



## NZARE 2024 Conference – Full Programme

Pepa 203

Session 1 - 11:05am to 11:35am - S1.02

SIG: Adult & Higher Education

Katrina McChesney, University of Waikato

### How do demographic aspects of identity affect academics' experiences of peer review?

Peer review of scholarly outputs is a process with a long history, but one which is increasingly coming under critique from equity and inclusion perspectives. As an original process of Eurocentric design with anonymised and hierarchical structures, peer review can be a site of oppression and harm. Academics have reported emotional harm associated with the process, and the emotional impacts of peer review may be experienced differently by different groups of people, with associated equity implications. This presentation draws on a subset of data from a larger study with 25 experienced academic authors from one NZ institution. These academics discussed their perceptions of how demographic aspects of their identities (most commonly, gender and culture) affected their emotional reactions to the peer review process. Using a critical narrative analysis, we identify thematic connections between demographic influenced experiences and emotions. We offer this analysis to demonstrate the need for renewed critical examination of academic processes such as peer review. Acknowledging the conference theme of Mā muri, mā mua, we advocate learning from both harms and good practices of the past to ensure an equitable, safe, and inclusive future for peer review as an important mechanism for the quality assurance of scholarship.

peer review; emotion; equity

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Kay Hammond  
AUT - Auckland University of Technology

Katrina McChesney  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 205

Session 1 - 11:35am to 12:05pm - S1.02

SIG: Adult & Higher Education

Elaine Khoo, Lucila Carvalho & Vickel Narayan, Institute of Education, Massey University

### Nurturing online pedagogies of hope in post-pandemic higher education

The global COVID-19 pandemic accelerated an existing trend in higher education, marked by an increasing uptake of online learning and the re-shaping of sociocultural practices related to connectivity, communication, and collaboration. The pandemic has adversely impacted on learning and teaching, exacerbating learners' sense of anxiety, overwhelmingness, despair, isolation and even dehumanisation. The pivotal role online educators play in supporting learners through multiple crises has become increasingly critical. There is a need to shift the narrative away from a prevailing discourse on challenges and deficits in post-pandemic learning contexts towards one that emphasises learner wellbeing, empowerment and engagement.

We propose the need for hope-based pedagogies as a transformative approach to facilitate learner and educator navigation of these challenges. We consider hope as a multidimensional construct; a combination of desiring better outcomes or futures and believing in their possibility, despite uncertainty (Krafft et al., 2022). Hope-based pedagogies integrate hope into educational practices to foster positive learner experiences and outcomes, countering despair, apathy, and cynicism.

This presentation reports emerging findings from a scoping review of the literature on the characteristics of online pedagogies that foster hope in crisis contexts. The findings provide a basis for further investigations and development of innovative pedagogical strategies in online higher education. They will be of interest to online educators seeking to foster learner hope, wellbeing and agency.

online learning, post pandemic, hope-based pedagogies

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Elaine Khoo  
Institute of Education, Massey University

Vickel Narayan  
Institute of Education, Massey University

Lucila Carvalho  
Institute of Education, Massey University

Xiangning Li  
Institute of Education, Massey University



## NZARE 2024 Conference – Full Programme

Pepa 217

Session 1 - 11:05am to 11:35am - S1.01

SIG: Assessment

Tim Gander, academy EX

### The Impact of AI Feedback on Student Assessment Practices and Outcomes

This study examined the impact of using a pre-assessment submission Generative Pre-trained Transformer (GPT) on student learning and assessment practices. The GPT was available on the assessment page and allowed students to choose to receive generative AI feedback before making their final submission. In addition, students filled out a reflective form to evaluate their use of generative AI. Data was collected through pre- and post-surveys using the UTAUT scale, as well as AI literacy and critical reflection questions. Interactions with the GPT were recorded and transcribed for qualitative analysis. After the intervention, revised assignments were evaluated using rubrics, and survey data measured student experiences, engagement, AI literacy, and critical reflection. The implementation of this tool promoted transparent AI use and improved the quality of student submissions. Additionally, students' AI literacy increased. These findings contribute to the existing literature on AI in education and provide practical recommendations for integrating AI in learning and assessment. Implementing a GPT is a simple and practical first step in supporting the integration of generative AI into assessment.

Assessment, AI, AI Literacy

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## NZARE 2024 Conference – Full Programme

Pepa 219

Session 1 - 11:35am to 12:05pm - S1.01

SIG: Assessment

Sophia Li, Manukau Institute of Technology

### **Are we walking on the new road in old shoes? The practice of reforming assessment tools in tertiary education in the AI-driven era of information**

More and more learners and educators have started to see the fast-developing Generative Artificial Intelligence (GenAI) as a powerful tool for both teaching and learning. However, the assessment tools in tertiary education settings remain dominated by mainstream academic writing- based tasks. This study explores the responsible and ethical use of GenAI in existing assessment tools, aiming to identify the possibilities of using AI to inform assessments to accelerate the learning process in the era of information. The Kaupapa Māori theory of Ringa Raupā informed the study with the criticality of trying out new practices to challenge the status quo and reach a higher level of equity and accessibility. In this study, two existing assessment tools were modified by integrating GenAI into the task instructions, and the outcomes and feedback from the learners provoked in-depth discussion on the reform of assessment tools to cultivate academic skills including AI literacy, critical thinking, and problem-solving skills while maintaining academic integrity. GenAI-informed assessments have shown strong potential in future tertiary education settings.

AI literacy, assessment designs, academic integrity

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## NZARE 2024 Conference – Full Programme

Pepa 218

Session 1 - 12:05pm to 12:35pm - S1.01

SIG: Assessment

Bev Coombridge, Doctoral student at The University of Buckingham and Educator at Bethlehem Tertiary Institute.

### **What you assess is what you get: nurturing student agency through five assessment design principles.**

Classroom assessment has varying perceived purposes among stakeholders. This paper considers formative assessment as part of the teaching and learning cycle. Many curricula, including New Zealand's, value student agency as an educational outcome. A possible misperception of constructivist pedagogy is that student agency means students decide the curriculum content, creating a conflict with assessment against a knowledge-based curriculum. This viewpoint is evident in political commentary, where student-centred and knowledge-based curricula are often seen as mutually exclusive. This paper, written with a social constructivist lens, draws on social cognitive theory and recent student agency models to explore how student agency and assessment within a knowledge-based curriculum can enhance learning. Motivated by teaching experiences, where traditional assessments felt disempowering, the research investigated involving students in assessment design. Based on a literature review and research with 5-7-year-olds in Aotearoa New Zealand classrooms, the research presents five principles for designing classroom assessments that nurture student agency. By focusing on younger students, the research fills a gap in existing studies and provides a practical framework for educators to foster agency in early primary education. The paper argues that assessment and student agency are complementary in progressing student attainment. A synthesis of research and empirical findings provides practical examples of the five principles in action.

Assessment, agency, childhood

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Bev Coombridge  
Bethlehem Tertiary Institute



## NZARE 2024 Conference – Full Programme

Pepa 37

Session 1 - 11:05am to 11:35am - LG05

SIG: Early Childhood Education

Leanne Seniloli, Manukau Institute of Technology

### **Acceptability of a Neuromotor Movement Programme in a New Zealand Early Childhood Centre: Perspectives of Parents and Teachers**

**Background.** Primitive reflexes (involuntary physical movements) facilitate infant development before being superseded by more mature postural reflexes by age four. On-going primitive reflexes among school-aged children, is linked to difficulties in motor coordination, learning, behaviour problems and neurodiverse conditions. Participation in neuromotor interventions has reduced primitive reflexes and supported development. Less is known about the use of these interventions in younger children. Building on past research, we examined the acceptability of delivering a neuromotor intervention among preschool-aged children to ascertain the potential for a full-scale trial measuring intervention efficacy.

**Methods.** This pilot randomised controlled trial (intervention, control) examined acceptability of a neuromotor intervention. Semi-structured interviews were held with teachers' who delivered the intervention and parents of children who took part. Positioned within subjectivist epistemology and applying an interpretivist framework, transcribed data were analysed using inductive thematic analysis to identify overarching themes.

**Results.** Three themes were identified, i) benefits and ii) challenges of the intervention; and iii) teacher initiative in intervention delivery. Benefits included improved child confidence, behaviour, coordination, attention, and self-regulation. Challenges included teacher difficulties remembering to implement the programme and staffing limits. Teacher initiatives to support delivery included reminder sheets, shared leadership, and flexibility.

**Conclusions.** Findings suggest that a neuromotor intervention was acceptable to teachers and parents of young children. Future, larger-scale studies are needed to assess efficacy of the intervention to reduce the presence of primitive reflexes and support children at risk of learning problems

neuromotor, movement, four-year-olds

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Leanne Seniloli  
Manukau Institute of Technology; Auckland  
University of Technology

Associate Professor Kelly Jones  
Auckland University of Technology

Dr Charmaine Bright  
Auckland University of Technology



## NZARE 2024 Conference – Full Programme

Pepa 43

Session 1 - 11:35am to 12:05pm - LG05

SIG: Early Childhood Education

Marjolein Whyte, The University of Auckland

### **Using the activity theory with communities of learning to promote parent participation in early childhood education.**

This presentation is part of my PhD research on the wellbeing, belonging and participation of parents who care for a disabled child in early childhood education in Aotearoa, New Zealand. Carried out with permission from the ethics committee from the University of Auckland on 10/02/22, this ethnographic, detailed, and contextualised single case study, has focused on the early childhood experience of parents who have an autistic child attending kindergarten. By sharing some of the parents' experiences, we can learn to understand some of the unique challenges faced by these parents, which promotes advocacy and empowers these parents to have a voice. The use of activity theory as a tool for data analysis is showing what enabled and what hindered parent involvement in their child's learning experience and participation for the parents in the early childhood centre's community (Whyte, 2024). My findings include that stigma and attitudes from people in the wider society can be subtle and influence parents' decisions and responses in ways that can be difficult for teachers in an early childhood centre to address, yet important for teachers to be aware of. In this presentation I will address different motives that may influence parents' decisions at different times and tools that teachers could consider to promote parent participation.

Early Childhood Education, Inclusive practice, Parent Partnerships.

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## NZARE 2024 Conference – Full Programme

Pepa 28

Session 1 - 12:05pm to 12:35pm - LG05

SIG: Early Childhood Education

Monica Cameron, Te Rito Maioha

### **“I think my role and responsibility is to constantly ensure that everything is brought back to the curriculum” – The Role of the Leader in Curriculum Implementation.**

The implementation of the early childhood curriculum Te Whāriki (Ministry of Education, 2017) is a core element of teachers work in early childhood education (ECE) settings across Aotearoa New Zealand. However, the role leaders play in supporting curriculum implementation has received limited attention in the research literature, despite the integral role of pedagogical leadership in supporting effective, localised practice. Drawing from a small-scale, multi-phase study that utilised semi-structured interviews, photo records and documentation analysis to explore teachers' and leaders' implementation of curriculum both pre- and post- the refresh of Te Whāriki, this presentation reports specific findings focused on the role of leaders in curriculum implementation. Key messages explore the ways leaders are engaged with multiple layers of curriculum implementation including formal requirements of accountability (such as review and evaluation) and management (for example, supporting resourcing for team and individual PLD), as well as the more informal, yet direct work of providing pedagogical leadership to support curriculum implementation on a daily basis. The findings highlight the complexity of the leaders' role in supporting meaningful and effective curriculum implementation within ECE settings, the significance of collaborative learning communities and the tensions experienced by those responsible for leadership in enacting Te Whāriki.

Curriculum; Leadership; Te Whariki

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Monica Cameron  
Te Rito Maioha - Early Childhood New Zealand

Penny Smith  
Te Rito Maioha - Early Childhood New Zealand

Karyn Aspden  
Massey University - Te Kunenga ki Pūrehuroa





## NZARE 2024 Conference – Full Programme

Pepa 75

Session 1 - 11:05am to 11:35am - S1.04

SIG: Education Policy

Claudia Rozas, University of Auckland | Waipapa Taumata Rau

### **A conversation about school subject English and how it made the news in 2024.**

Two English curriculum rewrites in as many years is an extraordinary state of affairs for our public education system. How did it come to this, what is being contested, and how might we move forward? Part talk, part wandering discussion, this presentation emerges from an intellectual desire to foster a slow conversation about school subject English. I will draw on literature that has engaged directly with questions of knowledge, content and disciplinarity in the context of calls to bring knowledge back to the classroom. I hope to map out possibilities for thinking about English in critical and nuanced ways and will discuss two ongoing projects that seek to foster a national and public conversation about school subject English specifically, and curriculum more broadly. Curriculum is a teacher's primary purpose and English is a significant school subject – what is at stake is no small thing.

Subject English, curriculum, policy

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## NZARE 2024 Conference – Full Programme

Pepa 64

Session 1 - 11:35am to 12:05pm - S1.04

SIG: Education Policy

Bronwyn E Wood, Taylor Hughson, Victoria University of Wellington, New Zealand and Cambridge University

### **Curriculum pendulum swings: Case studies of curriculum reform in England, Wales and New Zealand**

Curricular reform frequently involves a marked pendulum swing away from one curriculum approach to another. While this is in some ways inevitable, such swings can play into the polarising dichotomies which play into bipolar oppositional political slogans that misrepresent the complexity of education and fail to help the students whose interests they claim to serve. In this paper we examine three case studies of curricular reform in England, Wales and New Zealand since the Millennium that were characterised by significant pendulum swings. Employing Schiro's (2008) four ideological visions of education which he describes as scholar academic, social efficiency, learner-centred and social reconstruction, we critically analyse the nature of the curricular reforms in each country and analyse the extent of political influence. In Wales and England reform has led to contrasting scholar academic underpinnings of curricula in England and learner-centred in Wales, while in New Zealand there has been a rapid shift from a social and cultural reconstructionist vision to a scholar academic one. We conclude by reflecting on the role of teachers and other stakeholders within such reform and the implications of such swings for education and curriculum policy more widely.

curriculum, reform, comparative education

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Bronwyn Wood  
Victoria University of Wellington

Taylor Hughson  
Cambridge University, England



## NZARE 2024 Conference – Full Programme

Pepa 68

Session 1 - 12:05pm to 12:35pm - S1.04

SIG: Education Policy

Javier Luque, PdD, GPE/WB/PUCP

### Using PISA to assess the impact of COVID in Aotearoa New Zealand education outcomes and abroad

COVID-19 pandemic created major disruptions in education systems worldwide. The long-term impacts on students are yet to be fully understood, but emerging data is allowing us to identify the short-term impacts. At the same time, emerging data is allowing the assessment of different policies implemented by different education systems and schools to curtail potential negative effects of the pandemic on students. This paper provides estimates of COVID-19 pandemic impact on student learning and wellbeing in Aotearoa New Zealand by socioeconomic conditions of students, sex, geographic location among other student characteristics. Then, the paper assesses the impact of school closures and other policies implemented during the pandemic on students. The paper takes advantage data on student learning and self-perceived wellbeing, and on education policies as recorded by the PISA program. Despite its limitations, the PISA data allows us to identify policy actions within New Zealand and explore differences in impact with similar actions implemented in other countries.

Aotearoa New Zealand experienced an important decline in its test- scores vis a vis their 2018 results, though the decline was smaller than the registered in many other OECD countries, with students from lower socioeconomic conditions experiencing the largest declines (specially in Math and Science). Besides test scores, students from lower socioeconomic conditions were more likely to feel lagging behind and less prepared for the future than students from higher socioeconomic conditions. With regards to policies, the paper shows that despite a lack of correlation between country level closures and student results, in New Zealand, there was a strong negative correlation between school closures and school results. As presented in the paper, New Zealand is one of few countries that registered this negative correlation, signaling that accompanying policies to mitigate the impact of closures were not as effective as they were overseas. The paper identifies key differences in the respond to COVID-19 that may explain the different evolution. The paper concludes presenting recommendations for New Zealand to address potential future emergencies in the education system.

PISA, COVID, resilience

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## NZARE 2024 Conference – Full Programme

Pepa 78

Session 1 - 11:05am to 11:35am - SG03

SIG: Educational Ideas

Kurt Cordice, Enigmatic Global / University of Waikato

### **Using theories in education to design more effective, inclusive and equitable aquatic and water safety initiatives.**

According to the World Health Organisation, drowning continues to be one of the leading causes of death worldwide. Here in Aotearoa, there is a long history of schools and educators playing a role in water safety education. Even with current challenges around school pools, water safety organisations in Aotearoa encourage and support teacher training to deliver water safety education. Responding to recent calls for increased multidisciplinary and multisectoral approaches to drowning, and recognising justice, equity, diversity and inclusion (J.E.D.I.) as the number one call to action as decided by delegates at the World Conference on Drowning Prevention (Perth, 2023), this talk suggests that education theories and research have a greater role to play in the design of more just and equitable water safety initiatives. The relevance of key educational philosophies and theories, including transformative learning and critical pedagogy, will be explored. Examples of water safety interventions that have considered and utilised these concepts will be offered. Finally, the potential benefits of interdisciplinary cooperation for aquatic program design will be discussed, highlighting the need for more education-focused research

Equity, Justice, Inclusion

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Kurt Cordice  
Enigmatic Global / University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 86

Session 1 - 11:35am to 12:05pm - SG03

SIG: Educational Ideas

Cecilia de la Paz, Waikato University (New Zealand)- National Agency of Investigation and Innovation(Uruguay)

### Learning Ecosystem Design: Systemic Thinking for Sustainable Change

This research explores the potential of graphical conceptualization to address the complexities of designing for well-being in school environments. The research aims to identify the essential components embedded in learning environments focused on well-being. Furthermore it seeks to find how a graphical representation can contribute to conceive holistic practices for well-being in schools. The global discourse on public policy increasingly highlights the transformative potential of education. However, the persistence of unsustainable educational models calls into question the effectiveness of current transformation efforts. A Learning Ecosystem Design (LED) might offer an interconnected approach that integrates the complexities of real-world dynamics into educational reform strategies. Well-being is examined through a systemic and iterative lens, drawing from the academic expertise of 18 experts from 14 different countries, combined with empirical observations within the school setting of a Primary School in Bay of Plenty, New Zealand. These experts and school staff analyzed the LED during semi-structured interviews. Conversations centered around the LED illustration, weaved diverse cultural, professional, and contextual perspectives. A design-based research methodology, coupled with Braun and Clarke's thematic analysis approach, guided this study. Preliminary findings have directed the research into several critical areas: (i) the "me-we" dilemma (balancing collective vs. individual well-being), (ii) the interdependence of teacher and student well-being, (iii) power dynamics and (iv) social connectedness, including trust, reciprocity, and consent. This research is significant in its potential to contribute empirical evidence toward complexity-friendly methodologies, to identify actionable strategies.

Learning Ecosystem Design, systemic thinking, sustainable change

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Cecilia de la Paz  
Waikato University



## NZARE 2024 Conference – Full Programme

Pepa 114

Session 1 - 11:05am to 11:35am - SG02

SIG: Inclusive Education and Community

Dr Kathie Raiwhara, NZARE

### Including Māori Deaf in Ka Hikitia implementation

Ka Hikitia is the Ministry of Education's Māori Education strategy. Its vision is that Māori learners will enjoy educational success as Māori. But what about our Māori Deaf/Turi Māori learners? There are many in mainstream schools, both English and Māori medium who are not having the opportunity to achieve as 'Turi' Māori. My work in Deaf Education has highlighted this deficit that exists for Māori Deaf in our education system. The Ka Hikitia professional learning and development (PLD) that was undertaken with Teachers of the Deaf across Aotearoa was specifically undertaken applying a Māori Deaf lens. The current research investigated the effectiveness of the PLD training and the impact that the training has had on implementation and embedding of the training into teaching practice. It also investigated the extent to which both knowledge and implementation have improved since the training, and identifies the gaps in both knowledge and the ability to implement. This extensive focus on Ka Hikitia training and development across a national service is the first of its kind, and for a specific group of Māori learners. There is a significant need for further research to be undertaken to work towards closing this significant gap for ākongā Turi Māori.

Access, Deaf, Ka Hikitia

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Kathie Rifle Tuwhakaara Raiwhara  
Māori Education Consultancy Ltd

Ursula Thynne



## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 1 - 11:35am to 12:05pm - SG02

SIG: Inclusive Education and Community

### Annual General Meeting

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## NZARE 2024 Conference – Full Programme

Pepa 234

Session 1 - 11:05am to 11:35am - SG01

SIG: Māori Caucus

Katarina,

Kāore i te tino mōhiotia te mātauranga reo Māori o ngā ākonga kei kura reo Māori e ako ana. I ō mātou kura e rima, arā, e rua Kura ā Iwi, e rua Kura Kaupapa Māori me tētahi Kura Amorangi, e mahi ngātahi ana mātou ki te rangahau i te reo ahurea Māori me te reo marautanga o ngā ākonga mā te aromatawai me te tātari i ō rātou reo, te wānanga pakirehua me te aro ki ngā kawenga reo o ētahi marautanga. Ko te tūmanako, ka kitea mehemea ka ikeike, ka matatau, ka māia ake te ākonga inā haeretahi te aro atu ki te reo ahurea me te reo marautanga. Ka kōrerotia e mātou ētahi ariā e puta mai ana i te aronga o Kōtuitia.

Kōtuitia. Little is known about the realisation of Māori language academic proficiency of students in Māori medium education. In this study, together with our five kura (two Kura-ā-Iwi, two Kura Kaupapa Māori and one Kura Amorangi) we explore and present themes emerging from te kōtuitanga (the intertwining/interaction/intersection) of the social language (everyday language) and academic language (curriculum language discourses) of students in Māori medium.

### Participating Schools

Wi Pohatu [wi.pohatu@gmail.com](mailto:wi.pohatu@gmail.com) and Vicki Pene [ditty@tearahou.school.nz](mailto:ditty@tearahou.school.nz): Te Kura Kaupapa Māori o Te Arahou

Te Wharekura o Te Rauaroa: [karahiini.rerehuaconsultants@gmail.com](mailto:karahiini.rerehuaconsultants@gmail.com); Ngaari Pryor [pryor@kelsey4@gmail.com](mailto:pryor@kelsey4@gmail.com)

Te Kura Amorangi o Whakawātea: [Jalna.simmons@whakawatea.school.nz](mailto:Jalna.simmons@whakawatea.school.nz)

Te Kura Mana Māori o Whangaparaoa: [t.pook@xtra.co.nz](mailto:t.pook@xtra.co.nz)

Te Kura Kaupapa Māori o Kawakawa Mai Tawhiti: Kerry-Ann Matahiki [kerryann@kkmt.school.nz](mailto:kerryann@kkmt.school.nz)

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Katarina Edmonds (researcher)  
Te Whare Wānanga o Waikato

Hemi Dale (Pakirehua and Tikanga ā Iwi PLD)  
Waipapa Taumata Rau (Auckland University)

Waipapa Taumata Rau (Auckland University)

Donn Ratana (Ngā Toi)  
Te Whare Wānanga o Waikato

Te Taka Keegan (panel chair)  
Te Whare Wānanga o Waikato





## NZARE 2024 Conference – Full Programme

Pepa 127

Session 1 - 11:35am to 12:05pm - SG01

SIG: Māori Caucus

Melinda Webber, Waipapa Taumata Rau / University of Auckland

### **“Working against the grain”: Middle leaders espoused and actual practices for supporting Māori student success**

Middle leaders are important conduits for school policy and are often required to lead, champion and monitor change initiatives in their departments. This paper discusses secondary school middle leaders’ self-reported theories, promotion and leadership of culturally responsive teaching approaches for Māori student achievement. The study participants (n=170) were curriculum leaders in state secondary schools throughout Aotearoa. The study found that although middle leaders could clearly articulate CRP and leadership in alignment with government policies and expectations, less than 30% of the middle leader participants mentioned academic achievement as an element of Māori student success, and few mentioned the importance of systematic monitoring of achievement data, or using it to support better learning outcomes for Māori students.

Māori success, middle leadership, culturally responsive leadership

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Melinda Webber  
Waipapa Taumata Rau

Camilla Highfield  
Waipapa Taumata Rau



## NZARE 2024 Conference – Full Programme

Pepa 125

Session 1 - 12:05pm to 12:35pm - SG01

SIG: Māori Caucus

Lisa Heke, Te Rito Maioha

### Māmā Rangatahi

This presentation explores the findings from recently completed rangahau Māori, looking at holistic support for teenage Māori mothers in one TPU (Teen Parent Unit). Findings are shared in a uniquely kaupapa Māori way using te taiao imagery, with māmā rangatahi sharing their voice through pūrākau. Their experiences of support in Health, financial, social, whānau and education domains are clearly and emotively articulated through the pūrākau shared in this presentation. This presentation aligns closely with the conference theme Mā muri, mā mua in that it looks at past experiences of support, with a view to improving the present, and creating positive future experiences for māmā rangatahi. Along with findings, a relationships of care model; Ngā hononga o āwhi, has been developed and will be shared with recommendations for a better future. Ae, for māmā rangatahi, their tamariki, their whānau; but ultimately, for all of us

Māori, Māmā, Support

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## NZARE 2024 Conference – Full Programme

Pepa 15

Session 1 - 11:05am to 11:35am - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Raewyn Eden (1), Generosa Leach (1), Lisa Darragh (2), Emily Pierce (1), Massey University (1), University of Auckland (2)

### Exploring creative methods in mathematics education research: Experiences of “dipping our toes in”

Mathematics education research highlights the complexity of experience in relation to teaching and learning, including learning to teach. With a focus on research methods employed in the field of mathematics education, we aim to offer fresh perspectives to inform educational practices and research alike by exploring the potential of creative research approaches in mathematics and teacher education. We are interested in the ways in which these approaches require researchers to be(come) attentive to their and their participants' emotions and experiences while engaging in research, and also, to the ways in which these phenomena impact educational experiences.

As a group of mathematics education researchers working on diverse projects, we will each share our creative approaches to analysing and reporting research results. We will draw on examples from our different projects to examine possibilities, purposes and experiences of using research methods that, for us, are novel. These include poetry (or poeticising), creative writing, creating fictional characters and playscripts from data. We will discuss the ways in which our emerging findings are enriched through attention to our own and others' experiences. We argue these fresh perspectives have the potential to expand understandings of the complexities of teaching and learning to teach mathematics and may inform educational practices and research alike.

Creative research methods, mathematics education research, educational practices

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## NZARE 2024 Conference – Full Programme

Pepa 4

Session 1 - 11:35am to 12:05pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Jessica (Jessie) Shuker, School of Teacher Education, University of Canterbury

### **Becoming a teacher of mathematics: Perspectives of primary pre-service teachers**

During Initial Teacher Education primary pre-service teachers are learning to be teachers of mathematics. They must pivot from their childhood memories of learning mathematics at school, to seeing themselves as adults learning to be teachers of mathematics. This process involves primary pre-service teachers weaving together their mathematics content knowledge and pedagogical content knowledge. Simultaneously, they experience the changing landscape of mathematics in Aotearoa New Zealand, including the current political discourse about Initial Teacher Education. Being the next generation of primary teachers, it is important that their experiences during this early phase of their career are shared.

This presentation is based on initial data analysis from a doctoral study that explores the perspectives of 6 pre-service teachers in a three-year primary programme. Informed by social-constructivist theory, and employing four semi-structured interviews, this study explores how primary pre-service teachers construct themselves as teachers of mathematics. In this presentation I will highlight the multi-faceted perspectives of participants as they make sense of their mathematics education teaching and learning experiences. This material has implications for initial teacher education programme design in its broadest sense, and specific course content design for mathematics education.

ITE, mathematics, primary

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## NZARE 2024 Conference – Full Programme

Pepa 10

Session 1 - 12:05pm to 12:35pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Sang Hyun Kim, The University of Auckland

### Exploring Flipped Learning in a Graduate Mathematics Course: An Exploratory Case Study

Flipped learning has garnered much attention from practitioners and researchers alike for its potential to enhance engagement, foster deeper understanding, and improve the application of knowledge through active learning strategies. While it has been widely explored at the undergraduate level, flipped learning in the context of graduate-level mathematics courses has been under researched.

Given their strong background knowledge of mathematics and their high intrinsic motivation, it seems likely that flipped learning could be well-suited for graduate students. The purpose of this research was to explore student experiences of a graduate-level algebraic geometry course where aspects of flipped learning were implemented. Through this exploratory case study, students' experiences were examined using thematic analysis. The study revealed that while students valued the collaborative aspects and emphasis on problem-solving, several challenges emerged, including a substantial increase in workload. Additionally, while students could see the merits of engaging with problems during class, a strong preference for more traditional modes of instruction remained. These findings suggest that a flipped approach requires careful consideration when implemented at a graduate level to manage workload and provide adequate support for students. This study underscores the need for further research to optimise flipped learning practices in graduate mathematics education.

Flipped learning, graduate mathematics

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Sang Hyun Kim  
University of Auckland

Tanya Evans  
University of Auckland

Ofer Marmur  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 155

Session 1 - 11:05am to 11:35am - LG04

SIG: Science/Putaiiao Education Research

Christina Hermanns, University of Waikato, Francis Douglas Memorial College

### **Teachers' perspectives on incorporating aspects of Mātauranga Māori in the year 9 and 10 high school science classrooms.**

Science classrooms in Aotearoa New Zealand may cause some ākonga to feel marginalised. The inclusion of mātauranga Māori offers a diverse perspective on knowledge which may help inclusion of, and understanding for, these learners. This presentation examines how science teachers include mātauranga in their junior secondary science learning activities. I am a Pākehā teacher who was born and raised in Hawaii. I have 15 years of science teaching experience in Aotearoa New Zealand. This interpretive, phenomenographic study involved semi-structured interviews with six teachers, all who taught in North Island schools. Five of the six participants were in schools, and one taught in a Kura Kaupapa Māori. Data were gathered about teachers' understanding of Te Ao Māori, inclusion of mātauranga in the junior secondary science classroom, and how teachers' own cultural awareness impacted their practice. The findings indicate that teachers include mātauranga Māori in their science classrooms in a diverse range of ways. From whole course design to more subtle ways that reflect Māori tikanga and Māori pedagogy. Teachers often faced challenges in including mātauranga in their science classroom and they overcame these by learning Te Reo, embracing Māori tikanga and continuing to learn to fill the gaps in their knowledge. The context of the school and its community was also a factor, as well as teachers' personal philosophies about the nature of knowledge. The findings have implications for initial teacher education and professional learning for the integration of mātauranga Māori into the secondary science classroom.

mātauranga, science, teachers

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Christina Hermanns  
University of Waikato

Brent Wagner  
University of Waikato

Chris Eames  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 158

Session 1 - 11:35am to 12:05pm - LG04

SIG: Science/Putaiāo Education Research

(1) Maurice M. W. Cheng; (2) Bronwen Cowie; (3) Chloe Stantiall, (1) Faculty of Education and Social Work, University of Auckland; (2) Division of Education,

### **Epistemic objects on the school grounds: Developing a botanical sense of place in addressing plant blindness**

This paper reports a collaborative project with teachers focused on tackling plant blindness through place-based education. During a week of frequent visits and intensive study of the kōwhai on their school grounds, a class of Year 5 and 6 tamariki expanded their understanding of kōwhai in the past, present and future through the scientific practices of observation and representation. In this presentation, drawing on data that included field notes and photos taken by both researchers, teaching materials, and student-made infographics and poems, we will present vignettes that highlight key moments of teaching and learning episodes during which students identified phenomena and questions for inquiry. Through these vignettes, we explore the concept of “epistemic objects” as objects that act as a focus for knowledge-building inquiry. The emotions of surprise, curiosity, and enjoyment related to the epistemic objects provided a focus and momentum to tamariki’s inquiry. We argue that tamariki’s investigation of a readily accessible and culturally significant plant within the school grounds can support the development of a botanical sense of place as part of addressing plant blindness.

epistemic practice; epistemic emotion; drawing

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Maurice M.W. Cheng  
University of Auckland

Bronwen Cowie  
University of Waikato

Chloe Stantiall  
Silverdale Normal School



## NZARE 2024 Conference – Full Programme

Pepa 157

Session 1 - 12:05pm to 12:35pm - LG04

SIG: Science/Putaiāo Education Research

Wiremu Puke and Cathy Bunting, University of Waikato

### Supporting akonga Māori through wānanga exploring science and mātauranga Māori

Te ohomauri o Wairere – The lifeforce of Wairere was a multidisciplinary project that brought together pūkenga Māori (Māori experts), scientists, teachers, students, and science educators to consider interfaces between science and mātauranga Māori (Māori knowledge). One component of the project was a 3-day wānanga during which a small group of Year 10 Māori students from three English secondary schools spent time learning with experts in Māori whakairo (carving), whetū (astronomy), and taonga puoro (musical instruments), alongside a geologist, soil scientist, and archaeologist. This presentation will respond to the research question: What were the impacts of the wānanga on the project team and the students? Data were collected through focus group interviews and the analysis was interpretive in nature. The findings have implications for future initiatives supporting learners to explore the intersections between mātauranga Māori and science. The project was funded by MBIE's Unlocking Curious Minds Initiative.

science, mātauranga Māori

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Wiremu Puke  
Independent consultant

Cathy Bunting  
University of Waikato





## NZARE 2024 Conference – Full Programme

Pepa 169

Session 1 - 11:05am to 11:35am - LG02

SIG: Teaching and Teacher Education

Tiffany Stenger, Whitireia NZ

### **Memorable moments and formal training: How vocational educators learn about neurodivergence in Aotearoa New Zealand.**

As enrolments of neurodivergent and disabled learners increase in higher education in Aotearoa New Zealand, it becomes more important that educators know how to effectively support the academic success of these learners. A sample of vocational educators in Aotearoa New Zealand shared their perspectives that there is a gap in teacher training relating to understanding neurodiversity, neurodivergence, and the needs of neurodivergent learners. Six educators teaching in vocational education across Aotearoa New Zealand participated in a qualitative study. Their experiences and perspectives of neurodiversity were explored via semi-structured interviews. It was found that memorable one-off moments with specific neurodivergent learners taught these educators more about neurodivergence than the formal education or training they received. They found their formal education helpful for gaining foundational teaching skills, however this was not enough to enable all educators to feel confident teaching neurodivergent learners. This presentation discusses different methods these educators used to learn about neurodiversity. It also offers educator-informed recommendations for improving neurodiversity-related training and professional development to enhance educators' capabilities and confidence in teaching neurodivergent learners.

neurodiversity, educators, training

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Tiffany Stenger  
Whitireia



## NZARE 2024 Conference – Full Programme

Pepa 185

Session 1 - 11:35am to 12:05pm - LG02

SIG: Teaching and Teacher Education

Simon Taylor, University of Waikato

### **Teacher voice and learning from the implementation of integrated curriculum programmes in secondary schools**

The research draws on Te Ao Hurihuri (The changing world), an educational research project funded through the University of Waikato, where teacher voice has made a valuable contribution for evaluating the impact of integrated curriculum approaches to learning. The authors report on the qualitative study which investigates the constraints and affordances on student learning when secondary schools implement an integrated approach to curriculum. Long-established as common practice in primary schools in Aotearoa, more recently the approach has been adopted in some secondary schools. This study draws on the teacher voice of a cross-section of twenty-three teachers united in their ambition to establish curriculum integration at their eight secondary schools. Featured in data generated and analysed from semi-structured interviews, teacher journals and meetings, is the interface between the theoretical conceptions of curriculum integration and the pragmatics of implementing such programmes. While some teachers utilised thematic contexts, others favoured co-construction processes. All, though, concluded it was necessary to achieve a balance between supporting learner relationships, student agency versus the importance of specific knowledge.

Curriculum integration, teacher voice, secondary education

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Simon Taylor  
University of Waikato

Barbara Whyte  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 176

Session 1 - 12:05pm to 12:35pm - LG02

SIG: Teaching and Teacher Education

Lindsay Fish, Bethlehem Tertiary Institute

### **Growing the good: An appreciative inquiry case study into digital support of educative mentoring**

Educative mentoring equips teachers to continue learning in and from their practice. It is an approach to mentoring that echoes the sense of 'looking back to move forward'. Stakeholder feedback from mentors and students in a small Graduate Diploma of Secondary Teaching programme echoed literature, telling us that both the challenges to educative mentoring and the solutions to these challenges are widely understood. Mentor teachers identified the challenge of time pressure and the need for accessible support to mitigate this increased pressure. However, there remain entrenched barriers to implementing these solutions. The case study described in this presentation drew on elements of appreciative inquiry and action research to inquire into the efficacy of a website ([pataka.ac.nz](http://pataka.ac.nz)). The website was designed and built with the intention of providing mentors with easily accessible resources and support. Using focus group interviews and thematic analysis of practice artefacts, the case study reviewed the experiences of students and mentors across one semester in the programme. The emerging themes reiterate that accessibility is imperative and suggest that students themselves can play an important role in supporting and providing resources for educative mentoring.

educative mentoring

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Lindsay Fish  
Bethlehem Tertiary Institute



## NZARE 2024 Conference – Full Programme

Pepa 188

Session 1 - 11:35am to 12:05pm - LG03

SIG: Wellbeing Education

Suzanne Trask, University of Auckland Liggins Institute

### Exploring complexity in Cook Islands food environments

Food systems have changed over time, with negative consequences for the well-being of Pacific populations. Research has shown that young people who understand complex influences on health are more likely to reference systems-level drivers and less likely to attribute issues to personal-level blame. This presentation from the Pacific Science for Health Literacy Project explains outcomes from a learning programme supporting adolescent awareness and exploration of Cook Islands food environments. Data were drawn from a three-year co-development partnership and teacher professional learning in seven Cook Islands schools. Sources included workshop discussions, interviews, teacher observations, and student work samples. The use of Photovoice enabled learners to capture and share unique perspectives without requiring high-level literacy. Teachers reported that students were better able to identify systems-level influences, including barriers and enablers to healthy eating. Teachers provided examples of students transferring their learning to contexts outside school. Students shared personal stories about impacts of non-communicable diseases in ways that had not happened before. The programme stimulated parents' interest who requested further learning about healthy nutrition. The learning and connections achieved between schools and families provide a strong rationale for continuing to develop this work.

health education, photovoice, food environments

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Suzanne A Trask  
University of Auckland

Drollet Joseph  
University of Auckland

Jacque L Bay  
University of Auckland

With: Mata Manea Joseph, Pam Solomona,  
Niko Seba, Darshika Singh, Maara Peters,  
Maria Atirau, Retire Puapui, Ngatokoa  
Roberts, Unarii Tafale, Celeste Barrett-  
Watson, Jane Taurarii.



## NZARE 2024 Conference – Full Programme

Pepa 190

Session 1 - 12:05pm to 12:35pm - LG03

SIG: Wellbeing Education

Susan Whatman, Griffith University

### Decolonial pedagogies for wellbeing in youth adventure camps

In this paper, the authors share research with a youth adventure camp organisation which has identified the need to develop staff capacity to deliver more intentional curriculum and pedagogies for student wellbeing. Part of this approach has been to recognise the omission of Indigenous knowledges from their camp experiences and to make the necessary personal and professional commitments to address their lack of knowledge. The camp staff and researchers co-created opportunities to understand and establish relationality (Graham, 2014) to connect with Yugambeh Country in their camp curriculum and initiated professional learning pathways to learn and engage more respectfully with Yugambeh Country as the cornerstone of the camp experience. Initially developed out of case study research design, researchers collected camp documents, school learning intentions, curriculum activity plans, observed and participated in full day camp programs (n=4) and interviewed camp staff (n=5). Following an interim report into what "we" all thought they did well and could do better, the research participants shifted into "collaboratory" mode whereby their insights and sustained research conversations with the team and with each other produced affects and effects on their work, helping them to articulate what new directions to take. From this collaboratory approach, the recognition to "decolonise" became apparent and professional learning opportunities to reconnect with Country upon which their camps were based were initiated. This paper then shares an important reflexive junction in their journey to decolonise adventure camp education in Australia. Graham, M. (2014). 'Aboriginal Notions of Relationality and Positionalism: A Reply to Weber'. *Global Discourse: An Interdisciplinary Journal of Current Affairs and Applied Contemporary Thought*, 4, 1: 17-22.

wellbeing; decolonising; adventure camps

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## NZARE 2024 Conference – Full Programme

Pepa 199

Session 2 - 1:05pm to 1:35pm - S1.02

SIG: Adult & Higher Education

Anthony Richardson, University of Waikato

### So what's a university for anyway?

The current University Advisory Group Review of the university sector in contemporary Aotearoa NZ starts with the complex question of what a university's purpose should be. To address this question a number of historical and contemporary answers to this question will be presented, including: driver of economic and social development; promoter of social equity; profit-making business; job factory; incubator of intellectual inquiry; engine of economic growth; preserver of status and privilege; purveyor of student experience; and hotbed of social change and revolution. The presentation will provide a concise overview of each role, supported by historical and contemporary examples and evidence, and discuss the underlying political, economic, and social assumptions which underpin them.

The Past influences the Future: as the Review attempts to position universities in Aotearoa NZ for the future an awareness of past roles and purposes is crucially important. This presentation will conclude by arguing that these functions of universities are not all mutually exclusive, and that they are all, to some extent, part of the role of the contemporary university. Engagement with the interplay between them, rather than a reductive approach, will be essential if the Review is to be valuable.

university role; university purpose; purpose tertiary education

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 2 - 1:35pm to 2:05pm - S1.02

SIG: Adult & Higher Education

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## NZARE 2024 Conference – Full Programme

Pepa AHERT1

Session 2 - 2:05pm to 2:35pm - S1.02

SIG: Adult & Higher Education

**Beyond the instructional dimension**

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 2 - 1:05pm to 1:35pm - S1.01

SIG: Assessment

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## NZARE 2024 Conference – Full Programme

Pepa 216

Session 2 - 1:35pm to 2:05pm - S1.01

SIG: Assessment

Dayana Sirri, Learning, Development and Professional Practice, The University of Auckland

### **The Revised Bloom's Taxonomy and the SOLO Taxonomy for Item Classification in Multiple-choice Questions (MCQs): The Bookmark Procedure**

The ability of teachers to accurately classify cognitive demand is essential, especially when they must create assessment instruments for classroom use or formal qualifications. This study explored the ability of Malaysian science teachers to accurately classify 30 science multiple-choice questions (MCQs) for lower secondary school science according to the Revised Bloom's (RBT) and the Structure of Observed Learning Outcomes (SOLO) taxonomies. While RBT is embedded in the curriculum, SOLO is relatively unknown and has been utilized only in a few studies to classify student responses rather than test items. Using the bookmark procedure, three classification rounds were conducted with the opportunity for revision after discussion in the first and second rounds. The agreement level for the RBT and the SOLO taxonomies was poor in the first round ( $\kappa = .56$  and  $.31$ , 63% and 50%, respectively), but moderate in the second ( $\kappa = .69$  and  $.73$ , 83%, respectively). During the discussion, some teachers demonstrated professionalism in placement decisions, while others were influenced by their idiosyncratic interpretive judgments, based on their individual teaching experiences. In Round 3, the final full panel's classifications were compared to those of the research team, showing high agreement for RBT

( $\kappa = .56$ , 91% agreement) than SOLO ( $\kappa = .52$ , 69% agreement). It is important to note that, at least for these teachers, this was their first time encountering SOLO. Hence, the low agreement level was anticipated. These findings suggest that introducing the SOLO taxonomy in Malaysia as an alternative to the RBT may be feasible, but substantial training will be required.

Item classification; Standard setting; Cognitive taxonomy

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Dayana Sirri  
The University of Auckland

Gavin T. L. Brown  
The University of Auckland

Amanda Harper  
The University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 22

Session 2 - 1:05pm to 1:35pm - LG05

SIG: Early Childhood Education

Jane McChesney and Sally Peters (, Te Whare Wānanga o Waitaha | University of Canterbury and for Sally, sally.peters@waikato.ac.nz at University of Waikato

### **35 years of early childhood mathematics in Aotearoa New Zealand: Learning from the past to nurture and sustain the future.**

In the 1990s the Early Mathematics Improvement Project (EMI4s) and Te Whāriki (1996) initiated a focus on maths in early childhood. The early 2000s contributed an early childhood maths framework, Te Kākano (the seed), introduced in Kei Tua o te Pae (Book 18), and a teacher resource Te Aho Tukutuku (2010). Alongside these have been research studies where committed practitioners and researchers contributed to our understandings of maths learning and teacher practices. Today there is a renewed focus on early childhood maths from the Ministry of Education, yet there is a shrinking pool of researchers in this field. We will briefly discuss key themes of past contributions, noting how the past influences the current state of maths in early childhood. Our theoretical framing is that mathematical purposes and practices are cultural tools that connect with children's funds of knowledge and contribute to their working theories. Having identified the findings of past research, we will focus on areas for further research, positioning children as active makers of meaning in mathematically rich contexts. We invite a shared discussion to identify research possibilities to nurture and sustain current and future practitioners and researchers with a focus on early childhood maths for all tamariki.

Mathematics education, early childhood

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Jane McChesney  
Te Whare Wānanga o Waitaha | University of  
Canterbury

Sally Peters  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 23

Session 2 - 1:35pm to 2:05pm - LG05

SIG: Early Childhood Education

Heidi Massicks, Te Rito Maioha

### **Walking into the future with our eyes on the past: Exploring what quality ECE may hold for the future.**

The idea that children have access to 'quality' early childhood education (ECE) is not contested from a political, social, and cultural context; though the complex, subjective term 'quality' is. A social constructivist and interpretive process of inquiry underpinned my research. The small-scale study used individual and group interviews to explore a shared view of quality ECE among a group of ECE centre leaders, including discussion of how quality ECE can occur within the range of tasks to achieve, increasing pressures and challenges over time. Recruitment and participation of a diverse group of ECE centre leaders allowed for the exploration of quality ECE from both structural and process quality perspectives, where an understanding of quality ECE emerged. Findings contributed to shared understandings, categorised within the framework of Bronfenbrenner's (1979) ecological systems theory. Themes emerged, revealing further complexities of quality ECE, with interconnected factors stretching kaiako across all levels. The dispersion of kaiako across all levels emphasizes the depth of understanding of quality, yet the realistic potential for decreasing quality, kaiako retention, and well-being due to the wide stretch. This presentation will highlight the shared aspects of quality identified by participants with particular significance to ECE, ideally contributing to much-needed change.

Perspective of Quality

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## NZARE 2024 Conference – Full Programme

Pepa 38

Session 2 - 2:05pm to 2:35pm - LG05

SIG: Early Childhood Education

Dr Kate McAnelly and Dr Michael Gaffney, The Open Polytechnic (Kate), University of Otago (Michael)

### **“I am fun and fun is me!”: What’s fun got to do with rights-based inclusive teaching and learning?**

In this paper we argue for the place of a pedagogy of fun as being integral to how inclusive early childhood curriculum is understood and enacted. Fun is a strong feature of children’s active participation, play and learning. It shapes their relationships with both peers and kaiako, which then forms the foundation for ongoing learning. But what if we bring these into the world of the rights of the tamaiti, and review a play-based inclusive curriculum through a pedagogy of fun (Koch, 2023)? In this ethnographic study the experiences of an autistic tamaiti in one early childhood setting were highlighted.

The approach in this paper draws on a pedagogy of fun to narrate some of his experiences. We present vignettes that make visible the diverse modes of fun that he drew into his learning, and how these fostered a rights-oriented culture of inclusion in his early childhood setting. We argue that fun can be ably practiced by all tamariki and kaiako, and should be understood as central to sustaining inclusive early childhood curriculum as Te Whāriki intends it.

early childhood education, inclusion, fun

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## NZARE 2024 Conference – Full Programme

Pepa 70

Session 2 - 1:05pm to 1:35pm - S1.04

SIG: Education Policy

Yan Xie, PhD candidate

### Enacting Fairly or Fearfully? Unpacking the Enactment of Critical Thinking Policies in Chinese High Schools

This study explores the implementation of critical thinking policies in Chinese senior high schools through the lens of Ball et al.'s policy enactment theory and within the broader context of Chinese education reform aimed at enhancing students' thinking abilities. Employing a case study methodology with diverse data types, the research assessed current school-level practices and the effectiveness of Ball et al.'s framework in capturing interactions among objective contexts, policy actors, and cultural artefacts. Findings indicate that the framework captures these complexities when the policy is actively implemented. In one school, a systematic enactment mechanism facilitated diverse policy roles and external connections, thereby promoting schoolwide critical thinking development; however, another school exhibited fragmented practices due to the lack of key policy roles, despite students' interest in deeper engagement. Challenges were also identified, including deficiencies in the mid-level education bureau and conflicts between a collective-oriented educational paradigm and the promotion of independent thinking. The study concludes that achieving consistent multi-level beliefs in critical thinking and a schoolwide systematic policy mechanism with committed leadership and motivated policy actors can enhance critical thinking education in China. Future research could test the framework's applicability for guiding the construction of policy mechanisms across different settings.

Policy enactment, critical thinking, Chinese policy actors

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Yan Xie  
Faculty of Education and Social Work, the  
University of Auckland

Maree Davies  
Faculty of Education and Social Work, the  
University of Auckland

Jo Smith  
Faculty of Education and Social Work, the  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 62

Session 2 - 1:35pm to 2:05pm - S1.04

SIG: Education Policy

Judith Loveridge and Bronwyn Wood, School of Education, Te Herenga Waka Victoria University of Wellington

### **Everyday ethics; Navigating the gap between regulatory ethics and the everyday ethical moments in participatory research**

Since the New Zealand Association for Research in Education Ethical Guidelines were last updated in 2010 there has been a significant increase in relational, participatory, and collaborative research in educational contexts. More widely there has been growing discontent with traditional ethical frameworks that have their origins in experimental and biomedical research. Such approaches often fail to recognise the importance of relational and situational contexts and collaborative partnerships in shaping research – and the ethical moments which arise. Alongside others, we are interested in rethinking regulatory ethical frameworks and processes to more adequately reflect the nature of research that is emergent, iterative and relational in nature. As an initial step we will present a recent review of literature that is (1) focused on issues arising for collaborative and participatory research in navigating regulatory ethics and (2) concerned with the ethical issues that can emerge during such research, and largely beyond the realm of ethics committees. Based on the review, and informed by feminist, collaborative and Kaupapa Māori theory, we propose recommendations about how research ethics systems might be rethought to align with and be responsive to the requirements of relational, participatory and collaborative research and the everyday ethical issues that can occur.

ethics participatory collaborative

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## NZARE 2024 Conference – Full Programme

Pepa 84

Session 2 - 1:05pm to 1:35pm - SG03

SIG: Educational Ideas

John O'Neill, Roseanna Bourke, Judith Loveridge, Te Kunenga Ki Purehuroa Massey University, Te Herenga Waka Victoria University of Wellington

### How can we creatively represent children's lived experiences in educational research?

Despite all children having the right to express their views freely on matters of interest to them and to have these views heard and acted on by adults (UNCRC, 1989), our experience, and the overwhelming evidence from the scholarly literature, is that these views remain all too often mediated, distilled and recast through the contingencies of the prototypical researcher-participant relationship. This suggests we may need to look elsewhere for more of the authenticity we seek in order to represent children's worlds as they experience and describe them. Building on our previous empirical research (Bourke, O'Neill, & Loveridge, 2024) we are in the process of a comprehensive review of what is known about the CRISPA dimensions of children's informal and everyday learning (culture, relationships, identity, strategies, purpose and affect/emotion). As part of this, to meet our ethical and methodological aims of respecting children's freely expressed voices, in this presentation, we turn our attention to 'literature' that includes non-traditional sources of children's lived experiences such as fiction, drama, poetry, static and moving image art forms, gaming, and mass and social media texts. In recognition of the relational and intergenerational nature of children's everyday lives, some of these sources are: (i) children's own free expression of their views on matters of interest to them; others are (ii) adults' creative efforts, with and without children, to portray the child's lived experiences within the child's world; and yet others are (iii) non-scholarly adult mediations of voice and childhood. Using examples from various media, this paper considers the differences between these three and the broader methodological puzzle of getting us closer to authentic representations of children's lived experiences in educational research.

informal and everyday learning, children's lives, creative representation

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John O'Neill  
Massey University

Roseanna Bourke  
Massey University

Judith Loveridge  
Victoria University Wellington





## NZARE 2024 Conference – Full Programme

Pepa 85

Session 2 - 1:35pm to 2:05pm - SG03

SIG: Educational Ideas

Claire Coleman, University of Waikato

### **The good the bad and the artsy**

This paper presentation will unpack New Zealand's recent PISA Creative Thinking results. It will outline the assessment's scope and limitations, review NZ results in a global context, outline the potential implications and opportunities for education and critically consider evidence and implications of ongoing social inequities upon creativity. Guided by a critical methodology, recent NZ studies on creativity and arts access are analyzed in relation to the themes highlighted by the PISA findings to develop a deeper understanding of the current situation. The conflation of arts and creativity is also examined as it relates to an understanding of arts underpinned by Te Ao Māori and the potential implications of our unique context. Finally it will identify the relationship between existing inequity and creativity and suggest future research opportunities.

creativity, future focused education and PISA

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## NZARE 2024 Conference – Full Programme

Pepa 82

Session 2 - 2:05pm to 2:35pm - SG03

SIG: Educational Ideas

Jessica Rubin, Te Wananga Toi Tangata/Division of Education, University of Waikato

### Connecting place and curriculum through an international study

Connecting place and curriculum through an international study We are presenting about a project designed for teachers working alongside education researchers from Aotearoa New Zealand and Wales/Cymru. Participants were supported to co-construct new and sophisticated conceptualisations of place in order to support the teachers' curriculum work and enhance the educational experiences they create for, and with, their learners. Together, educational researchers and practitioners undertook curriculum research using the currere method (Pinar 1975), which required autobiographical curriculum theorising through four discrete steps of critical and creative reflection. In undertaking this process, participants were able to synthesise their knowledge into statements of curricular understanding. The data for the study was generated through immersive writing retreats for participants and subsequent follow-up discussions through which researchers supported them to continue developing ideas. In Aotearoa New Zealand and Wales/Cymru, we drew on local conceptualisations of place and belonging – tūrangawaewae and cynefin – as a central consideration in curriculum theorising. Participants' connections to place, tūrangawaewae, and cynefin in and through curriculum offer new ways of thinking about what we teach, how we learn, and why it matters.

curriculum theory, turangawaewae, writing

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Jessica Cira Rubin  
University of Waikato

Katie Arihia Virtue  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 112

Session 2 - 1:05pm to 1:35pm - SG02

SIG: Inclusive Education and Community

Associate Professor Byron Rangiwai, Nga Wai a Te Tui: Māori and Indigenous Research Centre, Unitec

### **Harnessing the Strengths of ADHD through Purakau: Reflections on the Past, Insights for the Future**

This paper takes a unique approach, exploring the potential of pūrākau (storytelling) to recognise and harness the strengths of individuals with ADHD. By delving into traditional narratives and their application in educational settings, this study provides a novel framework for understanding ADHD through an indigenous lens, celebrating neurodiversity. This research challenges the deficit-based model of ADHD by highlighting strengths depicted in pūrākau. It connects historical narratives with modern educational practices, suggesting that past wisdom can inform future approaches to neurodiversity, contributing to inclusive education and integrating Indigenous knowledge into mainstream settings. This study is not only guided by kaupapa Māori theory, ensuring cultural appropriateness, but also aims to bring significant benefits to Māori communities. It also draws on neurodiversity theory, advocating for recognising diverse neurological conditions as natural variations of the human experience. Preliminary findings suggest pūrākau can re-frame ADHD positively, recognising traits like creativity and high energy as valuable. Integrating these narratives into educational practices creates an inclusive environment that benefits all students by promoting diversity and inclusion.

Neurodiversity, ADHD, matauranga Māori

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## NZARE 2024 Conference – Full Programme

Pepa 101

Session 2 - 1:35pm to 2:05pm - SG02

SIG: Inclusive Education and Community

Dr Kaaryn Cater, Whitireia Weltec

### **Environmental Sensitivity: The Elephant in the Classroom**

Up to a third of people perceive and process the environment more deeply than others and are more impacted by environmental conditions - both supportive and adverse. Yet, in Aotearoa New Zealand, educators are not trained in Environmental Sensitivity. Individuals high in Environmental Sensitivity (identified by a questionnaire measuring the personality construct Sensory Processing Sensitivity) process information at a deep cognitive level. This deep processing has been shown to be beneficial for learning - including memory, creativity, intrinsic motivation, attention to detail, executive function, emotional and social intelligence, and the formation of complex connections between ideas and information. Conversely, such deep processing can lead to a need for extra time to process information and instructions, social and physical overarousal, and requiring extra downtime. The results of a mixed methods study and research conducted for an educational book on sensitivity highlight the need for educators to understand the implications that Environmental Sensitivity has for teaching and learning. The research is underpinned by the neurodiversity paradigm and highlights the imperative of respecting temperamental diversity. This presentation considers ways for educators to understand and connect with neurosensitive learners from pre-school through to adult and introduces a new on-line sensitivity training module for teachers.

Environmental sensitivity, neurosensitivity, sensory processing sensitivity

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Dr Karyn Cater  
Whitireia Weltec



## NZARE 2024 Conference – Full Programme

Pepa 129

Session 2 - 2:05pm to 2:35pm - SG02

SIG: Inclusive Education and Community

Associate Professor Byron Rangiwai, Nga Wai a Te Tui: Māori and Indigenous Research Centre, Unitec

### **The Piwakawaka Framework: A Culturally Responsive Methodology for Research with Māori Learners with ADHD**

This theoretical exploration introduces the Pīwakawaka Framework, a novel methodology for conducting lived experience research with Māori learners with ADHD. Integrating mātauranga Māori and Kaupapa Māori principles, the framework captures and supports the experiences of these learners. Grounded in the personal experience of the presenter, who lives with ADHD, the Pīwakawaka Framework uses the pīwakawaka (fantail) metaphor to symbolise agility, adaptability, and community orientation. This culturally resonant approach emphasises the importance of cultural identity, community involvement, and a holistic perspective.

As the framework is still in its early stages, it will be empirically tested and refined through various ongoing and future research projects. These projects will provide the necessary data and insights to evolve the framework. For example, the framework will be integrated into a significant research initiative exploring the challenges Māori learners with ADHD face. Additionally, it will be tested within another project aimed at developing culturally appropriate interventions for Māori with ADHD in health contexts. These projects will involve a range of analyses, including qualitative thematic analysis of interviews and wānanga, quantitative survey analysis, community feedback validation, and comparative analysis against existing educational and health policies

Neurodiversity, ADHD, matauranga Māori

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## NZARE 2024 Conference – Full Programme

Pepa MCSYMP1

Session 2 - 1:05pm to 2:35pm - SG01

SIG: Māori Caucus

**Kaupapa Māori: Creating an Indigenous Model for System Change in Aotearoa**

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## NZARE 2024 Conference – Full Programme

Pepa 2

Session 2 - 1:05pm to 1:35pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Stephanie Budgett, University of Auckland

### Gauging statistical literacy

Navigating today's data-driven world demands graduates to possess a high level of statistical literacy. It is important that students use all the statistical knowledge accumulated throughout their degree to make sense of their world beyond university. In the educational journey, there is often an emphasis on mastering statistical techniques and deciphering complex data sets. However, the real world presents a different set of challenges that the classroom may not adequately prepare students for. We are living in an era where misinformation and disinformation are rampant, making it imperative for students to develop the skills to discern fact from fiction. A pilot study situated within a critical statistical literacy framework explored the extent to which students leverage their statistical background to comprehend and engage in the world beyond their academic experiences. Initial findings suggest variability in students' statistical literacy skills. While most students responded appropriately when given a task related to scientific findings reported in the media, all students faced challenges when asked to decode statistical information presented in an unconventional format. Although tentative, the findings suggest flexibility in transferring statistical literacy skills to new situations may require attention.

Statistical literacy, data, tertiary students

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## NZARE 2024 Conference – Full Programme

Pepa 12

Session 2 - 1:35pm to 2:05pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Generosa Leach, Massey University

### Facilitating productive discourse: A micro-analysis of one classroom episode

Supporting students to engage in productive mathematical discourse practices require specific teacher actions. These actions can include those such as talk moves (e.g., Chapin & O'Connor, 2007), wait time (Ingram & Elliott, 2016), and teacher invitation moves (e.g., Franke et al., 2015). However, as Franke et al. (2015) found, developing productive discourse where students are supported to critically sense-make with mathematics requires teacher actions beyond initial moves. The aim of this presentation is to provide examples of specific intentional teacher actions that extend beyond initial moves and demonstrate how students can be supported to engage in productive discourse to co-construct mathematical meaning. This investigation was situated within a sociocultural framework. Data were drawn from one class of 9-10-year-old students and analysed thematically. Results illustrate how the teacher utilised several distinct approaches to facilitate productive discourse. These include the teacher using both silence and wait-time and extending invitations for the coconstruction of mathematical explanation and argumentation. It is acknowledged that while the teacher actions presented here were consistent throughout the lesson, further investigation is needed on how these findings can be generalized.

Productive discourse mathematics

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## NZARE 2024 Conference – Full Programme

Pepa 14

Session 2 - 2:05pm to 2:35pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Emily Pearce, Massey University

### TEACHER ACTIONS TO SUPPORT FIVE-YEAR-OLD STUDENTS TO EXPLAIN AND JUSTIFY THEIR MATHEMATICAL THINKING.

Mathematical practices such as explanations, justification, argumentation, and generalisation support learners to become doers of mathematics. These practices encourage thinking process in a dialogic heavy environment. Many school policy documents worldwide advocate the use of mathematical practices as part of the mathematics curriculum (Grootenboer et al., 2023). In this paper, the following practices: explanations, justification, argumentation, generalising and representation are examined. The research question I investigated was: How does a teacher support five-year-olds to engage with and demonstrate mathematical practices? Data were drawn from one classroom with ten students aged five within their first five weeks of school. Results indicate that through deliberate teacher actions young learners can enact mathematical practices within their early schooling days. These actions include modelling the expected mathematical language and practices, voicing student ideas for clarity through the use of talk moves, alongside deliberately valuing the practices and mathematical discussion as a platform to share ideas.

Mathematical practices young learners

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Emily Pearce  
Massey University



## NZARE 2024 Conference – Full Programme

Pepa 174

Session 2 - 1:05pm to 1:35pm - LG02

SIG: Teaching and Teacher Education

Megan Clune and Esther Fitzpatrick, The University of Auckland

### **‘Staying-with-the-trouble’ of becoming digital educators in Initial Teacher Education: IRIS connect.**

Our practice as educators is always haunted (Derrida, 1993). How then do we shake off the negative dust, whilst retaining the positive dust of those ghosts who haunt us? This is especially so when working via digital technologies. Although much was learnt through Covid lockdowns on the possibilities of digital learning environments, making any substantial change was fraught by resistance as historical educator-identities were threatened (Foreman-Brown, Fitzpatrick, Twyford, 2022), past technological disasters and threats of unethical substandard practice nag at our memory, and the uncertainty of AI triggers our imagination. This paper presents our ‘staying-with-the-trouble’ (Haraway, 2016) of becoming educators in Initial Teacher Education. Through a collaborative storying of our work together over the past two years, we map our journey of implementing digitally-enabled reflective practice into our student teacher placement. In collaboration with our Partnership schools, we embedded IRIS Connect, a video-based professional learning platform into our programme. Over the last year we have generated data through student surveys and undertaken qualitative analysis as part of a small research project focused on students’ experiences of the digital tool to enhance their reflections on practice. This paper provides a mapping of this journey with key ideas of where to next.

Digital, reflection, hauntings

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Esther Fitzpatrick  
The University of Auckland

Megan Clune  
The University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 186

Session 2 - 1:35pm to 2:05pm - LG02

SIG: Teaching and Teacher Education

Daya Khalil, School of Linguistics and Applied Language Studies, Te Herenga Waka – Victoria University of Wellington

### AI in ELT: Insights from ESOL Secondary School Teachers in Aotearoa New Zealand

Artificial Intelligence (AI) is transforming education by enhancing learning environments and supporting personalized and autonomous learning opportunities. In English language teaching (ELT), AI can improve both teaching and learning experiences. New Zealand, with its progressive adoption of technology, provides a unique context for exploring AI's role in ELT. This adoption has led the New Zealand Ministry of Education to develop policies for AI's effective integration, making it crucial to understand the impact of AI on ELT. Nonetheless, there is a substantial gap in empirical research on its potential applications in New Zealand's ELT context. This study addresses this gap by evaluating ESOL secondary school teachers' knowledge, attitudes, and practices regarding AI applications in ELT in New Zealand. Insights from this research can inform teacher training programs and policies, supporting AI integration in ELT settings. This study uses a mixed-methods design, combining quantitative surveys and qualitative interviews. Thirty ESOL secondary school teachers across New Zealand participated in the study. They completed a survey probing their knowledge of, attitudes towards, and practices regarding AI applications in the classroom. Five volunteer teachers were also interviewed to gain a deeper understanding of their perspectives on the use of AI in language teaching.

Artificial intelligence, English Language Teaching, English for Speakers of Other Languages

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Daya Khalil  
Victoria University of Wellington

Anna Siyanova-Chanturia  
Victoria University of Wellington



## NZARE 2024 Conference – Full Programme

Pepa 167

Session 2 - 2:05pm to 2:35pm - LG02

SIG: Teaching and Teacher Education

Lata Rana, Unitec Institute of Technology

### Exploring productive and responsible use of Gen AI in education

In today's rapidly changing technological world Artificial Intelligence (AI) has become an important part of everyone's life. This is true for education, where use of AI is becoming more and more prevalent. AI is shaping teaching and learning, from design, delivery and assessment. With the anticipation that Gen AI will be more frequent and widespread, academic staff on the Bachelor of Teaching (ECE) engaged in a collaborative research project, led by our learning advisor. The project is informed by ecological theoretical framework and aims to identify the engagement and growth of the teaching team about the effective use of Gen AI in classroom teaching and learning. We are also exploring the potential challenges and opportunities this poses in assessment of learning. Data from the participating staff members have been collected through weekly journals, and monthly reflections, alongside an audio-recorded focused group discussion from monthly hui. This research builds on some of the existing theories about opportunities and risks of generative AI in education. It also builds on our past experiences of using technology to support our ākonga in their present and future learning. The paper presents the initial findings from the data in the form of Teaching Stories. The findings present our perspective of using AI in classroom teaching to enhance effective use of AI to improve student experience in their learning.

Artificial Intelligence (AI); pedagogy

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Lata Rana  
Unitec

Lee-Anne Turton  
Unitec

Siobhan Nathan  
Unitec

T Afrin  
Unitec



## NZARE 2024 Conference – Full Programme

Pepa 187

Session 2 - 1:05pm to 1:35pm - LG03

SIG: Wellbeing Education

Amanda Lester, University of Canterbury

### Initial Insights: Conditions that Teachers Perceive to be Conducive to Flourishing in the Profession

Teacher well-being is a focus of recent educational research as the profession grapples with an increase in job dissatisfaction, lack of recognition, burnout, and attrition rates. The negative aspects of teacher well-being, or teacher ill-being as it is sometimes captured, are prominent in the literature, with interest spanning various education sectors and stages of the teaching career. More recently, there has been a notable shift to use positive models to explore teacher well-being which is a focus of my presentation. My doctoral research explores the conditions that contribute to teachers 'flourishing' rather than merely surviving in the teaching profession in Aotearoa New Zealand. As well-being and flourishing are embodied experiences, my research uses constructivist grounded theory as the mechanism to get close to participants' lived experiences. In this presentation, I will share the initial insights and findings from interviews with teachers on 'flourishing' in the profession.

wellbeing, teacher, flourishing

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Amanda C Lester  
University of Canterbury



## NZARE 2024 Conference – Full Programme

Pepa 230

Session 2 - 1:35pm to 2:05pm - LG03

SIG: Wellbeing Education

Kris LaVenía, The University of Canterbury

### Knitting to Support Wellbeing in Schools

Engagement in creative activities, defined as processes that involve self-expression, imagination, and original thinking, has been widely recognized for its positive impact on mental health. These activities encompass a broad spectrum, including visual arts, music, writing, and the tactile artistry of knitting. Research has underscored the positive correlation between engagement in the arts and improved psychological well-being, suggesting that creative expression serves as a conduit for emotional exploration and stress reduction (Dickie, 2011). Knitting includes physical, psychological, and social dimensions. The fine motor skills honed through the manipulation of yarn and needles contribute to both physical dexterity and cognitive engagement (Riley, 2008). This tactile and rhythmic process has been associated with stress reduction, serving as a form of meditation that fosters relaxation and emotional well-being (Turney, 2009). In the social sphere, knitting circles and shared workshops provide a platform for social interaction, collaboration, and the exchange of ideas (Riley et al., 2013). This communal aspect enhances the sense of belonging and support, essential elements for mental health and community building (MacLean et al., 2020). We offered a knitting intervention to school personnel with the aim of supporting community, connection, and wellbeing for participants. Self-determination theory (SDT; Ryan & Deci, 2017) and psychological safety (Dang et al., 2021; Kahn, 1990) provide the conceptual frame for this study. SDT asserts that we all have basic needs for experiences of autonomy, competence, and relatedness while psychological safety speaks to perceptions of social and emotional safety in the workplace. The knitting intervention offered to school personnel was designed to map onto these fundamental needs: participants' self-selection into the knitting group provides autonomous engagement with an activity offered in the workplace; learning to knit fosters competence for creative activity; and participation in a knitting circle offers opportunities for social connection and community with other school personnel. We present findings from an instrumental case study (Stake, 2005) of a knitting circle (N=16) at a single school in Ohio, USA, which took place over the course of five weeks. Our primary aim was theory building, as research on knitting as an intervention to support school personnel wellbeing is novel. Participants met for 90 minutes per session and the focus was on learning to knit, fostering communication between participants, stress reduction, and building confidence for continuation of knitting as a tool for managing stress. Ten participants provided consent for research. Data collection included observation field notes of each session, transcripts from two focus groups, and feedback forms from each session.

wellbeing, knitting, communication

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Kris LaVenía  
The University of Canterbury

Marlise Lonn  
Bowling Green State University



## NZARE 2024 Conference – Full Programme

Pepa 189

Session 2 - 2:05pm to 2:35pm - LG03

SIG: Wellbeing Education

Cecilia de la Paz, Waikato University

### **Title: Exploring New Learning Environments for Student Well-being: Integrating Ancestral and Contemporary Knowledge**

What might support the development of well-being of students in a classroom setting? This research investigates how the development of new learning environments aimed for well-being might emerge when taking account of diverse ways of knowing, from ancestral to current science. Well-being is examined through a systemic perspective and iterative approach, weaving the academic, innovation and implementation expertise of 18 key informants from 14 different countries with teachers' voice, and students' observations of everyday practice at Te Kura o Manunui School, led by Ngaere Durie.

The school and the hapū relationship extends over 40 years. Their integration, together with the connection to the land they share, have evolved to be the pillars of the school's development and the philosophy manifested in everyday teaching practice giving direction and foundation through Mason Durie's Te Whare Tapa Wha health and well-being model. In the 1980's when a new Pākehā principal started at the school he was accompanied by elders from the Tainui iwi who "handed him over" to the kaumātua of Ngāi Tamarāwaho at his official welcome. The recognition that the hapū had mana whenua status, began the transformative journey.

For this action research project I have employed a design-based research methodology bridging theory and implementation, as well as a multicultural and multidisciplinary perspective of well-being in education. The Learning Ecosystem Design is a graphical representation that serves to investigate the components and dynamics of a favorable learning environment from a reflexive thinking process focused on what this environment might look like and what could be the pedagogical implications?

Learning Environments, wellbeing, ancestral wisdom

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Cecilia de la Paz  
Waikato University

Ngaere Durie  
Te Kura o Manunui

Paul Woller  
Waikato University



## NZARE 2024 Conference – Full Programme

Pepa 215

Session 3 - 2:40pm to 3:10pm - S1.01

SIG: Assessment

Wendy Carss, University of Waikato

### Programme-level assessment: A case study of a NZ Primary Teacher Education Programme

Programme-level assessment: A case study of a NZ Primary Teacher Education Programme. Programme-level assessment is emerging as an area of interest because of its potential to provide students with a coherent and connected learning experience and to generate holistic data on their learning and achievements. In this presentation we outline one aspect of an investigation into the design of assessments in a three-year Bachelor of Teaching (Primary) programme. The 2022 academic papers were mapped, and paper leaders interviewed; professional experience papers and leaders were not included as they were being redeveloped at the time. Lecturer design decisions were consistent with the assessment design principles of authenticity and equity of access. Curriculum paper leaders explained that they designed linked-dependent sequences of tasks intended to scaffold student engagement with teaching as inquiry. Analysis highlighted the temporal aspects of task design associated with shifts in external requirements, team composition, research, and student feedback. Findings indicate the need for further consideration of the potential for assessments to make the horizontal (year-level) and vertical (across year-levels) connections more visible to students and hence enable a more holistic understanding of both individual paper and programme learning outcomes.

Programme-level assessment, ITE

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Wendy Carss  
University of Waikato

Bronwen Cowie  
University of Waikato





## NZARE 2024 Conference – Full Programme

Pepa 214

Session 3 - 3:10pm to 3:40pm - S1.01

SIG: Assessment

Mubashara Akhtar, Lahore College for Women University Lahore

### **Integrating Standard Based Assessment with Pedagogical Approaches: Experiment at University Classroom**

The study was designed to find out the effect of standards based assessment on graduate students' academic achievement. Quasi experimental design was used for the study. Two intact groups having a total of 87 students were chosen for the study. The main variable of the study was standard based assessment in which six assessment methods (Agree/Disagree Circles, Choral Response, Exit Ticket, Frayer Model, Muddiest Point, and Think – Pair – Share) were aligned with the content standards. Assessment was aligned by using the alignment models of Webb and Porter's Taxonomy of alignment analysis. The data for this study were collected on daily basis for the period of 16 weeks. Pre-test and post-test of the participants were also taken. The test was same for both the groups. It was developed by considering the principles of test construction and Blooms' taxonomy of Educational Objectives. The results of the study showed that students who were assessed through standard based assessment showed better results as compared to the students who were assessed by traditional assessment. The results also explored that Think-Pair-Share was the best standard based assessment method compared to other methods.

Standard based Assessment, Graduate Students, Curriculum Development

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Mubashara Akhtar  
Lahore College for Women University,  
Lahore, Pakistan.

Ghazala Noureen  
Lahore College for Women University,  
Lahore, Pakistan



## NZARE 2024 Conference – Full Programme

Pepa 39

Session 3 - 2:40pm to 3:10pm - LG05

SIG: Early Childhood Education

Rhandell Tangaere, Field left empty

### Transitioning from Te Kohanga reo to Kura Kaupapa Māori

This presentation will explore te ao Māori skills and knowledge that kaiako use to enhance and support the transition of a tamaiti and their whanau from a Te Kōhanga reo into Te Pū (new entrants) Kura Kaupapa. Due to the transition from Te Kōhanga reo settings to kura kaupapa not been well researched, this presentation aims to shed emerging light on skills and knowledge of te ao Māori that enhance the transition process. By using a qualitative kaupapa Māori methodology, knowledge was gained through individual interviews (wānanga) with two Te Kōhanga reo kaiako, two Kura Kaupapa Māori kaiako and two whānau (of tamariki transitioning). As this study is still in the analysis stage, the presenter (master's student) will provide initial findings exploring the transmission of mātauranga Māori. The presenter will speak to the initial findings which reveal how ways of knowing being and doing of whānau and Kaiako supports transitioning from Te Kōhanga Reo to Kura Kaupapa.

Transition, Te Kohanga reo, Kura Kaupapa Māori, whanau

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## NZARE 2024 Conference – Full Programme

Pepa 33

Session 3 - 3:10pm to 3:40pm - LG05

SIG: Early Childhood Education

Hazel Woodhouse, University of Waikato

### **A collaboratively constructed, digitally facilitated transition to school**

This paper highlights the significance of forming partnerships between educational settings and families to support children's smooth transition to school. It draws on a PhD study where a new entrant teacher used social media, specifically Facebook, to create a collaborative transition process involving all stakeholders. Unlike traditional research focusing solely on the child, this study also considers the transition experience of families. By utilizing van Gennep's (1960-1977) transition phases (1960-1977), the study assessed how family needs evolve. Data was gathered through surveys, document analysis, e-portfolios, Facebook posts, observations, and journals. The case study included 20 families, three early childhood centres, and one primary school, presenting the outcomes of two distinct Facebook groups: one for families and teachers to interact, and another for ECE and new entrant teachers to connect. This innovative approach facilitated enhanced family involvement by forming a Community of Practice (Wenger et al., 2002) on Facebook, with separate spaces for different groups to engage. This influenced the design of the study by ensuring that group members had a shared purpose and motivation to engage with their Facebook group.

partnerships, social media, transition

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## NZARE 2024 Conference – Full Programme

Pepa 29

Session 3 - 3:40pm to 4:10pm - LG05

SIG: Early Childhood Education

Rachel Taylor, Te Rito Maioha

### Smoothing the transition from home to the ECE setting for infants and toddlers

This paper presents findings from a Masters thesis investigating the effects of COVID-19 on parents' perceptions/experiences of their tamariki starting ECE in Aotearoa New Zealand during COVID-19 in 2022. The research had a specific focus on the transition into ECE for infants and toddlers. A qualitative methodology was adopted. Data was gathered through semi-structured interviews conducted via ZOOM with the parents of five young children starting ECE at a range of centres during 2022. Bronfenbrenner's bioecological systems framework (Smith, 2013) was used to examine the factors influencing young children's experience of beginning ECE and the way these affected parents' enrolment decision-making. Findings identified several factors affecting parents' decision-making process, primarily associated with the importance of relationships and specific family circumstances. The impact of changing national policy and centre responses to it was significant because of the uncertainty it generated for parents. However, where relationships were prioritised, this became manageable and it was of particular interest that participants felt more comfortable about their tamaiti starting ECE during the pandemic than anticipated. This was considered to reflect an 'adaptive resilience' developed through already having a tamaiti in an ECE centre, having an existing relationship with the ECE centre, and becoming familiar with the ECE centre's COVID-19 response. By giving parents of young children a voice, this research offers useful direction for policy development at both centre and national levels.

transitions, infants, toddlers

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Rachel Taylor  
Te Rito Maioha

Richard Edwards  
Te Rito Maioha



## NZARE 2024 Conference – Full Programme

Pepa 66

Session 3 - 2:40pm to 3:10pm - S1.04

SIG: Education Policy

Kirsten Locke, University of Auckland

### Education Policy as “nothing but force”: A spatial mapping of an education experiment

When the military took over schools in Palmerston North and Fielding in 1942, it provoked an educational experiment that had lasting effects on Aotearoa’s education system (Collinge, 1978; Macdonald, 2016). According to Clarence Beeby (1942), the “emergency gave us the chance to do more than just carry on with the bare school subjects”. As the short film *Children without schools* (NFU, 1942) shows, children took to the streets of Palmerston North and Fielding in an Emergency Education Scheme (EES), making the town their classroom, replacing a teacher-lead educational experience with self-governance, and undertaking activities that foregrounded engagements with the community and with local sites. Inspired by Franco Moretti’s (2003) literary mapping, this presentation provides an account of the forces at play in the EES that fostered constellations of educators, in and across schools and through organisations, and which lead us as researchers to the streets of Feilding and Palmerston North. Taking an post-anthropocentric approach (Priem, 2022), we discuss the social and ecological relations that shaped this experiment, including the material forces which necessitated the use of alternative spatialities; activities that fostered creative engagements between bodies and environments; and understandings of childhood, creativity, the body and social democracy (Macdonald, 2011) which contributed to an inclusive, participatory ideal of public education linked to democratic citizenship and a wider social agenda. This spatial analysis allows us to map the way the combination of ‘forces within and forces without’ that shaped the EES created new forces that reformed post-war education, and that may still have something to teach us about the forces at play in educational policy and reform today.

Spatial analysis, materiality, policy

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Kirsten Locke  
University of Auckland

Frances Kelly  
University of Auckland

Molly Mullen  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 67

Session 3 - 2:40pm to 3:10pm - S1.04

SIG: Education Policy

Farid Ullah Khan; Jo Smith; Frauke Meyer, Faculty of Education & Social Work, University of Auckland, New Zealand

### **The Kingdon-Khan Model: Acknowledging the Role of Media, Public Opinion, and Social Movements in Agenda-Setting**

Kingdon's (1984) Multiple Streams Model (MSM) is widely used in public policy research to explain how issues attain prominence on policymakers' agendas during policymaking. However, critics argue that the MSM underspecified the role of media, public opinion, and social movements in shaping policy agendas. This article addresses this limitation by proposing the Kingdon-Khan Model (KKM), which incorporates a fourth stream – the media, public opinion, and social movements stream – into Kingdon's (1984) MSM. Drawing on a theory synthesis approach and insights from public policy and agenda-setting research, the authors conceptualize the modified model, its key elements, coupling dynamics of the media, public opinion, and social movements stream, and its operationalization and interactions with the problem, policy, and politics streams. Furthermore, the authors argue that integrating the fourth stream into this model enhances its explanatory power in accounting for the complex, multi-directional forces influencing contemporary agenda-setting. This research aligns with the conference theme's emphasis on the past informing the present and future. Although Kingdon's MSM has helped make sense of agenda-setting in the past, the model needs updating; we invite future research to test the KKM to see if the addition of a 4th stream helps understand agenda-setting now and into the future.

Kingdon, Agenda Setting, Multiple Streams Model, Media, Public Opinion, Social Movements, Policy Process, Public Policy, Education Policy

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Farid Ullah Khan  
Faculty of Education & Social Work,  
University of Auckland

Joanna Smith  
Faculty of Education & Social Work,  
University of Auckland

Frauke Meyer  
Faculty of Education & Social Work,  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 3 - 3:40pm to 4:10pm - S1.04

SIG: Education Policy

**Annual General Meeting**

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 3 - 2:40pm to 3:10pm - SG03

SIG: Educational Ideas

**Annual General Meeting**

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## NZARE 2024 Conference – Full Programme

Pepa 80

Session 3 - 3:10pm to 3:40pm - SG03

SIG: Educational Ideas

Pamela Perger, Auckland University of Technology

### **Working By Yourself or Working with Others: Which is best?**

This presentation shares the views of 149 Year 7 and 8 students about whether working together or working individually is best for being successful in learning mathematics and why.

Learners are not an end-product, they are individuals that have different opinions about what supports their learning and why. Previous research has focused on finding out student's preferences as to which strategy they like, but rarely why they prefer one strategy over another. Understanding more about what students consider important and why has the potential to provide another piece of the puzzle in identifying why mathematics at the year 7 & 8 level drops or plateaus for many students.

This study used a qualitative survey to explore student's perceptions of not only what strategies supported their learning but also why. It showed that amongst the participants there was a preference for working by yourself when engaging in mathematical learning. Thematic analysis (Braun & Clark 2020) of student's comments identified that students linked working individually to being accountable for their learning. While those students that showed a preference for working with others tended to focus on aspects that supported their personal self-esteem.

Students voice mathematics

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Pamela Perger  
Auckland University of Technology [AUT]



## NZARE 2024 Conference – Full Programme

Pepa 88

Session 3 - 3:40pm to 4:10pm - SG03

SIG: Educational Ideas

Brian Tweed, Massey University

### **When does something become mathematical?**

It is fair to say that most people regard mathematics as universal (over time and space), centrally important to everything and inherent in objects, practices and events. In this presentation I consider the implications for education of not accepting this position. This entails assuming that nothing is inherently mathematical and that it is our current form of consciousness that imposes a mathematical overlay which then is conflated with the object itself. The question 'when does something become mathematical?' and its allied question 'how do things become mathematical?' then become central in mathematics education which traditionally leaps straight to mathematical work presenting a pristine picture of the world as inherently mathematical. Basing mathematics education on an assumption of non-identity with the world repositions mathematics as a work of fiction and opens the door for other knowledges to be seen as just as important.

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## NZARE 2024 Conference – Full Programme

Pepa 113

Session 3 - 2:40pm to 3:10pm - SG02

SIG: Inclusive Education and Community

Pauline Hiroti, Purangakura Research Centre

### Generation Kainga - Embodying Toitu te Tiriti

Embodying Toitū te Tiriti' was developed as part of an MBIE Endeavour research project called Generation Kāinga. Generation Kāinga seeks to unlock the capacity of rangatahi Māori to become key leaders in developing kāinga solutions that are grounded in matauranga and tikanga Māori. Our vision is to enable rangatahi to transform the future of kāinga through Indigenous processes of reimagination, resilience and regeneration so that Aotearoa is the best place in the world for rangatahi and their whānau to live. Embodying Toitū te Tiriti was a rangatahi led piece with students at Whanganui City College. It looked at rangatahi perspectives of the Toitū te Tiriti movement, in particular, the notion of 'kainga'. Using dance, music and spoken word, this investigation explored the intergenerational impacts of colonisation on our people, our whenua, our language, and our cultural practices as Māori. The end result was a live performance and a film that captured each dancer at sites of significance and places they consider 'home' or their 'turangawaewae'. This research aims to consider new and innovative forms of research and teaching methods, research outputs, and forms of political expression and activism.

Kainga, Dance, Rangatahi

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## NZARE 2024 Conference – Full Programme

Pepa 104

Session 3 - 3:10pm to 3:40pm - SG02

SIG: Inclusive Education and Community

Kurt Cordice, Enigmatic Global / University of Waikato

### **Non-formal education programs can support youth while building bridges between community and schools - the Global Ambassadors example.**

Research in Aotearoa New Zealand investigating the challenges faced by ethnically diverse youth reveals a need to provide safe, supportive spaces where they can navigate their unique challenges and explore their identities. The Global Ambassadors of Tauranga and Western Bay of Plenty (WBOP) seeks to address this need by inviting local youth aged 16-18 to engage in impact-focused initiatives within a supportive program structure. This presentation will offer a case study of the Global Ambassadors as a non-formal, community-based program with potential benefits across a range of local sectors, including education. The talk will introduce the Global Ambassadors program and its origin. A foundation of intersecting education theories will be outlined, including experiential education, transformative learning, critical pedagogy and self-organised learning environments (SOLE). Results of the program via internal impact assessments and an external review will be shared. Finally, the potential of non-formal programs, such as Global Ambassadors, to act as a bridge between schools and the community will be discussed. Program website: [www.ambassadors.org.nz](http://www.ambassadors.org.nz)

Non-formal, Global, Partnership

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Kurt Cordice  
Enigmatic Global / University of Waikato

Haidee Kairai  
Tauranga City Council



## NZARE 2024 Conference – Full Programme

Pepa 228

Session 3 - 3:40pm to 4:10pm - SG02

SIG: Inclusive Education and Community

Trudy Pocock, Te Mahau | Te Tai Whenua

### **Continuing the discussion: A transdisciplinary approach to breaking the school-to-prison pipeline for at-risk youth.**

At-risk youth who remain disengaged from education can experience negative life outcomes such as

involvement with the justice system with far-reaching consequences into our communities. Unless we can find solutions to re-engage at-risk youth, current inequities for this group in our education system and our wider communities will continue. The interventions that are currently available to this group are often not meeting their educational needs. Using a transdisciplinary approach which aims to solve 'wicked problems', this complex issue was explored to consider what is needed to improve educational pathways for this group. Soft systems tools were used to foster robust stakeholder engagement, guided by Bronfenbrenner's bioecological PPCT (Person-Process Context-Time) model. This resulted in identifying an agreed direction that organisations could take to successfully re-engage at-risk youth. During this presentation the tool of storyboarding will be shared. In this situation, storyboarding was used as a process to create possibilities and ideas. An overview of what came out of those discussions will be presented.

Educational disengagement, At-risk Youth, Bronfenbrenner

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Dr Trudy Pocock  
Wintec - Te Pūkenga and Ministry of  
Education



## NZARE 2024 Conference – Full Programme

Pepa 224

Session 3 - 2:40pm to 3:10pm - SG01

SIG: Māori Caucus

Alex Barnes, Independent educational researcher and evaluator

### Co-governance in education: What we are learning

**Purpose:** The purpose of this paper presentation is to share key ideas and practices regarding what a te Tiriti-honouring co-governance secondary school can “look and feel like.” **Contemporary significance:** Based on the foundations of Te Tiriti o Waitangi “co-governance” is framed as a way to disrupt unequal power relations, and restore justice between Māori and non-Māori. But public questions remain about how te Tiriti-based co-governance is conceptualised and put into practice. Diverse narratives of Māori and non-Māori educational leaders, teachers and families are analysed in relation to co-governance theories and practices. This research is nationally and internationally significant because it contributes to knowledge about how to advance politically, socially and culturally just relations between Indigenous and settler groups. **Theoretical framework:** This doctoral study, the first of its kind, used four overlapping theories to fuse the interpretations: Indigenisation; settler-colonial change; institutional change and praxis; and relational justice. **Substantial conclusions:** Co-governance entails working with two forms of governing authority, an openness to travelling an unclear path involves perpetual contestation and a committed responsibility to one another. Co-governance as a contemporary manifestation of Te Tiriti o Waitangi relations, do not guarantee “mutually beneficial” relationships between Māori and non-Māori. Rather, te Tiriti offers an unfinished sketch of what relational and structural co-existence could be.

Te Tiriti o Waitangi; Co-governance; Educational governance and leadership

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## NZARE 2024 Conference – Full Programme

Pepa 132

Session 3 - 3:10pm to 3:40pm - SG01

SIG: Māori Caucus

Sharyn Heaton, Kai Tahu, Muaupoko, Ngāti Apa ki te Ra To, Waikato, Te Arawa

### The challenges of incorporating mātauranga Māori into a secondary school program

There has been a considerable shift in policy by the New Zealand Qualifications Authority (NZQA) and the Ministry of Education (MoE) to acknowledge mana ōrite mō te mātauranga Māori (MoE, 2020) in secondary schools in Aotearoa. Incorporating mātauranga Māori (Karakā-Clarke, T. H. 2022) into subject areas in a localised marau-ā-kura can be a challenging process (Henry, 2021; Mead, 2022; Ross, 2022). Some of the challenges of integrating mātauranga Māori into curricula include resistance to change, limited resources, iwi and hapū sensitivities, the balancing of differing perspectives, and how to measure success (Karakā-Clarke, T. H. 2022), and a general lack of knowledge about the various approaches to integration. These challenges become more complex when considering how mātauranga Māori can be incorporated across subject areas as part of a shift towards 'curriculum integration' (see McDowall & Hipkins, 2019) in an English-medium secondary school. This paper discusses some of the processes and practices used to authentically incorporate mātauranga Māori (as a Māori kaupapa) into a localised-integrated-curriculum for a cohort of year 10 ākonga Māori in an English-medium secondary school. Teachers share some of the possible pathways towards mitigation of the challenges of incorporating mātauranga Māori across an integrated curriculum.

mātauranga Māori, integrated curriculum, teacher voice

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Sharyn Heaton  
Kai Tahu, Muaupoko, Ngāti Apa ki te Rā Tō ,  
Massey University

Niki Crombie  
Tainui, Waikato, Te Kura Nui o Rototuna

Aroha Crombie  
Tainui, Waikato, Hillcrest High School



## NZARE 2024 Conference – Full Programme

Pepa 130

Session 3 - 3:40pm to 4:10pm - SG01

SIG: Māori Caucus

Evelyn Leef, Hastings Girls' High School | Nga Rau Huia o Akina

### **A Collective Approach to Curriculum Design in Partnership with Local Iwi to Improve Māori Students' Engagement and Learning Outcomes**

Māori student achievement continues to be a persistent issue in New Zealand (NZ) mainstream secondary schools. It is evident nationally and internationally that the education system is not designed for Indigenous peoples' education (McCarthy & Lee, 2014). To address this, consecutive NZ governments have adopted a range of frameworks and advocate for culturally sustaining pedagogies such as Te Kotahitanga, Ka Hikitia, Kia Eke Panuku, and the National Education Learning Priorities (NELP). Research from these strategies has proven successful, yet ākongā Māori continue to dominate underachievement compared to other ethnicities (Ministry of Education, 2006). The education system highlights the shortage of experts or knowledge holders within mainstream secondary schools to support the effective implementation of culturally sustaining practices. As a result, sustainable change is limited. I argue that there is a need for a culturally sustaining curriculum to be designed and implemented that will allow for a more collaborative approach and shared responsibility to addressing the disparities between ākongā Māori and non-Māori ākongā. The Secondary School Junior Hub model offers a collaborative approach and shared responsibility to develop a purposeful and meaningful curriculum for all ākongā while meeting the national curriculum standards. Mātauranga Māori is intentionally woven throughout each curriculum area and aligns with local iwi goals and aspirations. Hub selection offers ākongā a more self-determined education fostering a more inclusive and engaging learning environment. This approach will also support the extension of expert knowledge holders and enable a shared culture of responsibility.

collaboration, responsibility, leadership

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Evelyn Leef  
University of Waikato





## NZARE 2024 Conference – Full Programme

Pepa 9

Session 3 - 2:40pm to 3:10pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Megan Clune, University of Auckland

### **Affordances and challenges of the digital space as a mediator of mathematical modelling**

The aim of this study was to explore the potential of a purpose-designed digital escape game to develop students' mathematical modelling process use. An escape game format was chosen as a novel mediating artefact and the study guided by the research question: How do the interactions between students and a digital escape game result in mathematical modelling as an outcome? Two pairs and one trio of students played the game while the researcher took on the role of the teacher. Video of the students, their shared device, their interactions and actions, as well as generated artefacts were collected as data. Artefact-centric activity theory was used to analyse both game design and gameplay. Findings show that the design of the game allowed learners to engage in aspects of mathematical modelling to varying degrees. Students spent the majority of their game time constructing, simplifying and working mathematically. While the game performed much of the validating aspect for students, no exposing was evident, highlighting challenges with engaging mathematical modelling use in a purpose-designed digital escape game. Unexpectedly, it was evident that the researcher/teacher played a key role in prompting mathematical thinking throughout the game sessions.

digital activity modelling

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Megan Clune  
Waipapa Taumata Rau | University of  
Auckland



## NZARE 2024 Conference – Full Programme

Pepa 18

Session 3 - 3:10pm to 3:40pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Lisa Darragh, University of Auckland

### Navigating digital spaces and identifying with mathematics

Modern spaces for mathematics learning might involve the 'innovative' environment of flexible furniture arrangements and high levels of student independent choice; or they might involve immersion in a digital world, creating an avatar and doing mathematics on fictional islands. My research investigates how the individual navigates these different learning spaces and forms a relationship with the subject of mathematics. Data collection included two case studies that explored student mathematical identity in the context of online instructional platforms and modern learning environments. In each case, a Year 5/6 class and a Year 10 class, five students shared their experiences and thoughts of mathematics learning. Analysis used the concept of mathematics learner identity to explore the ways in which mathematics may be accessed and the roles of the mathematics learner that may be taken up in the context of online instruction platforms. I argue that mathematics learner identity is constrained by such spaces, all the while they claim to provide greater access to learning. "Supported by the Marsden Fund Council from Government funding, managed by Royal Society Te Apārangi". UOA2129

Mathematics learner identity; Digital platforms; Case study

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## NZARE 2024 Conference – Full Programme

Pepa 7

Session 3 - 3:40pm to 4:10pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Troy Potter, The University of Melbourne

### Empowering Mathematics secondary school teachers through disciplinary literacy

There is increasing demand for mathematics teachers to support students to explain, reason, and justify their mathematical solutions through writing. Despite this, research has shown that attempts to encourage secondary mathematics teachers to incorporate generic literacy practices into their pedagogical repertoire have failed (Draper, 2008; Siebert & Draper, 2008). Using a single case study, this paper reports on data collected from a secondary mathematics teacher who participated in an eight-day literacy professional learning programme. The professional learning programme adopted a disciplinary literacy approach to develop secondary teachers' understanding of both the literacy demands of their subject area and how to adopt and adapt evidence-based literacy strategies to support learning within their subject area. The study answers the following two research questions: 1) How might disciplinary literacy approaches enhance mathematics teachers' literacy practices? 2) How does the explicit teaching of evaluative writing support students' literacy in mathematics? Applying Bourdieusian concepts of field and habitus, this study reveals how disciplinary literacy approaches reconceptualise the field of literacy education and, by doing so, expand mathematics teachers' habitus, empowering them to both recognise and implement practices to support writing in mathematics. Literacy initiatives within mathematics education, specifically, and the secondary context, generally, should adopt disciplinary literacy frameworks to enable teachers to better support learners in their classrooms.

disciplinary literacy, teacher agency, mathematics education

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## NZARE 2024 Conference – Full Programme

Pepa 142

Session 3 - 2:40pm to 3:10pm - LG03

SIG: Quantitative Studies in Education

Elliot Lawes, New Zealand Council for Educational Research

### Sample design in the Curriculum Insights and Progress Study

Sample design is key to addressing three challenges to quantitative monitoring in education: 1. Representation: how do we ensure that the population of focus is represented appropriately in the collected data? 2. Variation: how do we accurately capture the variation in measured outcomes within cost and time constraints (for the study and for participants)? 3. Precision: how do we make sure that outcomes are measured precisely enough to register important change over time? If these three challenges are adequately addressed, then we can reflect on our monitoring and perhaps change our path into the future. This presentation describes sample design in the Curriculum Insights and Progress Study. This study monitors national trends in achievement for students in English-medium education in Aotearoa New Zealand. It focuses on students in state, and state-integrated schools in Year-levels 3, 6, and 8. The study provides information to policymakers, curriculum designers, school leaders, and teachers to improve education

Sample design

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Elliot Lawes  
NZCER



## NZARE 2024 Conference – Full Programme

Pepa 120

Session 3 - 3:10pm to 3:40pm - LG03

SIG: Quantitative Studies in Education

Huayu Gao, University of Auckland

### **Exploring the Relation Between Mathematical Values and Achievement among Girls: A Comparative Analysis in Single-Sex vs. Co-educational Settings Using TIMSS 2019 NZ Data**

As a traditionally perceived male-dominated subject, the prominence of mathematics achievement in secondary education holds significant implications for young women in maths-related majors or careers. The Social Cognitive Career Theory (SCCT) posits that individuals interpret the extra-personal environment, particularly the mathematics values assigned to academic pursuits, thereby influencing their performance. Research exploring SCCT has been notably sparse in considering the impact of gendered schools and socio-economic status (SES). Accordingly, this study has examined the influence of subjective values on girls' mathematics achievement and contrasts girls in single-sex and co-educational schools across SES settings. Based on TIMSS 2019 New Zealand data of 2,898 Year 9 girls, the study employed two-way and three-way ANOVA to unveil insights. Consistently, girls' values for mathematics remained relatively constant in co-ed schools across deciles, while in single-sex schools, mathematics values increased from low to high deciles. In low- decile settings, values for mathematics showed no statistical significance on girls' achievement, yet girls performed better in single-sex schools than in co-ed ones. We argue that it is plausible that higher mathematics values in co-ed settings induced greater mathematics anxiety and negatively impacted girls' achievement. Conversely, in high-decile bands, mathematics values positively predicted girls' achievement

Mathematics achievement; Value; Gendered school

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Huayu Gao  
University of Auckland

Tanya Evans  
University of Auckland

Gavin Brown  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 141

Session 3 - 3:40pm to 4:10pm - LG03

SIG: Quantitative Studies in Education

Tanya Saxena, Tanya Evans, Stephanie Budgett, University of Auckland

### Analysing mathematics performance in New Zealand schools: Evidence from TIMSSdata

The state of mathematics education in New Zealand (NZ) schools appears to be considerably compromised, as indicated by the results of various international assessments such as the Trends in Mathematics and Science Study (TIMSS), the Programme for International Student Assessment (PISA), and domestic evaluations like the National Monitoring Survey of Student Achievement (NMSSA). A below benchmark performance is noted for NZ in TIMSS and PISA for the past few assessment cycles, while outcomes of the recent NMSSA report show that, only 45% of Year 8 students were at the expected level. The concern about raising students' maths performance is hypothesised to be linked to New Zealand education systems' contextual features, including a generic and competency-based curriculum, schools' concern regarding insufficient qualified academic staff, teachers' classroom instructional practices and their autonomy over the selection of curricular areas in the classroom (Morrow et al., 2022). The situation demands extensive research that goes beyond just case studies and theoretical explorations. Driven by the above argument, the current study employs multilevel modelling on the TIMSS nested dataset to investigate the relationships between school-level, classroom-level, and student-level variables as predictors of mathematics scores. The mixed models attempt to provide some information about the factors contributing to maths performance, accounting for the country's educational context.

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Tanya Saxena  
University of Auckland

Tanya Evans  
University of Auckland

Stephanie Budgett  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 161

Session 3 - 2:40pm to 3:10pm - LG04

SIG: Science/Putaiiao Education Research

Lei Shan, Hangyan Chen, Soochow University, Department of Physics Education, China

### Developing an Evaluation Framework for the Interdisciplinary Practical Project in Junior High School Physics in China

This presentation reports on the development of an evaluation framework with universal reference value for the newly updated interdisciplinary practice topics in the Chinese Compulsory Education Physics Curriculum Standards (Ministry of Education PRC, 2022). Although "student centered interdisciplinary practice" was introduced in this curriculum, many Chinese middle school physics teachers don't know how to design and implement this kind of interdisciplinary practice in the class. Thus, we sought to construct an evaluation framework to help them to scaffold interdisciplinary practice design. To develop this framework, we took into account a student-centered approach and design principles for evaluation index systems such as operability, quantifiability, hierarchy, and integrity. Methods included pre-consultation with four experts (one core member from the development group of the middle school physics curriculum standard, three secondary school principals, and a Delphi study with 13 experienced Chinese junior high school physics teachers. We will use the interdisciplinary practice project design "Making of Ancient Timers" with a score of 75.34 (out of 100) as an example to demonstrate how the framework provides a reference for better understanding the evaluation index system for interdisciplinary practice projects in junior high school physics.

physics, interdisciplinary projects

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Lei Shan  
Soochow University, China



## NZARE 2024 Conference – Full Programme

Pepa 223

Session 3 - 3:10pm to 3:40pm - LG04

SIG: Science/Putaiāo Education Research

Christian de Sá Quimelli, Bronya Dean, Maurice M.W. Cheng, Christian and Bronya - School of Education / University of Waikato, Maurice M.W. Cheng - University of Waikato; (3) Silverdale Normal School

### **Bridging Science and Art in Post-Pandemic Education: The Theremin as a Catalyst for Student Engagement**

The COVID-19 pandemic left Brazilian classrooms grappling with disengaged students and disrupted educational practices, as well as other systemic challenges such as limited resources and political instability. The literature suggests that learning experiences that integrate art and science in a meaningful way would enhance students' engagement. This study investigates the ways that a programme with a focus on the Theremin, an electronic instrument played without physical contact, engaged students in Science and Art. Conducted with four classes of 13- to 15-year-olds (around 64 students in total) in 2022 after covid lockdowns in State of Paraná, Brazil, the programme comprised twelve sessions featuring musical exploration and electronics workshops. Data included teacher interviews, student focus group interviews, photos of the sessions, and a reflective journal. The findings indicate that students exhibited enhanced engagement in the school setting, with the Theremin's visual and auditory elements engaging the students with abstract concepts. Peer-to-peer teaching was effective in fostering collaboration and skill development (cognitive engagement and behaviour engagement). This study underscores the value of interdisciplinary approaches and a supportive environment in facilitating meaningful student interactions to enhance student engagement.

Interdisciplinary learning, Student engagement, Theremin.

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Christian de Sá Quimelli  
University of Waikato

Bronya Dean  
University of Waikato

Maurice M.W. Cheng  
University of Auckland





## NZARE 2024 Conference – Full Programme

Pepa 156

Session 3 - 3:40pm to 4:10pm - LG04

SIG: Science/Putaiāo Education Research

Yin ZHANG, Liuyan WU, Xingkai LUO, Field left empty

### Development of Instruments to Assess Students' Scientific Competencies in China

Effective evaluation of scientific competencies requires the design of appropriate assessment tasks that allow students to demonstrate their scientific knowledge and inquiry skills fully. At present, China mainly relies on pen-and-paper tests for large-scale scientific assessment. However, many science question items and instruments have been criticized for being too abstract and out of context, focusing on calculation rather than real understanding. Our team is working hard to address this challenge. Since 2003, our team has developed a scientific evaluation framework and 108 sets of scientific test units and accompanying questionnaires and accumulated data from nearly one million students in eastern, central, and western China. In this presentation, I will offer examples of how we have tried to move beyond the limitations of traditional pen-and-paper assessment in order to access insights into students' real-world problem-solving abilities. Data presentation will include student performance data and data from questionnaires about the nature of science teaching that students have experienced. The goal is to use the testing to drive changing practices in schools.

Scientific Literacy; Instruments Development; STEM Project-Based Learning

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ZHANG YIN  
Research Institute for Science Education  
College of Physical Science and Technology  
Guangxi Normal University, CHINA

WU Liuyan  
Guangxi Normal University, CHINA

LUO Xingkai  
Research Institute for Science Education,  
Guangxi Normal University, CHINA



## NZARE 2024 Conference – Full Programme

Pepa 178

Session 3 - 2:40pm to 3:10pm - LG02

SIG: Teaching and Teacher Education

Alexander Bacalja, The University of Melbourne

### Post digital perspectives on the use of digital games in subject-English

Discourses that establish the potential benefits of digital games for schooling too often focus on learning as a product of relations between student and gameplay, adopting overly deterministic positions, built on behaviorist and constructivist principles, that have long been associated with digital technologies and education. This paper draws on concepts emanating from the 'postdigital turn' to problematise data from two school-based case studies whereby digital games were integrated into subject-English classrooms. Findings from study one, which included interviews with seventeen middle-school teachers, demonstrate how imagined futures about the educational potential of digital games must include the development of multiple critical perspectives with students. Findings from study two, which involved replacing print-based texts with digital games in one senior high school, suggest that unitary logics about learning and digital games are insufficient, and that educators and researchers should consider the complexity, continuity and contingency in all teaching contexts. Postdigital attention on actual instances of digital game deployment reveals the fragility of all knowledge claims about these technologies, contributing to a more critical discourse regarding their potential to impact school learning.

Digital games, post digital, subject-English

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## NZARE 2024 Conference – Full Programme

Pepa 184

Session 3 - 3:10pm to 3:40pm - LG02

SIG: Teaching and Teacher Education

Yiting Zhong, The University of Auckland

### **The Impact of a Dialogic Intervention on a Chinese Rural Teacher and Students 'Stances Towards Texts**

In language arts classrooms, dialogic teaching, in which students and teachers construct and generate multiple interpretations of text context, can lead to productive discussions that promote students' literacy skills such as reasoning. Yet, such teaching is challenging as it requires teachers and students to adopt a dialogic reading stance. The study investigated the impact of a tailor-made dialogic intervention on a Chinese rural teacher and students' stances towards texts by changing their classroom discourses. Chinese rural students shifted from efferent and instrumental stances to a more critical-analytical stance, indicating a profound change in how rural students interacted with texts through exploratory talk, highlighting the potential of dialogic teaching practices to foster deep engagement with reading materials. However, after the intervention ended, the rural teacher still adopted a monologic stance in language arts lessons due to the lack of texts with dialogic potential, and the requirement to complete prescribed teaching tasks within fixed timeframes. Therefore, she reverted to the talk format she had prior to the intervention. Although the dialogic intervention effectively changed rural students' stances towards texts, much remains to be learned about what teachers and schools can do to cultivate and sustain students' growth mindset. Implications for Chinese rural teacher's changes in beliefs include emphasizing long-term training about dialogic practices and adding texts with a dialogic nature or texts that cater for rural students' reading levels and social backgrounds

Chinese rural students, reading stances, dialogic pedagogy

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Yiting Zhong  
The University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 183

Session 3 - 3:40pm to 4:10pm - LG02

SIG: Teaching and Teacher Education

Carlos van Kan & Rajae El Himer, Knowledge Center for Talent Development, Rotterdam University of Applied Sciences, The Netherlands

### **Educational Values Priority Game: How to support (prospect) teachers to articulate what they consider to be in their pupils' best interest and why**

In contemporary society teachers are faced with the challenge to provide education for all kinds of pupils with all kinds of backgrounds, (with caretakers) with all kinds of perspectives on what it means to be an educated person. As a consequence, teachers should not only be equipped in a technical sense, but also should have explicit values and ideas about what they consider to be good education (Biesta, 2009). Therefore, teachers should be stimulated to connect their teaching practices to articulated educational values and ideals. In this session, the educational values priority game is presented that is based upon research that distinguishes six ways in which teachers legitimize their interactions with their pupils in terms of their educational values and ideals (van Kan, Ponte, Verloop, 2013). For example, (1) the caring legitimisation type focuses on pupils as vulnerable and very dependent on grownups to survive in a demanding world, (2) the contextual legitimisation type focuses on pupils' living conditions, life histories and practical lives, which need to be considered in teaching situations, and (3) the critical legitimisation type focuses on pupils' need to be freed from constraining ideas about themselves and living conditions that imprint these ideas. The question that drives the educational values priority game is in what way (prospect) teachers can be challenged to explore, articulate, and discuss their educational values and ideals in order to legitimise their teaching practices to those (in)directly involved. The primary method of the educational values priority game resembles a Q-sort approach. The Q-sort methodology is used to investigate the perspectives of participants who represent different stances on an issue, by having participants rank and sort a series of statements. In this case a dialogue function is added to the methodology in order to stimulate (prospect) teachers to exchange their views. The learning gains for the participants will focus on understanding the theoretical underpinning of 'the educational values priority game' (10-minute presentation). Challenging (prospect) teachers, teacher educators, school leaders, and researchers to make their educational values and ideals explicit and give their reasons why they think these values and ideals are important (10-minutes experiencing the game). Considering the importance of developing a language for giving expression to educational values and ideals (10-minute interactive dialogue). The purpose of this session is to explore what the added value of the game could be in the context of research, the teaching practice and/or teacher education.

Educational Values, Teacher Education, Serious Game

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## NZARE 2024 Conference – Full Programme

Pepa 204

Session 4 - 4:40pm to 5:10pm - S1.02

SIG: Adult & Higher Education

Laura Gurney and Sheila Busteed, University of Waikato

### **Old pedagogy meets new technology: Students' and teachers' reflections on a ChatGPT-aided process writing module**

Generative artificial intelligence (AI) tools continue to evolve at a rapid pace, becoming part of our everyday use of technology. The appropriate role of generative AI in education, especially how it can be utilised to meet teaching and learning needs, is subject to ongoing discussion. Exploring this technology in the context of academic writing, we opted to pair generative AI with process writing, an established pedagogy, to update the curriculum of a tertiary-level academic writing paper. Students implemented process writing steps to revise a ChatGPT-generated draft text. They completed a reflective writing task about their experience with process writing and the use of ChatGPT in academic work; these reflective texts were analysed thematically. A focus group was also conducted with the paper's teachers to explore their experiences and attitudes concerning AI in their teaching. In this presentation, we discuss trends from these data sources and reflect on what we learnt through the curriculum update. We invite audience discussion on these findings and commentary on how generative AI can serve the teaching and learning of academic writing in the future.

generative AI; process writing; reflections on teaching and learning

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Sheila Busteed  
Te Kura Toi Tangata School of Education,  
University of Waikato

Laura Gurney  
Te Kura Toi Tangata School of Education,  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 221

Session 4 - 5:10pm to 5:40pm - S1.02

SIG: Adult & Higher Education

Tim Gander, academyEX

### From Speculation to Practice: Generative AI in Higher Education

In the current landscape of higher education, generative AI has become a focal point of discussion, often accompanied by a mix of speculative promise and scepticism. Is the integration of AI just another fleeting Ed-Tech trend, or can it genuinely enhance educational practices? This session presents a comprehensive evaluation of diverse approaches employed in the past year to assess the impact of generative AI on teaching, learning, and assessment. The process commenced with an AI literacy audit of learners, followed by integrating custom Generative Pre-trained Transformers (GPTs) into ethics and assessment feedback processes. Three distinct research projects were undertaken to explore various applications of GPTs: providing pre-assessment feedback, scaffolding project scope with opportunities for collaborative critical reflection, and facilitating oral prompting for ethics scenarios. The effectiveness of AI integration was evaluated through student perceptions of the tools, measurements of AI literacy, and detailed analysis of transcripts from student interactions with the GPTs. This session offers valuable insights into the potential benefits and challenges of implementing generative AI in higher education, contributing to the ongoing discourse on the future of AI in education.

Generative AI, Higher Education, AI Literacy

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Tim Gander  
academyEX



## NZARE 2024 Conference – Full Programme

Pepa 200

Session 4 - 5:40pm to 6:10pm - S1.02

SIG: Adult & Higher Education

Brendan Sheridan, University of Waikato

### Current Impacts of Generative AI on Tertiary Education

International (and domestic) research underscores the need for responsible AI conduct and looking to the future where work and education will be shaped by generative AI technologies.

This paper contains elements of a literature review and autoethnography, drawing on the researcher's own experience using GenAI from a teaching design perspective. Through the lens of Unified Theory of Acceptance and Use of Technology (UTAUT) it discusses literature regarding the appeal of AI for students in enhancing writing skills and aiding second language learners. From these stances it highlights concerns about academic integrity and the risk of exacerbating inequities, while exploring GenAI's advantages. This paper argues that while the opportunities from using GenAI are great, there must still be efforts taken to effectively integrate it into tertiary education, without disadvantaging others, through clear education and training.

Artificial Intelligence, Academic Integrity, Writing

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Brendan Sheridan  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 34

Session 4 - 4:40pm to 5:10pm - LG05

SIG: Early Childhood Education

Tara McLaughlin, Field left empty

### Leadership Coaching: Wayfinding as a Framework for Transformation

Targeted professional learning and development (PLD) and coaching for pedagogical leaders is an effective way to build leadership capacity within local education settings and strengthen local curriculum implementation. In this session we will report on a Ministry of Education funded PLD programme for early childhood education (ECE) leaders to experience, learn about, and use coaching. The programme embraced the concept of wayfinding, based on the knowledge and skill of traditional Polynesian navigation. Wayfinding provided a values-embedded framework, highlighting the significance of relationships and of understanding people and place. Supported by the concept of wayfinding, leaders were coached to strengthen leadership capabilities and to learn how to become coaches using the practice-based coaching model. Leaders then used their coaching skills to support kaiako to strengthen their teaching practice through a process that focused on creating achievable goals and action plans for coaching. Approaches to coaching were structured, flexible and responsive to leaders, kaiako and the early learning contexts in which they work. Programme evaluation findings highlight multiple transformations that were experienced by ECE leaders. A key objective of the session will be to highlight and contextualise how the PLD programme builds on and extends understanding about effective PLD in ECE in Aotearoa.

Massey University

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Tara McLaughlin  
Massey University

Linda Clarke  
Massey University

Vicki Gifkins  
Massey University





## NZARE 2024 Conference – Full Programme

Pepa 26

Session 4 - 5:10pm to 5:40pm - LG05

SIG: Early Childhood Education

Andrea Delaune, Te Whare Wānanga o Waitaha | University of Canterbury

### Seeing love in infant teachers' practices: A visual study of embodied curriculum

This presentation discusses the role of visual media in stimulating and expanding moral vision for pedagogical action. Within a recent research study, visual media, in the form of video-stimulated recall interviews, proved to be a critical catalyst for teachers to share key moments of love in their pedagogy. The research included 16 teacher participants within a video-stimulated recall interview. The purpose of the study was to work towards a grounded theory of love in infant teachers' practices. This presentation presents an interesting expanded finding from the research.

Love is a difficult emotion to describe accurately to others, (Murdoch, 1998) compounded by the tensions of love as a contested emotion in the context of early childhood pedagogy (Aslanian, 2015; Dalli, 2006). However, revisiting videoed moments in their practice enabled the teacher to 'see' their embodiment of moral concepts, enhancing their moral vision. Although video-stimulated recall is a method frequently drawn upon with success to support teachers' deeper thinking about their pedagogical practice (White et al., 2021), it is the juxtaposition of visual media and moral vision (Murdoch, 1998) that is of specific interest in this presentation, raising interesting possibilities for enhancing understanding embodied morality and moral vision within such pedagogical encounters.

Love, infants, video

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Andrea Delaune  
Te Whare Wānanga o Waitaha | University of  
Canterbury



## NZARE 2024 Conference – Full Programme

Pepa 71

Session 4 - 4:40pm to 5:10pm - S1.04

SIG: Education Policy

Huidan Niu, Institute of the Pacific United (IPU) Tertiary Institute New Zealand

### **How do teacher unions frame professionalism discourses in contemporary socio-political contexts? A systematic literature review**

This paper presents a systematic literature review examining how teacher unions frame discourses of teacher professionalism across various international socio-political contexts. It explores how teacher unions challenge neoliberal agendas that emphasise standardisation and external control in education policies. Employing a critical education policy scholarship approach, the review highlights how teacher unions use their collective agency to advocate for teacher autonomy and professional status, often resulting in conflicts with government entities. While the review spans a global perspective, its findings are relevant to understanding the broader dynamics affecting teacher unions, including those in New Zealand. The paper aims to provide insights into how these global trends impact local contexts and to identify the role of teacher unions in shaping professionalism discourses. Further research is needed to clarify the implications of these discourses and to explore how teacher unions can develop alternative narratives that support educational reforms.

neoliberal agendas, professionalism discourses, teacher unions

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## NZARE 2024 Conference – Full Programme

Pepa 76

Session 4 - 5:10pm to 5:40pm - S1.04

SIG: Education Policy

Shannon Walsh, NZEI Te Riu Roa

### **Innovation at any cost: The reintroduction of charter schools to Aotearoa New Zealand**

The recent National-ACT coalition agreement includes a policy to reintroduce the charter school model to Aotearoa New Zealand. Charter schools were first introduced in 2013 as part of a previous National-ACT coalition and ran until 2018 when the 13 schools existing under the model were reintegrated into the public system. According to the Government, charter schools will raise educational achievement by offering innovative approaches to education not found in the public system. Yet evidence from the last experiment – now retroactively labelled as a ‘pilot’ – offers little reason to believe that charter schools will deliver this benefit. Indeed, it is highly doubtful that charter schools meet their own criteria as a solution. Evidence suggests that they are no more innovative than public schools, especially within the context of New Zealand’s highly devolved system. This paper situates the claim that charter schools stimulate innovation within a broader account of the contradictory ideological and material roles ‘innovation’ plays within contemporary capitalist economies. It argues that charter schools exemplify the intellectual emptiness of capitalist innovation, while at the same time perpetuating its material violence by dispossessing workers in education – teachers, principals, support staff – of employment rights and professional autonomy.

Charter Schools, Innovation

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Shannon Walsh  
NZEI Te Riu Roa



## NZARE 2024 Conference – Full Programme

Pepa 63

Session 4 - 5:40pm to 6:10pm - S1.04

SIG: Education Policy

Jade Wrathall, University of Waikato

### Competition between schools and the implications for music education

Education policy in New Zealand continues to be informed by various neoliberal ideologies, as schools are positioned as private entities with a product to sell, and parents as consumers free to shop for the best school for their child. As schools are forced to compete for enrolments and the subsequent funding that they bring, it is common for schools to invest in various marketing strategies to attract prospective parents. By presenting the findings of my doctoral research, this paper explores the phenomenon of school choice, highlighting how music alongside other arts subjects were used to market three different primary and intermediate schools. The first school was a high decile primary school that was situated in a semi-rural area. This school was a contributing primary and therefore catered specifically to children between Year 0 and 6. The other two schools were both mid decile intermediates, one of which was situated in a suburban area and the other in an urban area. Being intermediates, these schools catered specifically to children in Year 7 and 8 and provided a range of learning opportunities through their technology and arts programmes. Through the findings of these three qualitative case studies, I argue that the neoliberal policy technology of marketisation has negatively influenced children's access to music education, with the marketisation of the subject taking precedence over teaching and learning.

Policy, marketisation, neoliberalism

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## NZARE 2024 Conference – Full Programme

Pepa 81

Session 4 - 4:40pm to 5:10pm - SG03

SIG: Educational Ideas

Florence Lyons, Teaching fellow

### **Enhancing middle school students 'persuasive writing skills through online feedback: A Bernsteinian perspective**

The provision of feedback is important to enhance learning. Digital technologies, in the form of online collaborative platforms such as Google Docs, can offer new and different spaces to support teachers' feedback to students by making explicit, conversations around learning. This presentation reports on findings from a case study aimed at enhancing middle school students' persuasive writing skills through targeted feedback given on Google Docs as well as audio recorded. The study adopted a Bernsteinian perspective to understand how teachers and students can engage collaboratively in the feedback and learning process. Data were collected through teaching plans, classroom observations, interviews, and surveys. The findings highlight the nature and potential of effective digital feedback in enhancing students' writing attainment. It illustrates the value of a Bernsteinian perspective in offering new and useful understandings on the role of feedback in enhancing students' persuasive writing genre. These have implications for further research and practice for educators interested in leveraging the use of online collaborative platforms in supporting students' learning outcomes in writing.

digital technology, feedback, assessment

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Florence Lyons  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 83

Session 4 - 5:10pm to 5:40pm - SG03

SIG: Educational Ideas

Gisela De Castro, The University of Waikato

### A Flight Over Aotearoa New Zealand (AFOA.NZ)

Since the advent of writing, letters have been a powerful way to register feelings and confidences, propose ideas, communicate, connect people, create literature, and a way to understand the construction of national identity. This research-creation addresses issues about the artistic process related to epistolary literature, geography, and transdisciplinarity with reading and writing practices. The process explores creative possibilities to transform the materiality of a paper sheet into digital art through the remediation of hand-written letters made by children in Aotearoa. The NZ students are invited to think about their beloved places. If the region were a person, what would they say to this local? Thinking about the current technological times, and the issues of place and belonging, the project investigates the practices at the intersection between the curatorship of the material collected and the methodology to build a reading digital platform. The artistic aspects of the project will involve elementary students in a collaborative process of narrative construction, as well as university students who will form the team working in internship activities as editors, sound and web designers, and animators. This children's book made by children could be relevant not only for memory purposes but also for improving the literacy skills of 21st-century students. All content will be freely available to amplify the accessibility in the electronic literature field.

interactive videobook; trans disciplinarity; children's letters

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Gisela de Castro  
The University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 96

Session 4 - 4:40pm to 5:10pm - S1.01

SIG: Educational Leadership

Professor Christine Edwards-Groves, Griffith University, Queensland, Australia

### **The practice architectures of middle leading: Understanding the dynamics of school change**

This paper examines the practice of middle leadership in schools. The work of middle leaders is becoming increasingly important for facilitating school development in many jurisdictions across the world, and thus understanding the conditions that influence the efficacy of these agents of change is critical. Drawing on findings from an international research collaboration between Australia, New Zealand and Sweden investigating the conditions that enable and constrain the practices of middle leaders, the dynamics of middle leadership from the different national contexts will be explored. The theory of practice architectures will be used as an analytical framework to delineate the specific cultural-discursive, material-economic and social-political arrangements that influence how practices happen in the day-to-day activity of middle leading. Results reveal the extent to which site-based conditions (including other education practices, perspectives of school personnel and policy directives) faced by middle leaders as they go about their development work make change possible, or not. Implications for school leaders and policy makers are drawn.

middle leadership, practice architectures, school development

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Christine Edwards-Groves  
Griffith University, Australia

Peter John Grootenboer  
Griffith University, Australia

Kirsten Petrie  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 97

Session 4 - 5:10pm to 5:40pm - S1.01

SIG: Educational Leadership

Miranda Jane Makin, University of Auckland

### **Developing Middle Leaders' Capabilities for Rigorous Inquiry: Intervening through Theory Engagement.**

Using problem-based methodology (PBM), this paper shows how research can contribute to changes in practice. In this study two theories of action were developed to describe two senior leaders' approaches to leading professional inquiry with their middle leaders. These theories were tested and evaluated with each leader then used to consider how their approaches might be revised to realise the intended outcomes of professional inquiry—supporting teachers to grow their knowledge about teaching effectively. Initially, both leaders focused on what middle leaders should lead. After intervening both shifted their approaches to focus on how to lead, developing the capabilities for leading rigorous inquiry with their teams. As rigour increased, senior and middle leaders engaged critically with each other's beliefs. The findings underscore the significant influence of beliefs on leadership and highlight the potential of theoretically grounded tools to support rigorous inquiry. This research emphasises that studies alone cannot change practice without addressing practitioner's underlying beliefs and calls into question the effectiveness of current professional development methods that bypass the assumptions a practitioner uses to construct their theories. Delegates will explore the dynamics of leadership layers and discuss how leadership approaches can be transformed through theory engagement.

Leading improvement, Middle leader development, Engaging beliefs,

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Dr Claire Sinnema  
University of Auckland

Dr Deidre Le Fevre  
University of Auckland





## NZARE 2024 Conference – Full Programme

Pepa 94

Session 4 - 5:40pm to 6:10pm - S1.01

SIG: Educational Leadership

Christine Edwards-Groves, Griffith University, Australia

### **Relational trust as core for leading school development: examining the practices of middle leaders**

In this paper, research is presented that delves into the complex multiple dimensions of trust as it is considered in the work of middle leaders who lead school based professional development. It is well established that leading is intensely relational work, but understanding ways that relational trust is practiced and developed in schools is not as well examined. The study addresses the important and understudied area of relational trust in middle leadership, which is essential in practising educational leadership. The paper draws on the theory of practice architectures to consider ways relational trust is practised in the practices of middle leaders. Practice architectures are the enabling and constraining conditions that influence how the sayings, doings and relatings of practices happen – these are delineated in terms of the cultural-discursive, material-economic and social-political arrangements. Findings reconceptualise relational trust as practiced in five key interconnected dimensions identified in our research. The dimensions are interpersonal trust, interactional trust, intersubjective trust, intellectual trust and pragmatic trust. The interconnected dimensions are dynamically intertwined in practice that respond to the circumstances (ie are nuanced) and emphasise that trust not only create conditions for leaders to build and maintain trust but also contribute to achieving transformational goals in organisational learning, development and sustainability. By understanding and nurturing these dimensions, leaders can foster a culture of trust that positively impacts outcomes of their school.

relational trust, practice, middle leadership

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Christine Edwards-Groves  
Griffith University, Australia

Peter John Grootenboer  
Griffith University, Australia

Kirsten Petrie  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 107

Session 4 - 4:40pm to 5:10pm - SG02

SIG: Inclusive Education and Community

Dr Karen Harris, Massey University

### **Supporting gender diverse students in primary schools - experiences of school leadership teams**

New Zealand schools have a growing body of guidance to support the inclusion of gender diverse students. However, less is known about the experiences of school leadership teams in implementing these practices. This paper will present an overview of planned research to explore the experiences of primary school leadership teams in creating inclusive environments for gender diverse students in New Zealand. In addition, the paper will present the key findings from current literature in this area including the challenges around access to training, and the impact of teacher confidence and personal beliefs on practice

The proposed research will take a queer theory perspective and a mixed methods approach. Initially, a survey will be sent to primary school leadership teams across New Zealand to understand their current practices and perceived needs. Semi structured interviews will then delve deeper into the experiences of Principals and staff, exploring how they navigate existing guidance and resources. The research aims to identify key challenges faced by schools, such as navigating community and staff attitudes, implementing inclusive policies, and accessing appropriate support structures. The aim of this research is to understand the experiences of Principals and leadership teams and to develop further training and supports in this area.

Inclusion gender diversity

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## NZARE 2024 Conference – Full Programme

Pepa 108

Session 4 - 5:10pm to 5:40pm - SG02

SIG: Inclusive Education and Community

Lee Smith, Whiteria Community Polytechnic & Wellington Institute of Technology

### Darkening the Rainbow

Two online surveys were distributed to all staff and students across 14 New Zealand polytechnics in 2023, which aimed to explore how safe and inclusive the participants' institutions were for rainbow students. An online survey targeted Rainbow students contained a series of open-ended questions (unlike the other targeting all staff and non-rainbow students). When it came to analysing the open-field response data, numerous malicious responses were identified, which contained cis-hetero-normative, racist, and ableist comments. Rather than dismissing these as bothersome, the researchers' objective was to explore (through a threefold trans', queer and intersection theoretical lens), how such comments serve to reinscribe societal hierarchies. In this presentation findings will be reported that highlight how discrimination is multifaceted, in that, hateful terms (e.g., retard, faggot and \*ni\*\*a), and harmful speech acts (e.g., "go kill yourself") serve to reinscribe cis-heteronormativity, whiteness and able-bodied-ness in society and by implication, educational institutions. Warning: Some terms may be offensive.

anti-rainbow, hostile responses, polytechnics

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Lee Smith  
Whittireia and WelTec

Rachael Burke  
Toi Ohomai

Fleur Kelsey  
Otago Polytechnic

Laura Addington  
Whitireia

Sage Anastasi  
Canterbury University



## NZARE 2024 Conference – Full Programme

Pepa 102

Session 4 - 5:40pm to 6:10pm - SG02

SIG: Inclusive Education and Community

Lauren Addington, Rachel Burke, Helen Gremillion, Fleur Kelsey, and Lee Smith, Addington and Smith: Whitireia & WelTec; Burke: Toi Ohomai; Gremillion: Unitec Institute of Technology; Kelsey: Otago Polytechnic

### **Do rainbow students feel safe, included and supported within Aotearoa/New Zealand's polytechnic educational system?**

Past research exploring rainbow students' experiences in tertiary education has focused primarily on universities; reports on their perspectives in polytechnics are rarer. Utilising a qualitative descriptive methodology, this presentation examines the safety and inclusivity of 14 New Zealand polytechnic campuses for rainbow students today, from their points of view. It analyses open-field responses on this topic taken from an online survey that is part of a larger study examining not only rainbow student perspectives but also those of all students and staff. Two hundred and thirty-three rainbow students completed the survey, and a subset of these participants responded to the open-field questions (there were variable numbers of responses per question). An inductive thematic analysis of responses to these questions revealed strongly variable experiences. Roughly equal numbers of respondents reported negative experiences – such as bullying, discrimination, cis-heteronormative 'humour', and misgendering – as reported feeling included, welcomed and/or like a 'normal' student. Strategies suggested to create more inclusive campus environments in the future include integrating sexual and gender diversity within institutional policies, processes, communities, and classrooms, as well as installing more gender-neutral toilets. Although participants' suggestions for improvement are instructive, some may be difficult to implement in the current climate of political conservatism.

Rainbow inclusivity; polytechnic campuses

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Lee Smith  
Whitireia & WelTec

Helen Gremillion  
Unitec Institute of Technology

Rachel Burke  
Toi Ohomai

Fleur Kelsey  
Otago Polytechnic

Lauren Addington  
Whitireia & WelTec



## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 4 - 4:40pm to 5:10pm - SG01

SIG: Māori Caucus

**Annual General Meeting**

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## NZARE 2024 Conference – Full Programme

Pepa 6

Session 4 - 4:40pm to 5:10pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Amanda Gardner, University Of Waikato

### **The Mathematics Gender Gap - The socially constructed gender traits that affect achievement for Years 0-13 in Aotearoa New Zealand**

Disparities still exist within the field of mathematics as girls continue to be subjected to social and cultural perceptions that view them as inferior to boys. From a biological standpoint, both sexes (male and female) have the same innate ability to learn, progress, and excel in mathematics. However, research continues to suggest that societal and cultural stereotypes, biases, and labels imposed on girls hinder their progress and ability to perform throughout various levels of schooling compared to boys. Drawing on feminist theory, I explore how assumptions in inherent gender roles have been perpetuated by the educational system, parents, peers, and society and how these have led to self fulfilling prophecies and the shaping of gendered identity and traits over time. I begin by examining the external factors that have led to stereotyping and discrimination and their effects on women's mathematical identity and presence.

I contribute to the discourse on negative perceptions by exploring and synthesising the conditions identified in existing research and literature, which can be grouped into three key perspectives: (1) The intervention perspective - the underestimating of girls' mathematics capability and how girls emotionally engage with and convey their mathematical identities; (2) The segregation perspective - feminine positioning within a 'masculine' subject and male-dominant cultures, and (3) The discipline perspective - the experiences and access to learning within educational structures. The findings emphasise the detrimental influence of societal and cultural stereotypes on girls' self-perception, self-confidence, and representation in mathematics-related professions. The article describes actionable steps that I and other Year 0-13 educators can take to foster gender equity in mathematics by dismantling the historical barriers that hinder girls and cultivating a more inclusive and diverse community of mathematicians.

Equity, Mathematics, Identity

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Amanda Gardner  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 11

Session 4 - 5:10pm to 5:40pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Louise Fitzgerald, Massey University

### **Connecting Classrooms with Community: Designing and Enacting Social Justice Mathematical Modelling Tasks.**

Connecting Classrooms with Community: Designing and Enacting Social Justice Mathematical Modelling Tasks. The importance of the real-world application of mathematics through modeling is being increasingly recognized in international research. It is seen as a key tool for preparing learners to participate in a diverse workforce armed with 21st century skills. The need for a workforce able to engage in a range of STEM related jobs is imperative due to our rapidly changing technology driven world, which requires creative and engaged problem solvers and decision makers. In the current study a socio-cultural perspective is taken to illustrate teacher actions which provide learners opportunities to construct mathematical models (MM) to understand, solve and take action on social justice issues in the community they and their whānau live in. A framework will be constructed and explained as a smart tool used by teachers to guide learners through the modelling process. This encompasses; a. problem selection, b. identification of the mathematical modelling potential within a messy real-life problem, and c. the organic modelling process to make sense of, solve and take action on an issue. The impact that such tasks within MM have on learners' attitudes towards mathematics and their learning and achievement will be assessed and initial findings outlined. These will include how teachers develop their own understandings of MM and its potential for student engagement in social justice issues embedded in mathematics. Key words: Modeling, Social Justice

Modeling, Social Justice

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## NZARE 2024 Conference – Full Programme

Pepa 146

Session 4 - 4:40pm to 5:10pm - LG03

SIG: Quantitative Studies in Education

MINGLIN ZHOU,

### Effect of Student-Lecturing Teaching Model on Eighth Grade Students' Attitude Towards Mathematics

Student-lecturing teaching model is an innovative teaching model which allows students to interpret the problems and express their problem-solving strategies and ways of thinking using mathematical language, which is established in the context of mathematics teaching in middle school in China. It not only allows students to demonstrate their thinking process, but also creates a relaxed classroom environment for students to overcome their fear of expressing mathematics, thus changing their attitude toward mathematics. However, the traditional teaching methods place students in a passive accepting position, causing them to believe that mathematics is difficult and dull, leading to a loss of interest in Mathematics. This study analyzed the effect of the student-lecturing teaching model on student attitude toward mathematics through a one-and -half-year controlled-experiment with eighth-grade students. The result of this study shows that the student-lecturing teaching model not only helps to develop students' problem-solving and communication skills, but also gives students the opportunity to express themselves with mathematical language, which in turn enhances their attitude toward learning mathematics.

student lecturing, teaching model, attitude towards mathematics, communication skills

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MINGLIN ZHOU  
MINGLIN ZHOU





## NZARE 2024 Conference – Full Programme

Pepa 153

Session 4 - 5:10pm to 5:40pm - LG03

SIG: Quantitative Studies in Education

Valerie Sotardi, University of Canterbury

### **Safe Spaces and Success: How the School Climate Impacts Secondary Students in New Zealand**

This research aims to explore the predictive value of adolescents' perceptions of their school climate on their mental health, social/emotional skills, and academic achievement. Specifically, it examines how feelings of safety, sense of belonging, and the quality of student-teacher relationships influence psychosomatic symptoms, life satisfaction, experienced well-being, emotional control, empathy, stress resistance, self-reported attendance, Ministry of Education attendance reports, and PISA scores in literacy, mathematics, and science. Utilising the PISA 2022 dataset, which includes over 4,000 15-year-olds from across New Zealand, this study provides a comprehensive analysis of the interplay between school climate and various student outcomes. The research questions driving this investigation are: To what extent do adolescents' perceptions of their school climate predict mental health, social/emotional skills, and academic achievement? How do these relationships hold when considering the influence of individual student characteristics? Structural equation modelling will be employed to examine these relationships. By addressing these questions, the study aims to identify key elements of school climate that can be targeted to improve student well-being and performance. The findings are expected to offer valuable insights for educators, policymakers, and researchers, contributing to the development of strategies that foster supportive school environments and enhance student outcomes.

mental health; wellbeing; secondary school

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Valerie Sotardi  
University of Canterbury



## NZARE 2024 Conference – Full Programme

Pepa 231

Session 4 - 5:40pm to 6:10pm - LG04

SIG: Quantitative Studies in Education

Jingdi Sun,

### **Revealing the Tapestry of Science Education: Delving into Student Motivation with Latent Profile Analysis**

Motivation is a crucial factor in shaping students' academic success, yet traditional approaches often oversimplify its impact. This study employs Latent Profile Analysis (LPA) to delve into the complex interplay of motivational factors and their influence on science achievement. Drawing on data from the Programme for International Student Assessment (PISA) 2015, we focus on students from New Zealand, Australia, and Singapore—chosen for their diverse educational landscapes and Singapore's distinguished performance in science education.

Our findings underscore the significance of motivational profiles, revealing that enjoyment of science outweighs self-efficacy in predicting academic achievement. LPA proves instrumental in uncovering these distinct profiles, offering a nuanced perspective that traditional methods miss. This research not only enhances our understanding of how motivation impacts learning but also advocates for tailored educational strategies that cater to individual student needs.

By emphasizing person-centred approaches, this study provides actionable insights for educators and policymakers seeking to optimize science education outcomes. It underscores the importance of recognizing and nurturing diverse motivational drivers among students, ultimately aiming to foster a more engaged and successful learning environment.

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JINGDI SUN  
The University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 220

Session 4 - 4:40pm to 5:10pm - LG04

SIG: Science/Putaiiao Education Research

Shaljan Areepattamannil, Emirates College for Advanced Education

### **Gender differences in science achievement and attitudes towards science in the Arabian Gulf**

This study investigates gender differences in science achievement, confidence, and enjoyment among eighth-grade students in six Arab Gulf countries—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates—using data from the Trends in International Mathematics and Science Study (TIMSS) 2019. Contrary to the global trend of male advantages in science, girls significantly outperformed boys in science achievement and reported higher levels of confidence and enjoyment in learning science. The study employs a quantitative approach, to examine gender differences across the six participating Arab Gulf nations. The study discusses potential explanations for these patterns. The findings have significant implications for policymakers, educators, and researchers working to promote gender equity and improve the quality of science education. The study suggests that while efforts should be made to address the specific factors contributing to boys' underperformance and disengagement in science, it is equally important to enhance science learning opportunities and outcomes for all students. The study also highlights the need for context-specific interventions and policies to support STEM education equity and quality in the region, taking into account the unique gender dynamics revealed by the TIMSS 2019 results.

Gender differences, science achievement, science attitudes

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Shaljan Areepattamannil  
Emirates College for Advanced Education,  
United Arab Emirates



## NZARE 2024 Conference – Full Programme

Pepa 179

Session 4 - 4:40pm to 5:10pm - LG02

SIG: Teaching and Teacher Education

Ben H.J. Smit, ICLON, Leiden University Graduate School of Teaching, The Netherlands

### **Educating preservice teachers for a democratic educational practice through action research with students**

As an approach to democratic educational practices, in our studies, preservice teachers (PSTs) in a one-year postgraduate teacher education (TEd) program for secondary education were prepared for participatory action research (PAR) within their internship schools in collaboration with their school students. We see practices as prefigured by arrangements (including traditions), but also as sites for transforming the practice, in line with the Theory of Practice Architectures (TPA; Kemmis et al., 2014).

PST's conducted a PAR project to tackle a jointly identified issue in their classroom. Active involvement of the school students in this research process was part of the PST's assignment.

For identifying the nature and intensity of the school student participation, four levels of student participation (Inform, Consult, Participate, and Collaborate) were distinguished, at different research stages. From the PSTs' and teacher educators' experiences we derived principles for PST's PAR along three dimensions of TPA. This yielded a matrix of PAR activities and a set of 17 principles as markers for successful PAR that can be used for planning and evaluation in TEd contexts.

Student participation occurred mostly at the less intensive levels and in the preparatory stages of the research projects. However, most PSTs came to see their school students in a broader sense as worthwhile partners in an educational endeavor. Teacher educators experienced preparing PSTs for student participation in PAR projects as challenging. The principles were realized variously: observable and concrete; as ideas and intentions; not yet put into practice throughout or to the desired level.

Democratic education; student participation; teacher action research

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## NZARE 2024 Conference – Full Programme

Pepa 171

Session 4 - 5:10pm to 5:40pm - LG02

SIG: Teaching and Teacher Education

Joy Hardy, University of New England, Australia

### **Architectures of Practice: Curriculum Quality Audit in the Philippines**

Philippine education has been transformed by the recent introduction of a new curriculum, outcome-based education and the Philippine Professional Standards for Teachers (PPST). Preparing pre-service teachers and teacher educators to meet the combined demands of these changes is a key element in ensuring their success. This paper theorises an action research curriculum project known as 'Curriculum Quality Audit' (CQA), involving curriculum mapping (Arafeh, 2016) based on the PPST. The purpose of CQA is to capacitate teacher education faculty to review and enhance pre-service teacher education curricula in response to the reforms. CQA is theorised vis-à-vis 'practice theory' and 'practice architectures' (Kemmis, 2009; Kemmis et al., 2014). Attention is placed on sensitivities in contextualizing CQA to meet the needs of teacher educators, teachers and learners in the Bangsamoro Autonomous Region in Muslim Mindanao, which is considered the most disadvantaged region in the Philippines in terms of socio-economic indicators, resulting from a combination of factors, but primarily by prolonged sociopolitical conflict (World Bank 2013). The contemporary significance of the theorisation extends the understanding of CQA beyond the merely procedural and the reach of its application to pre-service teacher education curricula and teacher educator professional development beyond this specific study.

Pre-service teacher education, curriculum mapping, practice architectures

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Joy Hardy  
SiMERR National Research Centre,  
University of New England, Australia



## NZARE 2024 Conference – Full Programme

Pepa 166

Session 5 - 10:30am to 11:00am - S1.02

SIG: Adult & Higher Education

Danping Wang, The University of Auckland

### **Integrating Māori epistemology into a language curriculum in Aotearoa New Zealand:**

This study is situated within the context of a university-level curriculum transformation project aimed at integrating Mātauranga Māori into learning design across all disciplinary areas. The research seeks to understand how teachers and students from non-Indigenous backgrounds perceive and interact with the initiative to incorporate Indigenous concepts and language in foreign language teaching and assessment. As the programme leader, I volunteered to lead the transformation of the curriculum for Chinese courses, making them the first group to implement the changes. Drawing on the concept of translanguaging as a decolonial approach, this research highlights the porous nature of boundaries that exist not only between named languages but also between epistemological beliefs between knowledge systems. A total of 155 students from diverse cultures and ethnic backgrounds were surveyed and their digital compositions were analysed. Five teachers were interviewed. The findings of this study illustrate that translanguaging enables the co-existence of various bodies of knowledge, manifesting a holistic picture of the student body's diverse epistemic stances and life experiences. The research suggest that more work is needed to support teachers and students in affirming the relevance of Indigenous knowledge in the university curriculum and thereby disrupt colonial approaches to language teaching and assessment.

Translanguaging;

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Danping Wang  
The University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 213

Session 5 - 11:00am to 11:30am - S1.02

SIG: Adult & Higher Education

Emma McLaughlin and Barbara Terry, Te Wānanga o Aotearoa

### Literacy challenges in a bi-cultural social work degree programme.

Ka mua, ka muri: Look to the past to inform the future - Literacy challenges in a bi-cultural social work degree programme. The purpose of our rangahau was to identify the literacy challenges tauira have when engaged on a bi-cultural social work degree programme; discover what kaimahi and tauira are already doing to address these challenges; and reflect on how we can support the tauira to navigate this academic space. This rangahau is significant because it describes challenges that can exist within current notions of 'academic literacy', and the impact that can have on all tauira, particularly those in an indigenous learning space. The perspective we bring to this rangahau is firmly embedded in 'Kaupapa Wānanga', a Te Wānanga o Aotearoa rangahau framework based on the four key takepū of āhurutanga, kaitiakitanga, koha and mauri ora. Throughout the weaving of our rangahau we discovered a range of challenges, including a lack of explicitness in terms of what academic texts can involve, and the tension of retaining cultural authenticity within academic monitoring systems. Cultural literacies can often be minimalised and academic literacies favoured, to meet professional standards. We will share how we are addressing these challenges as an organisation and continuing to explore the notion of literacy in an Indigenous learning space

literacy indigenous academic

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Emma McLaughlin  
Te Wānanga o Aotearoa

Barbara Terry  
Te Wānanga o Aotearoa



## NZARE 2024 Conference – Full Programme

Pepa 24

Session 5 - 10:30am to 11:00am - LG05

SIG: Early Childhood Education

Amanda White, NZCER

### The Story Web model: Reframing story relationships across time and space

Children learn to create and share meaning with others through story relationships connecting their past, present, and future experiences. Many 1-year-old children participate in story relationships across the dual contexts of their early childhood education (ECE) centres and family homes. Few studies, however, have explored the nature of story relationships within and across both settings, and over time. In this paper I present findings from qualitative research that explored the sharing of stories with 1-year-olds in a culturally and linguistically diverse community of Aotearoa New Zealand. The study combined sociocultural and semiotic theoretical lenses, using observations, interviews, and visits to family homes as methods. I offer the Story Web model, an original framework that makes visible the multiple layers of story relationships experienced by children over time and space. I present one child's story to illustrate the narrative that grew over time and traced back to her ancestry. In sharing this model and story example, I argue that a collaborative, multimodal view of stories affords a holistic and historical view of literacy learning across more than one set of relationships and contexts, with children as active story weavers at the centre.

Stories / Literacy/ Relationships

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Amanda White  
NZCER





## NZARE 2024 Conference – Full Programme

Pepa 47

Session 5 - 11:00am to 11:30am - LG05

SIG: Early Childhood Education

Dr. Andi Salamon, University of Canberra

### **Baby-Play: Mutual affective engagement in infant pedagogy.**

To honour Mā Muri, Mā Mua, this presentation begins with the past. It presents the unanticipated outcomes of a participatory research project that resulted in playful mutual affective engagement between infants and a researcher, as the springboard into the new project 'Baby-Play'. Baby-Play presents infants as sophisticated social agents who act in playful and intentional ways with what they know about their relational world. Following a practice theory approach, Baby-Play will purposely recreate the conditions (or arrangements) that elicited the unanticipated playful actions and interactions (or practices). The research will use a 'play as method' approach to document, engage, and engage with babies in individual and group play experiences. The aim will be to generate new knowledge about playful infant affect and engagement in naturalistic ECE contexts, and the conditions that enable it. The presentation challenges past long held beliefs about infant social and emotional capacities. It advocates for sophisticated holistic and integrated futures in infant learning, that harness the artful, joyful, and playful potential of infant pedagogy for our youngest citizens and their adults. Implications for policy and practice, play- based interventions and empowering parents and caregivers through participatory approaches will be discussed.

Infants: Play: Pedagogy

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## NZARE 2024 Conference – Full Programme

Pepa 61

Session 5 - 10:30am to 11:00am - S1.04

SIG: Education Policy

Ha Ngan Ngo, School of Education, Victoria University of Wellington

### **Cross-Border Quality Assurance: A Multi-Case Study of Transnational Education Partnerships in New Zealand and Vietnam.**

The pivotal shift in the international education (IE) landscape following Covid-19 has necessitated reflection on past lessons to adapt and remain resilient in today's competitive post-pandemic market. Sustainable future growth opportunities, particularly in exporting transnational education (TNE) programs, rely on robust quality assurance (QA) frameworks that address diverse cultural contexts. This presentation reports on a multi-case study involving qualitative analysis of 72 in-depth interviews with multiple stakeholders, including policymakers, institutional leaders, lecturers, and students from New Zealand and Vietnam in partnerships with institutions based in the UK, South Korea, China, and Malaysia. Underpinned by the Quality Culture Framework (Cameron & Sine, 1999), Stakeholder Theory (Freeman et al., 2010), and Cultural Dimensions Theory (Hofstede, 1983), the study highlights significant cultural variations in quality perception and implementation, influencing cross-border QA processes. It also addresses the quality challenges of the incomparable quality on- or off-shore in TNE due to the strong reliance on local staff and systems that are influenced by local constraints and politics. Given the evolving dynamics of IE worldwide, and New Zealand's efforts to revive its IE as outlined in the International Education Strategy 2022–2030, the study offers valuable insights and an informed foundation for policymakers and education practitioners involved in TNE and IE.

international education policy, transnational education, quality assurance

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## NZARE 2024 Conference – Full Programme

Pepa 69

Session 5 - 11:00am to 11:30am - S1.04

SIG: Education Policy

Joy Hardy, University of New England, Australia

### Timor-Leste School and Teacher Profile Verification: A National Census

Teacher recruitment in Timor-Leste is based on a staffing profile that indicates how many teachers are needed in a school, their qualifications, and specializations. This presentation reports on the conduct of a verification exercise, sought by IX Constitutional Government of Timor-Leste, to confirm existing school and staffing profiles. The overall purpose was to support the Ministry of Education in optimizing staffing at each school, based on number of students, existing infrastructure and adjustments such as multi-series classes and curriculum requirements. The project design involved an inclusive, collaborative, and capacity-building approach to support the conduct of a national census. Project preparation and management were participatory and the census was grounded in descriptive research (Nassaji, 2015), the goal of which is to “describe systematically and accurately the facts and characteristics of a given population or area of interest” (Dudlock, 1993, p.154). This presentation outlines the management, methodology, selected findings and contemporary significance of the project. Selected findings presented include disaggregated age and qualification teacher profiles. The contemporary significance concerns conducting systematic and accurate censuses of geographically dispersed, multi-lingual populations in areas with challenging access and limited infrastructure.

Census, Timor-Leste, Human Resources

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Joy Hardy  
SIMERR National Research Centre,  
University of New England, Australia



## NZARE 2024 Conference – Full Programme

Pepa 73

Session 5 - 11:30am to 12:00pm - S1.04

SIG: Education Policy

Marta Estellés & John O'Neill, University of Waikato & Massey University

### Social justice imaginaries and education policy in Aotearoa New Zealand

According to the Minister of Finance, “Education is the great liberator, the great equaliser and the most enduring gift we can bestow on our children”. But we know that education can also be the great oppressor, the perpetuator of inequalities and the most elusive of gifts, particularly for children and young people who live precarious lives. In this paper, we problematize the apparent consensus around what we might call Aotearoa New Zealand’s vernacular social justice imaginaries. Our point of departure is not only the problematic assumption per se that education can solve social inequalities, but also that not all efforts to address social inequalities through education are driven by the same, shared notions of social justice and, therefore, do not have the same policy discursive intentions or effects. We first present the conceptual framework of what we call a contemporary social justice imaginary. It builds on Nancy Fraser’s tripartite analysis (redistribution, recognition, participation), the contributions of education policy scholars who have built upon her work, and others who offer alternative framings of social justice to include caring and meaningful work. A multidimensional

conception of social justice allows for the analysis of specific policy discursive demands for social justice in terms of both what they address, and what they marginalise or ignore. In the second part, we outline the discursive shift from equality to equity in New Zealand education policy, the structural adjustment from social democracy to neoliberalism, and the repositioning by the Left from the ‘Third Way’ to ‘progressive neoliberalism’. In the third part of the presentation, we examine and compare selected education policies aimed at reducing social inequalities by the latest Labour and National governments through affirmative strategies. We conclude with a call for more intentionally transformative efforts in education based on a holistic conception of social justice as all of: redistribution, recognition, participation, care, and meaningful work.

social justice, progressive neoliberalism, affirmative and transformative strategies

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Marta Estellés  
University of Waikato

John O'Neill  
Massey University



## NZARE 2024 Conference – Full Programme

Pepa 92

Session 5 - 10:30am to 11:00am - S1.01

SIG: Educational Leadership

Diosdado M. San Antonio, SEAMEO INNOTECH Southeast Asian Ministers of Education Organization Regional enter for Educational Innovation and Technology

### Learning-Focused and Future-Oriented School-Based Management

Recognizing that the COVID-19 pandemic has worsened the learning crisis discussed in the 2018 World Development Report, the researchers carried out this study which aimed to determine learning-focused and future-oriented practices employed by Philippine school heads in implementing School-Based Management (SBM). This research also sought to identify the challenges constraining effective SBM implementation, as well as the measures introduced to overcome such challenges. It is the researchers' assumption that heightened focus on learning and the future will enable school heads to address the learning crisis. This qualitative research employed Consensual Qualitative Research (CQR) and NVivo for data analysis. Data were gathered via online open-ended questionnaire. Thirty-seven (37) or 77.08% of the 48 principals and teachers invited to participate provided the responses to the open-ended online questionnaire. Practices employed by school heads were categorized as proactive, results-oriented, intelligent, network-building, credible and empowering (PRINCE). The challenges constraining effective SBM implementation were identified as follows: overlapping activities/time constraints; inadequate resources/funds; negative attitude of stakeholders/resistance to change; and limited expertise/knowledge.

To address the challenges, SBM implementers reported that they initiated the following: proper coordination of activities with stakeholders; better communication strategies; and recognition of stakeholders with noteworthy contributions. They were also driven by a deep Faith in God and optimism that every effort can contribute to the production of results. The PRINCE practices in implementing SBM are aligned with theories on the key competencies successful leaders and managers possess. School heads may also draw new insights from the identified modes of addressing the challenges in sustaining effective SBM implementation.

School-Based Management, Learning-Focused School Leadership, Future-Oriented School Leadership

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Diosdado M. San Antonio  
SEAMEO INNOTECH

Francis Cesar B. Bringas  
Department of Education, Republic of the  
Philippines

Tolentino G. Aquino  
Department of Education, Republic of the  
Philippines

Ma Ines C. Asuncion  
Department of Education, Republic of the  
Philippines

Ramir B. Uytico  
Department of Education, Republic of the  
Philippines



## NZARE 2024 Conference – Full Programme

Pepa 93

Session 5 - 11:00am to 11:30am - S1.01

SIG: Educational Leadership

Julian Adamson, University of Canterbury

### **The Pursuit of Purpose: How School leaders use their Vision and Mission statements to lead in complex and changing policy contexts**

Since the advent of the Tomorrow's Schools reforms in 1989, the schooling system has undergone a myriad of changes that have impacted almost every aspect of the operation of New Zealand schools. These changes include self-governing schools overseen by Boards of Trustees, a new curriculum, new culturally responsive approaches to teaching and learning and even changes to create modern learning environments. More recently, there have been changes to how schools deliver and assess literacy and numeracy and an ongoing reform of the National Curriculum. These changes occur in the context of wider economic, well-being and social concerns. The relentless pace of change has been particularly challenging for the leaders of schools. This presentation examines the findings from doctoral research into how school leaders in Special Character Christian State-Integrated schools have used their understanding of the Purpose, Vision and Mission, both educational and at a special character level, in their schools to help guide them through this ongoing change. Through focus groups and interviews, the views of 16 Principals, senior leaders, Board chairpersons and Proprietors has been analysed to show the critical importance of purpose and the promotion of that purpose in schools and local communities. The findings reinforce that a well-developed and articulated understanding of purpose acts as a touchstone to guide leaders in the decisions they make to navigate the seas of ongoing change. This presentation will be useful to school leaders and those interested in the purposes and aims of education in Aotearoa New Zealand.

Vision, leadership, schools

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## NZARE 2024 Conference – Full Programme

Pepa 89

Session 5 - 11:30am to 12:00pm - S1.01

SIG: Educational Leadership

Wanjuan Zhong, Xiaoqing Deng, Southwest University, Chongqing, China

### **Impact of Perceived Organizational Support on Junior High School Teachers' Data-Driven Decision Making: The Mediating Role of Psychological Capital**

Data-driven decision making (DDDM) is recognized as crucial strategy for enhancing instructional improvement and student achievement in many countries, including China and New Zealand. In the digital era, school leaders must develop strategies to promote teachers' DDDM. This study investigates the relationship between teachers' perceived organizational support, psychological capital, and DDDM. 150 teachers from a national ICT experimental junior high school in China participated in an online questionnaire. Using descriptive statistics, difference analysis, regression analysis, and structural equation modeling, the study found: 1) High levels of teachers' psychological capital, perceived organizational support, and DDDM, with significant positive correlations among these variables ( $P < 0.001$ ) and notable gender and teaching experience-based differences in DDDM; 2) Peer support, instrumental support, and other aspects of perceived organizational support positively predicted DDDM; 3) Teachers' efficacy, optimism, and other psychological capital dimensions mediated the relationship between perceived organizational support and DDDM. To address the well-being issues commonly confronted by the teachers in China and New Zealand, the study suggests school leaders enhance DDDM by fostering a supportive organizational culture and offering professional development to boost teachers' self-efficacy and resilience. These findings align with New Zealand's focus on professional development and supportive school climates for effective DDDM implementation.

Perceived organizational support; Psychological capital; Data-driven decision making

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Wanjuan ZHONG  
Faculty of Education, Southwest University,  
P.R.China

Xiaoqing DENG  
Faculty of Education, Southwest University,  
P.R.China



## NZARE 2024 Conference – Full Programme

Pepa 100

Session 5 - 10:30am to 11:00am - SG02

SIG: Inclusive Education and Community

Gørill Warvik Vedeler, Oslo Metropolitan University, Norway

### School-home collaboration as collaborative autonomy-support

This presentation synthesises a theoretical framework for school–home collaboration that addresses adolescents' need for autonomy–support. The framework draws on equity as a purpose of education, by grounding school-home collaboration as pedagogical practices in inclusive school communities. The framework is for the teaching profession and elaborates on practicing school–home collaboration in upper secondary schools to the best of students, parents, and teachers. The framework highlights collaborative autonomy-support as the main argument compiled from a phenomenological research project (2016 to 2022), that included 6 schools, one teacher education program, and 195 participants (teachers, students, parents, and teacher educators). Dialogue cafés, interviews, and analysis of legal documents constitute the empirical material. Children and youth are independent subjects who need good welfare, strong protection, and safeguarding of their rights. Independence as a value in child-rearing is highly valued in Norway. This project confirmed this and revealed the students' need for autonomy-support in their independence process – bildung and education process. The need to develop school-home collaboration as an autonomy-supportive practice is a contribution of this project. This framework promotes the idea that school–home collaboration in upper secondary schools is necessary for students to get parental support in their education.

School-home collaboration, collaborative autonomy-support, upper secondary school

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Gørill Warvik Vedeler  
Oslo Metropolitan University

Gørill Warvik Vedeler





## NZARE 2024 Conference – Full Programme

Pepa 103

Session 5 - 11:00am to 11:30am - SG02

SIG: Inclusive Education and Community

Janina Suppers, Emma Cunningham, Karen Nicholls, University of Waikato

### **Empowering Young People and Navigating Tensions: Co-producing Citizenship Research with Secondary School Students and Teachers**

There are ongoing debates about increasing participants' active role in academic research as experts of their own experiences. This is particularly discussed in relation to young people who are marginalised in many decisions concerning them such as being involved in community decision-making. When young people are engaged in research, there is a tendency for minimal participation, exclusive engagement of young university students and engagement in single aspects of a project rather than throughout. With this paper we contribute to this debate by sharing insights from an ongoing collaborative co-production case study between 19 secondary school students and 2 teachers from a rural community, and five researchers exploring rural young people's citizenship. This research is underpinned by Hart's (1997) Ladder of Participation and Suppers' (2024) concept of youth citizenship. We share data in form of qualitative questionnaires (n=16) completed by co-researchers and researcher field notes of our experiences of seven project planning workshops, and our data collection stage during which we collaboratively collected data from teachers, students and community leaders. Findings suggest that co-researchers, teachers and researchers contributed unique insights to the project which improved the meaningfulness of our research aims, the depth and scope of our questions, the suitability of our methods and our access to participants. We, however, had to navigate unique tensions in relation to power and marginality, (neoliberal) university structures, ethics boards and funding bodies which were often unattuned to co-producing research with young people.

co-production, young people's agency, citizenship

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Janina Suppers  
University of Waikato

Emma Cunningham  
University of Waikato

Karen Nicholls  
University of Waikato

Co-researchers  
Morrinsville College



## NZARE 2024 Conference – Full Programme

Pepa 227

Session 5 - 11:30am to 12:00pm - SG02

SIG: Inclusive Education and Community

Jean Kim, University of Canterbury

### **The role of heritage language proficiency and identity development plays in developing a sense of social belonging amongst crosslinguistic families.**

With the current trends of internationalisation, the number of crosslinguistic families is rapidly increasing, and interest in heritage language transmission is also growing. From a sociolinguistic perspective, the three-generation theory was dominant in that the language shift from the heritage language to the majority language occurs within three generations in immigrant families, but recent studies suggest that heritage language loss occurs within two generations as an attempt to negate ethnic differences. Interviews were conducted with seven crosslinguistic families, an English-speaking father and a non-English-speaking mother and their children, in New Zealand and Japan. Participants were asked about their beliefs about heritage language and identity formation when living in a monolingual-focused society.

This presentation discusses the role of heritage language skills in the development of self-identity and social belonging in second generations of crosslinguistic families. Findings suggest that being bilingual while maintaining one's heritage language skills has a positive impact on the development of a dual identity. This dual identity promotes social acceptance and helps to develop a sense of belonging in both English-speaking and non-English-speaking societies. This study provides guidance for crosslinguistic families who transmit their heritage language across generations and suggests ways to successfully develop a sense of belonging in both societies.

innovative learning environments; identity development; sense of social belonging; crosslinguistic families

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Jean Kim  
University of Canterbury



## NZARE 2024 Conference – Full Programme

Pepa MCSYMP3

Session 5 - 10:30am to 12:00pm - SG01

SIG: Māori Caucus

**Huia Kaimanawa - A New Dawn for Transformative Māori Leadership**

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## NZARE 2024 Conference – Full Programme

Pepa 13

Session 5 - 10:30am to 11:00am - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Pania Te Maro, Te Kunenga ki Purehuroa

### **The vast possibilities of pluralism and holding multiple truths**

Ma muri

With grace Chief Dan George reminds us that we are missing out on good and beautiful things of his culture that are being lost while the “white man’s” instruments of success thrive. Tā Apirana Ngata urges his neice to grasp the tools of the Pakeha, but to always maintain her identity through her bonds to her tīpuna Māori. Western scholarly tradition that fails to recognise the status of these Indigenous leaders as academics and scholars, chains us to the continual loss that colonial rule has instigated and perpetuates.

Ma mua

Kaupapa Māori research provides the theoretical foundation for work done in the field so far with eleven kaiako from bilingual classes and kura classes to explore what mana ōrite for mātauranga Māori looks like, sounds like, and acts like. Classes range from intermediate; multi-level (year 1 – 8) kura, and bilingual classes; and Wharekura. We have talked with teachers about mathematics, pāngarau and mātauranga Māori. We have observed kaiako plan, provided support when asked, and we have watched mokopuna learn and explain what they have learned to us. We will present data that shows what happens with additive and/or growth approaches, rather than subtractive either/or reductive approaches.

Maths education, pluralism, truth

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## NZARE 2024 Conference – Full Programme

Pepa 8

Session 5 - 11:00am to 11:30am - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Raewyn Eden, Massey University

### **Self-selected video from mathematics lessons as a resource for primary teachers' collaborative inquiry**

Classroom video is increasingly used by groups of teachers as a tool to support reflection and strengthen mathematics teaching | learning. In the first phase of a two-phase design-based study, a group of primary teachers selected, viewed and discussed self-selected video excerpts from mathematics lessons. The study was premised on the assumption that collaboration and inquiry are important for teachers' learning, and that teachers' collaborative inquiry activity is a productive site for developing adaptive expertise, needed to address inequities in mathematics classrooms. Cultural historical activity theory (CHAT) provided a theoretical lens through which to analyse records of the group's conversations and to identify contradictions and actions taken to resolve them. Discussion of classroom video excerpts elicited differences in the teachers' ideas about practice, and engaging with and working to reconcile these difference sparked productive conversations for their learning. What the teachers noticed and picked up for discussion mediated what conceptual resources were available for their collective reflections. The presentation will share examples of how collectively viewing classroom video excerpts provided teachers with both a window into the otherwise private practice of others, and a mirror in which to reflect on their own practice.

video, collaborative inquiry, reflection

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## NZARE 2024 Conference – Full Programme

Pepa 137

Session 5 - 10:30am to 11:00am - SG03

SIG: Pasifika Caucus

Ella'peta Fifita Hausia, University of Auckland | Waipapa Taumata Rau

### Tongan Students' Self-efficacy in Year 11 Business Studies

A growing number of Pasifika students are pursuing Business Studies at secondary school. However, indigenous knowledge and epistemologies are not prominent in Business Studies. This study explored the concept of self-efficacy in Business Studies from a Tongan perspective. This qualitative decolonising study provides insights into the perceptions of Tongan students' self-efficacy and their Business Studies teachers. Teachers' views aligned with Western notions of self-efficacy, which conflict with Tongan perceptions of the collective nature of Tongan self-efficacy. Key findings from teacher interviews and students' Talanoa provided an understanding of Pasifika students in general and experiences specific to Tongan students. The study highlights three main findings: (a) Key values for Tongan students, such as relationships, family, and identity; (b) learning experiences vs learning strategies; and (c) framing self-efficacy. The study's implications for curriculum suggest how teachers can learn about and incorporate Tongan students' values and identities, enhancing their engagement and performance in Business Studies. Extending this research to include the knowledge of Tongan families, community leaders, curriculum specialists, Business Studies educators, and researchers would create a transformational space for the students' engagement. Bringing together shared expert knowledge in the future will require more time for effective and meaningful Talanoa as a collective.

Tongan, Business Studies, Self-efficacy

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Ella'peta Loloma Fifita Hausia  
The University of Auckland | Waipapa  
Taumata Rau



## NZARE 2024 Conference – Full Programme

Pepa 134

Session 5 - 11:00am to 11:30am - SG03

SIG: Pasifika Caucus

Nicki Perese, Frances Edwards, Brent Wagner, University of Waikato

### **Biology teaching, learning and assessment in Year 13 through the medium of English and Samoan: A study in two urban colleges in Samoa**

In Samoa, English is the primary medium of instruction for classroom teaching and assessment in all secondary schools. This study sought to answer the primary question: What are Samoan teachers' perceptions of the role of languages in teaching and assessing Year 13 biology? Talanoa was the methodological approach employed for this qualitative study, and involved open and respectful dialogue with six participants who were currently teaching Biology in two colleges in Samoa. The talanoa enabled the researcher to capture the nuanced views and experiences of these educators. The findings of this study revealed teachers' perceptions about language use in the classroom and their understandings of the Samoan bilingual education policy. Through talanoa teachers described how they choose which language/s to use within the dynamic of their biology lessons as students engaged in learning biology concepts. The teachers conveyed beliefs that incorporating Samoan alongside English in classroom instruction and assessments would significantly benefit students, especially during national assessments. The research suggests the need for a more inclusive and linguistically sensitive approach to science education in Samoa. It highlights the importance of developing practical and realistic language policies and practices that promote bilingual education, ensuring that students can leverage their native language to achieve a deeper understanding of complex scientific concepts. Implications and recommendations are discussed.

Language, Samoa, Assessment

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## NZARE 2024 Conference – Full Programme

Pepa 135

Session 5 - 11:30am to 12:00pm - SG03

SIG: Pasifika Caucus

Tafa Naulivou Sisitoutai, Frances Edwards and Sashi Sharma, University of Waikato

### **Pasifika students' perceptions on their experiences of using Talanoa as an assessment tool in NCEA Level 2 Mathematics**

The study reports on a trial in which talanoa was used as an assessment tool with Pasifika students for NCEA Level 2 Mathematics in a New Zealand school. Talanoa is a means of communicating through which Pacific people synthesise knowledge, share ideas, and collaborate, so it was seen as having potential to assess learning in a more culturally responsive way. The study involved the teacher-researcher using talanoa with 8 Pasifika students to assess a NCEA Level 2 Achievement Standard 91256, specifically focusing on the application of coordinate geometry methods in problem-solving. Data was gathered through talanoa with small focus groups of students after their assessment experiences. The findings show that students felt supported and uplifted through the process of being assessed through the use of talanoa. Key elements of the process have been characterised as: Fakalanga Vā Falala'anga (establishing a Trusting Relationship), Fakalanga Pōto'i Anga (developing Cultural Competence), Fakalanga 'Ilo mo e Poto (acquiring Knowledge and fostering Understanding), Fakalanga Loto Lahi (cultivating self-Confidence and Efficacy), and Fakalanga Fiefia mo Tau'atāina (stimulating Joy and Intellectual Freedom). These elements will be discussed and implications of this study will be explored.

talanoa, Pacific students, assessment

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## NZARE 2024 Conference – Full Programme

Pepa 143

Session 5 - 10:30am to 11:00am - LG03

SIG: Quantitative Studies in Education

Meiyang Hong & Gavin T.L. Brown, University of Auckland; Faculty of Education & Social Work

### **They taught me to write and it helped my reading comprehension: Secondary students' perspectives**

Learning to write theoretically helps with reading comprehension, as understanding authorial intent is essential in both domains. Likewise, positive perceptions of self-efficacy in and interest in a subject contribute to greater performance. This study used structural equation modelling to examine how New Zealand Year 11-12 secondary students (N=625) perceived the importance of learning to read and to write in English classes and how importance perceptions related to reading attitudes and performance. Data were taken from the 2004 Assessment Tools of Teaching and Learning Version 4 database. The importance of learning to read and write indirectly influenced performance via greater interest and self-efficacy, with learning to write especially supporting reading comprehension self-efficacy. The model was invariant across demographic variables, with medium-to- large latent mean differences for ethnicity and school decile on reading performance. This study emphasises the impact of combining writing and reading to improve students' reading comprehension. Despite the age of the data, these findings support the notion that writing instruction supports the teaching of reading comprehension.

Reading comprehension; teaching writing; structural equation modelling

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Meiyang Hong  
The University of Auckland

Gavin T.L. Brown  
The University of Auckland

Meiyang Hong  
The University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 145

Session 5 - 11:00am to 11:30am - LG03

SIG: Quantitative Studies in Education

Rachel Cann, Ministry of Education

### Measuring the Education Workforce Health and Wellbeing in Aotearoa New Zealand

The purpose of this presentation is to share insights into the health and wellbeing of the education workforce in Aotearoa New Zealand and explain how these insights are informing educational policy focused on the development of the workforce of the future. Around the globe many education systems are facing challenges in recruiting and retaining teachers in the profession. Previous research suggests that the wellbeing of the education workforce is a key element in retaining

teachers in the profession, as many teachers leave the profession due to stress and burnout. This is an exploratory investigation that draws on quantitative data from Ministry of Education payroll data and surveys of teachers and principals, to address the question: what is the state of the education

workforce health and wellbeing? Payroll data was analysed to give insights into trends in key workforce health indicators over time, such as turnover and number of years in the profession. The development of workforce wellbeing measures is discussed. The presentation will focus on key findings and how these are used to inform policy to grow and sustain the education workforce

wellbeing, education workforce

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## NZARE 2024 Conference – Full Programme

Pepa 144

Session 5 - 11:30am to 12:00pm - LG03

SIG: Quantitative Studies in Education

Wanning Huang, University of Auckland

### Evaluating Students Generated Feedback Complexity and Length: Insights from the PeerWise System

There are considerable benefits to students when they give feedback to each other (e.g., increased commitment to their own learning, perceived improvement in the learning experience, broader ability to problem-solve, and more realistic self-assessment). However, devising and communicating quality feedback is challenging. This study examined the quality of feedback students gave each other within the PeerWise multiple-choice question (MCQ) creation system. Data were obtained from 226 students as part of their coursework assignments in an introductory educational psychology course. These students generated 977 pieces of feedback which were coded for seven characteristics: Verification, Justifications, Explications, Sources, Example, Metacognition, and Motivation. The relative prevalence of each type of feedback was statistically evaluated using Item Response Theory, revealing that more complex feedback consisted of verification, explications, sources, and metacognition. Structural equation modelling showed that students' performance on the mid-term test was the only statistically significant predictor of feedback complexity and length. The complexity of feedback also had a small positive impact on the final exam.

student generated feedback, knowledge level, PeerWise

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Wanning Huang  
the University of Auckland

Gavin T. L. Brown  
the University of Auckland

Jason M. Stephens  
the University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 159

Session 5 - 10:30am to 11:00am - LG04

SIG: Science/Putaiāo Education Research

Carrie Swanson, AUT

### **Why care? The importance of developing a direct relationship with the environment.**

This presentation describes a study into the motivations of adults involved in an Education Outside the Classroom experience located in an urban native reforestation site in Auckland. Study participants include the experience providers and teachers who attended the educational programme. This study contributes to data exploring why people are involved in environmental education, and how learning in an 'open air' classroom may support students' environmental learning. It provides an opportunity for students to see the connections between school science and real-world issues and aims to enhance their engagement with science. The motivations, actions and outcomes valued by the participants will be described through the analytical lens of Holland et al.'s (1998) Figured Worlds. There were synergies between the Figured Worlds of the participants who were either involved in formal education and/or had an interest in the environment. This interest was underpinned by positive childhood outdoor experiences. Commonalities amongst participants were their hope for a better ecological future for tamariki and rangatahi and a desire to be an advocate for the planet. They identified that experiences, where students are 'immersed in nature' and undertake 'real research' may positively impact their engagement with the environment and science learning

Science, environmental education, EOTC

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## NZARE 2024 Conference – Full Programme

Pepa 160

Session 5 - 11:00am to 11:30am - LG04

SIG: Science/Putaiiao Education Research

Richard Edwards, Te Rito Maioha

### **Collaborating to identify directions for technology education in New Zealand**

A national group of technology educators involved in ITE in New Zealand agreed recently to undertake a collaborative project to identify issues and trends in technology education in New Zealand as a contribution to a more strategic approach to policy development and research planning. The research replicates a series of Delphi studies carried out recently in the United States, Netherlands, and Finland. The Delphi study sought the expert opinion of a diverse panel of acknowledged technology education experts on current trends and issues facing technology education in New Zealand. A second round asked the panel to put the list into order of priority and then a third round asked panel participants to identify, with reasons, the most urgent priorities to focus on. The study is ongoing. This paper presents initial findings from the study and compares them with findings from the earlier studies. It also discusses briefly the benefits and challenges of a nationally collaborative approach to a specific research focus.

technology education, Delphi study, curriculum

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 5 - 11:30am to 12:00pm - LG04

SIG: Science/Putaiiao Education Research

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## NZARE 2024 Conference – Full Programme

Pepa 168

Session 5 - 10:30am to 11:00am - LG02

SIG: Teaching and Teacher Education

Desire Collins; Laurette Bristol, The University of the West Indies, Cave Hill Campus, Barbados

### **Bridging the Gap: Transforming Professional Learning Practices within the Caribbean**

Teacher quality is an educational imperative. Strong relationships have been established among factors related to teacher quality, training and professional development, student learning and achievement and a sustainable education system. This paper builds on a single case study undertaken in 2018 which investigated, the perceptions of a cohort of 32 trained secondary school teachers in Grenada who completed the Associate Degree in Education (ADE) and, its influence on their classroom practices. The results of the study indicated that generally, the teachers had a positive perception of the programme however, teachers believed that the courses were too theoretical. In this paper we draw on the theory of practice architectures (Kemmis et al., 2014) as an alternative means of analysis for the 2018 data, given that practices are shaped by arrangements (sayings, doings and relatings) which co-exist in social sites. In particular, we seek to understand how past professional learning practices were composed (the ADE) in order to enhance and transform current professional learning practices. The findings have implications for the design of enabling conditions which prefigure stronger bonds in the transitions between teaching knowledge and teaching practice.

Teacher Professional Development, Professional Learning, Practice Architectures

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Desire Collins  
The University of the West Indies, School of  
Education, Cave Hill Barbados

Laurette Bristol  
The University of the West Indies, School of  
Education, Cave Hill Barbados



## NZARE 2024 Conference – Full Programme

Pepa 172

Session 5 - 11:00am to 11:30am - LG02

SIG: Teaching and Teacher Education

William Knight, Field left empty

### "Sink or Swim": Mentoring beginning teachers

This presentation is based on my master's research project which looked at the support that newly graduated teachers receive during their induction and mentoring programme. Semi-structured interviews with newly graduated teachers suggest that many new graduates either do not have a structured mentoring programme, or, that their mentoring programme may not cover all of the teaching standards. Based on the literature and findings of my master's research, I will argue that in order for both teachers to be retained in the sector, and effectively grown as professionals, effective mentoring must be structured, purposeful, and prioritised. A key element of a successful mentoring programme is to ensure that adequate support is provided for teachers' emotional wellbeing. The research findings are framed using Wirihana's (2012) 'Pūrākau' framework. This is a narrative frame work which highlights the following ideas from within the word 'Pūrākau': Pū: the root or beginning of a concept or idea. Rā: refers to illuminating, bringing to light, or investigating an idea. Ka, in this context, refers to time, and I have used it to describe changes that happen over a period of time. Ū, for the purposes of the pūrākau framework, refers to bringing forth from within, and is used to highlight the personal experiences of individuals.

Mentoring registration

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## NZARE 2024 Conference – Full Programme

Pepa 232

Session 5 - 11:30am to 12:00pm - LG02

SIG: Teaching and Teacher Education

Jeana Kriewaldt, Faculty of Education The University of Melbourne Victoria

### The role of consequential and authoritative reassurance in developing beginning teachers' professional identity

The purpose of this project was to examine the experiences of 26 first year teachers in New Zealand and Australia as they navigate the beginning of their teaching career. This study builds on teacher professional identity research (Palmer, 1998; Hong et al., 2018; Dahl, 2020), and noticing as fundamental to professional practice (Rooney & Boud, 2019). The study is framed around the Vocational Threshold Concept Theory highlighting central concepts through which teaching as a field is understood and how teachers see themselves in relation to the discipline. Recognising threshold concepts that are unique to beginning teachers is significant because it allows for initial support to be directed to transformative aspects of their experience in the early stages of their career. The findings show that instances of affirmation, encountered in small day-to-day events or through major events, had transformative potential to contribute to building teacher identity. These affirmations were confirmed through beginning teachers' own noticing and by assurances provided by others, for example, parents, colleagues and leaders. As beginning teachers navigate their way through the liminal phase/liminal personae, these affirmations act as consequential and authoritative reassurance towards becoming a teacher.

Early career teacher, threshold concepts, identity

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Jeana Kriewaldt  
University of Melbourne

University of Waikato

University of Otago College of Education

University of Tasmania

Jeana Kriewaldt\*, Wendy Carss, Bronwen  
Cowie, Helen Trevethan, Michelle Parks, Kim  
Beasy, Jane Tilson, Natasha Ziebell



## NZARE 2024 Conference – Full Programme

Pepa 208

Session 6 - 3:15pm to 3:45pm - S1.02

SIG: Adult & Higher Education

Brenda Saris, Kate Marshall, Nikko Hull, Emma Maddock, Bret Nichols, Deidra Sullivan & Lee Smith, Whitireia Community Polytechnic

### **Creative and performance arts tutors visually reflect on the stressors and positive factors that impact their work- life balance: A photo-elicitation approach**

Neoliberalism, COVID-19, and AI have likely impacted on all of Aotearoa New Zealand's tertiary educators; however, arguably, the impacts of these societal factors may have had a larger impact on creative and performance kaiako. For instance, the creative/performance arts industry virtually collapsed during COVID-19 related national lockdowns, while there is also a debate over whether creative projects that utilise AI can be framed as art. Neoliberalism and the subsequent user pays model have been seen as leading ākonga to expect to simply pass without being invested in their creative projects. Meanwhile those who teach in the vocational sector, including creative and performance kaiako continue to experience stress as a result of the uncertainty around the dis/establishment of Te Pūkenga. However creative/performance arts kaiako navigate these stressors in order to teach the future generation of the nation's artists, photographers, musicians and actors (amongst others). Creative/performance arts kaiako are agentic and implement coping strategies in order to maintain a healthy work and home life balance. In June 2024 a collaborative research project was designed to explore the factors (both positive and negative) that impact on the work/home life balance of six creative and performance kaiako who teach in one national polytechnic. The researchers who are also the participants decided to utilise photo-elicitation interviews as the method of data collection. This presentation will focus on some of the research findings and open the findings to various interpretations from the audience.

creative education, work/home life balance, photo-elicitation

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Brenda Saris  
Whitireia

Lee Smith  
Whitireia & WelTec

Nikko Hull  
Whitireia

Kate Marshall  
Whitireia

Deidra Sullivan  
WelTec

Emma Maddock, Whitireia, Bret Nichols,  
Whitireia



## NZARE 2024 Conference – Full Programme

Pepa 206

Session 6 - 3:45pm to 4:15pm - S1.02

SIG: Adult & Higher Education

Tara Winters & Nick Konings, The University of Auckland

### **Creative arts pedagogy today: Reflections on the past, challenges for the future**

There is little question that e-learning environments play a significant role in higher education today. However, where e-learning belongs in studio-based, creative arts subjects is less clear. The pandemic changed (arguably irreversibly) students, teachers and contexts for learning. It provided a chance to question the role, purpose and values of the studio. Our study reflects on teaching practices across the Faculty of Creative Arts at The University Auckland post-pandemic examining their 'fit for purpose' in a changed education environment. This presentation discusses preliminary results following interviews with staff in fine arts, design, dance, and music. We found creative arts educators developing new strategies that go beyond the use of digital tools to 'fit' existing pedagogies, instead bringing new technologies into productive relation with the culture and kaupapa of studio learning. We also heard that 'studio matters'; the physical, human, messy, situational responsive aspects that matter today will matter in the future. A shared view was that we will not fully return to the way we taught before. Our research into pedagogic change highlights that scholarship in the studio is an active and important area of education research.

studio pedagogy; online studio learning; post-covid learning environments in higher education

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Tara Winters  
The University of Auckland

Nick Konings  
The University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 35

Session 6 - 2:45pm to 3:15pm - LG05

SIG: Early Childhood Education

Dr. Sarah Probine (presenting with Dr. Rachael Burke, Dr. Yo Heta-Lensen and Joanne Alderson), AUT

### Children's inquiry in early childhood education in Aotearoa New Zealand

This presentation will report on ongoing research examining how children's inquiry has been interpreted and enacted by early childhood education (ECE) kaiako in Aotearoa New Zealand. Children's inquiry is an approach where children explore and research their own questions and curiosities over sustained periods of time with the support of their kaiako. This qualitative study employs an interpretivist paradigm underpinned by sociocultural and bioecological theories and critical kaupapa Māori theories. Phase one comprised a nationwide survey and phase two involved the researchers working with six purposively selected ECE settings who currently use this approach. The study found that this approach is valued for how it positions both kaiako and tamariki as active co-researchers, and enables them to connect and collaborate and go beyond the surface of topics, questions and curiosities. Its capacity to engage tamariki in deep learning means they engage in inquiry over time, becoming a community of learners. Participating early childhood kaiako in this study have drawn upon a range of theories and pedagogical ideas to localise their inquiry approaches and pedagogy according to the values, priorities and aspirations of their unique settings. A key value common to all six settings is a deep commitment to bi-cultural practice, demonstrated through their intentional choice to use inquiry-based project learning to support children's connection to their place

children's inquiry, early childhood

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Sarah Probine  
Auckland University of Technology

Rachael Burke  
Toi Ohomai Institute of Technology

Yo Heta- Lensen  
Auckland University of Technology

Joanne Alderson  
Open Polytechnic

Jo Perry - Manukau Institute of Technology  
Helen Wrightson - Author - Unitec  
Fi McAlevey - Author - Open Polytechnic



## NZARE 2024 Conference – Full Programme

Pepa 32

Session 6 - 3:15pm to 3:45pm - LG05

SIG: Early Childhood Education

Dr Joanne Hayes, Anglican Care Waiapu

### **“I was scared... in case anybody would not be my friend”: The case for including child perspectives in research**

This study investigated the continuities and discontinuities children experience when starting school in New Zealand. The presentation focuses on the contribution data from children made to the study, highlighting the importance of including children's perspectives in research. Sociocultural theory has drawn attention to children's agency and role in the construction of knowledge increasing awareness of the importance of including children's perspectives in research (Merewether & Fleet, 2014). Research has found that the views of adults and children can differ and recognised that children can contribute valuable information to research (Greig et al., 2013; Petriwskyj, 2014). Children's contributions to research can support adults to understand how policies and practices affect children (Bourke et al., 2017). The United Nations (1989) Convention on the Rights of the Child safeguards children's rights to have input into decisions concerning them. Therefore research which impacts on children should seek to understand what matters for them. This study involved a sequential, explanatory mixed method research design and adopted a social constructionist framework designed to find out about the perspectives of those involved in the transition. The design drew upon the theories of Vygotsky (1978a, 1978b), Bronfenbrenner and Morris (2006) and Rogoff (2003). Child perspectives were gathered using 'child led tours' and photographs taken by children. Interviews with primary teachers and parent questionnaires were used to elicit the views of adults. Thematic analysis of data exposed differences between which continuities and discontinuities child and adult participants said mattered. This finding highlights the value of including child perspectives in research and the importance of educators and policy makers knowing what is important to children.

Transition, Child perspectives, continuities

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Dr Joanne Hayes  
Anglican Care Waiapu



## NZARE 2024 Conference – Full Programme

Pepa 41

Session 6 - 3:45pm to 4:15pm - LG05

SIG: Early Childhood Education

Elaine Khoo & Ruth Edwards, Institute of Education, Massey University & Lynmore Primary School, Rotorua

### Children's images of their transitions to school experiences

Children's transition from early childhood education to primary school represents a major developmental milestone. While current research offers useful insights into facilitating this process, children's voices about their transition tend to be limited. Adopting a rights-based sociocultural approach, our study positions children as capable and confident informants of their own experiences and aimed to privilege children's voices to offer a more holistic understanding of their transition experiences. Working within a qualitative interpretive paradigm, we report on the case study findings on children's perspectives on the people, places and things that supported their developing sense of belonging during their transition. The study drew from a range of multimodal data involving children's artifacts (drawings, e-books), observations, and audio recordings. Emerging findings highlight the diverse relationships, routines, and rules children identified as crucial in supporting their developing sense of belonging during transition. Over time, children's focus shifted from tangible, concrete experiences to valuing more intangible aspects within their sociocultural context. These insights have implications for adults facilitating young children's transitions to school. Our findings underscore the importance of children's voices as a rich resource in transition planning and practice.

transitions to school, belonging, visual methods

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Elaine Khoo  
Massey University

Ruth Edwards  
Lynmore Primary School



## NZARE 2024 Conference – Full Programme

Pepa 77

Session 6 - 2:45pm to 3:15pm - S1.04

SIG: Education Policy

Andrew Doyle and Marta Estellés, The University of Waikato

### The policies and politics of digital safety at schools in Aotearoa New Zealand

In Aotearoa New Zealand, online safety has increasingly become a serious day-to-day issue at schools, despite receiving relatively little education policy attention. For both teachers and students, online safety problems, from technological addiction and sleep deprivation through to cyber bullying and defamation, are presenting unprecedented challenges that often escape schools' management control. The pressing nature of these issues, the lack of public resources and an administration model of schools 'running like businesses' have presented a breeding ground for external organisations –both for profit and non-profit– to become widespread in this field. In this presentation, we critically examine the policies of online safety education in Aotearoa New Zealand and how they are enacted in New Zealand schools, with a particular focus on the conditions that allow private actors to flourish. The ethnographic part of study draws upon 11 focus groups and 25 semi structured interviews with educators and senior students from four schools across the country and with four external service providers (i.e., NetSafe, Grok Academy, Linewize and Citizen21). The findings of the study reveal education policies are promoting personally responsible models of digital citizenship that leave the role of governments and IT corporations unquestioned, while holding schools responsible for online safety matters. Schools often resort to external service providers to navigate the pressures of online safety, which often reinforce individualising narratives of digital citizenship.

Online safety education, digital citizenship, education policy

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Marta Estellés  
The University of Waikato

Andrew Doyle  
The University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 60

Session 6 - 3:15pm to 3:45pm - S1.04

SIG: Education Policy

Ian Hardy, Louise Phillips, Obaid Hamid, Vicente Reyes, The University of Queensland

### **‘Tracking’ learning: The affordances and constraints of dashboard data**

This article provides preliminary insights into how a particular technology platform was being introduced into one school site in Queensland, Australia. The research draws upon critical data studies and develops the metaphor of ‘tracking’ in relation to such studies to help elaborate the myriad ways in which data were understood in the context of this platform. Research was undertaken. Data comprised individual interviews with the school principal who was key to adoption of the new initiative, as well as key school administrators, Head of Curriculum and 6 teachers (particularly most of whom were year level co-ordinators) who were instrumental in disseminating information about the initiative, and the ICT co-ordinator/Digital Technology Specialist in the school who was actively involved. Analysis of the data from a critical studies approach reveal: how this new platform was construed as helping ‘keep track’ of data in a more timely fashion than was the case with the existing data management system; how there was a greater level of detail/granularity evident in relation to how students’ learning was ‘tracked’, and; how more personalized conversations were able to be generated in relation to students’ learning, providing greater ‘traction on’ students’ learning. In a context of increased policy support to ‘track’ data as evidence of student learning, at the same time that the article reveals how educators can take a more active stance in relation to their students’ learning, it also reveals how such actions were framed within the particular affordances and constraints that this particular data platform enabled, and which are enabled within such dashboards more generally. In order to ‘lead’ and ‘give sight’ to those who follow, policy support for such platforms needs to take such limitations into account, even as such dashboards may present benefits to teachers and administrators in managing some forms of evidence of student learning.

data, datafication, data platforms

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## NZARE 2024 Conference – Full Programme

Pepa 74

Session 6 - 3:45pm to 4:15pm - S1.04

SIG: Education Policy

Jo Smith, University of Auckland

### Policy Help or Hindrance? Educators' perception of SchoolDocs

In New Zealand, SchoolDocs provides an online policy and procedure service to over 2,000 schools, but little is known about how teachers view the digitalisation of policy documents. This study asks, to what extent has SchoolDocs changed school policy formulation, implementation and review for New Zealand schools? What are New Zealand teachers' perceptions of SchoolDocs? As such, 17 teachers, leaders, and administrators from New Zealand schools were recruited to participate in interviews about their experiences with SchoolDocs. Interview recordings were transcribed and analysed through a thematic approach. Findings reveal that those with higher responsibilities (i.e., senior leadership team, principal) have a much deeper understanding of SchoolDocs, and generally use it more frequently. Middle leaders tend to default to those people that they report to if there is a problem. Although SchoolDocs is accessible by school staff and to the wider parent community, most participants reported that the platform's usability is limited. Although SchoolDocs ensures a school's policies are current, participants' felt the search functions within the SchoolDocs platform are not intuitive. This study's findings can inform practices in New Zealand as well as offer lessons learned for other countries considering adopting similar approaches to school-based policy work.

school policy, qualitative methods, SchoolDocs

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Jo Smith  
University of Auckland

Rochelle Stansfield  
University of Auckland

Liuning Yang  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 95

Session 6 - 2:45pm to 3:15pm - S1.01

SIG: Educational Leadership

Anette Forssten Seiser. Authors: Forssten Seiser, Langelots & Hirsh, Ass. professor at Karlstad University, SWEDEN

### Principals' emotional labour through a practice architectures lens

International research shows how leadership is shaped by context specific circumstances entailing several challenges. Recent Swedish studies, undertaken in a long-term network collaboration between school principals in low socioeconomic status municipalities and researchers, indicate that emotions are a prominent, albeit often unspoken, part of principals' work. The aim here is to study and clarify principals' emotional labour through a practice architectures lens. Principals' leading is explored as a practice that consists of sayings, doings and relating conditioning and conditioned by site-specific cultural-discursive, material-economic, and social-political arrangements.

Preliminary results show that site-specific conditions involving emotional labour are connected to context-related challenges. The most prominent challenges are connected to a) high population mobility, b) comprehensive linguistic and cultural diversity, c) comprehensive knowledge diversity, and d) an intense problem complexity related to the surrounding society. The analysis makes visible how the intertwined site-specific arrangements condition the principals' leading practices, and how they navigate and learn 'how to go on' based in the emotional labour. We argue that understanding emotional labour as an essential and demanding aspect of principals' work is necessary for the building of support structures which in the long run can counter the impact of principals' work intensification.

Principal, Practice architecture, Emotional labour

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Anette Forssten Seiser  
Karlstad University

Lill Langelotz  
University of Gothenburg

Åsa Hirsh  
University of Gothenburg



## NZARE 2024 Conference – Full Programme

Pepa 98

Session 6 - 3:15pm to 3:45pm - S1.01

SIG: Educational Leadership

Elizabeth Eley, Margaret Egan, University of Waikato

### Moral Courage in Challenging Political Times

Burns (1978) outlined the many characteristics required by educational leaders and distinguished between transactional leaders (those who were effective and efficient within the political status quo) and transforming leaders who bring social change. Shields builds from these concepts and calls for leadership that is transformative, going beyond a localised setting, and “linked to the ends of equity, inclusion and social justice” (2011, p.5). In this session, the leadership beliefs and practices that exemplify moral courage in Aotearoa New Zealand settings will be examined through frameworks developed by the presenters. Both presenters will draw from their current engagement with school leaders, comparing responses as they completed their PhDs (a time when transformative leadership for Māori was considered more appropriate to what the current political climate seems to be suggesting). The dilemma facing many leaders who have focussed on equity and social change but now find themselves caught by political priorities that could undermine the change they wish to see will be examined. In this interactive session, participants will have opportunity to reflect on the past and imagine a way into a future where the mauri of all may flourish.

Leadership, Equity, Moral Courage

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Elizabeth Eley  
University of Waikato

Margaret Egan  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 99

Session 6 - 3:45pm to 4:15pm - S1.01

SIG: Educational Leadership

Carol Mutch, The University of Auckland

### How ready are we for the next crisis?

This presentation draws on over a decade of research on the role of schools in disaster response and recovery but brings the learning in this area up to date with more recent events, such as the COVID pandemic and Cyclone Gabrielle. The particular focus is on how well prepared principals and their leadership teams are for the next crisis -- what lessons have been learned and what areas are we still unprepared for? Recent disasters and crises have shown that schools are intimately connected across all phases of the disaster cycle from preparedness to response, recovery and reconstruction. School related disaster research has shown that principals and their leadership teams take on responsibilities over and above their educational duties and yet time and time again they say that they were not well supported or recognised for the load they had to carry. The presentation will introduce a framework devised by the author from her in-depth interviews with principals in five different disaster contexts between 2010 and 2018, before updating those findings with new insights from more recent disasters. The framework presents three sets of attributes – dispositional, relational and situational – which have relevance for principal preparation and professional development.

educational leaders, crisis leadership, principal preparation

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Carol Mutch  
University of Auckland

Shannon Walsh  
NZEI Te Riu Roa



## NZARE 2024 Conference – Full Programme

Pepa 111

Session 6 - 2:45pm to 3:15pm - SG02

SIG: Inclusive Education and Community

B.G.H. Anuruddhika, University of Auckland

### **Positionality and Reflexivity: My fieldwork experiences based in an inclusive Sri Lankan classroom**

In this reflexive account of my positionality in an ethnographic study I consider my multiple identities at play. I draw on Braun and Clarke's (2022) description of personal, functional and disciplinary reflexivity to explore researcher and participant relationships. In this project, I aimed to work collaboratively with the teacher to explore an inclusive pedagogical design for all the students. In pursuit of reciprocity, I also took up an informal position as "a teacher assistant."

As a social actor born and raised in an almost similar social setting, I was cognizant of explicit and implicit power relations and their impacts on the research process. My multiple identities: a middle-class woman pursuing overseas higher education and a woman in a socially privileged position in a recognized institution with research experience (teacher educator and researcher in a Sri Lankan university) impacted differently for my positionality. My insider and outsider positions created both opportunities and tensions. I took up particular strategies such as developing personal connections based on our commonalities, being flexible with the schedule of participants, and offering support. Additional strategies were used to address intersubjective dimensions (such as minimizing power imbalances and maintaining a researcher's stance). Such strategies enabled me to co-construct knowledge for a contextually grounded pedagogical framework 'with' instead of 'on' or 'about' the participants by immersing in the field.

Positionality, Reflexivity, Inclusive Education

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Bogoda Gedara Hemanthi Anuruddhika  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 109

Session 6 - 3:15pm to 3:45pm - SG02

SIG: Inclusive Education and Community

Sally Peters and Hazel Woodhouse, University of Waikato

### Enhancing the learning of refugee and migrant children as they transition to education settings in Aotearoa New Zealand

Transitions to education in a new country can be challenging for new settler (refugee and migrant) children, their families and their teachers. This paper presents preliminary findings in a study that aims to enhance the transition of new settler children into ECE and schools in Aotearoa. With the increasing number of ECE and schools supporting these children, this research is timely. In 2023, there was a 135% increase in migrant arrivals from the previous year (Stats NZ, 2023). In 2020 the annual quota for refugees increased to 1500 (Parliamentary Service, 2020). Working in partnership with Settlement Centre staff and teachers the research takes an ecological approach (Bronfenbrenner & Morris, 1997), to consider ways in which the transition to ECE/school process for recently arrived new settler families can be eased. This paper reports on interviews with staff and volunteers connected to or working for the Settlement Centre and the New Kiwis Settlement Service as well as key staff from ECE settings and schools. Qualitative findings including the participants' experiences, current practices, challenges, and needs for further support/information will be shared. The implications of the findings for transition practices and plans for the next phase of the project will be discussed.

Transition migrant refugee

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Sally Peters  
University of Waikato

Hazel Woodhouse  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 126

Session 6 - 2:45pm to 3:15pm - SG01

SIG: Māori Caucus

Nicola Bright, NZCER

### **Poipoia nga tamariki: how whanau and teachers support tamariki Māori to be successful in learning and education**

Poipoia ngā tamariki is the third COMPASS report from the collaboration between NZCER and Professor Melinda Webber on the analysis of data collected through her nationally representative research project *Kia tū rangatira ai: Living, thriving and succeeding in education*. This kaupapa Māori study provides a strength-based thematic analysis of responses from 1,665 parents and whānau of tamariki Māori about how they, and teachers, can best support tamariki to be successful in learning and education. Whānau help tamariki develop social, emotional, and cultural foundations that set them up for success at school and in all areas of life (Webber et al., 2018, Boyd et al., 2021; Bright et al., 2023). This study identifies the four most important things whānau do, and the five best things whānau think teachers do to support tamariki to succeed. This study contributes to understanding and celebrating the important role of whānau, Māori identity and role models in helping tamariki Māori to succeed in education and learning. The ongoing concerns whānau have about racism and inequitable access to Māori medium education are also highlighted.

Whanau, culture, identity

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Nicola Bright  
NZCER



## NZARE 2024 Conference – Full Programme

Pepa 128

Session 6 - 3:15pm to 3:45pm - SG01

SIG: Māori Caucus

Esther Smail, Rangahau Mātauranga o Aotearoa, New Zealand Council for Educational Research

### Poipoia kia puawai: How schools support ākonga Māori and Pacific students to attain University Entrance

Inequities in the attainment of University Entrance (UE) are a persistent issue in Aotearoa New Zealand. These inequities disproportionately affect ākonga Māori and Pacific students, limiting their opportunities immediately after finishing school, and potentially having long-term impacts on further study pathways and career choices. Guided by mātauranga Māori and Pacific values, our team of Māori, Pacific, and Pākehā researchers worked with six schools at which the UE attainment of ākonga Māori and Pacific students was at least 10% higher than their EQI band average. Our goal was to identify the ways in which these schools supported ākonga Māori and Pacific students to attain UE. Almost 200 participants took part in the study, either by participating in an interview (e.g., school leaders and whānau members), a student focus-group session, or completing a teacher survey. We identified five foundational conditions needed for schools to support high UE attainment for ākonga Māori and Pacific students. We also identified five types of initiatives that schools were employing to support high UE attainment for their learners. Through sharing these findings, we will show what it takes to improve equity for ākonga Māori and Pacific students, and that it can be done

improving equity in education, culturally sustaining practice, high expectations

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Melissa Denzler  
Ngāti Maniapoto, Te Rarawa: New Zealand  
Council for Educational Research

Georgia Palmer  
Ngāi Te Rangi, Ngāti Pūkiao, Ngāti Awa, Te  
Arawa: New Zealand Council for Educational  
Research

Esther Smail  
Tangata Tiriti: New Zealand Council for  
Educational Research

Sally Boyd  
Tangata Tiriti: New Zealand Council for  
Educational Research

Renee Tuifagalele  
New Zealand Council for Educational  
Research

Lorraine Spiller





## NZARE 2024 Conference – Full Programme

Pepa 131

Session 6 - 3:45pm to 4:15pm - SG01

SIG: Māori Caucus

John Huria, Rangahau Matauranga o Aotearoa (NZCER)

### He korero kotuia, he kanohi kitea: Te Tiriti o Waitangi, cultural regrowth, and peer review through wananga

Peer review ensures that published journal articles meet established disciplinary standards. Since 2022, Set: Research Information for Teachers has offered Māori scholars, and tangata whenua–tangata Tiriti research teams, either “traditional Western” deidentified (“blind”) peer review, or a “traditional Indigenous” review mode called he kōrero kōtuia. This paper presents and evaluates he kōrero kōtuia, a rigorous, mana-sustaining review process conducted face to face. It uses wānanga where reviewer(s) and writer(s) collectively and intentionally inquire deeply, and it is enabled through applying Tiriti o Waitangi principles in a scholarly setting. He kōrero kōtuia foregrounds the efficacy of an Indigenous knowledge-holding practice. Deidentified peer review has been criticised for being vulnerable to abuse stemming from anonymity. By contrast, he kōrero kōtuia offers participants the “joy of being able to talk with your peers”, and “build hononga”. Participant interviews indicate that he kōrero kōtuia gains efficacy by placing the aspirations of the writer(s) at the centre. Occurring within the peaceful and constructive wānanga context of te whare a Rongo, which is created using tikanga Māori, reviewer(s) and writer(s) realise the article’s potential through a “rapidly iterative” approach which benefits Set’s readers and, ultimately, the ākongā whom they teach.

Te Tiriti o Waitangi; peer review; wananga

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 6 - 2:45pm to 3:15pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

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## NZARE 2024 Conference – Full Programme

Pepa 19

Session 6 - 3:15pm to 3:45pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Jane McChesney, Fiona Ell, Pania Te Maro and Raewyn Eden., Te Whare Wānanga o Waitaha | University of Canterbury

### **Whose curriculum and which evidence? What really counts in the changes to the refreshed Mathematics and Statistics curriculum?**

The refreshed Mathematics and statistics learning area (English version) was released in September 2023 and followed the May release of Phase 1 of the Common Practice Model. A year-by year sequence and Phase 2 of CPM practices for teachers were both ready for publication but as a result of the coalition government, the Education Minister convened a new writing group. The revised curriculum for the Mathematics and statistics learning area and teaching practices are now in a single document, released in Term 4 2024. This presentation examines and critiques the changes made and implications for teachers. Firstly we examine the school maths curriculum using perspectives of connections with past curricula and of curriculum coherence. Next we discuss the revised practices for teachers using perspectives of culturally sustaining practice, relational practices for maths learning, and equity for all learners. And in the spirit of Mā muri mā mua, we conclude by discussing wider implications due to changes in assessment practice, in provision of teacher resources and PLD, and the narrowed view of learning and teaching

Mathematics Education, Curriculum

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Fiona Ell  
Waipapa Taumata | University of Auckland

Raewyn Eden  
Te Kunenga ki Pūrehuroa | Massey University

Pania Te Maro  
Te Kunenga ki Pūrehuroa | Massey University

Jane McChesney  
Te Whare Wānanga o Waitaha | University of  
Canterbury



## NZARE 2024 Conference – Full Programme

Pepa 1

Session 6 - 3:45pm to 4:15pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Huixin Gao, University of Auckland

### **Enhancing Student Learning Performance in Mathematics and Statistics through Self-Explanation and Team-Based Explanation: A Systematic Literature Review**

This literature review, grounded in Generative Learning Theory as developed by Merlin C. Wittrock, explores the impact of self-explanation (SE) and team-based explanation (TBE) on student learning performance in mathematics and statistics within higher education. The review analyzed 54 studies published between 2014 and 2024 from diverse geographical contexts including North America, Europe, Asia, and Australia, encompassing various higher education institutions and course levels. The analysis focused on the characteristics and effectiveness of SE and TBE in enhancing students' cognitive development, engagement and interaction, and technological integration. The findings reveal that while both SE and TBE positively influence students' learning outcomes, TBE demonstrates a more comprehensive approach by integrating SE into collaborative learning environments. SE primarily enhances cognitive skills through independent problem-solving, while TBE fosters a broader range of benefits, including improved conceptual understanding, problem-solving abilities, feedback utilization, motivation, and collaborative learning. However, challenges and limitations exist in both approaches, such as the influence of student demographics, time constraints, and varying levels of engagement. The review suggests that TBE is a superior approach for optimizing student learning performance and provides recommendations for its effective implementation in teacher pedagogy. These recommendations, based on research by scholars such as Hmelo-Silver, Sweller, Mayer, and Zimmerman, include incorporating structured activities, adjusting content complexity, integrating multimedia and simulations, facilitating collaborative explanation, and promoting metacognitive strategies. This literature review contributes to the understanding of how explanation-based pedagogies can be leveraged to enhance student learning outcomes in mathematics and statistics education, bridging the gap between student-centered learning strategies and effective teaching practices.

Explanation; Mathematics education; Systematic literature review

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## NZARE 2024 Conference – Full Programme

Pepa 140

Session 6 - 2:45pm to 3:15pm - SG03

SIG: Pasifika Caucus

Dr Tanya Samu, Faculty of Education & Social Work ( FOEDSW), University of Auckland

### **“My Story of Ten”: An Autoethnographic Analysis of Supervision , and L.I.F.E. , in Pacific Education.**

This study analyses my recent experiences as a supervisor of mainly postgrad Pacific women in the process of their Masters research. These were bounded by time (end of 2019 - early 2022); place (in Auckland); and aggravated by an extenuating, hopefully never-to-be-repeated set of circumstances – specialist staff shortages, and COVID. A simple, passing conversation caused me to step away and take stock, to inquire into my practice. In this presentation, I briefly describe the study, my theoretical framework and my learnings. I argue these have contemporary significance over and above what I might gain for the improvement of my practice as a supervisor in Pacific education. I introduce and provide evidence for L.I.F.E. – the overall argument that for many Pasifika postgrad women students in education, social work and counselling, there are Lived realities, involved with balancing Intellectual development and scholarship with Family roles and responsibilities. And the heavy weight of external Expectations and obligations. This presentation asks: How do we as a research community ensure that our supervision work in Pacific education, particularly supervision of Pacific women educators contributes to more sustainable educational practices and relations that will enhance the capacity and capabilities of Pacific communities to achieve their aspirations?

•postgraduate supervision •Pacific research •Pacific women learners

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## NZARE 2024 Conference – Full Programme

Pepa 225

Session 6 - 3:15pm to 3:45pm - SG03

SIG: Pasifika Caucus

Carol Mulcahy, University of Auckland Waipapa Taumata Rau

### **Te kakaraki iaon te inaa - Storytelling on the mat: Aspirations and experiences of I-Kiribati migrant youth in New Zealand.**

Rising sea levels on their home islands pose a genuine threat to the future way of life, culture and language of I-Kiribati. As the fastest-growing Pacific migrant group in New Zealand, the Kiribati community has high aspirations for their youth's educational achievement and to maintain their cultural capital. How do I-Kiribati youth share their own aspirations within their traditional hierarchical rabakau (knowledge systems)? An ongoing doctoral study, this community-based participatory action research project explores the experiences and aspirations of I-Kiribati youth in New Zealand. Employing maroro as a Kiribati dialogic approach, discussion groups across New Zealand created opportunities for I-Kiribati youth and adults to discuss and reflect on their aspirations and experiences. It addresses the lacuna of youth voices at each level of involvement in collaborative projects while equally participating with the respected parents and unimwaane (elders). Employing maroro to collect kakaraki is a Kiribati approach to action research that aims to support youth aspirations for achievement in Pacific education in New Zealand.

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## NZARE 2024 Conference – Full Programme

Pepa 136

Session 6 - 3:45pm to 4:15pm - SG03

SIG: Pasifika Caucus

Frances Edwards and Mata Aumata, University of Waikato

### **Culturally responsive assessment: Voices of tertiary students from Cook Islands**

In this paper the notion of culturally responsive assessment is explored through the experiences of students from the Cook Islands. Cook Islanders often access tertiary education via larger neighbouring countries, and they have specific cultural knowledge and ways of life that are sometimes different to the majority cultures in host tertiary providers. The study involved 30 Cook Islanders who had studied at tertiary level. Qualitative data was collected through semi-structured individual and group interviews. Participants provided clear descriptions of their own experiences and identified a number of aspects of tertiary assessment practice that they found helpful. They also described assessment challenges, including when stereotypes were applied to them. They were able to articulate a range of suggestions about how their learning could be best assessed. The findings of this study challenge tertiary institutions to reconsider assessment practices with as they move to enact more culturally responsive assessment practices

Assessment, Cook Islands

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Frances Edwards  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 149

Session 6 - 2:45pm to 3:15pm - LG03

SIG: Quantitative Studies in Education

Ketong Liu, The University of Auckland

### Course Completion Rates in New Zealand Higher Education: A Decade of Insights into Demographic Disparities

This study aims to examine course completion rates (CCR) across various higher education providers in New Zealand from 2013 to 2022. Understanding CCRs is crucial for assessing the performance and effectiveness of different educational institutions. This analysis provides insights into the disparities among diverse student groups, contributing to the broader discussion on equity in higher education. The study employs a comparative analysis framework, focusing on demographic variables such as ethnicity, age, and gender, to identify patterns and significant differences in CCRs. The data reveal that universities have the highest mean CCR. Significant differences in CCR were found among sub-sectors, ethnicities, ages, and gender, indicating that these factors play a substantial role in educational outcomes. Specifically, Māori students consistently have lower CCRs compared to other ethnic groups. Additionally, significant differences were noted across different age groups and between genders. The effects of ethnicity, age, gender, and most of their interactions were statistically significant. These findings underscore the need for targeted strategies to improve completion rates across diverse student populations.

course completion rates (CCR), Higher Education Disparities, Demographic Analysis

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Ketong Liu  
The University of Auckland





## NZARE 2024 Conference – Full Programme

Pepa 150

Session 6 - 3:15pm to 3:45pm - LG03

SIG: Quantitative Studies in Education

Yan Zhang, University of Auckland

### **A Structural Topic Modelling Approach to Understand the Assessment Policies at China's Tertiary Vocational Education and Training Institutes**

Topic modelling is commonly used to obtain an exploratory understanding of a large corpus of texts. This presentation demonstrates the principles of machine learning text content analysis within the specific context of assessment policy documents from 166 Talent Development Plans for four technical disciplines in China's tertiary Vocational Education and Training institutes. Structural Topic Model (STM) incorporates covariates (i.e., metadata about documents) in the model estimation. After pre-processing the textual data to create a 'bag of words', models across five to twenty topics were obtained and a 15-topic model was selected based on evaluation metrics of held-out likelihood, residuals, lower bound, semantic coherence and exclusivity. The semantic validity of the selected model was excellent, which indicated that each topic held a substantially distinct meaning from other topics. The model was then interpreted by the topic words, highly associated documents, and topic proportions. The topic correlations were inspected to understand the relationship between topics. Furthermore, the difference in the document proportions was examined and the effect size for the difference was estimated. The word use for the topics with different document proportions between disciplines was inspected.

STM, vocational education, assessment

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Yan Zhang  
University of Auckland

Jason M. Stephens  
University of Auckland

Gavin T. L. Brown  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 6 - 3:45pm to 4:15pm - LG03

SIG: Quantitative Studies in Education

**Annual General Meeting**

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## NZARE 2024 Conference – Full Programme

Pepa 163

Session 6 - 2:45pm to 3:15pm - LG04

SIG: Science/Putaiiao Education Research

Georgina Tuari Stewart, Te Ara Poutama, Auckland University of Technology (AUT)

### Māori knowledge for animal ethics: Classroom resources

This presentation explains how we created online resources on the Science Learning Hub (SLH) for teaching and learning about Māori knowledge in relation to the senior Biology topic of animal ethics. This topic is also taught in relevant tertiary courses e.g. lab tech or meat inspection. Our strands of data collection included: (1) re-reading archives on Māori knowledge of animals through a Kaupapa Māori lens; (2) compiling information from the literature about the Three Rs and animal ethics; (3) conducting interviews with six Māori experts working with animals in various domains of relevance to animal ethics committees, including biomedical and veterinary research, behavioural ecology, agribusiness, wildlife and tangata whenua perspectives. These became profiles and videos. The Three Rs are strategies for more humane methods of using animals: Replacement (avoiding animal use); Reduction (reducing number of animals used) and Refinement (decreasing severity of procedures). We found that the central concepts of Māori philosophy give rise to two more 'Rs' in the form of the Māori concepts of Respect and Relate. These Māori concepts logically justify the Three Rs of animal ethics, and expand the bounds of Western science by enacting the Three Rs as a "good citizen of the natural world". 1. We researched and wrote two research journal articles, published in Anthrozoös T&F journal, the first on Animals of Aotearoa; the second on Māori concepts for animal ethics: Implications for the Three Rs. 2. We re-versioned these articles to produce two source texts for classroom resources: (1) suitable for Year 7 up; (2) suitable for senior Biology classes. These were developed into the online SLH resources. 3. We converted these texts into translation-ready versions, mindful of what would work in Māori-medium settings. We commissioned translation and design as Māori-medium e- resources (pdfs) downloadable from SLH.

Animal ethics, Māori knowledge

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## NZARE 2024 Conference – Full Programme

Pepa 164

Session 6 - 3:15pm to 3:45pm - LG04

SIG: Science/Putaiiao Education Research

Brian Tweed, Massey University

### **STEM and Migrant Students who are becoming 'New Kiwis'**

This presentation reports on a small research project which inquired into the role that STEM education plays in the process of migrant students as they endeavour to find a place in New Zealand society. An innovative methodology was used which combined focus groups with learning activities designed to cohere with students existing learning programmes and generate research data. 16 students were involved in Years 11, 12, and 13, with data including examples of student writing, artwork and focus group audio. Data analysis indicates that STEM is surprisingly unimportant for these migrant students who are more concerned with a pragmatic approach which seeks to find the most lucrative career choice. The study also raised important questions about how schools might acknowledge and learn from the rich, linguistic, cultural and life experiences of migrant students.

Field left empty

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## NZARE 2024 Conference – Full Programme

Pepa 229

Session 6 - 3:45pm to 4:15pm - LG04

SIG: Science/Putaiiao Education Research

Carrie Vander Zwaag, Lake Taupō Christian School and Kotui āko Online learning

### Post-Pandemic Reflections on the 3-D Model of Differentiated Science Teaching and Learning

Educators and educational researchers around the world report a drop in ākonga (student), kaiako (teacher), and whānau (family) well-being during and since the COVID-19 pandemic. Attendance and engagement for in-person classroom teaching and learning across the curriculum has similarly decreased. Particularly alarming is the emerging evidence that inequities in education have exacerbated, particularly between people of dominant and marginalised cultures (Cameron et al., 2024, Maringe & Chiramba, 2024 and Tice et al., 2021). In this presentation, I will reflect on some of my PhD findings (Vander Zwaag, 2018) using a post-COVID lens. Specifically, I will consider the decreases in student interest and engagement in learning post-COVID reported in Aotearoa and internationally (Cameron et al., 2024, Maringe & Chiramba, 2024 and Tice et al., 2021) and powerful motivation that could be enabled through a 3-dimensional model of differentiation within junior primary science education programmes. As shown in my PhD thesis, ākonga engagement and interest in science can be improved when kaiako differentiate responsively to student and whānau input (Vander Zwaag). Building on these findings and reflecting on my current experiences as a specialist science teacher for Years 6-9, I will reconsider some of the benefits and challenges of 3-D differentiation as we reimagine science education moving forward. As such, the presentation will be autobiographical in nature using the insights from a specific intervention: the co-construction of a school-wide sustainability day with Year 0-13 ākonga, kaiako, whānau and community environmental experts.

Science Post-pandemic Engagement

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## NZARE 2024 Conference – Full Programme

Pepa 177

Session 6 - 2:45pm to 3:15pm - LG02

SIG: Teaching and Teacher Education

Amelia Threadgould, University of Canterbury

### **Remote not removed: Creating authentic and engaging distance content for a practical- focussed pre-service teacher course**

Since the forced transition to online teaching during the COVID-19 pandemic, distance learning has become more prominent in tertiary education, with hybrid and blended teaching becoming increasingly popular models. This shift poses a challenge for courses that do not easily translate to an online environment, particularly those with significant practical components, which have been found to leave distance learners feeling disconnected and disengaged. While research on distance learning is substantial, few studies have considered the effectiveness of teaching practical workshops, such as gardening skills, as part of pre-service teacher education through a distance programme. The University of Canterbury's Sustainability and Social Justice course, offered to both distance and on-campus pre-service teachers, incorporates such practical elements as food-growing, gardening skills, and stream activities. Applying a community of inquiry framework to the creation of distance-specific content, this mixed method study investigates how a blend of bespoke gardening videos, interactive online activities, peer reading discussions, collaborative Zoom workshops, and recorded lectures were developed and implemented. Through a mix of pre- and post-course surveys, reflective journals, and semi-structured interviews, the research examines whether this tailored amalgam can facilitate a relevant and contextualised learning experience that provides pre-service teachers with the opportunity to develop skills and knowledge that replicate those learned in hands-on community garden workshops.

Distance learning, garden workshops, community of inquiry

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## NZARE 2024 Conference – Full Programme

Pepa 180

Session 6 - 3:15pm to 3:45pm - LG02

SIG: Teaching and Teacher Education

Olivia Wheeler, University of Otago College of Education

### **Parents' perspectives: Building genuine learning partnerships with teachers.**

Parents are a child's first teacher. They lay the foundation in a child's life from the moment they enter the world and have an enduring influence long after their child has left primary school. Bronfenbrenner's ecological model of human development highlights the significant influences on a child's life including their parents, whānau and community, as well as institutions such as school. The partnership between a child's primary school teacher and their parent(s) is therefore significant in ensuring the knowledge of the parent is drawn upon in order to promote the most favourable outcomes for a child. The quality of this partnership contributes towards a child's sense of school belonging, social wellbeing and educational achievement and success. This presentation reports on a qualitative, phenomenological research project, underpinned by Bronfenbrenner's ecological model. Parents' perspectives and experiences of building genuine learning partnerships with teachers during years 0-2 at primary school were investigated through semi-structured interviews. Parents were asked to describe what they considered a genuine learning partnership with teachers to be and identified the barriers and enablers of these partnerships. This research is able to inform preservice teacher educators and teachers about their current and future teaching practice.

partnerships, parent-teacher, primary school

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Olivia Wheeler  
University of Otago

Naomi Ingram  
University of Otago



## NZARE 2024 Conference – Full Programme

Pepa 197

Session 6 - 3:45pm to 4:15pm - LG02

SIG: Teaching and Teacher Education

Philippa Nicoll Antipas, University of Otago, Wellington

### **Time flies when you're having fun: Intra-active play affords time and space for knowledge-ing**

Seeking to trouble the traditionally-designed conference for the purposes of teacher professional learning and development (PLD), in my doctoral research project I co-created Plan D as a collective, board game-like activity whereby teachers design themselves a bespoke PLD experience. Plan D was then trialled with two primary schools in the lower North Island. The teachers' experiences of the game and their suggested revisions were sought. In co-creating Plan D, I unintentionally offered teachers, in their words, "an invitation to play". Thus, Pauliina Rautio and Joseph Winston's (2015) notion of intra-active play became central to this work. Drawing on feminist new materialist, posthuman, postqualitative (FNMPHQ) approaches, I conceptualise intra-active play as affording time and space for the co-creation of knowledge, or rather, as Carol Taylor (2021) expresses it: knowledge-ing. Time, in an affective sense, becomes suspended as teachers enter into a playful, generative, subversive space from which knowledge-ing can arise. Therefore, in this presentation I suggest that playing Plan D seems to invite teachers to set aside their previously-held assumptions about PLD, and instead opens up a space for new, creative possibilities.

Professional learning and development; intra-active play; knowledge-ing

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## NZARE 2024 Conference – Full Programme

Pepa 194

Session 7 - 4:20pm to 4:50pm - S1.02

SIG: Adult & Higher Education

Katrina McChesney, University of Waikato

### How visible are parents and parenting on Australian and New Zealand university websites?

As university populations become increasingly diverse, there is a need to consider how institutions represent themselves and their populations through a variety of discursive platforms. One such platform is the university website, which reflects the deliberate curation of public-facing materials communicating important messages about an institution's identity, focuses, community, strategy, and aspirations. Our research has involved manifest content analysis of all Australian (n=37) and New Zealand public universities (n=8), asking: How visible are parents and parenting on Australian and New Zealand university websites? This presentation reports on the capacities in which parents are represented on these university websites (including as students, as staff members, and as parents supporting current and prospective university-attending children) as well as the supports and information for parents provided on university websites. We identify positive trends in the websites reviewed but also identify gaps, inconsistencies, and ways parents could be better represented and supported through these websites. Acknowledging the history of higher education as "child-free" (Burford & Hook, 2019, p. 1345) and as "care-blind" (Sallee & Cox, 2019, p. 635), our research looks to a future where parents, along with other marginalised groups, are visible, supported, and welcomed within university environments

Parents, University, Higher Education

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Katrina McChesney  
University of Waikato

Shannon Mason  
Nagasaki University



## NZARE 2024 Conference – Full Programme

Pepa 201

Session 7 - 4:50pm to 5:20pm - S1.02

SIG: Adult & Higher Education

Emma Cunningham, Andrew Doyle, Janina Suppers and Brent Wagner., University of

### Early Career Academics Negotiating and Challenging the Neoliberal University

When Early Career Academics (ECAs) first transition into the ecology of the university they experience a range of challenges when adjusting to neoliberal university systems that encourage competition and performativity. The purpose of this research was to understand how ECAs manage these transitions into neoliberal university systems in ways characterised by ethics of care and collaboration. In this paper we (four ECAs) share the results of our collaborative duo-ethnographic inquiry as we reflect back on our experiences of transitioning into our first academic positions and examine the ways these influenced our current positions, using Bennett's (2018) framework of the ecological university. In this study we were simultaneously researchers and subjects exploring our own experiences and perceptions using five focus groups. Data from the study was analysed using reflective thematic analysis. Key findings indicated that ECAs actively seek connection with people and places within the university, they have to learn how to navigate roles and systems, and experience imbalanced workloads.

early career academic, neoliberal university, duo-ethnography.

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Emma Cunningham  
University of Waikato University of Waikato

Andrew Doyle  
University of Waikato

Janina Suppers  
University of Waikato

Brent Wagner  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 202

Session 7 - 5:20pm to 5:50pm - S1.02

SIG: Adult & Higher Education

Thidaporn Jumpakate (PhD student), Margaret Gleeson (Supervisor), Carolyn Tait (Supervisor), Faculty of Education, Victoria University of Wellington

### **How do tertiary lecturers and multilingual students manage various discourses within Thai English Medium Instruction (EMI) Engineering courses?**

English Medium Instruction (EMI) in tertiary education has been growing globally. It is seen as a way to enhance countries' economic competitiveness but previous research (Galloway & Sahan, 2021; Macaro et al., 2018) has revealed challenges as well as benefits for students and lecturers. However, there is limited empirical research on EMI in the Thai context. Among Southeast Asian countries, Thailand is the only country that has never been colonized (Booth, 2007), therefore, the status of the English language in Thailand is quite distinct from its neighbours (Barnard et al., 2023). Hence, the national policies regarding EMI in Thailand are unique. Therefore, this study investigated how multilingual lecturers and students prepare for, perceive, and adapt to EMI implementation in tertiary engineering education. Data were collected from interviews with four lecturers and 18 students, four classroom observations, and four sets of teaching materials. The data were analysed using thematic analysis and the ROAD-MAPPING theoretical framework (Dafouz & Smit, 2016, 2020). The findings demonstrated issues influencing the actual teaching and learning practices of multilingual students and lecturers in EMI engineering contexts. These included language management policies, and students' and lecturers' beliefs. Data reveal a connection between the beliefs of lecturers and students that shape their classroom interactions. The findings suggest that the deliberate design of interactive teaching approaches could facilitate learning of content and language. The participants embraced diverse languages, and teaching and learning strategies helped them manage challenges arising during lessons. These insights also suggest a possible roadmap for teaching and learning in other EMI contexts including New Zealand where there are increasing numbers of lecturers and learners whose first language is not English.

English Medium Instruction (EMI), Teaching and learning, Higher Education, Engineering courses

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Thidaporn Jumpakate  
Victoria University of Wellington

Margaret Gleeson  
Victoria University of Wellington

Carolyn Tait  
Victoria University of Wellington



## NZARE 2024 Conference – Full Programme

Pepa 30

Session 7 - 4:20pm to 4:50pm - LG05

SIG: Early Childhood Education

Donna Williamson-Garner (Open Polytechnic), Veronica Griffiths (Open Polytechnic), Jenny Malcolm (Open Polytechnic), Fleur Hohaia-Rollinson (Te Rito Maioha), Open Polytechnic

### **“You’re not competent if you’re Autistic”: Barriers and facilitators to identity development in kaiako with disabilities in Early Childhood Education (ECE)**

Teacher identity affects a teacher’s sense of purpose, resilience, efficacy, motivation, commitment, effectiveness and job satisfaction (Cobb, 2020; Day, 2018). Teachers’ identities are socially constructed and therefore, lecturers, managers, other student teachers and teachers, tamariki, parents,/whānau and teaching contexts can all play a role in supporting or hindering a teacher’s sense of self (Cobb, 2020).

Using a qualitative methodology, a research project was conducted in 2023 which investigated the experiences of ECE student kaiako and kaiako with disabilities in Aotearoa New Zealand. The research project invited disabled kaiako and student kaiako enrolled in an ITE programme and/or working in early childhood education to complete an online survey. The survey contained both open and closed questions and was designed to capture their inclusion and exclusion experiences within these contexts. Respondents accounts were interpreted using a social constructionist theoretical framework.

Key findings from this research project identified barriers and facilitators to positive identity development in teachers with disabilities which has implications for ITE and ECE settings. This presentation will discuss these findings and highlight the importance of how ITE and ECE workplaces can challenge barriers and support the construction of positive teacher identity for disabled kaiako. Recommendations for future policy and practice will be discussed.

kaiako, disabilities, identity

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Donna Williamson-Garner  
Open Polytechnic

Jenny Malcolm  
Open Polytechnic

Veronica Griffiths  
Open Polytechnic

Fleur Hohaia-Rollinson  
Te Rito Maioha Early Childhood New Zealand



## NZARE 2024 Conference – Full Programme

Pepa 42

Session 7 - 4:50pm to 5:20pm - LG05

SIG: Early Childhood Education

Melanie Audier, University of Canterbury

### **Cultivating Teacher Mentalisation in Early Childhood Education: Teacher's Experiences of Facilitators and Barriers.**

Mentalisation is a mental process utilised by teachers to anticipate, interpret and respond to the mental states of children (Mata López et al., 2020). Previous research on early childhood teachers' mentalisation suggests positive child outcomes including secure attachment, socio-emotional development, and the development of theory of mind (Alvarenga et al., 2020; Santelices & Cortés, 2022). This study employs interpretative phenomenology to delve into the lived experiences of eight teachers working with infants and toddlers. Participants voluntarily shared their experience of mentalisation within early childhood education contexts including perceived barriers and facilitators of mentalisation. Teachers identified key facilitators and barriers to effective mentalisation, including group size, teacher-child ratios, educational background, and collaborative practices within teams. By critically reflecting on these factors, this study contributes to a deeper understanding of how teacher experience can inform future aspirations for ECE. The findings underscore the importance of integrating robust mentalisation practices into ECE pedagogy to enhance quality education. This presentation examines how teacher experiences of facilitators and barriers of mentalisation can inform future-oriented strategies that promote positive learning outcomes for young children.

Teacher mentalisation, early childhood education, future directions

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## NZARE 2024 Conference – Full Programme

Pepa 48

Session 7 - 5:20pm to 5:50pm - LG05

SIG: Early Childhood Education

Parisa Tadi, Auckland University of Technology (AUT)

### Teachers' Experiences of Children's Right in ECE In Aotearoa New Zealand

The Aotearoa New Zealand (NZ) government ratified the United Nations Convention on the Rights of the Child (UNCRC 1989) in 1993 and made a commitment to upholding children's rights. Early childhood teachers are pivotal to acknowledging, understanding and enacting this commitment in the context of professional responsibilities. Anecdotal evidence has suggested an urgent need for research to explore Aotearoa NZ early childhood teachers' understanding and implementation of the Convention into everyday practice (Te One, 2011, Visnjić-Jevtić, Sadownik, & Engdahl, 2021). The initial phase of our three-phase research project, a survey, delves into early childhood teachers' familiarity with and understanding of the UNCRC principles and articles. This presentation will share data from the first phase which captures the voices of early childhood teachers about their current knowledge, practice and perceived access to resources related to UNCRC. We will draw on children's rights theory in order to focus on the initial data which asks for teachers' knowledge of children's rights and the implementation of these in their practice. At the end of the presentation, we will invite questions to prompt further reflection on 'bringing rights to life' with and for young children, as well as identifying our government's role in achieving this.

children's rights, practice, government

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Parisa Tadi  
Faculty of Culture and Society, Auckland  
University of Technology

Diti Hill-Denee  
Faculty of Education, University of Auckland

Andrea Delaune  
Faculty of Education, University of Canterbury

Charlotte Robertson  
OMEP Aotearoa New Zealand

Ngaroma Williams  
Faculty of Education, University of Canterbury



## NZARE 2024 Conference – Full Programme

Pepa 52

Session 7 - 4:20pm to 4:50pm - LG04

SIG: Education for Sustainability

Chris Eames, University of Waikato

### Climate change education: Research and policy imperatives

We are facing a global existential threat - climate change. In Aotearoa, we have been hit by severe weather events such as Cyclones Hale and Gabrielle with heavy rains causing deaths from flooding and landslides, and dumping silt and slash into rivers, marae, homes, and farms. Coastal erosion and warming temperatures are more insidious portents of future challenges. The impacts of climate change are degrading our ecosystems, affecting human health and increasingly disrupting our economy, and the wellbeing of current and future generations. We have a moral imperative to prepare our young people for a climate-altered world and education must lead in this regard! In this presentation, we will highlight current research, policy and practice in Aotearoa in climate education. We will explore what our young people are telling us they need in order to understand and address climate change. We will examine policy positioning, including the recent refresh of the formal education curricula, to determine if these empower young people for the climate futures they face. We theorise about what practice in our early childhood centres and schools could look like to enable this to happen. This presentation will be framed by our recent research, involvement in policy-making and theoretical deliberations, which have led us to conclude that education must respond much more comprehensively to climate change to provide hope and agency to our future generations

Climate change education, young people, policy and practice

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Chris Eames  
University of Waikato Te Whare Wānanga o  
Waikato

Jenny Ritchie  
Victoria University of Wellington Te Herenga  
Waka

Sally Birdsall  
University of Auckland Waipapa Taumata Rau



## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 7 - 4:50pm to 5:20pm - LG04

SIG: Education for Sustainability

**Annual General Meeting**

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## NZARE 2024 Conference – Full Programme

Pepa 58

Session 7 - 5:20pm to 5:50pm - LG04

SIG: Education for Sustainability

John P. Howse, University of Waikato / Te Pūkenga - Toi Ohomai

### **Exploring the symbiosis and tensions between vocational practices and the aspirations for Vocational Education and Training in Aotearoa New Zealand**

Transforming Vocational Education and Training (VET) to include social justice and environmental sustainability dimensions to meet “just transitions” aspirations, globally and in Aotearoa New Zealand, requires looking beyond traditional yet narrow economic imperatives. This paper reports on the novel use of the Theory of Practice Architectures as a practice-theoretical approach to explore the conditions of possibility inherent in vocational practices as the sites where transformations for VET and just transitions occur. Using an eclectic approach to research design, an ethnographic case study of the vocation of beekeeping in a work- and study-based context was conducted over a period of one year. The findings located tensions between the strategic focuses of the existing VET system framework in Aotearoa New Zealand against various practice arrangements and traditions of the vocational practices of beekeeping, illuminating why disparate and contentious experiences between training and work manifest. By making these tensions visible, critical questions and transformative possibilities inherent in empirical, site ontological accounts of vocational practices were identified, supporting the theoretical, strategic and practical contributions of practice-based research to inform VET research, policy and practice going forward

Vocational Education and Training (VET), just transitions, practice-theory

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John P. Howse  
Toi Ohomai - Te Pūkenga / University of  
Waikato



## NZARE 2024 Conference – Full Programme

Pepa 90

Session 7 - 4:20pm to 4:50pm - S1.01

SIG: Educational Leadership

Melissa Denzler and Keita Durie, Rangahau Mātauranga o Aotearoa / NZCER

### Me aro ki te ha o Hine-ahu-one | Wahine Māori in Leadership

Supporting the leadership aspirations of wāhine Māori honours their diverse perspectives and unique contributions to education. Research on the lived experiences of wāhine Māori within kaupapa Māori and English-medium secondary settings in Aotearoa is limited. Grounded by kaupapa Māori methodology and guided by mātauranga Māori, our team of Kairangahau Māori explored how wāhine Māori can be supported in their leadership aspirations. This presentation shares key findings and recommendations from our rangahau, involving over 340 survey respondents and 24 interview participants. We address the question: How can wāhine Māori in kaupapa Māori and English-medium secondary settings be supported in their leadership aspirations? Key findings highlight distinct leadership qualities and Māori models of leadership, diverse roles and responsibilities held by wāhine Māori, cultural taxation, and the need for mentoring. Recommendations identify actions to support the leadership aspirations of wāhine Māori, enabling them to flourish and enrich the educational experiences of their ākonga and their wider hapū, iwi, and communities. We will also briefly introduce new research emerging from our findings.

Wahine Māori leadership

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Melissa Denzler  
Ngāti Maniapoto, Te Rarawa: Rangahau  
Mātauranga o Aotearoa/ NZCER

Keita Durie  
Ngāti Kauwhata, Rangitāne, Ngai Te Rangi:  
Rangahau Mātauranga o Aotearoa/ NZCER

Dr Hana Turner-Adams  
Ngāti Ranginui: Waipapa Taumata Rau/  
University of Auckland



## NZARE 2024 Conference – Full Programme

Pepa 91

Session 7 - 4:50pm to 5:20pm - S1.01

SIG: Educational Leadership

Dr Sue Dow, EdD, Massey University, 2019

### **E tipu ana te mana tangata: supporting the development of leaders confident to improve teaching and learning for Māori students in bicultural schools**

The educational achievement of Māori students in New Zealand has been a significant concern for decades. Māori have responded by creating alternative Māori centered schools. However, most Māori children and young people are educated in mainstream schools, not Māori centered. There is an increasing demand for mainstream schools to incorporate things Māori. However, this is not easy. The level of personal adjustment and learning required is challenging, particularly for Pakeha educators such as myself who work in predominantly Māori contexts.

I use autoethnography to help explain how educators can learn to make the shifts in thinking needed to ensure Māori students can thrive in non-Māori centered settings. I used participant action research framed within decolonizing research methodologies to develop leadership strategies in the school in which I taught. But the main learning was in me. I first learnt to recognize the one footedness of our education system, how Euro centered it has been, and largely, is. I then learnt how to create space for the Māori centered foot to stand. I then became confident to enable both our non-Māori and Māori students to begin to walk on two feet: te ao Māori and te ao whānui, the wide world. Such learning is vital today.

leadership, improvement, Māori

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 7 - 5:20pm to 5:50pm - S1.01

SIG: Educational Leadership

**Annual General Meeting**

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## NZARE 2024 Conference – Full Programme

Pepa 110

Session 7 - 4:20pm to 4:50pm - SG02

SIG: Inclusive Education and Community

Marjolein Whyte, University of Auckland

### **Using the activity theory with communities of learning to promote parent participation in early childhood education.**

This presentation is part of my PhD research on the wellbeing, belonging and participation of parents who care for a disabled child in early childhood education in Aotearoa, New Zealand. Carried out with permission from the ethics committee from the University of Auckland on 10/02/22, this ethnographic, detailed, and contextualised single case study, has focused on the early childhood experience of parents who have an autistic child attending kindergarten. By sharing some of the parents' experiences, we can learn to understand some of the unique challenges faced by these parents, which promotes advocacy and empowers these parents to have a voice. The use of activity theory as a tool for data analysis is showing what enabled and what hindered parent involvement in their child's learning experience and participation for the parents in the early childhood centre's community (Whyte, 2024). My findings include that stigma and attitudes from people in the wider society can be subtle and influence parents' decisions and responses in ways that can be difficult for teachers in an early childhood centre to address, yet important for teachers to be aware of. In this presentation I will address different motives that may influence parents' decisions at different times and tools that teachers could consider to promote parent participation.

Inclusive practice, parent participation

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## NZARE 2024 Conference – Full Programme

Pepa 105

Session 7 - 4:50pm to 5:20pm - SG02

SIG: Inclusive Education and Community

Yvonne Culbreath, Unitec Institute of Technology

### Complexities of identities in teaching and learning

The present discourse of globalisation has shaped the world of early childhood education and societies have become more diverse. As the population in New Zealand and the world over becomes more diverse, teachers are challenged to incorporate inclusive pedagogies. This paper focuses on teachers' narratives of teaching and learning experiences with ākonga in a tertiary education setting and early childhood centre that includes Māori, Pasifika, Pākehā, Asian and Indian ākonga. Researchers draw on narrative methodology to deconstruct educators' experiences as early childhood educators. Interviews, narratives, journals, and observations were the principal data collection tools.

Teaching and learning are grounded in sociocultural realities and perspectives. In early childhood education the issue of respecting diverse cultures equally is being discussed in the theoretical framework of inclusion, equity and participation (Ang, 2010; Spoonley, 2015; and Shuker and Cherrington, 2016). The kaiako, tamariki, whānau, and communities that engage in ECE comprise of a variety of cultures, languages, and socio-economic backgrounds. Therefore, our ākonga bring with them their ancestral knowledge that highlights the complexities of how the New Zealand education system will impact the future. Teachers in the tertiary and early childhood sector thus face several complexities of identities in teaching and learning. This research presents the complexities of identity in terms of space and time and how each of us in our unique way contribute to the success of all ākonga. The research hopes to enhance teacher capability regarding culturally responsive pedagogies that recognises diverse cultures and ways of being in early childhood to improve educational outcomes for all.

pedagogy, diversity, inclusion

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Yvonne Culbreath  
Unitec

Lata Rana  
Unitec

Helen Wrightson  
Unitec

Kim Perez  
Unitec



## NZARE 2024 Conference – Full Programme

Pepa MCSYMP2

Session 7 - 4:20pm to 5:50pm - SG01

SIG: Māori Caucus

**Towards a Kaupapa Māori Model of Delivery for Public Health Education: A Matatini Ora Case Study**

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## NZARE 2024 Conference – Full Programme

Pepa 3

Session 7 - 4:20pm to 4:50pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Anna Fergusson, University of Auckland | Waipapa Taumata Rau

### **Lost (and found) in translation: Examining the diversity and impact of languages selected on student responses to a statistical investigation of automated language translation**

The data used for teaching statistics is often far removed from students' lives, limiting the ability for students to make personal connections in their responses to learning tasks. As part of a broader initiative to re-design a large introductory statistics course at the University of Auckland | Waipapa Taumata Rau, new assignment tasks were created that used "data landscapes" generated from personally-motivated student selections. In one such task, students were given headlines from a prominent newspaper and asked to select two non-English languages. Google Translate was then used to translate the headlines from English into the two selected languages and then back to English, with a similarity score provided for each "round trip translation". Students then used statistical methods to evaluate and compare the use of Google Translate for the two selected languages, before writing a conclusion and reflection on their findings. Analysis of the student responses to the assignment task found that a diverse range of languages were selected and that students who selected languages of personal relevance generally crafted responses that demonstrated higher levels of statistical insight. The study suggests that "data landscape" tasks can enrich the learning experience by connecting students to the data in personally meaningful ways

diversity data investigation

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Anna Fergusson  
University of Auckland | Waipapa Taumata  
Rau

Lars Thomsen  
University of Auckland | Waipapa Taumata  
Rau

Anne Patel  
University of Auckland | Waipapa Taumata  
Rau





## NZARE 2024 Conference – Full Programme

Pepa 17

Session 7 - 4:50pm to 5:20pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Melina Marama Amos, University of Auckland

### **Dedicated spaces for Indigenous students in mainstream academies: Segregation or cultural identity preservation**

Recently, there has been a debate over designated spaces for Māori and Pasifika students at New Zealand universities, spurred by controversial comparisons to segregationist practices. Critics of these spaces argue that these spaces hinder social cohesion and their perspectives draw from Contact Theory, Meritocracy, and Assimilation Theory. This study counters these views by exploring the vital role of dedicated support spaces in fostering cultural identity, academic success, and community. The qualitative data comes from Māori students transitioning from Kura Kaupapa Māori (KKM) to STEM fields. Through interviews with Māori STEM students, the findings suggest how these culturally responsive programmes can mitigate cultural shock, support a positive mathematics learner identity, and enhance minority students' persistence in higher education.

Identity Culture Community

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## NZARE 2024 Conference – Full Programme

Pepa 5

Session 7 - 5:20pm to 5:50pm - S1.05

SIG: Mathematics & Statistics/Pangarau Education

Robyn Gandell, Field left empty

### Moving mathematics

Increasingly, researchers are interested in how body movement entwines with thinking and knowing. Research into movement, often called embodiment research, extends across a range of fields, such as cognitive psychology, neuroscience, and education, and generally challenges the more traditional notions of cognition occurring in an abstract mind. Nonetheless, embodiment researchers often conceptualise the body and movement from diverse theoretical perspectives. Sheets-Johnstone (1999) contends that humans live in animate bodies, coming to know through tactile kinaesthetic experiences in the world. For Sheets-Johnstone, movement, is not a support for, or an expression of, thinking, rather movement is inseparable from thinking and knowing. Drawing on Sheets-Johnstone, my study investigates how students think mathematically in movement. My micro-analysis, of a small group of tertiary students engaged with a mathematical prompt, shows how students' spontaneous full-body movements are their emerging and evolving mathematical thinking. In overlooking students' movement in the classroom and in research mathematics educators may be missing essential aspects of students' mathematical thinking. Broadening our understanding of students' mathematical thinking in movement has the potential to enrich mathematics education research and the teaching and learning of mathematics. Thus, this research urges a reconsideration of students' movement in mathematics education.

mathematics education, movement, mathematical thinking

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## NZARE 2024 Conference – Full Programme

Pepa OTSYMP6

Session 7 - 4:20pm to 5:50pm - S1.04

SIG: Other

**From public to private: Exploring profit pipelines in Australian state schooling**

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 7 - 4:20pm to 4:50pm - SG03

SIG: Pasifika Caucus

**Annual General Meeting**

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## NZARE 2024 Conference – Full Programme

Pepa QSSYMP5

Session 7 - 4:20pm to 5:50pm - LG03

SIG: Quantitative Studies in Education

**Test Item Analysis: Removing bad items before score estimation**

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## NZARE 2024 Conference – Full Programme

Pepa TTESYMP7

Session 7 - 4:20pm to 5:50pm - LG02

SIG: Teaching and Teacher Education

**Similar But Different: Our school's journey to develop the teaching of disciplinary literacy and enhance educational equity.**

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## NZARE 2024 Conference – Full Programme

Pepa 195

Session 8 - 8:45am to 9:15am - S1.02

SIG: Adult & Higher Education

Fleur Hohaia-Rollinson, Te Rito Maioha Early Childhood New Zealand

### **Understanding the dynamics of disclosure of disability in tertiary education: Insights into student's disclosure decisions and experiences at Te Rito Maioha Early Childhood New Zealand.**

For students with disabilities in tertiary education, access to learning support, accommodations and resources relies on self-disclosure of disability information. To understand the effects of disclosure decisions for tertiary students with disabilities and to strengthen our organisations policies and practices, research was undertaken at Te Rito Maioha. Using a mixed methods single case study methodology, data was gathered from multiple sources - document analysis, online survey and a focus group semi-structured interview. We used critical disability theory and thematic analysis to interpret and analyse the data. The findings showed over half of the respondents did not feel safe or encouraged to disclose their disability information due to fear of discrimination, stigma and bias, a lack of awareness of support offered, no formal diagnosis, and cultural expectations to succeed without help. A third of respondents who chose to disclose felt this was the right decision which provided transparency between themselves and their provider and access to lecturer support, accommodations and resources. A high number of respondents did not consider their disclosure decision had impacted their studies either way. By looking back to look forward, we hope our research findings supports equitable and inclusive learning environments that are free from discrimination, bias and stigma and where tertiary students feel safe and encouraged to disclose disability information to support their participation, aspirations and improve educational outcomes.

Self-disclosure; students with disabilities; tertiary education

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Fleur Hohaia-Rollinson  
Te Rito Maioha ECNZ

Debbie Rickard  
Te Rito Maioha ECNZ

Madoka Takemoto  
Te Rito Maioha ECNZ

Lauren Morton-Hay  
Te Rito Maioha ECNZ



## NZARE 2024 Conference – Full Programme

Pepa 196

Session 8 - 9:15am to 9:45am - S1.02

SIG: Adult & Higher Education

Jo Smith, University of Auckland

### The Doctor of Education in New Zealand: Looking forward by looking back

Doctor of Education (EdD) programmes equip practicing professionals to conduct research into persistent problems of practice. The EdD starts with a coursework component, in which students complete research proposals as part of a cohort of learners. As with the PhD, students conduct research that becomes the candidate's thesis. Research has been conducted on the EdD in other contexts, notably in the United States, but little is known about what motivates working professionals to pursue an EdD in Aotearoa, what alumni gain from their studies and their suggestions for improvement. As such, graduates from two New Zealand EdD programmes were recruited to participate in interviews about the EdD. Interview recordings were transcribed in Otter and analysed collaboratively through a thematic approach. Findings reveal that students enter the EdD from a variety of careers, and use the skills and knowledge developed in the programme to further personal and professional goals. Participants noted the benefit of the cohort approach and identified challenges associated with the distance nature of the programmes, such as securing supervisor feedback in a timely manner. This study's findings can inform refinements to EdD programmes in New Zealand as well as contribute to the knowledge base about this professional doctorate.

Doctor of Education, programme improvement, tertiary education

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Jo Smith  
University of Auckland

Helen Trevethan  
University of Otago

Maria Hirschi  
University of Auckland





## NZARE 2024 Conference – Full Programme

Pepa 191

Session 8 - 9:45am - 10:15am - S1.02

SIG: Adult & Higher Education

Veronica Grondona, Massey University

### Autistic people's tertiary education experiences and their hopes for positive education outcomes

The current estimated prevalence of autism suggests that approximately 1 in 59 individuals are autistic. In the last decade, universities have generally seen a steady increase in autistic students. However, data indicates that only a small portion of autistic students complete their degrees.

In early 2024 103 New Zealand-based autistic individuals completed a survey to explore tertiary education experiences. Eighteen participated in individual semi-structured interviews and shared their thoughts on increasing positive tertiary education outcomes. A social constructionist epistemology informed by critical theory was used as a theoretical framework. An explanatory sequential design approach was implemented.

While 70% had completed a tertiary education degree, overall participants were unsatisfied with their experiences. Sensory overstimulation of the classroom environment and difficulties in understanding assignments' criteria were cited as significant barriers experienced by participants while engaging in tertiary study. Participants stated that a "better understanding of the needs of autistic people by lecturers and university staff" is needed.

These results imply that increased autism awareness is needed when discussing tertiary education policies and practice improvements. This will contribute to better supporting autistic students in fulfilling their educational goals and improve positive tertiary education experiences.

autism adulthood education

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Veronica Grondona  
Massey University

Dr Gretchen Good  
Massey University

Professor Alison Kearney  
Massey University

Dr Carol Hamilton  
Massey University



## NZARE 2024 Conference – Full Programme

Pepa 31

Session 8 - 8:45am to 9:15am - LG05

SIG: Early Childhood Education

Jo Ward, Te Rito Maioha

### Exploring belonging for early childhood kaiako from minority cultures in Aotearoa New Zealand.

While the importance of kaiako wellbeing has been well researched, there is limited research around the importance of kaiako belonging and its impact on their wellbeing and effectiveness. This qualitative study investigates the role of belonging for kaiako from minority cultures in early childhood settings in Tāmaki Makaurau, employing a phenomenological research methodology within an interpretive paradigm. The phenomenological approach involved interviewing participants who have experienced the phenomenon of belonging, to explore their individual interpretations and experiences. Thematic analysis of the data reveals that a sense of belonging is crucial for kaiako, enhancing their effectiveness, health, and engagement, and contributing to higher retention rates. Participant experiences suggest that a lack of belonging can result in isolation, marginalization, and a reluctance to take risks in teaching. This research highlights the importance of social and cultural connectedness, respectful relationships, and supportive leadership in fostering a strong sense of belonging. It concludes that in our increasingly diverse society, the early childhood sector must challenge dominant norms regarding inclusion and belonging, and celebrate the richness that diversity brings to teaching and learning. The study suggests that regular team discussions addressing inclusion, barriers, biases, and exclusion can support a sense of belonging for all kaiako.

Belonging, diversity, inclusion

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Joanne (Jo) Ward  
Te Rito Maioha



## NZARE 2024 Conference – Full Programme

Pepa 25

Session 8 - 9:15am to 9:45am - LG05

SIG: Early Childhood Education

Maria Cooper, University of Auckland

### Navigating relational ethics in Pacific research: reflecting on tensions and opportunities

Navigating relational ethics in Pacific research: reflecting on tensions and opportunities Samoa Relational ethics offers a transformative approach to the research landscape by honouring cultural knowledge systems, upholding cultural integrity, and protecting cultural communities. Yet, while Pacific relational ethics, as Anae (2019) argues, have the potential to transform educational research in Aotearoa, they are still developing as a coherent body of knowledge. This complexity poses challenges for Pacific and non-Pacific researchers within academic institutions historically embedded in Western frameworks. This presentation explores our approach to navigating relational ethics in our project on culturally-grounded, community-responsive leadership in Pacific early childhood education (ECE) settings in Aotearoa. Guided by talanoa (open talk) and the Samoan/Tongan concepts of teu le vā /tauhi vā (looking after the relational space), respectful dialogue was facilitated between academic- and practitioner-researchers. Inspired by Anae's (2019) concept of Pacific relational ethics and Jackson's (2013) ethical principles for Indigenous research, we reflect on our navigation, the tensions, and the opportunities. Our findings contribute to the broader discourse on Pacific ethics in research, advocating for a philosophy of relational ethics that is grounded in the cultural realities and relational values of Indigenous Pacific communities.

ECE, Relational ethics, Pacific

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Maria Cooper  
University of Auckland

Kiri Gould  
University of Auckland

Jeanne Teisina  
Akoteu Kato Kakala

Akoteu Kato Kakala  
Otara, Auckland

A'oga Fa'a Samoa  
Grey Lynn, Auckland



## NZARE 2024 Conference – Full Programme

Pepa 46

Session 8 - 9:45am - 10:15am - LG05

SIG: Early Childhood Education

Sue Cherrington, Te Herenga Waka Victoria University of Wellington

### **Early childhood teacher practices for supporting oral language acquisition and competency for children from Pacific heritages.**

This TLRI project focuses on how EC teachers in both Pacific and non-Pacific ECE settings can better support the development of oral language amongst children from Pacific heritages, whether they be mono-lingual, bi-lingual or multi-lingual. The project involves a partnership between the research team and two Pacific Language Nests and two kindergartens: A'oga Amata EFKS Newtown, Te Punanga Reo o te Reo Kuki Airani, and Moera and Waiwhetu Kindergartens from Hutt City Kindergartens. The project began in early 2024 and uses a multiple case study design. It draws on Pacific values, such as respect, reciprocal relationships, family and belonging (Rimoni, Glasgow & Averill, 2022) as well as being guided by the Fale Tele framework and methodologies of *teu le va* and *talanoa* to strengthen the opportunities for researchers and teachers, and teachers and *whānau*, to share and build understandings of effective practices that support Pacific children's oral language learning. In this presentation, we offer an overview of the project, including specific tools developed to support teacher practice and data collection, and share early insights gained from our data at this point in the project.

early childhood teacher practice; Oral language acquisition; Pacific heritage children

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## NZARE 2024 Conference – Full Programme

Pepa 57

Session 8 - 8:45am to 9:15am - LG04

SIG: Education for Sustainability

Dr. Thili Wijesinghe, James Cook University - Australia

### **Speculative Drama as a Pedagogical Tool: Engaging Youth in Climate Change Education**

In the face of escalating climate challenges, educators play a crucial role in shaping the next generation's understanding and response to environmental crises. By integrating drama into the curriculum, educators can provide students with a dynamic platform to express their perspectives on climate change, fostering both critical thinking and emotional engagement. This research focuses on young people in Australia and Sri Lanka, employing drama-based methods to capture their future worldviews on climate change and how speculative drama can be utilised as a pedagogical tool to engage young people in climate change education. The study emphasises the importance of interdisciplinary approaches, combining climate change education, speculative thinking, and the arts. Using a posthuman theoretical framework, this study challenges traditional anthropocentric and scientific educational practices. It advocates for non-linear, imaginative approaches that empower students to envision and articulate their futures in a changing world. The findings highlight the potential of speculative drama to not only enhance climate change education but also to contribute to broader educational practices that value creativity, critical reflection, and student-centered learning. Through this research, educators and policymakers are provided with insights into the benefits of incorporating speculative drama into teaching practices, ultimately contributing to engaging climate change education.

Speculative Drama - Climate Change Education - Interdisciplinary Pedagogy

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## NZARE 2024 Conference – Full Programme

Pepa 55

Session 8 - 9:45am - 10:15am - LG04

SIG: Education for Sustainability

John Clayton, Te Whare Wananga o Awanuiarangi

### Artificial Intelligence and Te Whare Wananga o Awanuiarangi: Establishing a research framework

As the use of autonomous and intelligent systems (A/IS) becomes pervasive Te Whare Wananga o Awanuiarangi (TWWoA) is establishing research frameworks to ensure Māori perspectives are central in shaping the discourse of how they are built, distributed, and evaluated. This presentation focuses on three workstreams.

1. Digital Divide: A/IS developments depend on sophisticated processors and storage. TWWoA will undertake a stocktake of the technical infrastructure currently deployed in the Eastern Bay to determine if the communities it serves have easy access to technologies used in A/IS developments.

2. Transparency: The code and models used in A/IS are extremely complex and involve advanced machine-learning techniques. TWWoA will undertake a desktop review of prompt interfaces used in A/IS to establish if they are based on open-source protocols and the specific actions undertaken are transparent and not controlled by developer preferences.

3. Data Bias: Using a defined set of prompts TWWoA will examine training data sets used in generative A/IS to evaluate if the responses received reflect dominant cultures and languages, producing errors and biases that reinforce existing prejudices and inequities.

TWWoA pursues a vision of establishing the equality of Māori intellectual tradition alongside the knowledge base of others. TWWoA is committed to ensuring A/IS are harnessed as tools for empowerment rather than a force that erodes the mauri and wairua of Māori tikanga.

Artificial Intelligence, Māori

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John Clayton  
Te Whare Wananga o Awanuiarangi

Hinerangi Eruera Murphy  
Te Whare Wananga o Awanuiarangi



## NZARE 2024 Conference – Full Programme

Pepa 117

Session 8 - 8:45am to 9:15am - S1.01

SIG: Learning Environments

Sarah Bashir, University of Waikato

### Learning environment of medical trainees: Potential of Awareness-Clarity-Choice (ACC)

In New Zealand (NZ) healthcare organisations, there is a growing emphasis on creating a bullying-free work environment. However, NZ junior doctors and doctors in training can experience negative impacts on their learning and professional development if workplace bullying is normalised and left unaddressed. This study investigated the potential of a transformational coaching framework to raise awareness about the importance of reporting and addressing workplace bullying, with the aim of reducing its acceptance. Data was collected through in-depth interviews with 17 junior doctors and doctors in training, conducted both online and in person. Thematic analysis was used to analyse data. Analysis was guided by the ACC (Awareness, Clarity, Choice) coaching framework to explore barriers to reporting and the factors causing acceptance of bullying behaviours. The findings indicated that the ACC framework's components—awareness, clarity, and choice—can enhance victims' self-awareness about reporting bullying and foster resistance to the normalisation of bullying behaviours. Furthermore, junior doctors' increased resistance to accepting bullying may contribute to a healthier learning environment by encouraging the reporting of bullying incidents

Workplace Bullying

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Sarah Bashir  
The University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 118

Session 8 - 9:15am to 9:45am - S1.01

SIG: Learning Environments

Jo Mane and Jenny Lee-Morgan, Ngapuhi Nui Tonu/ Ngati Mahuta, Te Ahiwaru, Waikato/Tainui

### **Ma muri, ka tika ma mua: Alter-Native Constitution Spaces: Co-governance**

In 2023, with more than 25 years of co-governance at Newton Central School in inner-city Auckland, the Ministry of Education sanctioned an Alternative Constitution for the school. The Alternative Constitution was put in place to protect nearly three decades of co-governance work committed to honouring Te Tiriti o Waitangi. A key aspect of this work has been, in establishing Te Aka Pūkāea, a dual Māori language pathway (bilingual and immersion) within the school. Research undertaken with Te Aka Pūkāea, offers whānau narratives that highlight how the efforts of the past have shaped what currently exists with a constitution that has embedded Te Tiriti o Waitangi for the future of the school. This presentation follows a two-year study completed in 2023 that set out to explore the spatial dynamics of Te Aka Pūkāea as a Māori Modern Learning Environment. While the initial focus was on the built environment, the study found that aspirations for te reo Māori were the most significant factor of what determined the space and that accordingly, te reo Māori itself was the desired space. This study is forged within a Kaupapa Māori, Community Based Research methodology and draws on pūrakau and wānanga as methods in its approach.

Te Tiriti o Waitangi-Co-governance- Alternative Constitution

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## NZARE 2024 Conference – Full Programme

Pepa 119

Session 8 - 9:45am - 10:15am - S1.01

SIG: Learning Environments

Ruth Kane, University of Ottawa

### **Public pedagogies through social media: A mixed methods case study of private Facebook health and wellness community of practice.**

How can social media be used as a public pedagogy for education, health and wellness? This mixed-methods in-depth study called on members of a successful social media-based community to identify factors that they report as central to their sustained engagement, transformed learning and enhanced practice. Members of a health and wellness initiative offered through a private Facebook group (that had significant growth from January 2019 (722 members) to January 2023 (28,061 members), were invited to participate. Data were generated through an online survey at the end of two consecutive 13-week programs (N=11,353; 22%) and 55 online focus groups with a total of 236 participants. Data were analysed through using a Communities of Practice (CoP) framework that respects the creation of knowledge as both individual and social, created through interactions with objects, people, and experiences (Wenger et al., 2002). Findings identify the conditions necessary to ensure that online learning communities offer safe, respectful space for engagement of vulnerable populations, providing for interconnection and situated learning among members who have shared goals. Findings have applications for practitioners more broadly across education, health, and social services through informing the design and implementation of initiatives to isolated, vulnerable, and other geographically dispersed groups.

social media, CoP, Situated learning

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## NZARE 2024 Conference – Full Programme

Pepa NZJES

Session 8 - 8:45am to 9:45am - SG02

SIG: New Zealand Journal of Educational Studies

### Reviewing for NZJES: How to write a good review and why it's important

Blind peer review remains the gold standard for academic publishing in most scholarly contexts. The reviewing process ensures the quality of our intellectual contributions are rigorously maintained. While peer review is certainly not a perfect tool, it is one that needs nurturing and nourishing from our academic community. As the journal that is run through NZARE, NZJES requires quality peer review so that we maintain the standard that ensures our position as the only indexed educational research journal in Aotearoa New Zealand's academic landscape. This workshop is aimed at anyone who would like a refresher course, or who has yet to begin reviewing. It is also suitable to all our research community who have submitted or would like to submit articles to NZJES and would like to know what the expectations are for this journal. Questions covered are: How many reviews should you be doing at different points in your career? What does a good review look like? To what extent do you need to provide grammatical/reference/spelling edits? How important is constructive critique, and what does that look like? The practical hands-on workshop will be conducted by past and present editors and will outline general principles of the peer review process alongside specific requirements for NZJES.

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 8 - 8:45am to 9:15am - SG01

SIG: NZ Centre for Action Research Network NZCARN

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## NZARE 2024 Conference – Full Programme

Pepa 49

Session 8 - 9:15am to 9:45am - SG01

SIG: NZ Centre for Action Research Network NZCARN

Emelie Johansson; Anette Forssten Seiser, Karlstad university, Sweden

### Professional learning as the process of changing practice and developing praxis

In a neoliberal society, individualistic and technical logics tend to reduce professionals to consumers of development courses. Professional learning becomes about carrying out standardized methods initiated by school authorities, despite such arrangements usually not resulting in changes in practice. The aim of this study is to go beyond the dominant individualistic perspective to discuss implications for professional learning based on practice perspective that conceptualize learning as the process of changing practices. The Theory of practice architectures (TPA) (Kemmis & Grootenboer, 2008) and Ecologies of practices (Kemmis et al., 2012) were used when analyzing the process of professional learning in an action research conducted in Sweden, in which 14 preschool principals collaborated with a researcher to change their ways of leading digitalization in preschool education. The findings shows that when practices for professional learning are co-produced with everyday practice it enables changes based on professional judgment and nurtures praxis, in this study conceptualized as ethically informed actions. The study has implications for how professional learning can be arranged to generate changes in and for practice, and is relevant to those engaged in organizing for, leading, and participating in, practices for professional learning.

professional learning, principals, action research

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Johansson Emelie  
Karlstad University, Sweden

Forssten Seiser Anette  
Karlstad University, Sweden



## NZARE 2024 Conference – Full Programme

Pepa 20

Session 8 - 8:45am to 9:15am - S1.04

SIG: Other

Christopher Burns, University of Auckland

### Historical reassessment and the Aotearoa New Zealand's histories curriculum content

The new Aotearoa New Zealand's histories curriculum content was introduced in response to social and political movements for historical reassessment. In its recognition of Māori histories as the foundational and continuous history of Aotearoa and critical consideration with how colonisation and power have shaped New Zealand history, the curriculum content responds to calls for new ways of engaging with the past and greater public awareness of marginalised historical narratives. This presentation draws on doctoral research exploring the relationships that are formed with this curriculum content in a single secondary school. The interactions with students and teachers provide opportunities to explore the ways they both resist and reproduce settler narratives in their engagement with New Zealand history. In the context of heightened and contentious public debate about New Zealand history, and in particular te Tiriti o Waitangi, the presentation examines the complex and contradictory relationships that are formed between new knowledge, prior knowledge, and wider public discourses. Doing so provides rich opportunities to understand the place of formal history education within wider movements for historical reassessment and Tiriti justice

history education, curriculum refresh, settler storytelling

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Christopher Burns  
Christopher Burns



## NZARE 2024 Conference – Full Programme

Pepa 72

Session 8 - 9:15am to 9:45am - S1.04

SIG: Other

Huidan Niu,

### Navigating Power Dynamics in Elite Interviews

Elite interviews, which involve engaging with influential figures, are a critical data collection method in education policy research. This paper examines the complexities of conducting elite interviews within the educational sector, drawing on insights from interviews with 24 senior leaders of educational organisations in New Zealand. It argues that the power dynamics between researchers and elite respondents are fluid, influenced by the socio-political landscape of education policy. While building rapport with elite respondents remains essential, this paper further explores the potential for collaboration and strategic alliances between academics and education policy elites. Reflexivity is highlighted as a key tool for examining power relations, enabling researchers to understand how their identities—such as gender, nationality, and professional experience—affect the interview process. This study contributes to the methodological discourse on elite interviews by offering empirical research on a unique elite group: leaders of teacher unions, who hold dual roles as educational and political elites.

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## NZARE 2024 Conference – Full Programme

Pepa 133

Session 8 - 8:45am to 9:15am - SG03

SIG: Pasifika Caucus

Tereapii Rota-Solomon, University of Waikato

### No te Uki ki Mua - For Future Generations

Nō te Uki ki Mua – For Future Generations by Tereapii Rota-Solomon PhD student at the University of Waikato [tereapiis@tokoroahigh.school.nz](mailto:tereapiis@tokoroahigh.school.nz) Pacific Education Within the context of western research, rarely are stories told specifically from the lived experiences of Cook Islanders in Tokoroa, one of the earliest and strongest settlements in which Cook Islands people and other Pasifika/Pacific families resided after their migration from their ancestral homelands in the South Pacific (Solomon, 2008). My research seeks to privilege the voices of Cook Islands Māori people in Tokoroa; stories shared by them of educational success as Cook Islanders, a desire in which Tapasā (Ministry of Education, 2018) advocates, with the hope to change the narrative of how Pacific peoples are portrayed in academia. As part of the journey to education success for Cook Islands students at Tokoroa High School, looking to past traditional practices of our ancestors has been pivotal in grounding our students in the present to prepare them for the future. These stories were captured through the use of patu tuatua—a Cook Islands Māori socio-cultural practice used in Cook Islands communities, and an intergenerationally-inspired method of storying and storytelling

pacific research, patu tuatua, intergenerational practice

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## NZARE 2024 Conference – Full Programme

Pepa 138

Session 8 - 9:15am to 9:45am - SG03

SIG: Pasifika Caucus

Dr. Rae Si'ilata, Si.ilata, Rae1; Hansell, Kyla2; Aseta, Martha3; Jacobs, Meg4 1Va.atele Education Consulting 2Va.atele Education Consulting; UoA (student) 3Va.atele Education Consulting 4Va.atele Education Consulting; AUT

### Reo Moana: Supporting Pacific bilingual futures in Aotearoa

Provision for Pacific Bilingual/Immersion Education (PBIE) is under-resourced and under-researched in Aotearoa New Zealand's education system. Despite decades of international research that clearly show the advantages of Bilingual/Immersion Education, Pacific ākonga and whānau still have limited opportunities for learning in their heritage languages from early childhood education through to secondary schooling. In this bicultural nation of superdiversity, system change is necessary to disrupt a largely English monolingual/monocultural education agenda that diminishes bilingual and biliterate futures for Pacific ākonga and whānau. In this presentation we highlight findings from Reo Moana: Supporting Ngā Reo o te Moana and PBIE in Aotearoa New Zealand (Reo Moana), a New Zealand Ministry of Education professional learning and development (PLD) and research project that comprises nearly all schools with PBIE units. Va'atele researchers document leader and teacher perspectives through individual and small group talanoa and research notes of PLD workshops and in-school visits. The shared and similar value-based cultural systems of Tikanga Māori and Pacific cultural practices are reflected in the processes of Reo Moana. Tikanga Māori founded on Māori values such as manaakitanga, whanaungatanga, kaitiakitanga, rangatiratanga, and mana provide a framework through which Māori relational practice is enacted in research that is collectively empowering. This view is consistent with Pacific research methodologies of Teu le va/tauhi va, talanoa/talanoaga, which describe the quality of the relationships that exist between researchers and participants, and the safe space (the "noa" space of the "tala") created when research parties engage in co-constructed dialogue. The Māori and Pacific research methodologies enacted through Reo Moana focus on uplifting, empowering, and nurturing communities in which the research is located. Thematic findings and emerging issues in the sector will be shared to highlight the contributions of PBIE teachers and leaders, the affirmations and tensions in their work, and to explore future directions for PBIE provision and research in Aotearoa New Zealand.

Pasifika PLD, bilingual

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Dr. Rae Siilata  
Va'atele Education Consulting

Dr. Martha Aseta  
Va'atele Education Consulting

Dr. Meg Jacobs  
AUT/Va'atele Education Consulting

Kyla Hansell  
Va'atele Education Consulting





## NZARE 2024 Conference – Full Programme

Pepa 235

Session 8 - 9:45am - 10:15am - SG03

SIG: Pasifika Caucus

Aue Te Ava, Massey University – Manawatu Campus

### **Students' perspectives of cultural activity in physical education, and how this enhances their well-being**

This presentation reports on a study of student's perspectives of cultural activity and how these perceptions enhance students' well-being in physical education classroom. Three secondary schools in Palmerston North participated in the research. The research question sought to find out how students perceive cultural activity like Molimoli (a Fijian traditional game) in physical education, and how participation in Molimoli enhance students' well-being. Physical education researchers believe that teaching cultural activities could improve students' wellbeing and achievement in the classroom (Hapeta, Palmer, & Kuroda, 2018). It was envisaged during the research that students' perspectives of cultural activities impacted students' wellbeing and this contributed to their enjoyment in physical education. The report found that students' perspectives of cultural activities could be beneficial in the curriculum and policy development of physical education, and thus addressing and bridging an identified gap in the New Zealand curriculum of physical education.

Pasifika students, physical education, culturally responsive teaching, wellbeing, cultural activities, curriculum, and policy.

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## NZARE 2024 Conference – Full Programme

Pepa 147

Session 8 - 8:45am to 9:15am - LG03

SIG: Quantitative Studies in Education

Tara McLaughlin, Massey University

### Guiding Principles and Foundations for Effective Assessment and Analysis of Children's Learning Data

Assessment of children's learning and development should take account of the complexity of this unique developmental period as well as the nuances of assessing or measuring these capabilities appropriately, effectively, and efficiently using person-centered analysis methods. In this session, we describe a recently completed project to explore advanced statistical methods to examine children's learning and development data from the Growing Up in New Zealand Study. Specifically, we focus on measurement invariance testing and latent class analysis to ensure fairness and holistic understanding of children's capabilities to meaningfully inform educational interventions and policy. As part of our work, we highlight two important sources of guidance (principles from Te Whāriki and foundations for educational measurement) that can help ensure assessment of young children's learning and development is psychometrically and theoretically sound, ethically defensible, prevents harm, and promotes benefit to children, families, communities, and society.

child data, fairness, holistic view

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Tara McLaughlin  
Massey University

Joanne Allen  
Massey University

Ellen Zeng Hui  
Massey University



## NZARE 2024 Conference – Full Programme

Pepa 148

Session 8 - 9:15am to 9:45am - LG03

SIG: Quantitative Studies in Education

Jingdi Sun, The University of Auckland

### **Unlocking the Spectrum of Science Education Excellence: Exploring Student Motivation through Latent Profile Analysis**

Motivation is a crucial factor in shaping students' academic success, yet traditional approaches often oversimplify its impact. This study employs Latent Profile Analysis (LPA) to delve into the complex interplay of motivational factors and their influence on science achievement. Drawing on science data from the Programme for International Student Assessment (PISA) 2015, we focus on students from New Zealand, Australia, and Singapore—chosen for their diverse educational landscapes and Singapore's distinguished performance in science education. Our findings underscore the significance of motivational profiles, revealing that enjoyment of science outweighs self-efficacy in predicting academic achievement. LPA proves instrumental in uncovering these distinct profiles, offering a nuanced perspective that traditional methods miss. This research not only enhances our understanding of how motivation impacts learning but also advocates for tailored educational strategies that cater to individual student needs. By emphasizing person-centred approaches, this study provides actionable insights for educators and policymakers seeking to optimize science education outcomes. It underscores the importance of recognizing and nurturing diverse motivational drivers among students, ultimately aiming to foster a more engaged and successful learning environment.

science education, quantitative, educational psychology

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## NZARE 2024 Conference – Full Programme

Pepa 152

Session 8 - 9:45am - 10:15am - LG03

SIG: Quantitative Studies in Education

Darcy Fawcett, Sound Data

### **The development and use of a value-added model at St Peter's School linking senior graduation data (NCEA and IB) to junior assessment data (e-asTTle and PAT).**

This presentation will discuss the development and use of value-added models by the leaders of St. Peter's School (SPS) and their data coach. The first part of the presentation will focus on the models and the second half on how the models are beginning to be used by the school leaders. Multivariate stepwise linear and ordinal logistic regressions (Tabachnick & Fidell, 2014) were used to develop models linking SPS's senior graduation data (International Baccalaureate, NCEA Level 3 and University Entrance) to their junior assessment data (Year 7 – 10 PAT Mathematics and Comprehension and e-asTTle Reading) and demographic data (gender and ethnic heritages). We will then discuss the iterative co-design (Penuel et al., 2020) of the analysis and teacher-friendly dashboard by SPS leaders and their data coach, and how SPS leaders are beginning to use their value-added models in their whole-school improvement efforts (Lasater et al., 2020).

value-added, NCEA, assessment

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Darcy Fawcett  
Sound Data

Amy Featonby  
St Peter's School



## NZARE 2024 Conference – Full Programme

Pepa 173

Session 8 - 8:45am to 9:15am - LG02

SIG: Teaching and Teacher Education

Rebecca Harrop, Victoria University

### **Professional Development and Learning for Physics Teachers: Challenging a One-Size-Fits-All Approach.**

Ensuring PLD opportunities for teachers are fit for purpose is vital, especially considering the ongoing shortage of qualified physics teachers, increasing numbers of out-of-field (OOF) physics teachers, and limited physics-specific-professional learning and development (PLD) opportunities available in New Zealand. This presentation explores how a collaborative PLD workshop based on Loughran's Content Representations supported the knowledge and skill acquisition for senior high-school physics teachers of differing educational backgrounds in New Zealand. Teacher development is explored using Shulman's pedagogical content knowledge (PCK), the Refined Consensus Model, and Bandura's Self-efficacy construct. Data is taken from a wider PhD study and includes interviews, pre and post testing, and observations. Deductive thematic and descriptive statistical analysis identified positive growth in teachers' self-efficacy but variable growth in PCK knowledge domains between in-field and OOF teachers. Findings suggest such PLD is effective for in-field teachers but OOF teachers could benefit from further content knowledge development before participating. Implications for policy makers, providers of PLD, and schools exist regarding how to best support physics-teachers' knowledge acquisition and likely consequences for students if such support is not provided.

PLD, Self-efficacy, student-outcomes

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Rebecca Harrop  
Te Herenga Waka - Victoria University of  
Wellington



## NZARE 2024 Conference – Full Programme

Pepa 181

Session 8 - 9:15am to 9:45am - LG02

SIG: Teaching and Teacher Education

Dawn Lawrence, University of Waikato

### **Looking back, looking forward, and the pieces in between: Lived cultural capability PLD facilitator praxis**

This presentation will take the form of a mini-workshop in which I will share an auto-ethnographic case study of cultural capability professional development and learning (PLD) facilitator practice. The case study centres a workshop, undertaken within my doctoral research, that invited teachers to critically reflect on the relationship between colonisation and education in Aotearoa New Zealand. Drawing from culturally responsive and relational pedagogies and applied theatre, the workshop created a context for learning framed by a chronological consideration of legislation, woven together with personal narrative and embodied through the creation of a collaborative assemblage.

The current Māori education strategy, Ka Hikitia, Ka Hāpaitia, calls on educators to ensure Māori learners fully realise their potential without compromise to who they are. Given the history of the strategy however, it is clear policy alone will not bring about change. The prioritisation of cultural capability PLD in 2021 recognised the importance of critical consciousness if the past was to influence change for the future consistent with the Te Tiriti centric vision of the policy. It was in this context I began my doctoral research into the embodied praxis of an English born, West Auckland raised cultural capability PLD facilitator i.e. me.

PLD, Facilitation, Autoethnography

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Dawn Lawrence

Poutama Pounamu; Waikato University



## NZARE 2024 Conference – Full Programme

Pepa 226

Session 8 - 9:45am - 10:15am - LG02

SIG: Teaching and Teacher Education

Jean Kim, University of Canterbury

### **Teachers' perceptions and practices when working with English as additional language learners in New Zealand primary schools:**

#### **Challenges and opportunities**

New Zealand schools face demographic changes with a rapid increase in the number of culturally and linguistically diverse students, which leads to challenges for teachers. The wider sociocultural environment including past and present governmental decisions and policies impact on learning. This study elicited the perceptions of teachers and principals at New Zealand primary schools. A national survey questionnaire was developed that considered views on the challenges and potential solutions when teaching linguistically diverse learners. The questionnaire asked for background details on the respondent and included open-ended questions aimed at providing an opportunity to state issues and propose recommendations. These responses were then qualitatively analysed to identify emerging themes.

In this presentation, the barriers stated will be discussed, but so also will the opportunities and potential solutions. Key themes were the increase in diversity of languages/cultures within schools, and the lack of professional development. Increase in the latter was also seen as a solution. So too was the use of technology and family/friends to increase English experience, and support from trained (eg, ESOL) staff. Further comments focused on explicit teaching and better understanding of first language and culture. The presentation will consider these within a sociocultural paradigm with implications for practice.

ESL

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Jean Kim  
University of Canterbury

Jo Fletcher  
University of Canterbury

John Everatt  
University of Canterbury

Ting Ma  
University of Canterbury



## NZARE 2024 Conference – Full Programme

Pepa 209

Session 9 - 1:15pm to 1:45pm - S1.02

SIG: Adult & Higher Education

Atif Khalil, University of Waikato

### **Motivation and persistence in doctoral education: Insights of students' experiences**

Recent literature on doctoral education reported numerous challenges students face during their PhD. Motivation is an important aspect which supports students' persistence in the long PhD journey. However, the study sought to explore the positive events/experiences of students that contributed to their motivation and persistence in the PhD program. I recorded video conferencing narratives of six Education doctoral students in a university in Pakistan. I used thematic analysis and a stage approach to categorise students' experiences based on their key milestones in doctoral education. The findings reported that students had the following positive experiences during their PhD. The first stage (coursework) included shared learning, peer cooperation and discussions, teacher support, specialisation courses, and research-based assignments. The second stage (research proposal) included tracing literature in their field, considering prior and practical exposure for research topic, selecting innovative research methods, and interacting with supervisor. The last stage (dissertation writing) comprised of interaction with national and international experts, teaching graduate students, writing and presenting research papers, participating in research journal and research project teams, and discussions with faculty members. All of the positive experiences that students had increased their motivation and ensured their persistence at different stages of their PhD.

Doctoral education, Doctoral motivation and persistence

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## NZARE 2024 Conference – Full Programme

Pepa 233

Session 9 - 12:45pm to 1:15pm - LG04

SIG: Education for Sustainability

Devika Rathore, New Zealand Tertiary College

### **Connections across time and place: Culturally-oriented environmental identity transitions of migrant teachers in Aotearoa early childhood education.**

Within the context of a superdiverse Aotearoa, a significant number of migrant teachers transfer their cultural and environmental identity, knowledge, and practice as they transition to their host cultural context. My doctoral research explored migrant Indian teachers' interpretations of their culturally-oriented and negotiated environmental identity transitions within early childhood education. Traditional Indian philosophies were based upon human-environment relatedness and harmony. The natural environment was interwoven into people's daily lives through culture, religion, and spirituality. As teachers cross into the present and enter a new cultural and environmental context, these values undergo transitions that influence their teaching beliefs and practices. A sociocultural theoretical perspective informed this study, drawing primarily on Sauvé's (2009) model of personal and social development of the self, te ao Māori, and Indian environmental philosophical perspectives. One idea that is reflected across these philosophies is a spiritual link between the past, present, and future. This presentation explores migrant Indian teachers' interpretations of what they bring from their past and take into their future; and how similar cross-cultural Indigenous beliefs enable their culturally-oriented environmental identity transitions within the Aotearoa early childhood education context.

Indian teachers, environmental identity, Indigenous perspectives.

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## NZARE 2024 Conference – Full Programme

Pepa 56

Session 9 - 1:15pm to 1:45pm - LG04

SIG: Education for Sustainability

Vicky Beckwith, University of Waikato

### **Being interested in your town: An important aspect of global citizenship for a 12-year- old child**

Being interested in your town connects you to community, place, and people. This presentation discusses historical consciousness, one of the surprises to emerge from initial analysis of the data in a phenomenological study exploring 12-year-old children's lived experiences of being global citizens in Aotearoa New Zealand. Whilst situated in the present, one child looked to the past, strengthening her foundation in her community. During semi-structured interviews, and using photo- elicitation to encourage discussion, the child talked about her interest in historical connections with place and people. Returning from the past to the present, the child actively participated in legacy building through community projects. Moving to the future, the child was motivated to learn more about the historical context of the wider local area, anticipating venturing further afield as she moved from child to adult, local to national to global. This child's increasingly mature historical consciousness was unique within the small group of participants. This unexpected finding offers the opportunity to consider how teaching and learning moments in the local context have national and global potential.

Photo-elicitation; Historical consciousness; Children

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Victoria Beckwith  
University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 59

Session 9 - 1:45pm to 2:15pm - LG04

SIG: Education for Sustainability

Robyn Mockett, Victoria University of Wellington

### The observe and encourage young children's critical and reflective environmental thinking

Exposing young children to educational experiences with nature has been shown to be one of the most important ways of encouraging long-term commitments to the environment. Yet while many Education for the Sustainability [EFS] programmes encourage children to care for nature, far fewer expect children to develop critical and complex thinking about the environment. One of the key reasons for this is that it is difficult to 'measure' children's critical environmental thinking and many educational activities prioritise affective engagement rather than critical thinking. Our young children grow up in a world with an increase in information availability including the expression of opinions held up as truth, the demands of the ever-expanding knowledge economy, and the individualism of rights of citizens. The desire for further research that includes critical and reflective thinking education, beginning with our youngest citizens, has been highlighted. In this presentation I will discuss my doctoral study which intends to explore ways to see and encourage children's critical and reflective environmental thinking. Dewey's understanding of critical citizenship education will be employed to help me frame my approaches to critical thinking in the environment. My study will use a collective interpretative case study across three New Zealand/Aotearoa ECE centres. Thus, participants use of Te Whāriki (the Zealand/Aotearoa early childhood curriculum) and its incorporation of te ao Māori will be considered as part of data analysis. I expect to use generic inductive analysis to find themes, causal hypotheses and produce outlying responses that can be considered for rival explanations. I also will present some activities that I am developing as part of my PhD proposal that could be undertaken within ECE centres that aim to deepen and enhance children's environmental experiences.

Children, critical, environmental thinking

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## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 9 - 12:45pm to 1:15pm - S1.01

SIG: Learning Environments

**Annual General Meeting**

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## NZARE 2024 Conference – Full Programme

Pepa 121

Session 9 - 12:45pm to 1:15pm - S1.04

SIG: Other

Anam Noshaba, Lahore college for women university, Lahore Pakistan

### EXPERIENCES OF THE STUDENTS HAVING THEIR PARENTS AS THEIR PRINCIPAL OR TEACHER IN THE SAME INSTITUTE

The experience of being a child of a teacher or principal within the same school can offer unique educational experiences. These children often perceive the school environment differently from their peers, facing both distinct advantages and challenges. By focusing on the unique perspectives of these students, this research seeks to contribute to a deeper understanding of the academic and social implications of having a parent as a teacher or principal, particularly within the Pakistani educational context. This research was conducted to explore the experiences of the students having their parents as their teacher or principal in the same institute. This research was qualitative in nature and narrative research design was employed to conduct the study. The sample comprised of five participants, selected through purposive sampling technique. Semi-structured interview protocol was used to collect the data. Interviews were conducted from the secondary school students. Narrative analysis was employed to synthesize interview data into cohesive stories, focusing on participants' sense making through storytelling. This study examined students' experiences when their parents were teachers or principals at their school, revealing mixed feelings of discomfort and happiness regarding the attention received. Students received their parents differently at home versus at school, maintaining positive relationships with other teachers while sometimes facing jealousy from classmates. Despite benefits like respect, students also felt pressure and fear for minor actions, highlighting the need for caution and recognition of their dual roles as students and children of teachers. This study may be worthwhile for schools to ensure the privacy of the teachers' or principals' kids and may promote further research to explore the long-term effects of unique educational identities on the well-being, career choices, and overall satisfaction of students with teacher-parents.

Principals' Child, Teachers' Child & Parents as Teachers

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Anam Noshaba  
Lahore College for Women University, Lahore  
Pakistan

Aiman Zaidi  
Lahore College for women University, Lahore  
Pakistan



## NZARE 2024 Conference – Full Programme

Pepa 222

Session 9 - 1:15pm to 1:45pm - S1.04

SIG: Other

Kristin McGill, The University of Waikato/Te Whare Wānanga o Waikato

### **Understanding Cultural Relationships: Whānau, Whanaungatanga and Māori Student Attainment of University Entrance in a Mainstream Secondary School in Aotearoa, New Zealand**

This study seeks to understand the importance of cultural relationships in supporting Māori student achievement of University Entrance. This research is based on the stories of five female ākonga Māori, all of whom completed five years of secondary education, and their whānau. The retrospective reflections of their journeys look deeply into their relational experiences of whanaungatanga and whānautanga with their school, and the impact this had on their academic achievement of NCEA Level 3 and University Entrance. Semi-structured interviews as chat were conducted, underpinned by a Culturally Responsive methodological framework. These interviews were brought together to develop a collaborative story and analysed through a Constructivist Grounded Theory lens. The results provide insight for schools grappling with the pervasive inequities that continue to exist for ākonga Māori in our education system. They highlight the importance of culturally grounded transformative praxis and the risk of attempting to incorporate culturally located principles such as whānau and whanaungatanga into a schooling context, while still operating within historical hegemonic frameworks.

ākonga, UE, whanaungatanga

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Kristin McGill  
The University of Waikato



## NZARE 2024 Conference – Full Programme

Pepa 151

Session 9 - 12:45pm to 1:15pm - LG03

SIG: Quantitative Studies in Education

Tanya Evans, University of Auckland

### **Gendered STEM Pathways: The Role of Gender-Segregated Schooling in Mathematics and Science Performance**

According to the World Economic Forum, the gender gap in STEM careers contributes significantly to the overall gender pay gap. Interestingly, the underrepresentation of women in STEM is less pronounced in some Eastern European and Islamic countries, hinting at the role of cultural factors. Gender-segregated schooling, which is commonly practiced in Islamic countries, is often seen as a contributing factor. However, the issue of gender-segregated education sparks much controversy. Critics argue evidence is lacking, and segregation may foster sexism and hinder social skills. In New Zealand, approximately 14.43% of girls and 14.35% of boys attend single-gender secondary schools, mostly state-run, unlike in the USA and Australia, where such schools are mainly private or Catholic. Analysis of the TIMSS 2019 dataset revealed that girls from low socio-economic backgrounds and boys from any socio-economic backgrounds in single-gender schools achieved significantly higher mathematics and science scores than their peers in co-educational settings. This effect size is especially large for girls in low socio-economic settings. The results suggest that protective factors in New Zealand's single-gender schools positively influence these students. We explore potential reasons, such as reduced impact of gender socialisation and stereotype threat, and explicit messaging that challenges stereotypes and empowers girls to engage in STEM fields.

mathematics education, gender, STEM pathways

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## NZARE 2024 Conference – Full Programme

Pepa 154

Session 9 - 1:15pm to 1:45pm - LG03

SIG: Quantitative Studies in Education

Valerie Sotardi, University of Canterbury

### **Math Performance, Peer Performance, & Math Anxiety: The Moderating Role of Gender**

Using PISA 2022 data from 613,665 15-year-olds across 80 countries, this study investigates the relationship between math performance, peer math performance, and math anxiety. In particular, we focus on the moderating role of gender. We employ multilinear regression techniques controlling for a broad set of factors at the individual, class, teacher, peer, school, and country levels. Our findings indicate that math anxiety falls with individual math performance, an effect slightly more pronounced for girls. Math anxiety rises with peer math performance, and this effect is more than twice as strong for girls. Moreover, we find that controlling for math achievement, girls on average suffer from higher math anxiety than boys. Achieving greater gender equality in math-related professions will require overcoming excess math anxiety among girls.

mathematics; gender; STEM

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Valerie Sotardi  
University of Canterbury

Robert Rudolf  
Korea University





## NZARE 2024 Conference – Full Programme

Pepa AGM

Session 9 - 12:45pm to 1:15pm - LG02

SIG: Teaching and Teacher Education

**Annual General Meeting**

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