Cooper, Dr Alison Lugg

FOR CODE

- **130299** Curriculum and Pedagogy not elsewhere classified

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Urban Futures
- Social Change

Project Title

***Young People, Well-being, Resilience and Enterprise:
Critical Perspectives for the Anthropocene***

PROJECT DESCRIPTION

Well-being, resilience and enterprise are keywords (Raymond Williams, 1976) in many policy, academic and community discourses about contemporary populations of children and young people around the globe. These 'states-of-being' are frequently imagined as being able to 'inoculate' individual children and young people against many of the education, training, work and life 'disruptions' that characterise the start of the 21st century.

Most often these key-words take the form of individualising and responsibilising, psycho-biological based, encouragements for persons to care for their own physical, mental and social health and well-being, to develop their resilience, and to become enterprising in a world that is taken-for-granted as being troubling, challenging and 'disruptive'.

The Anthropocene is, firstly, a discourse of the earth systems science. This project takes the position that the social sciences and humanities must critically engage with, and contribute to, debates about these planetary wide changes and their consequences.

This project sits at the intersection of education policy, youth studies, and an examination of the future of life and work. It emerges from a sense that we need to develop new ways of 'troubling' these keywords at a time when planetary systems - environmental, capitalist - are in crisis.

We are looking for students to make empirical, theoretical, and/or methodological contributions to discussions about children and young people's well-being, resilience and enterprise that:

1. Critically engage with and/or review what the literature on the Anthropocene offers childhood- and youth studies for thinking about concepts such as 'agency', 'structure', 'identity', 'belonging'
2. Seek to trouble or unsettle key dimensions of the forms of regulation, intervention, and problematising of children and young people.

RELEVANT LITERATURE

- **Kelly, P., Campbell, P and Howie, L.** (in press, 2018) *Rethinking Young people's Marginalisation: Beyond neo-Liberal Futures?*, Routledge.
- **Kelly, P., Campbell, P., Harrison, L. and Hickey, C.** (editors, in press, 2018) *Young People and the Politics of Outrage and Hope*, Brill, Amsterdam/Boston.
Kelly, P. and Pike, J. (editors) (2017) *Neo-Liberalism and Austerity: The Moral Economies of Young People's Health and Well-Being*, Palgrave, London
- **Kelly, P. and Kamp, A.** (editors) (2015) *A Critical Youth Studies for the 21st Century*, Brill, Amsterdam/Boston

SUPERVISORY TEAM

Primary Supervisor Prof Peter Kelly

Associate supervisors Dr Seth Brown, Dr Shane Duggan, Dr Perri Campbell

FOR CODES

- **130106** Secondary Education
- **130108** Technical, Further and Workplace Education 160809 Sociology of Education

ENABLING CAPABILITY PLATFORM (ECP) ALIGNMENT

- Social Change
- Urban Futures

Project Title***Language Education: Pedagogy and Practice*****PROJECT DESCRIPTION**

This project involves candidates who are interested in ‘Languages’ or ‘English as an Additional Language’ (EAL) education with a specific focus on education pedagogy or practice.

Candidates may be interested in teaching approaches for Languages or English as an additional language and the impact on teachers, learners or schools. Projects may have a focus on bilingual, immersion or target language teaching, Content and Language Integrated Learning (CLIL), gesture-based approaches for language learning, or other current innovations for language teaching and learning. Candidates may be interested in how teaching practice is enacted in specific contexts and may relate this to current pedagogical models. Memory for language learning may be an area of focus in this research program. Projects may focus on assessment and feedback as, of and for learning and teaching languages. Also, of focus in this project is the use of educational technologies for effective and engaging language education through an array of digital media formats such as games, simulations, mobile applications, interactive media, animation, digital videos, virtual reality (VR) and augmented reality (AR). Intercultural language teaching projects are another area of possible research. Projects involving the role of home languages in schools may also be undertaken. Projects may involve Australian or international contexts.

RELEVANT LITERATURE

- **Crozet, C. (2018)** *Engagement politique et approche interculturelle, diffusion du français en milieu tertiaire non-francophone*. Isabelle Pierozak, Marc Debono, Valentin Feussi, Emmanuelle Huver, coéds, à par. : Penser les diversités linguistiques et culturelles. Francophonies, formations à distance, migrations, Limoges, L. Lucas (collection Didactique et plurilinguisme), 203-216.
- **Crozet, C. (2017)** *The Intercultural Foreign Language Teacher: Challenges & Choices*. In Maria Dasli & Adriana Diaz (eds) *The Critical Turn in Language and Intercultural Pedagogy: Theory, Research & Practice*. Routledge: Series Studies in Language and Intercultural Communication, 143-161.
- **Ducasse, A.M., & Hill, K.E., (2015)** Development of a generic writing skills assessment scale for the Colombian Graduate skills Assessment: Saber-Pro. *Papers in Language Testing and Assessment*.
- **Ducasse, A.M., (2011)**. Spanish writing: what do raters look for? In Candel Torres, I. et al (Eds.) *ICERI 2011 Proceedings CD*. IATED: ISBN: 978-84-615-3324-4
- **Mullan, K. (2017)**. Et pis bon, ben alors voila quoi! Teaching those pesky discourse markers, *International Journal of Pedagogies and Learning*, 11, 271 – 282.
- **Mullan, K. (2015)**. Taking French interactional style into the classroom, *System*, 48, 35 – 47.
- **Qi, J., Manathunga, C. Singh, M., & Bunda. T. (2018)**. Micro histories of intercultural knowledge exchange: Tao Xingzhi’s educational poetry. *History of Education Review*

- **Qi, J.** (2015). Knowledge Hierarchies in Transnational Education. London: Routledge.
- **Wilks-Smith, N., & Thong, L.P.** (2019). Transformative language use in and beyond the classroom with the Voice Story app. *Studies in Self-Access Learning Journal*, 10 (3), 282-295. <https://sisaljournal.org/archives/sep19/>
- **Wilks-Smith, N., Cooper, G. & Johnson, R.** (2018). Predictors of participation in senior secondary languages study, *Babel*, Vol 53, (1), 30 – 35.
- **Wilks-Smith, N. & Thong, L. P.** (2018). *From Storytelling to the Voice Story App: A Research Translation Project*, IAFOR Asian Conference on Language Learning, Conference Proceedings.
- **Wilks-Smith, N.** (2017). The Place of Learners' Languages in Literacy Programs: Bringing learners' home languages in through the school gate, *Babel*, 52 (1), 27-34.
- **Wilks-Smith, N.** (2017). *The Impact of Intentional Teaching Gestures (ITG) on Second Language Output: A summary of research findings. Leading Languages Professional Learning Program. Melbourne, Australia: Catholic Education Office.*
- **Wilks-Smith, N.** (2017). Intentional Teaching Gestures (ITG): A Tool for CLIL Teachers. *CLIL Magazine*, Spring, 10-11.

SUPERVISORY TEAM

Supervisors

Dr Naomi Wilks-Smith (School of Education)
 Dr Yoshiko Budd (School of Education)
 Dr Richard Johnson (School of Education)
 Dr Ana Maria Ducasse (GUSS)
 Dr Chantal Crozet (GUSS)
 Dr Li Ping Thong (School of Design)
 Dr Kerry Mullan (GUSS)

FOR CODES

- **130207** LOTE, ESL and TESOL Curriculum and Pedagogy
- **130303** Education Assessment and Evaluation
- **130306** Educational Technology and Computing

ENABLING CAPABILITY PLATFORMS (ECP) ALIGNMENT

- Design and Creative Practice
 - Priority alignment: Creative (Practice) Industries