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RUA Designs
Shaping our futures: Celebrating transformative educational research, policy, and pedagogies that foster the wellbeing of people and planet.

Whakatauākī: Māui Taumata Rau

Education in Aotearoa is undergoing a much needed paradigm shift. Research is playing a key role in facilitating that shift. By highlighting the flexibility, versatility, speed and agility with which creative minds, spirits, and bodies living and playing in today’s education setting are able to co-construct our tomorrows, our shared visions, hopes and dreams. That is the stuff of transformation. Just like our ancestor Māui who was able to create land, transform ways of being, slow down the sun, and even bravely challenge the cycles of life and death, we too have to continue to be brave, risky and revolutionary in order to collaboratively shape and reshape thinking, futures, and the ‘good’ life of all members of our societies.

Māui Taumata Rau: Māui is a Maori hero of some significance from Asia to Aotearoa; Māui of many journeys, Māui of many deeds, Maui of many faces. The whakatauākī (proverbial saying) brings to the consciousness these imperatives of challenge, to make a difference; to be just like Māui.
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Welcome to the NZARE 2018 Conference
26 – 28 November 2018, MH Building
AUT South Campus, South Auckland, New Zealand

Welcome from the NZARE Co-presidents, Council, and Conference Committee

Tēnā koutou, tēnā koutou, tēnā rā koutou katoa.

Ka huri ngā mihi taiawhio i te motu ki ngā pā whakawairua o ngā iwi taketake o Aotearoa, ngā kaipupuri i ngā mauri o ngā marae maha. Ki ngā kete kōrero i te mātauranga, ngā kaiwhakatō o te māramatanga, tae atu hoki ki ngā kairangahau titiro tawhiti, titiro tata. Nā koutou i whakatō ngā kākano kia tipu ai ngā purapura, ā, kia puāwai hoki tēneki kaupapa huihuinga a tātau huri noa i te motu. Ka haku ake te ngākau mō koutou kua ngaro atu i te tirohanga kanohi. Okioki mai rā, i raro i ngā manaakitanga o tō tātau kaipāruauru, te timatanga me te whakaotinga o ngā mea katoa.

E mihia kau atu ana ki ngā amokura me ngā amokapua, ngā kaitiriwā, kairangahau o te motu whānui whakawhiti atu ki te moana-nui-ā-Kiwa, tau atu ki te ao whānui. Tēnei te karanga maioha atu kia koutou katoa – Nau mai haramai ki tēnei hui ā-tau mō Te Hunga Rangahau Mātauranga o Aotearoa (NZARE).

On behalf of the NZARE Council and this year’s host committee we extend to you our warmest welcome to the 2018 Conference of the New Zealand Association for Research in Education (NZARE). We are delighted to welcome you to the AUT South Campus, South Auckland, for an opportunity to engage with your colleagues, to listen and learn, to share and support one another in our research kaupapa.

NZARE aims to foster excellence in educational research. This conference supports our aim by providing you with the opportunity to network with educational researchers and to support the development of high quality educational research. It’s a highlight on our annual calendar.

The theme this year, ‘Celebrating transformative educational research, policy, and pedagogies that foster the wellbeing of people and planet’, speaks to the power of our role as researchers and as educators, in shaping the future of our country’s educational policies and practices. Our whakatauākī, ‘Māui Taumata Rau’, inspires us to seek transformative pathways that may lie beyond the normative conventions.

This is the first time the NZARE conference is being hosted in South Auckland, a region of our country that is packed with the transformative energy generated by its exciting cultural diversity. I would like to thank the members of this year’s conference committee and of our NZARE Council for all their hard work.

From the keynote speakers and the range of sessions, to the spotlight on publications evening and the conference dinner, this year’s conference will be a wonderful occasion.

A warm welcome, enjoy, and I look forward to meeting many of you.

Ngā mihi o te wā,

Nā Jenny Ritchie māua ko Agnes McFarland
Co-Presidents, NZARE
Conference Venue
This year’s conference is located at AUT South Campus, South Auckland 640 Great South Road, Manukau, Auckland.

Keynote addresses will be held in MH118, 117 lecture theatres.

The pōwhiri will be held in the main foyer of MH Building.

Parking
Parking is located in Carpark 1 and is based on first come first serve basis as this carpark is also used for students and staff. Parking is $7.50 for the day or $1.50 per hour and is free after 6pm. The pay machine takes coins or credit card. If purchasing by card there is a 50c surcharge; if paying by cash please use exact amount as this machine does not give change.

Registration

Registration Desk Locations and Opening Times
Registration packs will be available for collection from the Conference Registration Desk:

- Monday: 8.00am – 4.30pm  MH Building, Main Foyer
- Tuesday: 8.00am – 4.30pm  MH Building, Main Foyer
- Wednesday: 8.00am – 4.30pm  MH Building, Main Foyer

If you are presenting, please ensure that you have your presentation loaded onto the computer in your room prior to your session. If you need assistance please ask one of the Conference helpers.

Pōwhiri and Official Opening
All delegates are encouraged to attend the pōwhiri to open the conference. Please gather promptly in the main foyer of the MH Building at 8.45 on Monday 26th November.

WiFi
You are welcome to make use of the complimentary WiFi for the duration of the conference.

Login details are as follows:

SSID: AUTwifi
Username: guest@conf
Password: 42027362

Catering
If you have indicated specified dietary preferences there will be labelled dishes accommodating these preferences. Please can only those who have indicated dietary requirements help themselves from this table as this has been accommodated based on registration indication. If you have any questions please ask the catering staff.
The AGM Breakfast Meeting will be held at 7.00am on Wednesday 28\textsuperscript{th} November at MH 108, AUT South Campus. If you are attending the AGM Breakfast Meeting please ensure this has been indicated on your registration as catering will be provided for.

All tea and lunch breaks will be served in the Main Foyer, MC 102.

**Nearest Medical Centre**

**Hospital:** MiddleMore Hospital  
100 Hospital Road  
Otahuhu,  
(T) 09 267 0000

**Pharmacy** Life Pharmacy Westfield Manukau  
4 Ronwood Avenue, Manukau  
9.00am – 6.00pm  
(T) 09 262 1884

**Health and Safety**

AUT Campus is a smoke free venue. You will need to make your way off campus if you are wanting to smoke.

Should you need to contact Campus Security please dial 0800 AUT SAFE from your mobile.

Emergency evacuation and assembly points will be announced at the start of the conference.

**Transport**

**Rental Cars**

Avis Rental Cars (T) 09 976 9119  
Omega Rental Cars (T) 09 275 3265  
Ace Rental Cars (T) 0800 502 277

**Taxis and Shuttles**

Super Shuttle (T) 09 522 5100L  
Luxury Shuttle (T) 0800 547 4444  
Taxi House (T) 09 300 3000  
South Auckland Taxi (T) 09 728 5678
Networking and Social Functions

Spotlight on Publications
Date: Monday 26 November 2018
Time: 6.00pm
Venue: Main foyer MC102

Gather and mingle from 5.50pm with drinks and canapes.

The Spotlight on Publications event will highlight a number of new and topical education publications and is an excellent opportunity for networking.

Conference Dinner
Date: Tuesday 27th November 2018
Time: 7.00pm – 10.30pm
Venue: MH Building, Main Foyer, MH102 AUT

NZARE Annual General Meeting Breakfast
Date: Wednesday 28th November
Time: 7.00am – 8.00am
Venue: AUT, MH108
### NZARE 2018 Conference Overview

#### MONDAY 26th NOVEMBER

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<th>Time</th>
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<tr>
<td>8:00 – 4:30</td>
<td>Registration, MH building, main foyer, ground floor</td>
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<tr>
<td>8:45 – 9:00</td>
<td>Gather for Pōwhiri</td>
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<tr>
<td>9:00 – 9:30</td>
<td>Pōwhiri, MH building, main foyer</td>
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<tr>
<td>9:30 – 10:00</td>
<td>AUT welcome, NZARE Presidents’ address MH118,117 lecture theatres</td>
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<tr>
<td>10:00 – 10:30</td>
<td>Morning tea</td>
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<td>10:30 – 10:45</td>
<td>The McKenzie Award 2018 MH117,118</td>
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<tr>
<td>10:45 – 11:45</td>
<td>Keynote Address: Professor Tracey Bunda MH118,117</td>
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<td>11:45 – 12:45</td>
<td>Lunch</td>
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<td>12:45 – 2:15</td>
<td>Session 1</td>
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<td>Afternoon tea</td>
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<td>2:45 – 4:15</td>
<td>Session 2</td>
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<td>4:20 – 5:50</td>
<td>Session 3</td>
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<tr>
<td>5:50 – 7:30</td>
<td>Spotlight on Publications event, MH building, main foyer</td>
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**Note 1:** MH117 lecturer theatre is for overflow and video-linked

**Note 2:** All SIG meetings except for the Student and Emerging Researcher Caucus are scheduled during a session time.
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<thead>
<tr>
<th>Time</th>
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<tr>
<td>7:30 – 8:15</td>
<td>Student and Emerging Researcher Caucus MH104</td>
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<tr>
<td>8:00 – 4:30</td>
<td>Registration, MH building, main foyer, ground floor</td>
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<td>8:30 – 9:00</td>
<td>Karakia and Rae Munro Award 2018 MH118,117</td>
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<td>9:00 – 10:00</td>
<td>Keynote: Associate Professor Jennifer Adams MH118,117</td>
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<td>10:00 – 10:30</td>
<td>Morning tea</td>
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<td>10:30 – 12:00</td>
<td>Session 4</td>
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<tr>
<td>12:00 – 12:30</td>
<td>Sutton-Smith Doctoral Award 2018 MH118,117</td>
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<tr>
<td>12:30 – 1:30</td>
<td>Lunch</td>
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<td>1:30 – 3:00</td>
<td>Session 5</td>
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<td>3:00 – 3:30</td>
<td>Afternoon tea</td>
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<td>3:30 – 5:00</td>
<td>Session 6</td>
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<td>7:00</td>
<td>Conference Dinner: MH building, main foyer</td>
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<tr>
<td>7:00 – 8:00</td>
<td>NZARE AGM (MH108) Breakfast (outside MH108)</td>
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<td>8:00 – 1:00</td>
<td>Registration, MH building, main foyer, ground floor</td>
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<td>8:45 – 9:00</td>
<td>Karakia MH117,118</td>
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<td>9:00 – 10:00</td>
<td>Keynote: Kia Aroha College Warrior Researchers MH118,117</td>
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<td>10:00 – 10:30</td>
<td>Morning tea</td>
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<td>10:30 – 12:00</td>
<td>Session 7</td>
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<td>12:00 – 12:40</td>
<td>Lunch</td>
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<td>12:40 – 1:40</td>
<td>Herbison Lecture: Dr Rae Si’ilata MH118,117</td>
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<td>1:40 – 2:40</td>
<td>Session 8</td>
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<tr>
<td>2:45 – 3:30</td>
<td>Keynote panel reflections (Jennifer Adams, Tracey Bunda, Rae Si’ilata, and Ann Milne) Poroporoaki, MH118, 117</td>
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NZARE 2018 Awards

McKenzie Award
Monday 26 November 10.30am – 10.45am
The McKenzie Award honours a current NZARE member’s significant contribution to educational research over an extended period of time. There will be no presentation of the McKenzie Award this year, but NZARE encourages applications for this award next year.

Rae Munro Award
Tuesday 27 November 8.45am – 9.00am
The Rae Munro Award is awarded annually for an excellent Masters-level thesis by a member of NZARE in an area which has implications for teacher education or classroom practice.

Sutton-Smith Doctoral Award
Tuesday 27 November Midday – 1.30pm
The Sutton-Smith Doctoral Award is awarded annually for an excellent Doctoral thesis by a member of NZARE.
Jennifer Adams

Doctor Jennifer Adams research has focused on two areas: 1) urban place-based and environmental education and 2) informal science learning a) teacher learning, identity and agency and b) youth agency and identity. Underlying her work are critical and decolonizing stances towards science and science teaching and learning. Her research will now extend into examining the intersection of creativity and STEM in postsecondary science teaching and learning contexts. Dr. Adams will emphasize design towards increasing the creative capacities of STEM learners and theorizing a critical stance towards creativity and STEM.

Keynote Abstract: Engaging Epistemic Disobedience and Expanding Knowledge Production Enactments for Researchers and Educators

With the spectre of current global challenges and inequities, educational researchers and practitioners must work to create environments that allow learners to imagine and produce different futures; one were living and well-being have precedence over economic gain. Because we have been so long embedded in Western knowledge systems and hegemonic discourses of what counts as knowledge and what is valued as production, we need to actively engage in, what Walter Mignolo and Sylvia Wynter call “epistemic disobedience” were we delink ourselves from and “undo the [dominant] systems through which knowledge and knowing are constituted.” This requires us, as researchers to rethink research approaches and embrace methodologies that are participatory and allow us expand our notions of what counts as evidences of learning and our understandings of how knowledge is produced.

In this keynote, I will challenge us to engage in epistemic disobedience through our research and advocacy for students, young people, educators, etc. who engage in our research. I will present two frameworks that are germane for rethinking research: a collaboratively developed Critical Transdisciplinary Heuristic and a notion of Critical Agentic Bricoleur. The Heuristic can be thought of as both a pedagogical tool and framework for advancing participant-centred research. It was developed in an Urban Education Research group and emerged from the group’s lived experiences as researchers and educators working in contexts mostly with young people who are marginalized from meaningful and adequate learning experiences. The notion of Critical Agentic Bricoleur is an identity descriptor that emerged from my research about teacher identity and teacher learning vis-à-vis identifying as and working with students who are marginalized from science education. Through these frameworks I hope to inspire researchers and educators to move beyond common paradigms of research towards more creative and expansive engagements; engagements that value diverse worldviews, perspectives and ways of understanding and describing our lived experiences and relationships to the natural and built world.
Tracey Bunda

Professor Tracey Bunda is a Ngugi/Wakka Wakka woman and the Head of the College for Indigenous Studies, Education and Research at the University of Southern Queensland. She has three decades of leadership in Aboriginal and Torres Strait Islander higher education. She is a teacher of excellence and in 2012 was awarded an Office for Learning and Teaching Citation For Sustained, Dedicated, Inspirational and Far-reaching Contributions to the Education of Pre-service Teachers of Indigenous Students. In 2013 Professor Bunda received the Australian Association for Research in Education Betty Watts Award for an Indigenous Researcher for her leadership of the ‘Tellin’ the stories of teachers: tellin’ the stories of teaching’ project. Tracey has most recently been the recipient of a Distinguished Scholar Award at the University of Auckland in February/March 2018 hosted by Te Puna Wānanga (Education and Social Work) and Te Wānanga o Waipapa (Arts).

Professor Bunda is committed to ensuring that Aboriginal and Torres Strait Islander people’s voices are centered in dialogues of race and power and she is particularly interested in the ways in which Aboriginal women’s agentic power can be brought to bear to counter continuing colonial contexts. Tracey’s current research investigates strategies of empowerment for Aboriginal parents to assist children to success and her cultural ethical ethos is driven by a need to mentor the next generation leadership within Aboriginal communities. The co-authored book Research Through With and As Storying is found at: https://www.routledge.com/Research-through-with-and-as-storying/Bunda-Phillips/p/book/9781138089495

Keynote Abstract: Research Through, With and As Storying

In 2017 my colleague Dr Louise Phillips of the School of Education at the University of Queensland, a withoo joondhal, and I wrote a book about Research through, with and as storying. We did so because we understood that our efforts in research and scholarship in the academy are tightly interfaced with technologies and apparatuses measuring our worthiness. The blunt-force effects of such are felt every day and work to obfuscate a different valuing, that is, the imperative to be human in the academy. The address claims the space for storying in the academy and explores this emerging and responsive concept in theorizing, methodology and creation of publications of research. Drawing on the phenomena of storytelling in Aboriginal culture, storying is positioned as a central form from which meaning making can occur and thus understandings of being human are cultivated. The address argues that storying research gives epistemological voice to the marginalized in the academy and has value for scholars, students and practitioners who are seeking to develop alternate and creative contributions to the production of knowledge. Personal lived, culturally transmitted stories are relayed to demonstrate how stories define cultural laws, offer wisdom, are living oral archives, are collectively owned and authored and nourish the human spirit. And finally, there is invitation in the address, to take up this theorizing, to locate storying as a valuable ontological, epistemological and methodological contribution to the academy across disciplines.
Kia Aroha College is a Year 7 to 13 secondary school in Otara, South Auckland. The school’s designated-character includes bilingual learning (Māori, Samoan, Tongan) and a learning model described by the school as a “Critical, Culturally Sustaining Pedagogy of Whānau”. The aim of the school is to develop “Warrior-Scholars”. The Warrior-Researchers’ work is an example of this critically conscious curriculum. Their previous investigations, presented at research conference nationally, expose education policies that don’t work for them as learners in our education system. These have included schools’ misinterpreting the words, “as Māori”, and challenging the Communities of Learning initiative. This year they are investigating racism in their education.

Keynote Abstract: Does transformation depend on our postcode?
In 2018 our group of Warrior-Researchers, in Years 11 to 13 at Kia Aroha College, researched the impact of racism and poverty on our daily lives, conducting our own surveys of families and young people in the Otara and Manurewa communities.

We “ground-truthed” our experiences of living and learning in our community, and mapped these using digital technology and an innovative, mobile mapping platform called Streetwyze, generously made available to us by co-founder, Professor Antwi Akom, who visited Kia Aroha College in January 2018. Where had we experienced racism? Where could we access good quality food? Where did we know not to go to eat? How did this contrast with the food available in our more affluent, neighbouring community? We also mapped the places we experience in our community that value and strengthen our cultural identities—local marae, Kohanga Reo, Samoan and Tongan language centres, our homes, and some—but sadly not all—schools.

What would Māui do about our education system today? Who could he “trick” into giving us a better deal? We like to think he’d be on our side. The side of our education system’s underdog—the one whose long tail, we are told, is where you will find Māori and Pasifika learners like us. Why is this? Does who we are, and where we live, determine our educational achievement, our health, our well-being and our futures? Does the transformation we are talking about, depend on our postcode?
Rae Si’ilata

Rae Siilata is a Lecturer in Biliteracy-Pasifika/TESSL in the School of Curriculum and Pedagogy, Faculty of Education and Social Work.

Rae’s recent research interests centre on effective language and literacy practice for Pasifika bilingual learners in primary schooling, and on professional learning and development (PLD) facilitation for linguistically and culturally responsive teaching and learning. In 2014 she completed her doctoral studies on Pasifika student success in English-medium education.

Formerly a primary ESOL/classroom teacher and principal, Rae is interested in bilingual/biliterate academic outcomes, language teaching and learning, and is committed to teacher professional development in bilingualism/biliteracy and TESSOL.
## OVERVIEW OF SIGs STRAND TIMETABLE – NZARE CONFERENCE 2018

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<tr>
<th></th>
<th>MH104</th>
<th>MH108</th>
<th>MH105</th>
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- **Māori Caucus**
- **Pasifika Caucus**
- **Adult & Tertiary Education**
- **Assessment**
- **Early Childhood Education**
- **Education Policy**
- **Educational Ideas**
- **Educational Leadership**
- **Inclusiveness & Community**
- **Science Education Research**
- **Other**
- **Roundtables**
### MONDAY 26 NOVEMBER SESSION DETAILS

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
<th>Title</th>
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</thead>
</table>
| **Session 1** | 12:45 – 2:15 | Pres 27 Karyn Saunders  
Jane Carroll  
Sandra Grey  
David Kenkel | Using ako-rich practice in a junior mathematics classroom: Promoting wellbeing through teacher relationships with students and whanau |
|          |         | Pres 88 Fuapepe Rimoni  
Margot Bowes  
Kylie Thompson | Exploring Pasifika values in primary and secondary school classrooms: Developing and nurturing leadership, respect and service towards wellbeing and learning |
| Pres 37/2 Farzanah Desai  
Te Atakura |         | Pres 96 Judith Loveridge  
Sarah Te One | Shaping our futures: Celebrating transformative educational research |
|          |         | Pres 116 Tufulasi Taleni | The pedagogical architecture of a modern learning environment in a New Zealand secondary school |
|          |         | Pres 146 Julie Hest | A true leader masters the art of navigation |
|          |         | Pres 110 Sandra Grey  
David Kenkel | Derailing transformative education |
|          |         | Pres 26 Judie Alison | Consulting for school qualifications change |
|          |         | Pres 155 Dion Enari | Fa’asaymore from promised land to dreamland. How do New Zealand born Samoans residing in Brisbane, Australia define Fa’a Samoa? |
|          |         | Pres 152 Elaine Khoo  
Bronwen Cowie | Evaluating the impact of a mobile makerspace initiative in fostering STEAM awareness and skills |
|          |         | Pres 92/2 Carmen Dalli  
Anna Strycharz-Banaś | Conflict as a window on wellbeing: Insights from a study in a multi-ethnic early childhood centre |
<p>|          |         | Pres 161 Adam Jang-Jones | Preparing individuals to be successful adults? Findings from PISA |
|          |         | Pres 65 Benjamin Zunica | The challenges of teaching mathematics with technology in a high-stakes examination environment |
|          |         | Pres 33 Susan Lovett | The potential of an online survey tool to ascertain readiness for school development for schools working in a cluster kahui ako |
|          |         | Pres 155 Benjamin Zunica | The challenges of teaching mathematics with technology in a high-stakes examination environment |
|          |         | Pres 126 Marama Stewart | Building successful learning foundations at Waiouru school - a teacher led innovation fund research project |</p>
<table>
<thead>
<tr>
<th>Session 2</th>
<th>Panel 121</th>
<th>Pres 92/1</th>
<th>Pres 107</th>
<th>Pres 124</th>
<th>Pres 132</th>
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**Roundtable Presentations**<br>28 Suzanne Trask<br>Senior science inquiry in 21st century learning environments: Rhetoric meets reality<br>5 Feifei Huang<br>Chinese immigrant teachers in New Zealand early childhood education: Aspirations, Pathways, Transitions and Career Development<br>18 Farhat Jehan<br>Haroon Rashid<br>Exploring the potential influences of mobile collaborative learning on students’ English skills and teamwork skills

| Pres 45<br>Lindsay Fish<br>Culturally sustaining | Pres 38<br>Johannie Spies<br>Relationship-based teaching | Pres 55<br>Nelly Choy<br>Listening to Asian Young | Pres 141<br>Marianne Simon<br>Enhancing teacher | Pres 14<br>Patricia A L Ong<br>Teaching perspectives and learning experiences through the Multiple Intelligences Approach |

**Inclusive Education and Community SIG meeting (60 min)**<br>Pres 14<br>Patricia A L Ong<br>Teaching perspectives and learning experiences through the Multiple Intelligences Approach

<p>| Pres 84/2&lt;br&gt;Xuan Pham&lt;br&gt;Differences and affective intensities: Stories of academic | Pres 72/2&lt;br&gt;Gill Hanna&lt;br&gt;Middle leaders addressing concerns |</p>
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- Māori success: A mātauranga Māori and conventional NCEA approach to teaching and learning in secondary school visual arts education
- Investigating wellbeing-related outcomes from adult literacy and numeracy programmes for diverse learners: Building on Hei Ara Ako ki te Oranga - Year 2
- Meta-analysis on effects of teaching strategies and gender on students’ achievement in chemistry in Nigeria
- Are we there yet? On the road to inclusion in Aotearoa New Zealand
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<td><strong>Panel 80</strong>&lt;br&gt;Daniel Lovatt&lt;br&gt;Amanda White&lt;br&gt;Joanna Williamson&lt;br&gt;Mediation in the early years: People, places and things</td>
<td><strong>Pres 154</strong>&lt;br&gt;Andy Nguyen&lt;br&gt;Learning analytics to inform transformative teaching, learning and support</td>
<td><strong>Pres 124/2</strong>&lt;br&gt;Robyn Caygill&lt;br&gt;Francesca Schiau&lt;br&gt;Personalisation of learning and learning pathways – the evidence</td>
<td><strong>Pres 130</strong>&lt;br&gt;Frances Edwards&lt;br&gt;Assessment is an emotional practice: Beginner teachers’ experiences</td>
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<td><strong>Pres 87</strong>&lt;br&gt;Sue Mcdowall&lt;br&gt;Rosemary Hipkins&lt;br&gt;Evolving understandings of key competencies: looking back to go forward</td>
<td><strong>Pres 129</strong>&lt;br&gt;Elisabeth Eley&lt;br&gt;Finding the ‘More Knowledgable Other’ in the teaching-learning moment</td>
<td><strong>Pres 16/2</strong>&lt;br&gt;Rajesh Ram&lt;br&gt;The fruit fly outbreak: Community perspectives of biosecurity regulations during a biosecurity crisis</td>
<td><strong>Pres 21</strong>&lt;br&gt;Sana Farooq&lt;br&gt;The critically reflective practice of online educators: Constructing a dialogic pedagogy in virtual learning environments</td>
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<td><strong>Pres 34</strong>&lt;br&gt;Carol Mutch&lt;br&gt;“That was like the moment of reality”: Using the currere process for transforming educational research</td>
<td><strong>Pres 119</strong>&lt;br&gt;Elizabeth Rata&lt;br&gt;The Knowledge-Rich Project: Researching the Curriculum Design Coherence Model</td>
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<td>Pres 85 Rochelle Stewart-Winters Jeremy Hapeta Finding our feast to find our way: The educational development of youth through a Māori and Pasifika Rugby Academy programme</td>
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<td>Adult and Tertiary Education SIG meeting (60 min)</td>
<td>PPTA Panel - Discussion on education reviews including NCEA and Tomorrow’s Schools</td>
<td>Pres 23 Noeline Wright Making new schools: Influences, practices, disruptions</td>
<td>Pres 62 Lata Rana Yvonne Culbreath Culturally inclusive pedagogies</td>
<td>Pres 16/1 Rajesh Ram Why biosecurity matters: Students’ attitudes, understanding and interpretation of biosecurity information</td>
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<td>Pres 77 Maraea Hunia Tautokona te reo: Te reo Māori in Kura and Schools</td>
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<td>Pres 74 Basil Keane Developing a te reo Māori computer adaptive test for English medium primary schools</td>
<td>Pres 167 Sue Cherrington Shifting pedagogical practices: Engagement in an early childhood education professional learning community</td>
<td>Pres 179 Stephanie Doyle Student and supervisor perspectives on intercultural doctoral supervision practices</td>
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<td>Pres 66 Melissa Tham The discourse of ‘selectivity’ within Australian select-entry schools: impacts on student subjectivities and their lived experiences</td>
<td>Pres 67/1 Ana Munro Kourtnee Baukol The annual Dave Larsen American Indian immersion experience: Closing the opportunity gap for indigenous high school, college and university students</td>
<td>Pres 109 Joanna Higgins Jennifer Adams Raewyn Eden Incorporating indigenous knowledge in a primary school environmental studies programme in Aotearoa New Zealand</td>
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<td>Pres 67/2 Ana Munro Randy Gresczky The Annual Dave Larsen American Indian Immersion Experience: Creating transformative educational experiences for indigenous high school, college and university students</td>
<td>Pres 165 Carrie Swanson The value or not of working in an expert scientist identity in dramatic inquiry</td>
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<td>Pres 31 Shelley Sugrue Graeme Severinsen</td>
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### Pres 20<br>Luke Santamaria<br>Touchscreen Tablet Use and Non-Use amongst Early Childhood Services in New Zealand |

### Pres 149<br>Anh Ngoc Trinh<br>Towards an inclusive approach to internationalising the curriculum: A case study of an undergraduate accounting programme in New Zealand |

### Pres 145<br>Sam Oldham<br>Teaching trade unionism in schools: Possibilities for Aotearoa |

### Pasifika Education SIG meeting (60 min) |

### Assessment SIG meeting (60 min) |

### Pres 84/1<br>Xuan Pham<br>Assemblages and affective intensities: Stories of academic subjectivities under knowledge economy discourses in higher education spaces |

### Pres 79<br>Senga White<br>Jacqueline Russell<br>Transforming information literacy spaces through collaborative strategies |

### Roundtable<br>89 Te Kōhanga reo<br>Hoana McMillan<br>Conceptualizing Ngā kōrero tuku iho as an assessment approach in kōhanga reo |

### Pres 17/1<br>Tracy Riley<br>Simon Flockton<br>Jared Simons<br>Carrrie Vander Zwaag<br>A teaching and learning hive: Exploring differentiation in practice through research |

### Pres 168<br>Bhavana Mehta<br>Mystery box design challenge as a pedagogical tool to develop the key competency of participation and contribution in ESOL learners |

### Roundtable 99/2<br>Annelies Kamp<br>Actor-network theory as a transformative approach |

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26
Abstracts

Disclaimer: These abstracts have been provided by the presenters. They are reproduced here with some edits. NZARE promotes discussion and opinion on a wide range of topics including the ones expressed in these abstracts. The views expressed in the abstracts are the presenters’ own and do not necessarily reflect or refute any NZARE Policy.

Session 1: Monday 26 November  Room MH104  Time: 12.45pm – 2.15pm  Theme: Māori Caucus  Type: Individual

27. Using ako-rich practice in a junior mathematics classroom: Promoting wellbeing through teacher relationships with students and whānau

Karyn Saunders¹
¹Victoria University Of Wellington, Wellington, New Zealand

There is stubborn disparity between Māori and non-Māori student achievement in New Zealand English-medium secondary education. Cultural misalignment between students and teachers can contribute to this issue. An urgency to explore this misalignment exists, as the majority of teachers in English-medium schools, where most Māori students experience their formal education, identify themselves as non-Māori.

Students do better in education when teaching and learning reflects their culture. Ka Hikitia is a strategy document which guides teachers to make positive differences for Māori students through a pedagogy reflecting Māori knowledge, underpinned by two critical factors (provision of quality teaching and learning and strong engagement and contribution from whānau). These factors in turn, underpin Tātaiako, which describes cultural competencies for teachers of Māori learners. Tātaiako promotes genuine, productive relationships between Māori students, whānau, and teachers for effective teaching and learning, through providing teacher behaviour indicators of five cultural competencies (Ako, Wānanga, Whanaungatanga, Manaakitanga, and Tangata Whenuatanga).

There has been little investigation into student or whānau perspectives of teacher behavioural indicators that exemplify ako in teacher practice, despite research showing students can provide insightful and workable solutions to their own educational needs. Hence, ako was selected as the focus of this study as it embodies the traditional translation of “Māori pedagogy”, a process integrating aspects of the provision of an education based in Māori knowledge. Understanding the meaning of ako is particularly important in secondary school mathematics, a subject crucial for optimising career and study options.

This presentation describes parts of a large study examining how a non-Māori teacher-as-researcher increased cultural alignment with students in an English-medium secondary school mathematics classroom using ako-rich practice. The main aim of this presentation is to background and share a set of behavioural indicators of ako in teacher practice, and whānau perspectives of the purposeful transformation of mathematics teaching pedagogy in response to student voice. The indicators, synthesised from literature and used as the basis of discussions with students in cogenerative dialogue sessions, will be shared. With the support of local cultural advisors, data collected through surveys, self-study methods, and PAT and topic testing were used alongside cogenerative dialogue data to understand teacher behaviours which can enact ako, and which take into account the worldviews and experiences of students in their local context. Individual whānau interviews were subsequently carried out, where teacher practices promoting genuine and productive relationships between stakeholders leading to effective teaching and learning were discussed. Whānau and student voice revealed that ako-rich practices created a sense of wellbeing for participants.

This presentation focuses on how teachers can respond to Tātaiako with ako-rich actions, trialled in a busy mathematics classroom. Learner, whānau, and teacher benefits of relationships which are grounded in student worlds will be shared. Whānau voice describing how teachers can empower whānau involvement in their child’s mathematics learning, will be discussed. The presenter will use activity theory, a framework
currently being explored within this study, to explain agency of the participants to make positive changes in the process of teaching and learning. Ako will be framed using the ako behaviour indicators collated in this study. The links made relating to wellbeing will be framed using Sir Mason Durie’s Māori health model, *Whare Tapa Whā*. Implications for research and practice will be offered.
37/2. Te Atakura: A transformative education strategy to improve Māori student achievement in tertiary education

Farzanah Desai1, Erin Lincoln1, Lesley Findlay1, Margot Atkinson1, Riki Anderson1, Jonathan Bailey1, Tim Seaholme1, Gianetta Lapsley1

1Universal College of Learning, Palmerston North, New Zealand

Objectives or purpose / Ngā whāinga/aronga rānei
This project investigates the impact of implementing a transformative education strategy that fosters quality teaching by specifically and intentionally creating a relationship-based teaching and learning environment. The overarching aim was to improve Māori and non-Māori student achievement in tertiary education.

Contemporary significance and/or scholarly relevance/ He hirahira o nāianei/hīraunga rānei
In the context of education, the equity gap for indigenous communities is well documented, especially in New Zealand, Australia, Canada and the United States. There are few educational interventions that have been proven to make an impact on the lives and aspirations of indigenous students. This study presents an institution-wide educational initiative, addressing the educational disparities between Māori and Non-Māori student achievement. The project has been grounded in evidence of success from Russell Bishop’s research which focuses on the importance of relationships in bringing about educational success for Māori students. UCOL is the first tertiary institution to adapt Russell Bishop’s Te Kotahitanga relationship-based teaching approach.

Perspective(s) / Ngā tirohanga, ngā anga ariā rānei
The primary theoretical framework underpinning this initiative originates from Kaupapa Māori research and elaborates on the Culturally Responsive Pedagogy of Relations (Bishop & Glynn, 2003) (Berryman, Lawrence & Lamont, 2018). Twenty years of knowledge and experience culminated in the development of the Effective Teaching Profile in which the learning relationship between students and their educators was essential. It was expected that when educators implemented this profile in the classrooms they would enact a culturally responsive pedagogy of relations. Such a pedagogy is defined by contexts for learning where power is shared, culture counts, learning is interactive and dialogic, connectedness is fundamental to relations and there is a common vision of excellence for Māori in education.

Results / Conclusions / Ngā otinga/te whakataunga rānei
Evidence gathered from educational performance indicators, lesson observation data, lecturer surveys and interviews and student focus groups indicate a positive shift in achieving the aims. Course completions (2011-2015) for all and Māori students showed a significant improvement from 58% to 71%. Observation scores for the Extended Family-like Context, number and variety of discursive interactions indicated an enhanced relationship-based environment, collaborative learning environment in the classroom. Lecturer surveys indicated an increased willingness to acknowledge their role as agents of change.

Relevance to the conference theme / Tōna hāngai ki ngā kaupapa o tēnei wānanga
In five years of implementing an institution-wide initiative at UCOL, the researchers are able to offer an evidence-based approach within the conference theme: transformative educational research, policy and pedagogies. The data represented together with the operational procedures attempts to illustrate what a transformative education strategy to improve Māori student achievement in tertiary education might look like in practice.
169. **Shaping our futures: Celebrating transformative educational research,**

Rachel Burrowes², **Jane Carroll¹**, Tracy Cross², Heather Fagan², Dione Healey¹, Jan Johnson², Elaine Reese², Elizabeth Schaughency¹

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Te Pihinga: Celebrating transformative educational research through research relationships with home-based educators, visiting teachers, and university researchers

**Objectives:** We investigate methods and processes for supporting and enhancing professional practice in home-based early childhood education (ECE).

**Contemporary significance:** The significance of the early years learning is increasingly recognised, particularly for children’s developing competencies in areas related oral language and approaches to learning. Given this, building capacity of ECE to foster development in these areas of learning has been recommended. The settings of ECE in Aotearoa/New Zealand are diverse, with the unique practice context of home-based ECE acknowledged in the literature, but under-studied relative to other ECE settings.

**Perspective(s) or theoretical framework:** Our work is guided by research on learning in early childhood and adulthood as well as recommendations for conducting practice-based research and promoting quality professional learning and development (PLD) in home-based ECE. PLD is posited to be more effective when educators are engaged over time, and PLD is conducted within naturally-occurring formal and informal social networks. Therefore, we offered educators opportunities to participate within their informal networks (e.g., playgroups) and their mentoring visiting teachers over a prolonged period (three 6-week PLD modules). Research on learning in early childhood emphasises the importance of kaiako in scaffolding children’s learning in everyday interactions and play activities and each research-informed module focused on developing an area of learning (e.g., oral language) through every day activities (e.g., shared reading and conversations). Each module was introduced with a professional development workshop, followed by 6 weeks when we provided home-based educators books or materials to support professional learning in practice with children, during which we maintained regular contact through weekly visiting and phone calls to allow for formative evaluation and ongoing support to the home-based educators. Follow-up sessions with participating home-based educators allowed for reflections on participation from educators. Visiting teachers also shared perceptions of educator practice during research team reviews.

**Results and/or Substantiated Conclusions:** Educators and Visiting Teachers describe perceived benefits of overall participation. They provide examples observed in practice and/or documented in learning stories of changes in practice facilitated by each module separately plus examples of integration of learning across modules and consolidation in practice. They also refer to broader benefits of participation. Educators report growth as reflective and intentional practitioners, and Visiting Teachers perceive educators as more empowered adult learners, with some educators pursuing additional study following participation. We celebrate the partnerships that have formed between Home-based Educators, Visiting Teachers, and University researchers. We propose that these relationships are both facilitators of the transformative nature of our project as well as outcomes of our sustained work together, allowing us to deepen our understanding of professional learning and practice in home-based ECE.
96. Home-based early childhood education for children in care of the state: who is the focus?

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Home-based early childhood education for children in care of the state: tensions and insufficiencies
Home-based early childhood education and care services make up 10% of all licensed early childhood education and care services (ECEC) in Aotearoa New Zealand. The number of home-based services grew by 137% between 2005 and 2017 making home-based ECEC services the fastest growing of all ECEC services. Internationally and nationally there has been very little research about home-based ECEC services. Much of the international research has focussed on structural and regulatory aspects. New Zealand studies have been small scale adult-focussed studies examining issues such as perceptions of work as a caregiver, tensions between caregiving and professionalization and the relationships between visiting teachers and caregivers. There has been no research that reports on what actually happens for children and caregivers in home-based education services.

This paper reports on a case study of one early childhood home-based education service which provided early childhood education (ECE) for young children who were in care of the state. Teachers from the licensed home-based ECE service visited children in the homes they were living in with their (out of home placement) care-givers and supervised the provision of 20 hours free (government subsidised) ECE. The research was conceptualised within a sociocultural and child right’s framework. Ethnographic approaches to generating data were used including narrative and structured observations of home-visits by the visiting teacher and interviews with teachers and care-givers. Relevant documents, such as learning journals that documented children’s learning and policy documents relating to the operation of the service, were collected. Data from all data sources were analysed through a process of iterative coding and the identification of key themes. In this paper data from interviews, observations and documentation are used to examine the question of who is the focus of this home-based service: the child or the caregiver.

Data from all three sources revealed tensions concerning whether the child or the caregiver were the primary focus of the teacher and the service. Regardless of who was seen to be the focus of the service, all teachers expressed the view that the number of visits and actual contact time was insufficient to provide quality ECE. Observational data supported this view. This exploratory study raises questions as to whether the current regulations for home-based ECEC concerning the number and length of teacher visits for each child and (lack of) qualifications of caregivers are sufficient to be seen as equivalent to 20 hours quality ECE. More research is urgently required with a range of home-based ECEC services.
Conflict as a window on well-being: Insights from a study in a multi-ethnic early childhood centre.

Well-being is a slippery notion. Often equated with physical wellness, its meaning is frequently unspecified in policy and scholarly documents (Manning-Morton, 2014). The NZ bicultural early childhood curriculum, *Te Whāriki*, positions well-being as one of its five strands urging early childhood teachers to consider well-being as comprising emotional as well as physical health.

Recent global measures of well-being used by the OECD clearly illustrate the multivalent nature of the concept and the multiple methodological approaches through which it can be investigated, but research on well-being in EC settings typically focuses on the physical dimensions of health. How children acquire a sense of emotional and social well-being is only now beginning to gain attention (e.g. Corrie L. & Leitao N. 1999; Manning-Morton 2014)

This paper draws on data from a project in which we focus on naturally-arising conflict among children aged 2-5 years in a multi-ethnic early childhood setting, using video recordings, anecdotal observations, teacher journaling, and focus group discussions. Using a grounded sociolinguistic interactional approach, we analyse episodes of conflict as a window on how children acquire and negotiate a sense of well-being that stretches beyond physical health.

Based on our preliminary analysis we raise questions about how conflict and peace-making among children in EC settings impacts on social dynamics and the relationships within the group, and therefore on their social and emotional well-being.
110. Derailing transformative education
Sandra Gray¹, David Kenkel²

The panel argues that teachers across the education system need space and environment to engage in the transformation that education can offer. However, a significant obstacle to education institutions is a set of market-oriented controls that limit enlightened teaching (for context, see Jesson, 2010; Tarling and Malcolm, 2007)

Panelists recognise that teachers are perfectly capable of delivering transformative education, but are hampered by interference from current neoliberal practices (see Cucchiara, Gold and Simon, 2011; Sears, 2003; Taubman, 2009). We assume that transformative education would challenge students through progressive thinking, critical scrutiny of information and ideas, and the creative construction of knowledge.

In recent years, public schools and educational institutions have faced heavy administrative demands from excessive form-filling and reporting, constant assessment of students, and pressures to conform to standards. For example, in adult literacy and numeracy, the TEC demands constant monitoring and assessing, funding tied to completion rates, and obligatory use of the National Assessment Tool.

The panel focuses on the case of tertiary education institutions (universities and polytechnics) in which there can be continuing intervention from government and management. In some cases, restructuring has become a way of life. Typical intervention includes re-designing departments and faculties, outsourcing administrative and non-teaching services, casualising staff, layoffs, pressure to teach online, and streamlining courses and programmes. They have a cumulative effect of undermining the curriculum, and narrowing tertiary education goals to meet industry needs. The panel considers how such trends in the tertiary sector severely frustrate the effort of staff to create institutions that will enlarge and enhance students' lives.

The panel recognises relevant research and critical observation of neoliberal change both internationally (e.g., Davies, 2005; Rinne, Jauhiainen, and Kankaanpää, 2014; St Clair and Belzer, 2007) and across New Zealand education institutions (e.g., Grey, 2013; Roberts, 2005; Strauss and Hunter, 2017). Panelists plan to:

(1) give a critical overview of managerial changes in education over the last four decades
(2) analyse the sweeping restructuring at Unitec over the last decade; and
(3) summarise the current scene in tertiary education

The panel discussion analyses current developments in New Zealand and elsewhere, suggests how educators can respond, and offers alternative models for framing tertiary education. In other words, it asks what education is for and proposes progressive answers.

Halting the vandalism of tertiary education
Sandra Grey
VUW

The power of stories and knowledge has long been understood by unions and social movements. Over the last decade, the New Zealand Tertiary Education Union has commissioned and produced dozens of research reports using interviews, focus groups, and surveys (e.g., Oosteman, Grey and Sedgwick, 2016).
This presentation will begin by outlining the core findings of the union research within the last decade. Overall the research shows that neoliberal ideology has caused mission-drift for publicly-funded tertiary education institutions. Added to this, the research shows that the neoliberal approach has recast staff as ‘resources to be efficiently used’ and students as ‘customers’ to sell a product to. But the research is not intended to just describe the conditions under which staff and students labour – it is intended to bring about social and political change (Sedgwick and Grey, forthcoming).

The presentation will unpack the impact of many different research reports, including how the process of research itself has become a mobilising tool for all who see education as a public good. It will also consider the potential of drawing on ‘emancipatory’ and ‘participant’ research methods to create change, considering a long history of ‘public sociology’ in Aotearoa New Zealand. 

*The substance of the following two presentations will be delivered by David Kenkel, academic staff member of Unitec. He replaces Wei Loo and David Cooke, the original proposers, who regret that they are now unavoidably unable to attend.*

**Redefining a Polytechnic**

In late 2013, Unitec fired the first shot in a movement to ‘transform’ the way vocational education was to be delivered, with the restructure of the then Design School (and the firing of 50 staff). Subsequently, students were seen as industry fodder, to be equipped with a limited range of operational just-in-time skills, and pipelined to waiting employers.

In such a concept of vocational education, the Institute’s preference was for industry practitioners with little, if any, background as educators over experienced instructors. Instead of student career-focused education, vocational education was to be employer-led and business-centric in a radical sense.

However, what was supposed to be good for business was ironically not good for the business of Unitec itself. Enrolments sharply declined across the Institute. Between 2013 and 2017, Unitec experienced a 21% decline in overall domestic enrolments, and a staggering 50% fall in domestic school leavers.

The information in this part of the panel is informed by researched analysis of (1) Institute documents and statistical bases and (2) public sources such as Education Counts, compiled for presentations to Council, to Unitec audiences and to wider public events.

In spite of these sorts of failures, most of them detectable early on in the experiment, Unitec’s Executive Leadership Team (ELT) were impervious to the feedback and warnings of their staff. The ELT moved from one debacle to another, such as the closure of the Albany campus (1000 students predicted, only 200 arrived); "The Common Semester" in which disparate programmes were melded into one generic course; and the outsourcing of student enrolments to a private multinational company. Unitec suffered financial losses on a large scale.

The underlying issue is that of a public institute run by a continually burgeoning managerial class, freely deploying taxpayer money, but with all independent oversight removed. Unitec’s ELT did not have to care about consequences, because with the removal of staff and student voice from polytechnic councils, there was no mechanism to hold them to account.

The presentation gives a quantitative overview of how Unitec fared under the restructuring, covering loss of student confidence, revenue, and staff morale. It identifies lessons that the entire sector can learn from Unitec’s experience.

**Undoing Education**

A dramatic case of market-driven restructuring can be seen in Unitec. Its Executive Leadership Team opted over the last decade to totally redefine the Institution in a reductionist way, to serve the needs of business, industry, work and employability, under the title "Transformation". In response, a research study was conducted on Unitec's massive restructuring (Cooke, 2018). Because of a highly punitive management
culture, the research was conducted under very strict ethical controls to protect staff from reprisals. The study consisted of:

- intensive in-depth interviews with 21 staff members;
- an analysis of public Unitec management documents; and
- a survey of 150 Unitec staff conducted for a submission to the Productivity Commission (TEU, 2016)

The study was informed by institutional analysis by Charles Sedgwick. Data was explored with the aid of critical discourse analysis. Interviews revealed major themes such as management intransigence and refusal to listen to staff, increasingly difficult working conditions (e.g., work overload; rewriting curriculum), toxic work atmosphere, pressure to convert teaching to "21st century digital learning," damaging effects from outsourcing enrolment and insourcing casual industry tutors while making career tertiary instructors redundant.

The study points to a fundamental irony in Unitec's so-called "transformation," as it turned out to be highly destructive. The inquiry found extensive damage to the institution and its reputation, to Māori and Pasifika, to staff, students, teaching and learning, curriculum. It concludes that far from being positively transformative, the restructuring is a serious warning against such practices for the whole tertiary sector, and against using neoliberalism as a model for tertiary change. The study proposes numerous measures for redress, including power-sharing in decision-making, relying significantly on the ability of staff, developing a principled culture of high trust, and reviewing the role of Council and Academic Board.


The research on Unitec is reinforced in Strauss and Hunter’s (2017) examination of staff outlooks in the ITP sector, and usefully framed by critical analyses of current market-oriented tertiary education in New Zealand, such as Roberts (2005), Shore (2010) and Zepke (2012).

**Selected References for NZARE**


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More than just pedagogy: Transforming teachers' work for co-teaching in flexible learning spaces

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This study investigates the transformation of pedagogy and learning when schools implement innovative teaching approaches in flexible learning spaces, with a point of difference being that it examines not only the teachers’ responses about changes in their work – pedagogy and classroom practice, but also captures their perceptions about the changing requirements around non-cognitive skills (‘soft’ skills) implicit in a co-teaching in flexible learning spaces approach. Teacher wellbeing and the important role of critical reflective practice are implicated. The transformation of teaching and teacher work that results from the transition from traditional teaching to co-teaching inflexible learning spaces involves many stakeholders across interdisciplinary fields, educational leadership agendas, policy and politics, such that, at times, the perspectives of the teachers is lost or not considered closely enough.

The work in this study can readily be considered within Bronfenbrenner’s (1979) ecological systems theory, due to the interplay between the environments within which the (individual) teacher is embedded. However, the transformation of teacher professional practices involves more than human interaction, as it occurs within ‘space’ that is also transformed, and in contexts that are difficult to know or predict. The complexities of space, power and affect in flexible learning spaces has been acknowledged in the work of Mulcahy and Morrison (2017), and this work has prompted consideration of assemblage theory (Deleuze, & Guattari, 1987) to understand the relationship between ‘the parts and the whole’, so that teacher perspectives can be more fully and authentically considered.

The study participants were 48 teachers from different primary schools in an educational jurisdiction spanning regional and rural areas in NSW, Australia. The participants had all worked in single-teacher traditional classroom contexts and, at the time of the study in 2017, they worked as co-teachers in flexible learning spaces. A mixed-methods approach to the inquiry utilized an online survey and, later, follow-up focus groups. The resulting quantitative data, from some of survey questions, was descriptively analysed, and qualitative data analysis (coding and theme identification) was applied to open-ended survey responses and the focus group discussions.

The findings around changes in teachers’ pedagogy and practice were mostly predicated on the requirement for increased collaboration between teachers and between students. These changes were perceived as far-reaching. One teacher commented that she had ‘the same job but a new career’. The results also highlighted the increased requirements for ‘soft skills’ such as interpersonal skills, communication, teamwork and problem solving between teacher colleagues, and that these changes were unanticipated and difficult to navigate without specific support, suggesting that this domain of transformation in teacher work requires more focus in school leadership and policy initiatives.

References
The pedagogical architecture of a renovated modern learning environment in a New Zealand secondary school

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Establishing Modern Learning Environments (MLE) in New Zealand has been a major policy priority in recent years, following a directive that all New Zealand state-owned and integrated schools must adopt MLE at their next round of property funding (Ministry of Education, 2011). Often interpreted as large, flexible, open-plan teaching and learning spaces, MLE are promoted by the Ministry of Education (2011, p. 2) as a tool to produce “New Zealanders with the knowledge, skills and values to be successful citizens in the 21st century”. There is, however, little guidance offered on how such spaces can or should operate, and no agreed upon list of what knowledge, skills or values a learner may need to be successful in the 21st century.

This presentation will report on a case study of the pedagogical architecture of one learning environment in a New Zealand secondary school that was renovated to become a MLE. Considering the lack of guidance offered on how to operate MLE, this qualitative research has a social constructionist perspective and looks at the ways participants and participant groups construct meaning out of the MLE and are creating the operation of the space together.

Three data sources (an interview with the school principal, interviews with four teachers, and a focus group discussion with five year 9-10 learners from the MLE), were synthesised to address the overarching question: “How are MLE being used in New Zealand secondary schools to develop 21st century skills and competencies in learners?” The result is a pedagogical snapshot of this MLE in operation which (1) explored the participants understandings and organisation of the elements of the pedagogical core (learners, educators, content and resources) and (2) reports on what those in the space considered 21st century skills and competencies to be and how they were being developed in learners.

Exploring the operation of an MLE from various perspectives offers some understanding of how each individual’s pedagogical philosophies, social and personal contexts in combination with the physical environment affect the operation of that individual MLE.

This study contributes to the emerging evidence around how the policy directive for the establishment of MLE is being enacted in practice. As more schools transition into MLE, snapshots (such as this one) that afford insights into the overall operation of these environments can offer different and helpful interpretations of how these spaces can be operated to transform pedagogy, curricula and educational futures.

Reference:
Consulting for school qualifications change

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The original design of New Zealand’s school qualifications system, the National Certificate of Educational Achievement (NCEA), resulted from a process of contestation between conflicting discourses (Alison, 2007). That contestation was largely between the prevailing neo-liberal government discourse of the time which prioritised goals such as flexibility, choice and transparency, and the profession’s social democratic discourse, which prioritised goals such as “access, participation and equity” (Hood, 1998, p.19).

Alison (2007) argues that only when the National government 1990-1999 shifted its stance from one largely excluding the profession to instead engaging the profession by working alongside its representative groups that compromises were able to be made between these conflicting discourses. The outcome was a qualification system for secondary students that was largely acceptable to the majority of the profession.

That process of engagement with the profession has continued to the present day, and enabled ongoing refinement of the qualification. Key consultative groups have included the NCEA Leaders’ Forum (in various forms and name variants), and from 2005 its subgroup the Leaders’ Forum Qualifications Group (LFQG), renamed the Secondary Qualifications Advisory Group (SQAG) when the Forum was abolished in 2012.

In late 2017, the new Labour government announced a review of the NCEA in 2018. This was an NZQA requirement under its qualification rules, however the announcement envisaged a more major review and as it has evolved, it has become a broad consultation including no less than three separate advisory groups: a Ministerial Advisory Group of “innovative thinkers”; a Reference Group appointed by the Ministry of Education; and a Professional Advisory Group appointed by the Minister. This latter group was formed belatedly in response to full-page advertisements in national dailies placed by a group of principals dissatisfied with the consultation process followed so far. This illustrates the challenge to find processes that will satisfy everyone.

This paper compares the current review processes with those used in the development and ongoing refinement of the qualification up to now. It asks whether or not the 2018 process will result in a stable consensus about changes required, given the history of contestation over school qualifications, and also considers the dilemma governments face about what relative weight to place on the input from the various interest groups.

The paper acknowledges and discusses the ethical and methodological challenges of the author’s “insider viewpoint”, in that it draws on two sources: an analysis of documents (from both the government and the union viewpoints) recording the processes and outcomes of consultation between 1995 and 2012, and also her own participant observation of previous processes and the current review process.


36. **Exploring Pasifika values in primary and secondary school classrooms: developing and nurturing leadership, respect, and service towards wellbeing and learning**

*Fuapepe Rimoni¹, Robin Averill¹*

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The Pacific Education Plan 2013-2017 (Ministry of Education, 2013) highlights the importance of all stakeholders building on what is working well in our centres, classrooms, and school communities to raise achievement for all Pacific learners in New Zealand. Expressed in the plan in English, nine Pasifika values are emphasised: respect, leadership, service, belonging, family, inclusion, reciprocal relationships, love, and spirituality. Deep culturally linked understanding of the terms is needed by those working with Pasifika students in order for the values be suitably reflected in practice and to maximise Pasifika student wellbeing and learning. Teachers, teacher educators, and student teachers need to feel confident that they are strongly and authentically enacting these values in culturally sustaining ways in their teaching and other interactions with students and families. Unlike the detail provided regarding enacting the cultural competencies for teachers of Māori students (Ministry of Education, 2011), no further explanations or indicators are given in the Pasifika Education Plan or elsewhere in policy materials to help develop understanding of how the values can be demonstrated and nurtured in teaching and learning contexts.

This presentation is drawn from a study exploring the values of respect, leadership, and service in early childhood, primary, secondary and tertiary learning environments. The aim of the study is to generate a set of indicators to show how these values can be demonstrated and nurtured. Three values were chosen as a starting point, with previous research highlighting their importance to Pasifika learners and because of the potential for non-Pasifika teachers, teacher educators, and student teachers to underestimate the depth and scope of their meaning to many Pasifika people. The purpose of this presentation is to share study analysis to date of Pasifika and non-Pasifika teacher perspectives of respect, service, and leadership. Data being reported on will include lesson observations of Pasifika and non-Pasifika teachers in primary and secondary schools with high and low proportions of Pasifika students, and interviews with these teachers regarding their perceptions of the values and how they are demonstrated and nurtured in their teaching. Initial findings indicate that Pasifika teachers see these values as fundamentally part of their being, always expected by and of them as people and family and community members, and always reflected in their in- and out-of-classroom practice. Classroom observations showed that the teaching and learning environments created by teachers strongly demonstrating and nurturing these values were caring, fun, interactive places in which students initiate acts of service, take leadership roles, and in which respect for others, for learning, and for property is the norm.

**References**

Pasifika students’ education performance in Aotearoa New Zealand continues to face on-going challenges and potential ‘crisis’. For too long, Pasifika students have been trapped in a ‘prison-like’ environment of underachievement. The ‘crisis’ is that the status does not appear to have changed significantly since the 1960s and 70s, regardless of the endeavours by the New Zealand government and Ministry of Education to Pasifika education. Decade after decade, the educational status of Pasifika students overall has continued to maintain its position; one that places them at the very bottom in comparison to non-Pasifika students. Many teenagers continue to leave school with no qualifications, resulting in unemployment or poorly paid jobs. Consequently, more and more Pasifika families live in poverty in this country. The on-going unanswered question is: Are Pasifika students failing the system or, is the New Zealand Education system failing Pasifika students? When are ‘we’ as a ‘community of learners’ going to get this right?

This paper is presented in a form of a voyage (folauga) to contextualize the true essence, depth and significance of the topic of this study in relation to the challenges and tests presented by a long hard fought voyage. Each chapter is referred to as Folauga. Four school principals, recognised as effective leaders who support Pasifika students, shared their leadership experiences and practices in a Talanoa setting. Interpretation and analysis of the Talanoa revealed seven major supports that effective school leaders need to transform their schools from a failing context to a successful, for Pasifika students. This research found that there was a significant need for effective leadership by principals to navigate educational changes that genuinely make a difference to unlock doors of opportunities in every school to raise achievement and wellbeing for all Pasifika learners. Furthermore, the analysis and interpretation based on the perspectives and data gathered through Talanoa with the Mau ki te Ako Pasifika Education Advisory Group (Pasifika community leaders) validated these key supports that the principals identified. The aim of the study was to address this issue through effective professional development for school leaders so they may navigate robust, vigorous and well-thought through changes and supports in schools to raise the engagement and achievement of Pasifika learners. Lifting Pasifika achievement is a great challenge for all but nothing is impossible.

‘E o’o lava i ogasami ile moana sausau e mafai lava ona folauina’
‘Even choppy sea can be navigated’.
Lefaoalii Dion Enari

The purpose of this study is to explore the perceptions of Fa’a Samoa (the Samoan way) understood by New Zealand born Samoans who reside in Brisbane. Through identifying factors that influence their formation and actualisation pertaining to Fa’a Samoa, the study aims to identify the themes that are pertinent to Fa’a Samoa amongst this cohort. This includes exploring Fa’a Samoa understanding between gender and age groups. Deeper understanding of the similarities and differences will thus provide rich insight into New Zealand born Samoans in Brisbane and their perceptions and experiences.

It is envisaged that the study findings will inform interventions that will ‘break the cycle’ of negative and inferior stereotypes amongst the Samoan community, encouraging them to achieve higher, while also increasing visibility of Samoan role models in the urban setting. Further, higher achievement academically and personally will increase earning capacity of individuals and their standard of living, thereby also increasing the contribution of Samoan peoples to the Australian economy.

For the purpose of capturing New Zealand born Samoan voices on their own experiences and perceptions of Fa’a Samoa within a Brisbane context, it would be important for the study to collect the dialogue of the cohort in a culturally responsive way (Brown, 2012; Denzin, Lincoln & Tuihai Smith 2008; Smith, 1999). Talanoa is an indigenous method that will instigate discussion in the following qualitative strategies of case studies: data collection, participant observation and narratives. The core principles in these frameworks include the building of relationships, and an importance on values such as respect, reciprocity and the return of knowledge to persons from whom it has been obtained (Tamasese, Parsons, Sullivan, & Waldegrave, 2010; Thaman, 1993; Vaioleti, 2003). Talanoa is a widely accepted framework frequently used globally when researching within Pasifika contexts (Halapua, 2007; Latu, 2009; Otsuka, 2006; Prescott, 2008; Qalo, 2004; Vaioleti, 2003; Vaka‘uta, 2009). It is a spoken, face-to-face interactive method to research encouraging continuity, authenticity and cultural integrity in the research process (Fletcher et al., 2009; Sauaali-Sauni, Samu, Dunbar, Pulford, & Wheeler, 2012).
28. Making learning visible in the creative spaces between curriculum, pedagogy and assessment

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A collaborative Teacher-Led Innovation (TLIF) research project investigating the impact of Visible Learning strategies in Health and Physical Education resulted in improved outcomes for priority learners. As Hattie (2012) suggests, Visible teaching and learning is ‘teachers seeing learning through the eyes of students and students seeing teaching as a key to their ongoing learning” (p.18). The aims of the project were to explore the creative spaces between pedagogy, curriculum and assessment at Hobsonville Point Secondary School, for students to know what their next step learning was and to improve student learning.

Results from the project included: *Teachers developing a shared understanding of Visible Learning* *Teachers developing, trialling and evaluating 10 individual and 5 school-wide Visible Learning strategies* *Improved student learning outcomes for priority learners* *Positive shifts in student voice about identifying next steps in their learning, knowing how to use feedback to take those next steps and to transfer their learning to other contexts.*

This presentation will critically explore the theoretical underpinning of Hattie’s work in framing the research and provide an insight into what Visible Learning looked like in our context, particularly focusing on the use of feedback and clarity. The other key learnings from the project and insights from participating in a Teacher Led Innovation Fund Grant will also be discussed. Come to the presentation to find out what the teachers and tertiary researchers learned, how we got there, and what you can do for your students. (Hattie, J. (2012). Visible learning for teachers: Maximizing impact on learning. Routledge)
Understanding students’ sense of belonging at school:
A view from the national monitoring study of student achievement

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Introduction and purpose of the study
Educational research has demonstrated that students’ sense of belonging at school is an important schooling outcome in its own right. There is also widespread research evidence that it has a positive influence on various learning outcomes including students’ academic achievement, wellbeing, persistence and engagement. According to the latest international assessment study (PISA, 2015), (i) New Zealand students, on average, have a lower sense of belonging at school than the OECD average, and (ii) this has weakened significantly since 2003. Therefore, it is important that we try to gain a better understanding of New Zealand students’ sense of belonging at school. The 2017 National Monitoring Study of Student Achievement (NMSSA) provided an opportunity to do this.

The purpose of the present study is to investigate the following questions:
1. How positive are New Zealand students in their sense of belonging at school?
   a. Are there any differences in students’ sense of belonging at school by year level, gender, ethnicity, and school decile?
   b. To what extent are students’ sense of belonging at school related to their attitude and confidence to learn in health, physical education and science?

The NMSSA study and sample
NMSSA is designed to assess and understand student achievement across the New Zealand Curriculum at Year 4 and Year 8 in English-medium state schools. In 2017, the focus areas were health, physical education and science. The nationally representative sample included 2084 Year 4 and 2036 Year 8 students from 199 schools (100 at Year 4, 99 at Year 8).

Methodology
Item Response Theory (Rasch) was employed to construct measurement scales of ‘Belonging at School’ and their ‘Attitude’ to and ‘Confidence’ to learn health, physical education and science. We will use regression-based techniques (e.g. multilevel analyses and structural equation modelling) to investigate students’ sense of belonging at school (i) nationally and by sub-groups, and (ii) its association with attitude and confidence to learn each area.

Findings and Discussion
The paper will report the results of the analyses outlined above. Results will also be considered in light of New Zealand PISA results. The findings of this study will be of interest to educators, researchers and policy makers seeking to positively influence students’ learning and achievement by identifying effective ways of fostering their sense of belonging at school.
65. The challenges of teaching mathematics with technology in a high-stakes examination environment

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In the states of New South Wales and Victoria in Australia, students in Year 11 and 12 complete courses that culminate in standardized high-stakes examinations in Mathematics. Many teachers of Mathematics believe that technology can assist students in their learning and that knowledge of how to use digital technology effectively is an important skill for students to develop in the 21st century. However, teachers of Mathematics for these students continue to find significant challenges to effectively integrate technology into lessons. This study examines the difficulties faced by Mathematics educators who are open to integrating technology into high-stakes environments, but are constrained by their perceived lack of time in lesson preparation to plan effective technology lessons, their perceived lack of class time to cover syllabus content and the demands of students and parents that students be taught how to gain marks on a pen and paper examinations. Due to these issues, many teachers appear to have resorted to traditional lessons where they present Mathematical formulae and then turn to a textbook to give students practice at answering questions.

Employing a multiple case study methodology, five Mathematics teachers from four secondary schools in New South Wales and Victoria participated. Using Shulman’s model of Pedagogical reasoning and action, alongside TPACK as a theoretical base, semi-structured interviews were devised to analyse participant’s lesson planning and their knowledge of how to use technology in delivering content. Participants were observed teaching lessons to Years 7-12 and teaching plans were collected to ascertain teachers intended and actual use of digital technology. Each participant was asked three questions about their use of technology in high-stakes environments. Participant teachers ranged from early career (<5 years) to late career (>35 years).

Participants reported that digital technology was not often used in classes with high stakes examinations and if used, it was for a short amount of time to introduce a concept. This was in contrast to lessons for younger years where the constraints were more relaxed, which allowed them more significant opportunities to utilize technology to enhance student learning.

This study highlights the disconnect between the desire of teachers to use digital technology in their lessons and the reality of its use in high-stakes environments. Participants suggest adjustments to these environments that could assist them in using digital technology, which include lessening the significance of examinations, administering the examinations online and mandating a technology component in relevant syllabuses.
17/2. He Waka Eke Noa, 3-D differentiation: A model for meaningful teaching and learning responsive to learners’ needs and community input

Carrie Vander Zwaag

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Literature indicates that differentiation – the modification of curriculum and instruction to support students with academically diverse learning needs through adaptations to content, process, or product – is an inclusive teaching and learning strategy with the potential to increase educators’ abilities to meet diverse students’ needs. However, the lack of differentiated training and evidence-based exemplars, combined with a plethora of purported differentiated teaching and learning strategies, can be overwhelming for teachers.

Furthermore, despite evidence indicating the importance of incorporating community voice in creating inclusive, meaningful, relevant learning experiences for all learners, but particularly learners of non-dominant cultural backgrounds including Māori and other students of indigenous backgrounds, there is a paucity of research and resources that approach science differentiation through the integration of community perspectives from both within and outside the school setting.

The presentation will share an innovative model of community-driven differentiation, He Waka Eke Noa, Differentiation in 3-D (teachers/students/whānau) that emerged from three years of mixed methods action research (MMAR) in a rural, bicultural Central North Island Aotearoa school. The doctoral study utilised both quantitative and qualitative data collection strategies, including surveys, individual interviews, classroom observations, focus groups, and collaborative professional development and planning session to engage years 9 and 10 students (ages 12-15), their science teachers and whānau (families) to collaboratively develop, implement and evaluate a differentiated science unit.

Findings indicate that student engagement and learning in science – for Māori and non-Māori students from across the learning spectrum – improved in all aspects that teachers chose to differentiate, including: relevance of content, assessment and accommodation of student readiness, and variety and choice in process and product.

The potential implications of He Waka Eke Noa, Differentiation in 3-D (teacher/student/whānau) as a strategy for increasing the quality of inclusive, culturally responsive teaching and learning that meets diverse learners’ needs both within Aotearoa New Zealand and internationally will be shared.
Preparing individuals to be successful adults? Findings from PISA

Adam Jang-Jones
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Context
Adults with higher academic achievement tend to report higher wellbeing and better health, as generally explained by the mediating factors of increased employability and earnings, and higher propensity to learn, problem-solve and adapt.

Objective
This study explores student, school and teaching factors linked with high and low academic performance among New Zealand students, with implications for policies to raise achievement and post-school outcomes.

Methods
This study analyses correlations from nationally representative large-scale assessment and questionnaire data collected for the OECD’s Programme for International Student Assessment (PISA), focusing primarily on data from the latest cycle of PISA in 2015.

Findings
In New Zealand, the main factors associated with higher performance in science (the main focus in PISA 2015) were: the student’s and school’s socioeconomic advantage, being required to attend at least one science course, classroom disciplinary climate, and teacher-directed instruction and adaptation of explanations. The main factors associated with low performance among New Zealand students were: inquiry-based instruction, lateness and truancy, students receiving very regular feedback, and students studying longer after school. Associations were statistically significant at the 95% level. Further exploring the intersection of teacher-directed and inquiry-based approaches, the highest student performance is related to teacher-directed instruction in almost all lessons with inquiry-based learning in a small proportion of lessons, a pattern which holds true among both advantaged and disadvantaged students.

Discussion
The author hypothesises causal mechanisms supported by the data and further literature and concludes with implications for national and school-level policies to raise achievement at school and the skills students take away from school.
152. Evaluating the impact of a mobile makerspace initiative in fostering STEAM awareness and skills

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Makerspaces are places where people gather to create or make things that are of learning interest. Makerspace projects tend to have a STEM (science, technology, engineering, mathematics) focus but are not necessarily limited to this. They can foster interdisciplinary-based project work (Roslund & Rodgers, 2014). Many communities now have makerspaces available for public use at venues such as libraries and community centres, as well as private centres. This presentation reports on findings from a developmental evaluation of an initiative to introduce a mobile makerspace as a way to foster community interest in and learning of STEAM (science, technology, engineering, arts and mathematics) and digital literacy. The study was undertaken as a collaboration between researchers at the University of Waikato and staff at the Hamilton Public Library. The Library had introduced a free mobile makerspace programme to engage children in problem-solving, creative thinking and innovation through hands-on and technology-based activities (e.g. Lego Mindstorms focused on robotics and coding, science experiments, electronics kits, arts and crafts activities). Each weekly programme is an hour and a half long and focuses on a particular science and arts theme.

Data were collected through an online survey, focus group interviews with caregivers of children participating in the programme, and, four observations of the programme in action. Thematic analysis of the data revealed participants’ overall positive support for the mobile makerspace programme. Participants particularly valued the interactive and social aspects, alongside access to expensive equipment and the variation in activities. Caregivers reported their child’s increasing awareness of science, coding and digital literacy skills. They highlighted social and cultural benefits including future-oriented skills. Recommendations for enhancing and promoting the programme included closer engagement with local schools and computer/technology-based voluntary organisations and companies.

With the current government, societal and educational interest in making STEM and STEAM activities more accessible to the wider population, this study is an attempt to understand the nature and value of a community mobile makerspace programme in fostering informal learning of STEAM. Informal learning strategies have been espoused as effective in encouraging young people to gain expertise and engage with STEM activities within and beyond school (Chapman & Vivian, 2017; Falk et al., 2015). The findings can inform more robust collaboration and engagement between providers of informal and formal learning of STEAM skills as a strategy for supporting children’s access to, and participation in, these skills.

References
Session 1: Monday 26 November Room: MH320 Time: 12.45pm – 2.15pm Theme: Educational Leadership Type: Panel

33. The potential of an online survey tool to ascertain readiness for school development for schools working in a kahui ako or cluster

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Objectives/purpose:
- share the findings of an online survey tool trial which has been completed by five New Zealand primary schools;
- report on how individual school data can be unpacked using disciplined dialogue coaching;
- report on the ethical issues of schools sharing data across the cluster.

Contemporary significance and/or scholarly relevance
The New Zealand Principals’ Federation (NZPF) and the New Zealand Educational Institute (NZEI) have endorsed and funded the trial of an online survey tool exploring knowledge about teachers’ perceptions of their schools’ leadership of change related to four professional values. The values are professional discretion, collegial obligation, reflection and inquiry and evidence-based professional practice. This trial is the third phase of commissioned research for the Te Ariki Trust. It builds on a literature review related to these four professional values, a regional pilot of the tool and now an extended trial which involves schools in one cluster. The information the trial has to offer schools working in kahui ako and community clusters is timely because it provides a way of assessing or judging readiness for working together as learning communities, for establishing trust and collegial working relationships and using evidence as the impetus for dialogue about practice. The tool provides school profiles per value for each school and the opportunity to compare individual school findings with the cluster results. The significance of the tool is the way it draws attention to learning and relational processes which will underpin the content required for school clusters to work with specified achievement challenges.

Perspective(s) or theoretical framework
The potential of the disciplined dialogue coaching strategy (Swaffield & Dempster, 2009) underpins this extended trial of the online survey tool for each school. The three disciplined dialogue questions are generic questions which can be applied to any data set. They are “what do we see in these data? Why are we seeing what we are? and What, if anything, should we be doing about it?” These three questions “act as the impetus for a myriad of subsidiary questions... and a ready scaffold for disciplined professional discussion” (Dempster et al. 2017). Part of the presentation will report on how these disciplined dialogue questions have been used by a facilitator coach to enable an evidence-based professional learning conversation to be of mutual benefit. The coaching following the schools’ completions of the online survey tool will also be informed by Timperley’s (2015) commissioned literature review for the Australian Institute for Teaching and School Leadership featuring research studies on professional conversations and improvement-focused feedback through which five enablers of professional learning conversations were identified.

Results and/or substantiated conclusions
Full analysis of the data is still in progress. The facilitator coach has confirmed the value of applying the disciplined dialogue technique with school leaders. Initial analysis also suggests that structured practice needs to be modelled and practised. Knowing how to ask questions of the data increases the possible depth of engagement with each school’s results. A further finding relates to the need for ethical consideration regarding options to disseminate individual school data amongst cluster members who have also completed the survey tool. Conversations with the facilitator coach suggest that while the participating schools were willing to discuss their own data inside their schools, they were not ready to share their data with other schools and have the same level of robustness in conversations amongst the cluster. This draws
attention to the sensitivity of data interrogation and dissemination if some data were below the cluster average and therefore a potential risk for those schools amongst neighbouring schools.

**Relevance to the conference theme “Celebrating transformative educational research”**

This trial gives agency to schools through access to an online tool, (soon to be available nationally on the NZEI website) attending to the processes which support leadership for learning and leadership of change agendas.
This presentation engages with the global take up of collaboration by governments in the face of so-called ‘wicked problems’ (Rittel and Webber 1973). Education in Aotearoa has engaged with this take up with the introduction of Kāhui Ako | Communities of Learning. In the context of Tomorrow’s Schools, Aotearoa’s self-managing schools compromised knowledge-sharing. Schools became inwardly focused and competitive, at a time when increased student diversity, increased retention, and increased curriculum demands would be better served by collaboration, the sharing of good practice and the development of new knowledge and insight. With the release of the policy agenda Investing in Educational Success (IES), the then government moved to put substantial funding and recognition into reversing this situation. However, the process of implementation, administration and governance connected to IES and its central initiative – Kāhui Ako – has inherent limitations that derive from the paradigmatic framework that underpins it. In this presentation, I construct this argument. What is of interest is the metaphorical alignment of the governance arrangements that were in place at the commencement of the policy and those that were in place after a decade of learning about networks and their management.

Metaphoric thinking leads to new understandings which can overcome ‘blindspots’. This, in turn, opens up the potential for creative action. Metaphorical thinking potentially has a contribution to make when we are concerned policy initiatives such as Kāhui Ako might achieve. Two metaphors have dominated organizational theory: the machine and the organism. Both are ‘rational’ forms of organization, able to be deliberately created but occupying the opposing ends of the management continuum (Burns and Stalker 1961). The machine metaphor is the dominant metaphor of the classical management theory and bureaucracy; the organism is commonly used to visualize any system of differentiated yet mutually connected, dependent parts constituted to share a common life (Morgan, 1980: 614). This metaphor highlights the need for organizations to be viewed as cooperative systems (Burns and Stalker 1961). Drawing on discourse analysis of policy documents and guidelines associated with Investing in Educational Success this paper explores how a policy that derived from an organic metaphor remains governed by a mechanistic metaphor, and the implications of this situation.
Building successful learning foundations at Waiouru School - a teacher led innovation fund research project

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¹Waiouru Military Camp

Building Successful Learning Foundations was a Teacher Led Innovation Project (TLIF) led by Waiouru School. This project examined and identified the factors that contributed to gains made by ākonga in our new innovative ‘Junior Learning Environment’. We wished to develop a clear understanding of the factors that contributed to our ‘Junior Learning Environments’ success and then ‘scaled up’ these factors to benefit all students.

Over two years teachers took deliberate steps to develop key competencies, introduce enriching activities, and increase engagement with a learning through play aspect to their programmes. To do this teachers used a collaborative action research based inquiry process that involved cyclical ‘drilling down’ to explore topics and the emerging interests of our teachers in increasingly greater depth (Cochran-Smith & Donnell, 2006). Each teacher undertook their own self chosen mini projects or mini inquiries (Peters, Paki & Davis, 2015; Davis & McKenzie, 2018) to test ideas and approaches with the children they taught. This process was designed to meet Kemmis and McTaggart’s (2000) criterion of useful action research, in which participants develop a stronger and more authentic sense of understanding and development in their practices and the situations in which they practice (Davis & McKenzie, 2018).

This process of inquiry was scaffolded by the leadership team’s approach which aimed to be transformational, meaning:

“...understanding the need for distributed leadership (as opposed to top-down) and intrinsic motivation (as opposed to transactional or extrinsic motivation).” (Rosenfield, Wall & Jansen, 2018).

Lewin’s Framework for Change (Rosenfield, Wall & Jansen, 2018) gave the leadership team confidence and grounding to reference to at the different phases of implementation. In practice this meant teachers taking ‘Authorship’ of the changes in their practice. This played out as teachers having the autonomy to inquire into their own passions while still collaborating to achieve the shared vision and values of the team.

The key, we believe, to the success of this project has been our willingness to wander along the often winding path that collaborative action research based inquiry can take us down. It is important that any school embarking on a journey such as a TLIF project accepts that indeed, learning is messy. It doesn’t travel in straight lines. It is more like a giant ball of tangled string with a million different connections that will either lead to the end or create a new beginning. At the conclusion of this project we can honestly say that we are actually at the beginning of something new and exciting.
121. Ake, Ake, Ake
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1Waikato-Tainui College for Research and Development

The vision of the Waikato-Tainui College for Research and Development is to be a contemporary whare waanaanga that draws on indigenous knowledge systems to develop models of cultural, academic and research excellence. The College supports the advancement of Waikato-Tainui, Māori and the world. This symposia will focus on the establishment and history of the Waikato-Tainui Endowed College and the pivotal role it plays undertaking research that informs and contributes to tribal advancement through Whakatupuranga 2050, the tribe’s long term strategic education plan. The title of this symposia “Ake, Ake, Ake” reflects the words of Rewi Maniapoto at the battle opf Oraakau: “Ka whawhai tonu maatou mo ake, ake, ake, Here, those words reflect the commitment of Waikato-Tainui to education, specifically the establishment of the College as a vehicle to advance tribal development, in this instance, the health and wellbeing of the Waikato River.

Whakatupuranga Waikato-Tainui 2050: a blueprint for cultural, social and economic advancement
Cheryl Stephens
Waikato-Tainui College for Research and Development, Ngaaruawahia, New Zealand

The Waikato-Tainui College for Research and Development has been working to support ongoing tribal development through the education strategy Whakatupuranga Waikato-Tainui 2050. Our approach for moving forward is one that embraces change and focuses on developing our people. This paper will discuss three critical elements fundamental to equipping our generations with the capacity to shape their own future:

A pride and commitment to uphold their tribal identity and integrity

A diligence to success in education and beyond

A self-determination for socio-economic independence

The first element recognises the importance of our tribal history, maatauranga, reo and tikanga. With a secure sense of identity and cultural integrity, our future generations will be proud and confident in all walks of life. Creating a culture for success generates opportunities and choices.

The second element promotes a diligence among tribal members of all ages to pursue success in all endeavours. This enables personal growth, contributes to building the capacity of our people, and provides opportunities to utilise growth and capacity for the collective benefit of our marae, hapuu and iwi. Determination to develop and grow tribal assets is the third element. It is consistent with the time honoured vision we inherited for Kiing Taawhiao “ maaku anoo e hanga o tooku nei whare...” to build our own house in order to face the challenges of the future.”

The Waikato River Settlement 2008
Shane Solomon
Waikato-Tainui College for Research and Development, Ngaaruawahia

The Waikato River settlement is unique in its focus on the sole beneficiary of the settlement, being the Awa itself and
its health and wellbeing through a regime of co-management instruments at the highest level of statutory recognition. Co-management arrangement instruments give practical expression of the three pillars of the Settlement (Te Mana o te Awa, Mana Shamans are and the Vision and Strategy/Te Ture Whaimana) through Joint Management Agreements with territorial and regional councils and Accords with government agencies. This paper provides an analysis of how effectively these instruments of co-management provide for the improved and sustained health and wellbeing of the Waikato River.

This presentation will also look at two aspects of the settlement. Firstly, the negotiation engagement with the Crown and it’s Officials. What were the philosophical differences in approach to the conversation and the differences in what would redress be and what it would achieve. Secondly, ten years on since the Deed of Settlement was signed in 2008, how has the voice of Waikato come through in this multilayered resource management regime. Of importance, has the integrity of collective intention of the agreement been maintained or eroded in light of subsequent water management and quality policy?

Though Waikato could not address the ownership issue in the negotiations it has always maintained, and to quote the late Sir Robert Mahuta, ”We don’t need a piece of paper to tell us we own the River.” The presentation will consider how competing interests for this significant natural and cultural resource are not new, starting with the wholesale confiscation of our tribal domain, the constant demands of industry and municipal bodies and the management of water infrastructure and in the past ten years, has Waikato’s voice been a lead in the conversation? I would then conclude to put a perspective on whether the aspirations and good intentions, the honour of the Crown and the manaaki of Waikato that provided landscape of our settlement will deliver on a healthy Awa for generations to come.

Manaaki Tuna
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The College takes an intergenerational approach to defining its strategic outcomes and is currently engaging in fresh water, regional development and Crown-Iwi relations post-settlement.

The focus of this paper is the Manaaki Tuna project, a collaboration between Waikato-Tainui College for Research and Development, Waikato Rauapatu River Trust and National Institute of Water and Atmospheric Research Limited (NIWA) to enhance the tuna fishery of the Waikato River by: developing a tuna restoration plan for the Waikato River- best practice guide that identifies and prioritises actions for restoration

- supporting Waikato-Tainui in the collation of maatauranga o te tuna and development of a common tuna monitoring framework and
- supporting the implementation and monitoring of the Waikato River fisheries bylaws whose purpose is to ensure the sustainability of fisheries’ resources and
- recognise the cultural and traditional management practices of Waikato-Tainui.
As children transition into ECE setting, they begin engaging with a multitude of ways in which they can ‘belong’, employing an array of strategies to find their place and space in the new environment, with new people. Inevitably, conflict is part and parcel of their journey, and the ways in which conflict is perceived, navigated and resolved can have an impact on the way children perceive their position and engage with others. The objective of this paper is to explore the social functions of conflict in the process of socializing/being socialized into a new ECE setting.

In exploring this, we use the concept of a trajectory (Dreier 2003; Wortham 2005) to trace the way one child uses various resources and practices to negotiate his belonging in a new community of practice (Lave & Wenger 1991). Significantly, this specific community reflects what a number of children in NZ experience in their respective early childhood settings nowadays – it is a multi-ethnic environment, where very few children enter with English as their first language.

The data comes from a larger study investigating naturally-naturally arising conflict interactions among children aged 2-5 in a multi-ethnic early childhood setting, using video recordings, observations, teacher journaling and focus group discussions with teachers. For this particular discussion we use observations and video recordings of one child (Kareem) across a span of 6 months since his first days at the preschool.

To analyse the data we use interactional sociolinguistics and track the use of various types of interactions over time. We find that as Kareem progresses through his daily life in preschool, he engages in activities that, on the surface, are ‘constructive’ (like cleaning, helping prepare the room, sing together with others), as well as ones that seem ‘disruptive’ (like entering into conflict). His conflict interactions are juxtaposed with his constructive interactions across the time we have observed him, with periods of time when he explores ‘constructive’ activities, followed closely by those when he prefers ‘disruptive’ ones. While conflict in early childhood is often seen as destructive (Johnson & Johnson 2009), and as something to be resolved, we suggest that these seemingly disruptive activities are in fact an integral part of this child’s belonging journey and they serve a meaningful function in his learning to belong.
60. The way forward – Strengthening the advocate-activist early childhood profession and teachers’ professional identities

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The New Zealand early childhood education and care (ECEC) has been torn between tensions created through an interplay of opposing discursive windows. Discursive windows of enterprise, economic investment and vulnerability have promoted competition, individualism, entrepreneurship and social-intervention emphases in the sector. On the other hand, discourses of collectivism, collegiality, and empowerment, which have aimed to reinforce democratic education and democratic professionalism, have been frequently overpowered. Through a struggle to resolve ongoing tensions among the confronting and yet simultaneously coexisting discourses in ECEC policies and practices, early childhood teachers constantly reinvent their professional selves and transform their teaching practices.

Drawing on a framework of poststructural discursive studies and theoretical ideas of feminist poststructuralists, in this paper I examine how teachers’ professional identities have been re-constructed in response to shifting discourses in ECEC policies and practices in Aotearoa New Zealand. In doing so, I offer discourse analysis of key ECEC policy documents developed over the last two decades and analysis of interview transcripts with teachers, professional leaders and managers working in both the community-owned and for-profit ECEC services.

At the centre of discussion is how opposing political interests and priorities have created a space for multiple and yet confronting constructions of teachers’ professional identities. I argue that the strengthening of the advocate-activist teaching profession and teachers’ professional identities is the necessity and the priority for making a much needed paradigm shift in the contemporary context of ECEC in which teachers have often been forced to favour enterprise interests over well-being of children, families and community.
The culturally sensitive evaluation model: A holistic view of child development

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Purpose
Plan Vietnam implemented a study of Early Childhood Care and Development (ECCD) in Gai Lai province in Vietnam. Monash University in partnership with Plan Vietnam, evaluated the impact of Early Childhood Care and Development project. In order to study the impacts of the ECCD program, a cultural appropriate evaluation tools were created for evaluating children, families and their communities. This evaluation tool aligns with the principles of Te Whāriki (MOE, 2017) reflecting a holistic way children learn and grow in their communities. Te Whāriki acknowledges being both bilingual and bicultural, protecting the indigenous language and culture. Accounting these similar principles, the research team conducted the evaluation using a holistic approach. The research question is: How are the voices of children, parents, teachers and communities valued and presented in the process of research evaluation?

Contemporary significance
Children’s voices have been accounted to achieve the authentic research (e.g. Dockett, Perry, 2007; Fleer & Li, 2016). However, how to value the multiple voices from children, parents, teachers and community has not been explored. Little research explores evaluation tools from a wholeness approach. Culturally sensitive evaluation tools are necessarily developed by the local community and researchers working together (Fleer, Hedges, Fleer-Stout & Bich Hand, 2018). This paper will take the holistic view of child development to explore the different perspectives of ECCD program children have experienced. An innovative research tool is presented as a child-friendly report formatted through a storybook. The focus of the paper is to showcases findings on how the child-friendly storybook as a cultural tool is used to capture multiple voices in the final stage of evaluation.

Theoretical framework
We use Vygotsky’s (1998) cultural historical concept of social situation of development to orient the study. A dialectical-interactive and wholeness approach (Hedegaard 2008; Li, 2014) is used to analyse step-by-step the data collected using first a common-sense interpretation then a situated practice interpretation a thematic interpretation and finally a synthetic analysis This helps to determine how children learn through active engagement in their communities within the ECCD program.

This paper uses some of images and short video clips to explain how to value the multiple voices of children, families, community leaders and teachers. Through engaging with the child-friendly report, the participants provide their views and voices of ECCD program they have experienced. This mirrors Te Whāriki principles of promoting linguistic and cultural diversity. Ethical approval was gained, all the participants gave consent for participation in the project.

Results
This paper will focus on how voices of the participants can be valued by revisiting the child-friendly report created by the researchers and the impacts of the ECCD project. It is argued that a culturally sensitive methodology can value the multiple voices of children, families and teachers, and the researchers are able to provide the authentic evaluation.

Links to the conference theme
This evaluation project has indicated how the transformative educational research can be achieved conceptually and contextually with the ethnic minority group in Vietnam.
Field-based initial teacher education (FBITE) is one of the delivery models of an accredited qualification for early childhood education teachers that exists in Aotearoa New Zealand. Students undertaking FBITE are immersed in a vocation and as such become apprentices to their future careers as teachers during their three year full-time degree programme. Literature reports that this model is growing in popularity and provides significant opportunities for students who choose to undertake their initial teacher education qualification in this way. However, it is not without tensions and uncertainties for these student teachers. This study sought to understand the opportunities students were given while participating in FBITE and also any of the uncertainties faced by student teachers as they balance their academic and practice based responsibilities alongside memberships of their differing Communities of Practice. It also investigated factors that impact on student wellbeing as they negotiate the inherent tensions that inform and guide notions of best practice aspirations.

Using a socio-cultural contextual framework and a qualitative survey this study captures student teachers insights about their initial teacher education training in a time where uncertainty prevails in the early childhood education sector in Aotearoa New Zealand. The study found a mixture of optimism and security for some but apprehension and uncertainty for others as they negotiated their roles as student and employee/volunteer in their practice communities and academic institution. The study recommended that despite field-based programmes being well established there is merit and necessity in further understanding the positioning of student teachers in such a programme, in particular student teacher resilience. These findings are useful in the context of Initial Teacher Education providers as they review and redevelop current programmes to better meet the needs of the early childhood education sector and curriculum requirements.
58. **Education in times of change: Adapting teacher education pedagogy in response to the changing digital tertiary environment**

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This presentation is based on a research inquiry designed to understand teachers’ perceptions and understandings of their best teaching experiences. It builds on previous research which was focussed on students’ perceptions of their best learning experiences within a pre-service Early Childhood Education course (Kung, Giles & Hagan, 2014). In contemporary education, ‘quality of teaching’ is generally gathered through quantitative satisfaction surveys which measure effectiveness and efficiencies within a course of study. Alternative measures to capture teachers’ perceptions of their best teaching performance that are qualitative in nature are less prolific. What appears to be missing from the debate on teacher quality are measures that can capture deeper ontological understandings of the teachers’ perceptions of these ‘best moments’.

This research is underpinned by one central question, “What is the nature of those moments when teachers perceive their practice to be at its best?” An Appreciative Inquiry (AI) methodology was used to explore lecturers’ best teaching-learning experiences. As a qualitative and interpretive approach, AI (Cooperrider & Srivastva, 1987) was the methodology of choice because of its ability to capture aspects of the teachers’ perceived peak performance. Eight teacher educators were interviewed, each in a single semi-structured interview.

The findings of this research revealed the significant importance of lecturers’ deliberate preparation of a place and space for relationships; the privileging of experiential and narrative pedagogies; the priority of narratives and stories as foundational to teaching and the importance of genuine engagement. This research has given insights into the teacher’s perception of best practice and the focus appears to be the teacher’s readiness for the shared experience we call teaching and learning. It also indicates the centrality of relationships and that the ‘teachers at their best’ are custodians of the space between the students and the teacher.

There is a move towards blended learning; a mixed mode learning approach: a combination of face-to-face and web-based or online learning interaction delivery in tertiary education (Crawford & Jenkins, 2017). This research project has signalled that relationships matter in teaching and the class environment and how it is prepared by the teacher for a shared experience, need further investigation as education moves rapidly into a computer mediated instruction space. Further research on how teacher education pedagogy can adapt yet preserve the student-teacher relationship in a digital tertiary environment would contribute to the advancement of quality teacher education in times of change.
64. **Te ao o Pakirehua – Challenging perspectives of inquiry for primary initial teacher educators**

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This study evolved from a Teaching and Development Grant (TDG) awarded to the researchers, teaching 300 level courses in initial primary teacher education (ITE) at University of Canterbury. The TDG allowed the researchers to explore how Māori values, and the use of te reo Māori could become an integral component of the ITE students learning and strengthen the understanding of te reo me ngā āhuatanga Māori for both students and educators.

This research work is underpinned by Kaupapa Māori principles and linguistically and culturally sustaining practices in education. We acknowledge a dissonance between a Western view of inquiry and the process of inquiry from Māori perspectives. A blending of indigenous and Western knowledges creates a powerful approach and space for collaboratively shaping and reshaping thinking to create new knowledges.

Researchers inquired into the relationships and viewpoints of themselves as teachers and learners in relation to their worldviews and knowledges and the Māori pedagogy ako. Through wānanga style conversations, a greater depth of understanding of te ao Māori emerged. An ethnographic case study approach was used, more recently termed ethno-case study (Parker-Jenkins, 2016), to gain a deeper understanding of researchers beliefs, motivations and behaviours through this process. The journey and narration in this presentation is that of the ITE educators.

As new understandings were shared, debated, questioned and critiqued by the researchers, a transformation of belief systems occurred and greater understandings of how this could be applied to the ITE student learning explored. Even though the researchers had worked with one another previously, they were challenged by this mahi tahi, needing to consider their own and one another’s personal and working identities to help understand and respect individual perspectives. Through the process of whanaungatanga and wānanga the researchers felt safe to explore their practice. A greater sense of kotahitanga was achieved through the honest conversations and revelations within the group.

The focus on developing a greater integration of te reo Māori and te ao Māori through the course was achieved by the lecturers and there was a greater confidence with teaching Māori values and concepts. However, it became clear that there was a need for more explicit teaching of the contexts, application and meanings of Māori values and the concepts addressed via te reo Māori as well as further opportunities for students to see and apply these concepts in their courses. This transformative collaborative approach is transferable to other ITE courses.
107. Superdiversity, language, and education in Aotearoa New Zealand: Exploring the bicultural/multicultural nexus

Stephen May¹
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In 1995, Te Taura Whiri i te Reo Māori (The Māori Language Commission) reported on a survey it had conducted in the early 1990s on the linguistic composition of New Zealand society. It concluded that, at that time at least, Aotearoa New Zealand constituted one of the most linguistically homogeneous countries in the world, with over nine out of ten speakers identifying as English speakers, the majority of whom (80%), in turn, identifying as monolingual in English.

Over the 20 years since then, New Zealand society has changed dramatically. As a result of rapidly increasing patterns of migration and transmigration, there has been an exponential diversification of its national population, along with a significant increase in bi/multilingualism. These new demographic patterns, and the related expansion of ethnic and linguistic diversity, accord with the notion of “superdiversity”, first introduced by the British sociologist Steve Vertovec (2007). Indeed, superdiversity, as both an academic and policy concept, has gained increasing currency in Aotearoa New Zealand in recent years. This is seen, for example, in Te Apārangi’s, the Royal Society of New Zealand’s, position paper on language policy (2013), in which it featured as a key theoretical frame, as well as in the Superdiversity Stocktake (2015). It is also reflected in the ongoing research conducted by CaDDANZ, Capturing the Diversity Dividend (see http://www.caddanz.org.nz/).

In this paper, I explore the implications of New Zealand’s increasing superdiversity, and the usefulness of the concept itself, in relation to language education policy development and provision. In particular, I explore the potential impact of superdiversity on our existing commitments to Māori-medium education and bicultural education policy. I will argue that while superdiversity usefully foregrounds the normalcy of bi/multilingualism and the related opportunities for expanding language provisions for linguistic minority groups in New Zealand’s rapidly diversifying population, it has the potential to undermine the existing gains made for Māori language and education policy and provision. This perhaps explains the ongoing reticence, in both academia and public policy, to the question of how to address the bicultural/multicultural nexus effectively. However, I will also highlight, the potential of superdiversity to enhance/expand our bicultural language education policies and provision alongside a more accommodating approach to the bi/multilingualism of other linguistic minority groups. In so doing, I will draw on the work of the philosopher Will Kymlicka (1995), as well as Kraus’s (2012) related concept of complex diversity.
78. Teaching and school practices survey tool: A national picture of teaching practices

Heleen Visser1, Sue McDowall1
1New Zealand Council for Educational Research, Wellington, New Zealand

The Teaching and School Practices survey tool (TSP) is designed to provide useful information for school inquiry, review, and development. A secondary purpose of the TSP is that the data can also be aggregated to provide a national overview of strengths and areas for improvement.

This presentation will discuss the first national picture of teaching practices and explore what the data is telling us about our national strengths and challenges.

The TSP’s instruments comprise two surveys: one for teachers and middle leaders, and one for principals. Each survey covers a range of important teaching, school, and leadership practices. Reporting is automated so that schools can immediately access copies of their data reports and use the information to reflect on their practices. Development of the TSP drew on robust research evidence and rigorous discussion with the Advisory Group.

Teaching practices questions were developed in five domains:
1. Optimising students’ opportunities to learn
2. Diversity, equity, and inclusion
3. Learning-focused partnerships
4. Teaching as inquiry
5. Being professional.

For this presentation, we will draw on the national findings from 2017 – comprising data from 403 schools. We will outline the analysis that was undertaken and focus on the results of the questions relating to teaching practices.

Key practices that were identified as needing improvement included:
- developing student agency in their learning, including their understanding of how to participate in and contribute to community
- developing 21st century skills such as critical thinking
- supporting practices for Māori learners
- strengthening partnerships with parents and whānau around student learning
- teaching as inquiry.

The presentation will conclude with up-to-date data on use of the TSP, and reflections on what we have learnt.
Competencies for lifelong success and civic responsibility: Evidence briefs for policy in the Ministry of Education

Gerald Pfeifer¹, Rebecca Essery¹, Alex Cliffe¹, Francesca Schiau¹, Cathy Diggins¹, Luisa Beltran-Castillon¹, Theo Barnard¹
¹Ministry of Education, Wellington, New Zealand

The Ministry of Education has recently produced six ‘evidence briefs’ to investigate how the system is doing at meeting the objectives of the Education Act (1989). This is intended to support the development of a Statement of National Education and Learning Priorities as well as other major items on the Government’s Education Work Programme.

The creation of these briefs signals the importance of drawing on academic evidence to inform the current Government’s policy direction. In contrast to many policy papers, these briefs do not conclude with a recommendation for specific action; they rather identify and collate cohesive bodies of evidence that may suggest further questions, or lead readers to certain conclusions for themselves.

This presentation discusses the process and challenges around creating such publications, with particular focus on one evidence brief entitled ‘All learners develop skills and competencies for lifelong success and civic responsibility’.

This brief examines the distinction between knowledge, skills, and competencies as understood in the New Zealand curricula and other discourses. It draws strong links between competencies, civic responsibilities, and citizenship education. The brief addresses the contested definition of lifelong success in the light of particular target competencies, and different ways of understanding the lower success rates of those from particular social groups at NCEA level 2.

Competencies in all of the New Zealand curricula (with specific reference to the NZC, Te Marautanga o Aotearoa, and Te Whāriki) are linked to civic duties to transmit an understanding of the Treaty of Waitangi. The material concludes with a link between social and emotional competencies and civic responsibilities, and the early stages of an approach to their measurement.

The argument of this brief will be interrogated with particular attention to the definitions used, and distinctions and links drawn between the key concepts. The Ministry’s theoretical positioning for this work will be addressed, along with the role of such pieces in policy thinking and practice.
Session 2: Monday 26 November  Room: MH107  Time: 2.45pm – 4.15pm Theme: Other Type: Panel

124. Towards an education system that delivers equitable and excellent outcomes

Robyn Caygill¹, Megan Chamberlain¹, Alexandra Cliffe¹, Rosanne Mulder¹
¹Ministry of Education, Wellington, New Zealand

Discussant/Chairperson name: Robyn Caygill¹

The Ministry of Education’s purpose statement is “We shape an education system that delivers equitable and excellent outcomes - He mea tārai e mātou te mātauranga kia rangatira ai, kia mana taurite ai ōna huanga.” This symposium focusses on this idea of “equitable outcomes” at the national level.

The ideas of equity and equality are often conflated or confused, both in the literature and in conversation. Knowing this, the notion of “equity” has been deliberately chosen for this symposium. Many students in New Zealand are receiving an excellent education and are achieving great outcomes. However, there are also students who don’t feel like they belong, that education is not for them, or that they need to change who they are to be successful in education.

The first paper sets the scene by examining the evidence of outcomes across different groupings, with a particular focus on what we know from the international assessments: PIRLS, PISA, and TIMSS. Results of analyses will show how factors interact with each other. Information will also be presented that demonstrates that “disadvantage” is not a life sentence for failure.

The second paper examines the particular issue of equity and assessment. What does research from New Zealand and around the world tell us about equity and assessment? Are there ways we could make our assessments fairer? This paper looks at this issue for both low and high stakes testing and formative and summative assessments.

The third paper will talk about the government’s equity work programme and the equity index initially developed as a potential replacement of deciles. It will explain how the index was developed as well as the changes this might make to the way we think about resourcing and supporting schools.

Paper 1: Advancing equity: how are we doing?

Megan Chamberlain¹, Robyn Caygill¹
¹Ministry of Education, Wellington

New Zealand has participated in the regular cycle of international studies since the early 90’s. At this time, inequities in education were evident in the data. Roll the clock forward 20 years and there is still work to do to achieve equity.

This paper will present findings from TIMSS (the Trends in International Mathematics and Science Study – Years 5 and 9), PIRLS (the Progress in International Reading Literacy Study – Year 5), and PISA (the Programme for International Student Assessment – 15-year-olds). These studies collect a variety of background information and provide a rich source of contextual information from which to judge equity in New Zealand. For example, measures can be developed for the socio-economic status of students, classes, schools that are comparable across countries. Therefore, we can examine how equitable our system is compared to others.

New Zealand researchers also collect information from students about the ethnic groupings those students identify with. This data is not comparable internationally, but rather is vitally important in the New Zealand education system.
context. This paper will also present some of the outcome information for students by ethnic groupings and will look at the contribution of socio-economic status to observed differences.

In addition, TIMSS, PIRLS, and PISA asks students about their sense of belonging at school, their plans for future education, and behaviours they are subject to. This paper will present findings from these studies in relation to subgroupings of students to look at equity in how students experience education.

**Paper 2: Understand me, understand my learning: how might we ensure assessment practices are equitable?**

*Alexandra Cliffe¹, Robyn Caygill²*

¹ Ministry of Education, Wellington

The Best Evidence Synthesis series identified that goal-orientated assessment for learning contributes to the delivery of quality teaching and learning for all learners. Understanding and practicing high quality assessment for learning across the schooling system is needed to achieve equitable outcomes for all learners. High-stakes assessments, such as assessments for qualification, are known to impact on what happens in the classroom. Therefore, the imperative for these high-stakes assessments to be equitable is as high (if not arguably higher) as that of low stakes assessment.

This paper brings together findings on how assessment practices, both low stakes and high stakes, can be used to strengthen equity of engagement and of outcomes for all learners. It also identifies some of the challenges of embedding and sustaining best practice in assessment, particularly in assessments for qualification.

The questions asked in this synthesis of research include: What is the relationship between equity and assessment? What works in embedding high quality assessment practices? What lessons can New Zealand learn from the research both here and abroad?

**Paper 3: Better supporting equity in education: development of an equity index.**

*Rosanne Mulder¹*

¹ Ministry of Education, Wellington

The Government’s Education Work Programme aims for a high quality, fair and inclusive education system that prepares all New Zealanders for the future. As part of this, the Government is expanding previous work on replacing deciles to look more broadly at how education resources might better support equity, especially for learners from socio-economically disadvantaged backgrounds.

The shift to an equity focus is the result of new insights from the recently developed equity index. While this index was originally developed to replace the decile system, it has provided us with much wider insights into the distribution and impact of disadvantage in schools that we did not previously have. We can use these insights to advise on how to improve education settings and resources to better mitigate disadvantage.

This paper will look at the development of the index and some of the insights we have found from this work. It will also compare the equity index to some of the findings under the decile system. In particular, the index can help us understand how the system is working for children from low socio-economic backgrounds. Examples of what we can now look into include:

- The kinds of problems being faced by schools that teach high numbers of children from disadvantaged backgrounds
- What is the relationship between the outcomes of different population subgroups (including ethnic
groupings) once we control for disadvantage?

- Which schools are achieving well considering their levels of disadvantage?
132. The role of parents in cooperative relationships between parents and professionals

Sissel Sollied¹

¹Uit, Arctic University of Norway, Tromso, Norway

I would like to present a working method whereby professionals and parents cooperated in a team around children who required special needs teaching. In the innovative part of the project, the approach bears resemblance to action research.

The primary focus in my research was to increase the understanding of communication, since various functional impairments make mutual comprehension more complicated. Video analysis was applied as a tool in this work. Over the course of one-and-a-half years, a relational group around two young individuals held regular meetings, where video recordings were made of interactions between each child and the interaction partner in different environments in the child’s life. 19 informants took part, professionals and parents. In total, 25 field visits were completed, and I kept detailed field notes of the process.

The group reflected on these video recordings on the basis of the participants’ various experiences and perceptions. We discovered, discussed and attempted to resolve the barriers to productive teamwork. In addition, one year after this innovative process, this work was supplemented by in-depth interviews with 19 participants for about 25 hours, all together, and an analysis of 1,067 pages of the children’s educational records.

What picture of the conditions under which counselling work is conducted is drawn through the study’s innovative process, in-depth interviews and analysis of educational records?

According to the research, what factors seem to be capable of promoting the changes in actual professional practice that the counselling indicates.

The main focus in this presentation is on experiences from counselling work with the relational group, and builds further on the author’s PhD project. This working method may stimulate ideas for further research into themed work, where the knowledge of close relations may supplement the knowledge of the professionals involved, and contribute to improving the quality of the education provided. My presentation also identifies experiences with various barriers to progress, and discusses ways of tackling them.
Alternative education tutor pedagogy: poetic enchantment for the disenfranchised?

Adrian Schoone

AUT, Auckland, New Zealand

hard to pin her down
hard to keep her at school
she suddenly turned up
in a pink blouse
the one who was into all the black arts

Every year, approximately 3500 secondary school students, who are disenfranchised from mainstream secondary schools due to multiple suspensions, exclusions or truancy, access alternative education. Many of these alternative education providers were established during the 1990s, in the wake of market reforms to New Zealand education that saw increasing numbers of students ‘alienated’ from conventional schools (a term used by the Ministry of Education, 2015). These providers were by-and-large community driven initiatives contracted by secondary schools, and represented for students, places of refuge (Nairn and Higgins, 2011). One feature in many of the providers, was the employment of tutors as the key workforce. These tutors do not hold teaching qualifications, but draw from a range of life experiences, youth work qualifications, cultural knowledge, sports and arts, along with a passion for working with young people – in order to provide a holistic education. An Education Review Office (2011) report found “despite the complex educational and social issues that arise in connection with Alternative Education students, these passionate tutors often have greater successes than teachers in the mainstream who have previously been unable to support these students” (p. 62). Yet, the voices of the tutors’ remain largely absent from research that explores pedagogies that engage young people.

Through doctoral studies I undertook a phenomenological research aimed to bring voice to tutors experiences and to bring to our understanding, knowledge of alternative education tutor pedagogy. Having observed tutors discourse with their students to be evocative, bereft of educational jargon, I turned to an arts-based method of poetic inquiry (Prendergast, Leggo & Sameshima, 2009), that centred on creating found poems from tutors’ everyday discourse and research interview transcripts. I created more than 200 poems that represented who tutors are in-the-world of education and of life. I then drew from these poetic findings to create 21 constellations of tutor essences, entitled: call, love, joy, empathy, grace, mana, watching-over, commitment, past experience, criticality, whānau, guidance, poiesis, talanoa, holism, thoughtful pedagogy, inspirational pedagogy, epiphany, movement, transformation, and mystery. The constellations navigated my return to the ancient tutors we once knew, albeit refreshed for a new age. In this presentation I perform a short selection of tutor found poems that demonstrates tutors’ pedagogies of enchantment that critically challenges the neoliberal education agenda, and brings hopeful perspectives from alternative education, into the world.
Traditionally courses in inclusive educational (IE) practice for beginning teachers have prioritized rights-based how-to approaches to accommodating disabled children in regular classes, usually set within a conceptual framework of everyday optimism and individual potential.

These approaches have great appeal. Yet it has been suggested that these frameworks cannot challenge the impact of structures of ableism that in profoundly unconscious ways sustain the idea of able-as-normal, therefore superior, leaving those who fail to achieve normative standards at risk of marginalization, segregation and exclusion (Zembylas, 2015). As Berlak (2004) points out, the major purpose of social justice is to unsettle cherished beliefs. To achieve this in courses in inclusive education challenging deeply held notions of normal becomes necessary. Yet how to keep course participants and tutors safe while problematizing aspects of the fundamental structure of our most deeply held understandings about how the world works? In this presentation the events that lead to the ideological changes initiated in an IE inclusive education module in response to tensions arising during tutorial sessions are summarised. New pedagogical approaches for these sessions - including changes to curriculum material, the format of discussions and the tutorial environment itself – are then outlined.

The rationale for these changes were based on Butler’s (2003, p. 1) suggestion that, as a community we are intimately bound up in the lives of others, who are intrinsic in the same physical, social and political spaces as ourselves. Yet it is only when a ‘taken for granted’ reality is called into question that this view becomes salient. At this time the ‘set of cultural norms that are considered preconditions of citizenship’ (Butler 2003, 106) also become evident. Ethical permission was sought to record four tutorial sessions of discussion of the new material. Key examples from participants’ talk data uncovered significant unsettling ‘moments-of-transformation’ possibilities that lay in the interrogations of material made by the student groups. These examples show that the new material allowed the group to begin to safely interrogate the ‘taken for granted’ assumptions about processes of disability/inclusion held in the examples given (Hamilton and Kecskemeti, 2014). It is suggested that it is important for IE tutors to assist students to engage creatively with notions of difference and where possible, to prioritize teaching/learning strategies that encourage openness to new conceptual challenges as a foundational pedagogical element of IE teaching practice.
140. Not just a pile of facts: Use of NOS in science teaching

Judith Bennetts

1UC Education Plus, Christchurch, New Zealand

Science is seen by many students as difficult and irrelevant and as a result fewer students, both in New Zealand and internationally, are taking science beyond the compulsory years. This has led to a worldwide shortage of science teachers, particularly in the physical sciences and is contributing to a society which is not scientifically literate. Science educators have seen teaching the ‘content’ of science as being important but not sufficient, to achieve greater student engagement, relevance and active use of science learning in real life contexts. Teaching the NOS component of the science curriculum has offered a way of addressing these challenges, however, evidence collected from practice has shown that many New Zealand science teachers still focus on science ‘content’ rather than NOS. This study, which adopted an interpretive, phenomenological paradigm using a qualitative methodology, included teacher interviews, document analysis, student focus group interviews and photovoice to explore the factors that influence the use of NOS in science teaching. The aim of this presentation is to share my findings from one of my three case studies on how NOS knowledge is acquired, one of the factors that influence the use of NOS in science teaching. In particular, professional learning and development and the science capability resources produced by NZCER will be discussed.
Could knowledge building pedagogy be used to support science learning at Years’ 9 and 10?

Simon Taylor
Department of Mathematics and Statistics
University of Waikato, Tauranga, New Zealand

This presentation draws on a recent pilot project on how a group of secondary science teachers from three schools have helped to develop a knowledge building community with their junior classes. Four themes will be discussed:

1. Making sense of what knowledge-building is
   - How knowledge building can be used as a pedagogy to support the Nature of Science
   - Differences between knowledge building and inquiry learning
   - Meaningful integration into a junior secondary science programme.

The aim of a knowledge building community (KBC) is to produce new ideas and knowledge, which is useful to, and useable by the community (Scardamalia, 2002). There is an emerging prospect for science teachers of Year 9 and 10 classes where teaching and learning programmes can be developed for students to improve knowledge, even to create knowledge not just reproduce it. Knowledge building has been described as a community process where all students are empowered in knowledge creation as legitimate contributors (Lai, 2014). Rather than teaching programmes demonstrating science content and verification, the participating teachers wanted greater emphasis placed on knowledge synthesis. This phase of idea creation and improvement is at the heart of the knowledge building pedagogy.

A design-based research methodology was employed in this multi-site case study. Qualitative data was collected from teacher interviews and professional learning meetings. Audio taped student recordings in class interactions were integrated into the analysis.

Integrating a knowledge building community into a science programme was a challenging shift in practice, however through the teachers’ own exploration on classroom pedagogy using the 12 KBC principles, this could develop and be a very practicable model to support future science learning at Years’ 9 and 10. Five enablers were identified by the teachers, a conceptual visual representation was established and some valid points have been made about the differences between inquiry learning and knowledge building. The realisation this research has seen, means placing more faith and confidence in learners to help create knowledge within their class communities using carefully constructed classroom strategies. This research also signals how classes integrating knowledge building can influence pedagogical teacher change.

Reference:
8. **Multipolicy tertiary environments: On the possibilities of academic life in the ruins of the university**

*Kirsten Locke*

*University of Auckland, Auckland, New Zealand*

This abstract draws on the work of Anna Tsing and her intriguing book *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (2015) to explore the methodological potential of ‘multipolicy environments’ when applied to ‘multipolicy environments’ in Higher Education. Tsing’s work provides an interesting bridging device for the author between the capitalist analysis of environmental value and the changing political economy of the contemporary university. Where do we find value in the chain of academic life? How do issues such as equity, justice and academic freedom sit in the modern New Zealand university? It is impossible to talk of ruins in academia without referencing Bill Readings’ (1996) seminal work, and this paper takes both Tsing and Readings and juxtaposes these two thinkers with Morton’s ‘hyperobject’ (2013) to explore the ways multiplicitous university environments are often struggling with the same ‘outcomes’ (as hyperobject) of rampant capitalism in academia. At heart the paper is a recognition that Tsing is only too familiar with in her own work: that so often an analysis of the environment presumes a static and stable landscape wherein humans are placed in the centre as master navigators. When transposed to university environments, the decentring of human agency and the multiplicitous dimensions of structure interact with multiple forces, policies and discourses that require contextual and local manifestations that are bound together on a global level by shared values and common agendas. The possibilities for life in the ruins of the university, then, requires a digging in to the earth of a forever-changing landscape that demands a search for the end of the world without the outcome of annihilation of life in academia.

Proposed bibliography (key texts):

150. Skills, ethics and student engagement in tertiary education

Bernadette Farrell¹
¹University of Canterbury, Christchurch, New Zealand

Ethical ideas of what constitutes a good education are underdeveloped in contemporary tertiary education policy in New Zealand. However, neoliberalism as a moral system, like all ethical approaches implicitly establishes and prioritises particular moral values and dispositions. Within tertiary education policy, the skills that students obtain have emerged as the most essential aspect of education. Skills occupy a more significant position within policy than knowledge, understanding, dispositions or virtues. This presentation seeks to explore the concept of skills reconstituted as educational virtues in current policy and the potential implications for student engagement. In particular how these skills constituted as neoliberal values are inconsistent with student engagement. The increasing spread of neoliberal values has reconfigured our understanding of educational virtues. Skills, particularly generic skills, have become one of the most essential aspects of education. However, generic and transferable skills constituted as neoliberal values, are not always consistent with the kind of education that supports student engagement as argued by John Dewey and Paulo Freire, and by this presentation.
136. **Sacrifice: A complex soft skill acquired through an outdoor education camp for tertiary students**

_Evelyn Yeap¹, Billy O’Steen²_

¹University of Canterbury, Christchurch

**Background:**
The Malaysian Ministry of Higher Education has listed several soft skills that higher learning institutions should instil in their curriculum to produce holistic, entrepreneurial and balanced graduates. By acquiring soft skills, Malaysian undergraduates are expected to perform effectively and professionally in their future employment. Within Malaysia, soft skills are usually taught through stand-alone workshops conducted by instructors delivering the definitions and examples in a classroom setting. Based in Malaysia, this research examined perceptions of university students who attended a reflection-focused camp and returned as facilitators.

**Purpose:**
To gauge the diverse student facilitators’ perceptions about which soft skills they have acquired during the camp and which experiences on the camp were most influential.

**Methodology/Approach:**
Employing phenomenography as the research methodology, students who had attended the camp and returned as facilitators were invited to participate. Data included 15 semi-structured individual interviews and three focus group interviews. Interviews were carried out until the data reached a saturation point by two factors: sufficient interviews to achieve variations; and being manageable.

**Data Analysis:**
Phenomenographic study is unique in the way that no specific analysis approach must be followed. This research followed phenomenographic analysis where categories of description were drawn through an iterative and inductive process, where data were read and re-read, categories were drawn inductively.

**Findings/Conclusions:**
Situated within larger doctoral research, this presentation focuses on a finding of a complex soft skill - sacrifice. Sacrifice emerged as a theme that was important to leadership and was stated as “self-sacrifice”, “giving in” or “giving up”. Rather than arising from the headline activities (such as the jungle journey), sacrifice emerged from the daily routines in the camp that educators do not usually focus on, for example, meal times. This research suggests that the smaller details in the camp should not be ignored, as it could turn out to be where vital learning happens. Beyond the context of outdoor education camps, this research indicates that the space between the programmed learning activities may be critical for developing soft-skills and this challenges all educators to consider the opportunities for students to have greater freedom.
37/1. Implementing a shift towards a culturally responsive teaching practice through peer observations


1Universal College of Learning, Palmerston North, New Zealand

Objectives:
This study investigated the impact of Te Atakura (a Transformative Education Strategy to improve Māori student achievement) on teaching practice in a tertiary institution. Specifically, this study aimed to quantify the shift lecturers were making to their teaching practice within the context of the Effective Teaching Profile (ETP).

Scholarly relevance:
Russell Bishop argues that to address equity of achievement, a key shift required of educators is recognising the agency they have in being able to make changes that will impact upon Māori students’ achievement. The foundation of Te Atakura is the ETP which is made up of three parts: the family like context lecturers develop with their Māori students, the implementation of discursive teaching practices and student voice. This is achieved through observation of classroom practice accompanied by individualised and carefully constructed feedback as this is known to be the most effective way to change lecturer practice.

Perspective(s):
The approach proposed by Russel Bishop underpinned the development of an ongoing professional development programme aimed at supporting lecturers to develop and adopt a culturally responsive pedagogy. Research has supported a peer-observation model in developing lecturer efficacy however the focus of this research was to challenge lecturer assumptions and deficit theorising of Māori student achievement. Pre-observation meetings aimed at achievement, retention, engagement and attendance data and teaching goals while post-observation meetings focussed on a reflection on the evidence collected in the observation and enhancing teaching practice in response to student voice.

Results and Conclusions:
A prevailing theme from questionnaire data was that lecturers who completed 5-8 observation cycles exhibited the most significant shift in their implementation of the ETP. Lecturers given time and observation cycles shifted their attitudes of what attributes to Māori achievement, placing higher value on the learning relationship with their students. A large percentage of lecturers agreed that they had a sense of responsibility in providing a learning experience that was culturally responsive. Lecturers attributed the shift in their teaching practice to reflection and obtaining student voice through the observation cycle.

Relevance to the conference theme:
During the first few observation cycles, Te Atakura challenged the lecturer’s attitudes and assumptions regarding Māori student success. Thereafter, Te Atakura supported lecturers to enhance their teaching practices in alignment with the EFT. At the 5-8 observation mark, lecturers showed the most significant shift in teaching practice. Our study highlights the effectiveness of Te Atakura to implementing a shift towards a culturally responsive teaching practice through peer observations, in a tertiary setting.
45. Culturally sustaining practice: Re-imagining cultural productions

Lindsay Fish
1
2 University of Auckland

This is a presentation of my doctoral research to date. The catalyst for my doctoral project was a desire to reflect on my own teaching practice. I wondered how, as a Pākehā working in a mainstream school in Aotearoa New Zealand, I could be an effective teacher of Māori students.

I began with an exploration of educational literature, concentrating on the development of culturally sustaining policy and practice. From this I came to understand how Freire’s theory is explicit and implicit in the culturally sustaining policy and practice of Aotearoa New Zealand. Freire’s theories and methods work against a banking model of education, to problematize and transform education through the process of generating themes, conscientisation, dialogue and the dialectic of action and reflection.

My review of the literature lead me to ask how culturally sustaining pedagogy facilitates teachers’ conscientisation and view of themselves as producers of culture? The aim of my project is to develop a framework to expand teachers’ understanding of their practice as a cultural production and the possibility of it being produced in a different, more culturally sustaining way.

To achieve this I carried out a case study of a professional learning group of teachers, as they sought to develop culturally sustaining pedagogy, in a mainstream New Zealand high school. As facilitator of this group I used Freire’s culture circles as a model to present teachers with situations from their own practice and to identify critical incidents. Critical incident analysis is a pedagogical approach which allows for reflection on teaching situations, with the aim of developing teacher practice.

My contention is that through this process, as with the participants in Freire’s culture circles, teachers have come to understand themselves as active producers of the culture within their classrooms. Having come to this understanding it is then possible for teachers to imagine the possibility of producing the culture of their classrooms in a different, more culturally sustaining way.

To support teachers’ re-imagining of their cultural productions I have taken feminist judgment writing and critical race theory’s use of chronicle as models for developing my own framework. Feminist judgment writing is an emerging legal field in which academics re-write judgments through a feminist lens, while maintaining all the existing context of the case. In this way, feminist judgment writing offers a useful model for my work as it demonstrates the way in which external constraints may remain and yet, through systematically applying a critical way of thinking, a situation may be reconstructed and produced in a different way. At the same time, chronicle provides a precedent for my re-imagining of the critical incidents of practice. Although imagined, chronicle is rooted in the current research, theory and debate of whichever field it explores. In the imagined scenarios and conversations of chronicle, characters assert opinions, test and revise theories, raise misgivings and draw conclusions. In chronicle I recognise an approach that forges a creative space and allows for the complexities of teachers’ experiences to be retained within the research story. Using these theories, my project seeks to develop a framework that encourages teachers’ understanding of their practice as a cultural production, and in this way, contribute to culturally sustaining pedagogy, as it develops in Aoteroa New Zealand.

To date, I have completed my case study and am analysing my collected data. Case study data suggests that using the examination of critical incidents within the professional learning group, allowed teachers to identify cultural productions within their classroom practice. I have tentatively identified the critical incidents that I will re-write, using my developing framework.
147. **Pathways for success for Māori students: A mātauranga Māori approach and a conventional NCEA approach to teaching and learning in visual arts at years 12 to 13**

**Donna Tupaea-Petero**

1The University of Auckland

This presentation focuses on mātauranga Māori as a means of achieving ‘Māori success as Māori’ in visual arts education in New Zealand mainstream secondary schools. It reports on the findings of my masters research which investigated how two different approaches – a mātauranga Māori model and a conventional NCEA approach to teaching and learning for Māori students in year 12 and year 13 could promote greater success ‘as Māori’ through the visual arts. The aim of the research was to provoke discussion and challenge current discourse and practices by identifying levers for success in promoting a mātauranga Māori and mana-inspired approach in visual arts education for Māori students. A deep-seated desire for social justice in our education system and educational reform to better reflect Māori aspirations and ways of knowing, being and doing also motivated this study.

This small-scale research project was conducted in two English medium secondary school visual arts departments. One school was known to promote a mātauranga Māori model, thus was purposively selected. The other school offered a conventional NCEA approach to visual arts and was selected on the basis of its 2014 NCEA Level 2 visual arts results for Māori students. The findings from this research highlighted a number of issues relating to systems and structures that serve to privilege or marginalise knowledge, and the extent and quality of culturally responsive and relational practices in visual arts education. A paucity of research reflecting mātauranga Māori and its place in Māori success in the visual arts positions this study as a valuable theoretical contribution to addressing educational disparities for Maori students in the field of visual arts education.
81. Refugee and immigrant families: pathways to belonging through early childhood education

Amanda Bateman\(^2\), Raella Kahuroa\(^1\), Ruth Ham\(^3\), Lesley Rameka\(^1\), Linda Mitchell\(^1\), Elaine Khoo\(^1\)

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Chairperson:
Linda Mitchell, University of Waikato, Hamilton

Symposia overview
Refugee and immigrant children and families are transitioning to a new country and culture, where a primary task is to develop a sense of belonging. Belonging - Mana whenua is a crucial construct in Aotearoa New Zealand’s early childhood curriculum, Te Whāriki, described as contributing to well-being, confidence to try new things, and identity. Belonging is a basic human need that develops in the context of relationships with people, places and things, within contexts of families and communities. Yet, despite its prominence as a curriculum strand, the processes of coming to belong and supporting belonging through early childhood education, especially where different cultural beliefs require negotiation, are not well understood.

The three presentations in this symposium will discuss initial findings from two research projects focused on refugee and immigrant families in early childhood education. These are a Marsden –funded project, Refugee families in early childhood education: constructing pathways to belonging, and a TLRI project, Strengthening belonging and identity of refugee and immigrant children through early childhood education. Both projects use a design-based implementation research approach within early childhood centres involving cycles of data gathering, theory building, critical analysis and evaluation, and adaptation of design. Video-recording, story-telling, documented learning stories, drawing and interviewing are specific methods being used to gather data with children and families. Teachers are researching with academics in these projects.

Data is being analysed thematically and conversation analysis used to investigate cultural nuance and specific aspects of interactions that are significant to the participants.

- Thematic analysis is used to build stories of belonging in context through analysis of videotaped episodes, interview data and documentation. This iterative approach will involve going back to the data and literature as we collaborate with participants, fine-tune the analysis and theorise.
- Conversation analysis is used to provide insight into the ways in which children attend to past experiences in their home country in their talk and play with peers and teachers. Membership categorisation analysis is used for detailing how children refer to their belonging in everyday conversation, and also by observing how they choose to gain membership with other children and adults.

Our aims are to construct a new theoretical model with exemplars that will generate improved understandings of bicultural belonging and identity for refugee and immigrant families in New Zealand. This research is transformative in aiming to generate critical thinking and shifts in understanding in order to support a more inclusive society.
Belonging in teacher–child interactions around drawing: A conversation analysis perspective
Amanda Bateman and Raella Kahuroa

This presentation offers insight into an interaction between a four-year-old child and her early childhood teacher where the child’s belonging is explored through the activity of drawing. The footage is from Pakuranga Baptist Kindergarten in the TLRI project investigating belonging and identity with immigrant families and children in New Zealand. The analysis here uses an ethnomethodology framework to inductively reveal how the interaction is coproduced between the teacher and child as a collaborative action, and conversation analysis is applied to reveal the detailed ways in which the drawing and telling are collaboratively achieved, verbally and with gesture.

The child, acquiring English as an additional language, was part of a small group discussing their favourite places in Aotearoa New Zealand. We explore how the teacher carefully prompts the child to talk about the people, places and things that are of significance to her through multimodal activities of drawing and storytelling combined. The young child responds by drawing a picture of Grandad taking her and her sister to the park. Conversation analysis provides insight into how the teacher uses the picture itself as a tangible point from which to develop the storytelling around the child’s interests. A shared understanding between the participants is gained as the child draws and tells about the figures in her picture (people), the park itself (places) and the activities and equipment used at the park (things). The teacher ensures a shared understanding is secured through using the drawing as a tangible support for co-operative action (Goodwin, 2017) as she couples touching specific parts of the drawing with specific words, asking questions and prompting further information through a combination of touch, gesture, and language to scaffold the child’s account of her time with Grandad.

Identity construction can be complex for young immigrant children, as they negotiate changes in people, places and things between multiple contexts. Early childhood settings have the ability to support children’s sense of belonging in a new country through multimodal engagement where the affordances of drawing and telling ensure enhanced awareness and consciousness of children’s connection with the family and wider world.

References:

Bicultural belonging and refugee children and families
Lesley Rameka and Ruth Ham

This presentation will report on initial findings from our research Refugee families in early childhood education: constructing pathways to belonging. The research aims to investigate how early childhood education can strengthen a sense of bicultural belonging and identity for refugee families in NZ, and also help families sustain a sense of belonging and identity from their home country. Contemporary indicators of belonging and how belonging is enhanced in culturally diverse environments requires negotiation of different terrains of assumptions, behaviours, values and beliefs. We argue that Māori knowledge, experiences, values and beliefs can contribute to negotiating these terrains for refugees in terms of understandings of and a sense of belonging within their new environment. Furthermore, a sense of bicultural belonging and identity in Aotearoa, New Zealand involves the development of understandings of and connectedness to Mana Whenua (people with authority over the land) and could be central to the development of identities of self and belonging of refugee families and children in Aoteroa, New Zealand.

Kaupapa Māori theory provides an important frame for the research project. It relates to perceiving the world from a Māori epistemological perspective and assuming the normalcy of Māori values,
understandings and behaviours, and language. This presentation draws on interviews, recordings and documentation of bicultural belonging from the ECE centres in the studies. We will explore initial themes that have emerged from the research and understandings that have relevance for the development of bicultural belonging in Aotearoa, New Zealand.

Negotiating community funds of knowledge within the curriculum
Linda Mitchell, Elaine Khoo

Relationships within education settings are productive when they are empowering and based on an understanding that families and communities bring strengths and expertise. They draw on and can build child, family and community social and cultural capital. We are investigating a two-way process of learning and coming to belong through early childhood education, with refugee and immigrant children and families adding to the richness of this mix in their early childhood centres and vice versa. The question has particular scholarly significance in relation to refugee and immigrant families whose experiences of emotional connection, social and cultural inclusion (ethno belonging) are often lacking. This presentation discusses examples of this two-way process in two centres in our studies.

The first centre, the Carol White Family Centre has a largely refugee community and is located in the grounds of Selwyn College and adjacent to the Refugee Education and Families programme. From the Carol White centre, we draw on video and interview analysis to exemplify how Shazia (a language assistant), from Afghanistan, initiated making candelabra with the children as a reflection of the special month, Shaban, the month before Ramadan, that is celebrated in her home country. She remembered making candelabra with her mother and aunties to celebrate special occasions. Through thinking and spontaneously making her own candelabra, she drew in children’s questions and interests, and they became active participants in making their own candelabra. The exemplar illustrates the permeability of curriculum at this centre: how families take initiative to contribute to the curriculum and in so doing reinforce genuine connections with home country that lead to deeper intercultural understanding.

The second centre, Iqra, is a multi-cultural, multi-religion community education and care centre located next to the Hamilton Mosque. We focus on the experiences of Child L, a three year old Afghani boy. Drawing on video data, we exemplify how he joined the children in visiting the mosque and learnt values and respectful behaviour from these visits and from discussions with Muslim community leaders. These encounters affirmed Child L’s faith, cultural values and religious understanding to the extent L is able to independently model the steps involved in the prayers. These, and other actions and rituals go beyond superficial tokenism and are underpinned by the centre’s core philosophy and vision to foster belonging through valuing the diverse values of children and their community.
22/1. Motivations to use innovative pedagogies: Examples from tertiary teaching

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Tertiary educational institutions are increasingly concerned that the teaching they offer is of high quality, meets institutional expectations, and serves students well by ensuring their learning and wellbeing needs are met. Research has shown that student learning can be enhanced by innovative pedagogical approaches (Henard & Roseveare, 2012; Stupans, Scutter, & Pearce, 2010). There are many institutional and student-related drivers for enhancing the quality of teaching at tertiary level; for example, the need to respond to changes in the size and composition of the student intake, accountability to external agencies, changes to curriculum and new technologies, and institutional reorganisation. Many of these external drivers of change are beyond lecturers’ control, but there are also personal motivations that drive lecturers to initiate and implement teaching innovations.

This presentation focuses on the personal motivations of tertiary educators to incorporate innovative approaches into their teaching. Drawing on data from a project about innovative approaches to tertiary teaching in one university, we use interviews with eleven award-winning teachers, documentation relating to their teaching, and survey data collected university-wide, to analyse lecturers’ rationales for using novel teaching pedagogies and assessment strategies. Examples of pedagogical innovations will be presented, along with analysis of lecturers’ descriptions of the decisions that led to the changes made. Competence, autonomy, and social-connectedness, themes of self-determination and motivation (Deci & Ryan, 2008), are used as a theoretical frame to discuss study findings.

We argue that motivation to change practice in tertiary settings needs to be strong given potential institutional barriers and risks associated with student achievement and feedback. The role of staff and student wellbeing is considered in a discussion of key factors that motivated innovative pedagogies, such as personal satisfaction, maintaining one’s own interest in content and teaching, and enhancing learning-focused lecturer-student relationships and interaction. Findings will be discussed in relation to factors that help ensure institutional contextual factors support and encourage the development and implementation of innovative and inspiring teaching and assessment practice.

References:
Objectives and purpose
The aim of this study was to increase Māori student engagement and achievement in Anatomy and Physiology on an Exercise and Sport Science degree.

Significance
Previously to 2018, Māori students have shown poor engagement and achievement in Anatomy and Physiology in our institution therefore Māori students disproportionately under-achieve. This lead to the aim of the study; to foster quality teaching by specifically creating a relationship-based teaching environment. This study is embedded in the Te Atakura project, the aim of the project is to achieve institution wide parity between Māori and non-Māori student achievement and engagement.

Theoretical Perspectives
Effective teaching profile strategies as outlined by Russell Bishop (Bishop, 2010) were implemented as part of a 13 week intervention (n=20). A typical week consisted of 3 learning sessions. Session 1 sets the scene for the week, assesses students’ prior knowledge, and provides students with multimedia resources to supplement their learning and a facilitated workshop with hands-on interactive activities for the most difficult concepts. Session 2 assessed prior knowledge from session 1 using hands-on activities on life size anatomical structures, ensuring the knowledge from session 1 was retained before attempting clinical dissections. Session 3 consisted of formative assessment in groups to encourage collaborative learning and highlight the length and breadth of student learning.

Results: Student Achievement
The results obtained indicated a positive shift in Māori student achievement from -15% parity (during 2015-2017; n=10) to -4.4% (during 2018; n=10); attributed to the range of engaging teaching strategies implemented. Achievement data comprised marks allocated from three written assessments. Positive student voice data indicated a significant family-like context and a range of discursive interactions. Results from this study provide insight into practical ways through which educators can engage Māori students in class ultimately improving student achievement.

Relevance to the conference theme
The Te Atakura programme has supported me to develop and implement a culturally responsive pedagogy through relationship-based teaching and learning. Results from my study provide insight into practical ways in which educators can engage Māori students in class thereby improving their achievement.
97. Investigating wellbeing-related outcomes from adult literacy and numeracy programmes for diverse learners: Building on Hei Ara Ako ki te Oranga - Year 2

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This paper reports on the second year results of a Teaching and Learning Research Initiative-funded project entitled “Using a wellbeing framework to recognise, value and enhance the broad range of outcomes for learners in adult literacy and numeracy programmes”. University of Waikato researchers have partnered with Literacy Aotearoa to further refine Hei Ara Ako ki te Oranga – a Māori framework for identifying literacy and numeracy (L/N) wellbeing outcomes, which was developed and trialled by Literacy Aotearoa and NZCER in 2012-2013. The project aims to build on the framework’s dialogic approach to systematically identify a broader range of outcomes. It fills an important knowledge gap about outcomes of adult L/N education other than the currently available skills assessment. In Year Two, we continue to focus on: a) capturing outcomes that are important to people beyond L/N skills acquisition alone, and b) systematically integrating wellbeing-related effects of L/N learning into everyday classroom practice, in a way that is meaningful and manageable for tutors and learners.

The researchers are working alongside tutors and learners in four Literacy Aotearoa programmes, informed by the results of Year One. The presentation reports findings from monthly data collection: classroom observations, interviews with tutors, focus groups with learners, student journaling and document review. The findings are collated and analysed to assess the manageability of the process, the nature of well-being related outcomes, alignment with Hei Ara Ako ki te Oranga and expansion to reflect greater learner diversity.

This year’s results have shown the importance of teachers in creating positive relationships and a classroom environment that values what learners consider important in their lives. Our findings also point to policy and practice that support teachers to develop manageable approaches to incorporate attention to broader outcomes for their L/N learners. We have found that systematic encouragement of reflection helps facilitate learners’ awareness and ownership of their L/N learning outcomes. The presentation will discuss these key findings in depth, including both solutions and challenges. It will also explore the partnership between Literacy Aotearoa and the university researchers which brings together different bodies of knowledge in a shared goal. Finally, it hopes to promote dialogue with teachers in other disciplines and levels about the importance of broader learner outcomes in their classrooms.
This presentation explores the potential of a feminist new materialist approach (Barad, 2007) for researching girls, sexuality and the school ball. Previous sexualities research highlights how dominant discourses of gender and sexuality structure girls’ experiences of schooling practices (Best, 2000; Smith, 2012). Extending these understandings, this research considers the possibilities for becoming ball-girl when matter is taken into account. Attention shifts to material objects, spatial-temporalities, embodied practices and affective forces: things that may have previously been overlooked. The ball-girl is conceptualised as intra-actively becoming through entangled material-discursive and affective forces, opening-up understandings of the school ball-girl beyond a discursive constitution.

The paper is informed by a recent study in Aotearoa–New Zealand exploring the entangled relations that produce girls, sexuality and the school ball. The aim of the study is to explore how human and more-than-human forces produce what we come to understand as the school ball-girl. Adopting a posthumanist approach to ‘data’, the research examines entanglements enacted through girls’ talk, photographs and videos.

In this presentation, I consider how a feminist new materialist approach offers an ontologically different way of understanding the ball-girl. Becoming ball-girl does not refer to a stable identity or femininity; rather, it is a making and unmaking of bodies that exceeds the discursive and the human. In the reconfiguring of bodies, sexualities are also rethought; rather than an attribute of an individual human body, ball-girl sexualities emerge via entangled human and more-than-human relations. The significance of this understanding of ball-girl-bodies and sexualities is that possibilities and capacities are not wholly constrained by discursive practices, nor are they located in, or do they emanate from, human intention and action. This open-ended potential offers possibilities for new imaginings for what a ball-girl can do and become.
New Zealand is a multicultural nation that has become increasingly pluralistic in terms of ethnicity and religion (Statistics New Zealand, 2018). It is difficult to envisage the current sexuality education being effective and relevant for culturally diverse students given it has been described as the 'one-size-fits-all approach and model' (Education Review Office, 2007). It has also been recognized that there is a knowledge/practice gap and mismatch between the interests of students and teachers in sexuality education.

An increasing number of studies locally and internationally have examined the importance of considering the views of young people regarding sexuality education. Iyer and Aggleton’s (2015) review of sex education literature reveal a trend in the last decade towards facilitating young people as agents who determine their own sexual health. It is crucial that sexuality educators and programme developers understand and incorporate young people’s views in the development and implementation processes in order to increase student engagement and achieve goals that will improve their sexual health and well-being.

This project involved 500 Asian young people aged 16 to 39 years using mixed methodology including online survey, focus groups and interviews. It investigated Asian young people’s learning needs and preferences in four areas of sexuality education including content, sexuality educators, pedagogy and cultural factors. The author contends that it is vital to listen to the voices of Asian young people regarding their learning needs and preferences with regard to sexuality education in order to effectively provide relevant information and skills that could enhance their control of their sexual health and well-being. Findings reveal participants calling for relevant and up-to-date content, culturally sensitive educators, interactive teaching styles and the exploration of the use of internet as a supplement to sexuality education.

As we enter the twenty-first century, the reproductive and sexual health of culturally diverse young people have been viewed as a concerning ‘problem’ issue in public health (Ministry of Health 2003b). Sexuality education is of interest to policymakers because it is viewed as an informational tool designed to promote sexual health, reduce unplanned teen pregnancy and sexually transmitted diseases thus reducing health costs. It is valued as an important contribution from education sector towards strengthening the human capital (Clarke, 2010). It is hoped that this study’s findings can inform policymakers that a culturally relevant and effective sexuality education can improve the sexual health of culturally diverse young people and enhance a nation’s human capital accumulation.
103. Sexuality education in New Zealand schools: Policy, outsourcing, and the call to brand

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The health and sexuality education of young people are both contested and controversial sites of educational practice. While clearly of public concern and educational worth, these subjects tend to be a low priority in schools. The inclusion of sexuality in school-based curriculum continues to be debated and contested internationally. In 2015, the New Zealand Ministry of Education released a new curriculum policy document for sexuality education in all schools – Sexuality Education: A Guide for Boards of Trustees, Principals and Teachers. This policy is world-leading and a rare international example of a curriculum document that explicitly values diversity, promotes inclusive school environments, and approaches sexuality education as an area of study (rather than a health promotion intervention). Since its release, the document has, however, gained little attention in terms of dedicated implementation in schools. Instead, a range of programmes sponsored by outside agencies have emerged as ‘quick fixes’ to perceived sexual health issues, including sexual violence and consent. Programmes such as ACC’s ‘mates and dates’ and the New Zealand Police’s ‘love’s me not’ are being marketed to schools and given large amounts of public funding. Sexuality education in this sense is subject to the same neoliberal and political tensions affecting others areas of education, including outsourcing, privatisation and commercialisation. In this paper we conduct a critical policy analysis to examine the tensions of sexuality education policy in the current climate. We argue that, while New Zealand policy can be seen as ‘progressive’, it is also somewhat at odds with funded and branded educational interventions, some of which also draw on public funding.
134. Student participation in decision-making in primary schools

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The notion of children and young people participating in a school’s decision-making processes has been the topic of much research and writing throughout the Western world since the 1980s. However, very little research or literature focuses on primary school children’s participation in decision-making and there is almost nothing published in the New Zealand context. The research reported on in this presentation is a beginning step in addressing this knowledge gap by examining children’s participation in decision-making in two New Zealand primary schools in order to identify the understandings and experiences of children, teachers and principals in regard to children’s participation in their school’s decision making processes, through the use of a qualitative, case study approach. The research identified that beliefs and practices related to children’s participation in decision-making were shaped by the principals’ and teachers’ knowledge and beliefs about children and their rights, and their views of children’s competencies and capabilities. The school structures, rituals and traditions also influenced the children’s access to decision-making opportunities, as did the extent to which each school adopted democratic and social justice perspectives. The research findings also led to the development of a model that aims to identify and position critical understandings in the area of children’s participation from a bicultural and social justice perspective.
141. Enhancing teacher development through teacher appraisal

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Teacher development is an important component of the appraisal system in New Zealand (NZ). However, many studies have noted that schools in NZ are focusing more on trying to meet the accountability requirements compared to development requirements of teachers. This skewing might have resulted from the demand for demonstrating accountability at both a public and institutional level, which also created a challenging situation for those responsible for appraisal practice. Additionally, NZ schools do not have one standard appraisal system. Rather, each school has the ability to design its own appraisal system according to the recommended set of criteria. As a result, each NZ school has its own unique appraisal process and system. Furthermore, as every school was free to adopt different methods of appraisal, there was no standard mechanism that could be used to compare the quality of schools. Moreover, it was difficult to identify any systemic weaknesses in the appraisal process as each appraisal was constructed and implemented differently. However, there is a lack of in-depth studies that examine how appraisal systems can be used to not only focus on accountability but also focus on meeting the teacher development needs.

Therefore, the present study is looking at how two schools in NZ are enhancing teacher development through their appraisal system. The researcher is currently collecting her data through semi-structured in-depth interviews, participant observations and document review. The findings of this study will enable the researcher to identify a range of innovative approaches that can be models for other schools who might be struggling with integrating an appraisal system that is focused on teacher development. Additionally, this study also aims to provide insight for teachers, school management and the Ministry of Education in relation to the factors that contribute to the effectiveness of teacher development as part of teacher appraisal.
114. Collaboration and inquiry in teaching: Interdependent and intra-dependent processes

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Persistent underachievement in mathematics for some groups of learners requires shifts in what teachers know and can do. Collaboration and inquiry are assumed to be fundamental to teaching and learning, and explicitly underpin current education policies aimed at addressing inequalities in educational achievement in New Zealand primary schools. However, notions of collaboration and inquiry are both underconceptualised and treated as largely independent of one another. For instance, the Teaching as Inquiry model in the New Zealand Curriculum frames teacher inquiry in terms of individual teachers. Taking a perspective that collaboration and inquiry in teaching have nuanced meanings and are both inter-dependent and intra-dependent, in this presentation we examine what it means to design and enact teachers’ collaborative inquiry.

Professional learning is presumed to be situated in the social and cultural contexts of teachers’ work. This presentation will report on a study that involved designing an approach to teachers’ collaborative inquiry aimed at strengthening pedagogical practice in primary mathematics classrooms with the ultimate object of raising achievement for previously under-served students. The small-scale study used a design-based methodology that was iterative and cyclical, and involved working with a group of teachers to design, implement and refine an approach to teachers’ collaborative inquiry. The aim was to explore the affordances of collaborative inquiry to promote teacher learning. A key characteristic of the teachers’ collaborative inquiry approach that emerged from design process was that of co-teaching, involving pairs of teachers planning, teaching and reflecting on mathematics lessons together. Expanding the inquiry activity to include co-teaching created productive conditions for teachers working together to enact new and challenging pedagogies. The shared experience of co-teaching mathematics lessons in one another’s classrooms afforded shifts in both what the teachers talked about and how they engaged in reflective conversations about mathematics teaching | learning in their classrooms. We argue that teachers’ collaborative inquiry with co-teaching was a rich site for the generation of local theory and had the potential to support teachers to transform mathematics teaching | learning. Explicitly creating spaces for challenge in teachers’ conversations supported teachers to interrogate and improve their practice. In particular, working across difference, both in terms of differences among the perspectives and expertise the participating teachers brought to their shared practice, and across the multiple roles and contexts of peoples’ day-to-day work, acted as both a catalyst and context for transformation.
97. Are we there yet? On the road to inclusion in Aotearoa New Zealand

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Are we there yet? There’s still a way to go

Are we there yet? A little down the road

Are we there yet? We really want to know

So come on, come on, come on let’s go

So come on, come on, come on, let’s go go go!

(courtesy of Australian children’s group Hi-5)

The politics of inclusion is about bringing together lived experience, research and advocacy. In this paper, we want to provide the audience with an opportunity to discuss current issues and future directions of inclusion, and the role of research within that. In particular, we want to talk about how we go about collaboratively identifying research topics, and disseminating findings to people at the grassroots of education in our communities. We argue that research has a role in transforming our communities to be more inclusive, but the work must be done in partnership with other key players, such as children, families and teachers. We are aware of an increasing number of digital spaces where researchers are able to come together with these key players to share in a communal sense of responsibility for realising inclusive education as a fundamental, inalienable human right. The world of social media, in particular, has made it so much easier for people to share their lived experiences of in/exclusion. At the same time, researchers have had the opportunity to be better informed of current and future campaigns for change at the grassroots level. Our overarching question, as the new co-convenors of the Inclusive Education and Communities SIG, is what role people envisage the SIG playing in supporting inclusive education and communities in Aotearoa New Zealand? The lyrics above are expressing an aspiration for inclusion rather than specifying a destination, and invite us to collectively ask “are we there yet” in terms of realising inclusion. How will the SIG support this overall aspiration? In our presentation, participants will have the opportunity to offer thoughts, ideas and possibilities as we look for new direction for the SIG in transforming inclusive educational research.
14. Teaching Perspectives and Learning Experiences through the MI approach

Patricia Ong¹

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Gardner’s Theory of Multiple Intelligences questions the validity of defining and determining intelligences in terms of solely linguistic and logico-mathematical terms. It defines intelligences in at least eight forms: Naturalistic, Verbal-linguistic, Kinaesthetic, Logico-mathematical, Visual-spatial, Musical, Interpersonal and Intrapersonal. It provides a viable alternative to traditional curriculum and assessment practice in the early childhood setting. This project which examines through a centre case study in Singapore, the experiences of preschool educators and the implementation of the MI approach in the preschool setting. It looks at how the MI approach can be adapted for a differentiated and inclusive curriculum for a diverse group of learners with varied preferred learning styles, interests and abilities.

The study has been situated within a narrative and interpretative research paradigm while the theoretical underpinnings are informed by various developmental constructivist theories, together with Gardner’s Theory of Multiple Intelligences. The methods deployed in this partly ethnographic study includes conversational dialogues (semi-structured interviews), direct observation of teacher participants with classes and document analysis. It hopes to show how this approach can be relevant in the modern international preschool setting. The preliminary findings presents the themes found in this approach to curriculum and assessment in the ECE setting and also reflects on the experiences and perspectives of teacher participants (classes involve children between 18months-6years of age) who have been involved in the use of this approach.

References:

28. Senior science inquiry in 21st century learning environments: Rhetoric meets reality

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The discourse of 21st century learning constructs education as a collection of policies and pedagogies where knowledge is accessible, online, where technology can teach. Skills and competencies are important. 21st century learning is personalised; students make choices in their learning and one size does not fit all. The sum of these ideas provides a pedagogical framework which is expected to entail a shift away from teacher-led approaches to more independent, student-led learning.

For senior science education (NCEA levels one to three), these ideas open opportunity for a departure from more traditional constructions of science as discipline based, highly structured, and teacher-led, and only for those academic students who can cope. This paradigm shift could indeed be transformative, if within the discourse of 21st century learning, science was to become more accessible and engage more diverse learners at senior level.

This presentation reports on PhD research which asked: What happens to these ideas in the reality of classroom life? It draws on case study research of senior science classes in three flexible learning space (FLS) schools, and on outcomes of an eight-month action research project with a senior science class and their teacher in a FLS school. Different levels of science inquiry were used to structure approaches to personalised science learning where students were afforded learning choices which included what/where/how/why/with whom to learn.

The discourse of 21st century learning was characterised within four separate, yet interconnected structural elements of New Zealand Curriculum, modular NCEA assessment, open, shared, flexible learning spaces (FLS), and digital technologies. Affordances within the different elements and the interplay between them constructed possibilities for pedagogies which acted to enable and constrain the execution of different approaches to personalised learning using inquiry. For example, flexible spaces enabled students to access different teacher-experts in open inquiry.

Findings were that different levels of inquiry were associated with different degrees of teacher direction and control, scaffold and support. For example, low-level, verification-type inquiries were associated with tight teacher control, not only of what to learn but of various other possible learning choices. Roles for students in more open inquiries included managing to be independent and self-directed while at the same time managing the necessity of being competent and successful in terms of achieving credits in NCEA. When offered options at different levels of inquiry, some students opted to undertake their own, open inquiries, however many opted to allow the teacher to manage learning with and for them.

In light of the recent national assessment review which includes the NCEA system, this presentation uses stories of tensions and possibilities to discuss options for personalised senior science learning in 21st century science learning environments.
5. Chinese immigrant teachers in New Zealand early childhood education: aspirations, pathways, transitions and career development

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Teacher mobility is one phenomenon of globalization. Issues confronted by immigrant professionals in the context of globalization have been a significant research subject for school education and education quality throughout the world (Escalante and Blitch, 2015; Robertson, 2012; Sleeter and Milner, 2011). In the last 8-10 years, New Zealand faculties of education and early childhood centers have been accepting increasing number of immigrant teachers and teacher candidates (Immigration New Zealand, 2010, 2013) with little attention to the issues and challenges those teachers confront in the “richness” of cultural and linguistic diversity.

This research will address major research gaps by examining the lived experiences of Chinese immigrant ECE teachers and the effect of these experiences have had on their teaching. Drawing on the work of Pierre Bourdieu’s concepts of capital, habitus and field and his reconversion theory, I use narratives and stories told by those who have been less studied or “othered” to bring complexity and richness to the Aotearoa New Zealand ECE fluid context. The participants are six qualified early childhood teachers in Auckland ECE centers. Semi-structured interviews and focused group discussions will be conducted. Interview data and discussion data will be transcribed and coded to identify relevant themes of these immigrant teachers’ aspirations, pathways, transitions and career development in the field of NZ early childhood education. Their strategies to change their practices in various social interactions and the mechanism among habitus, capital and field will be discussed. Results from this study give agency to these Chinese immigrant teachers, provide insights into Chinese immigrant early childhood teachers’ dynamics that may serve as suggestions to those who come after them on the same path and allow appropriate support services in New Zealand to exert the most potential of immigrant teachers and create common worlds for every teacher and child.
Exploring the potential influences of mobile collaborative learning on students’ English skills and teamwork skills

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Employers and businesses argue that universities need to do more to prepare students for a 21st-century workforce. Fluency in English language and teamwork skills are crucial to survive in a global economy. The importance of such skills is repeatedly emphasized in many reports both from developed and developing countries. In Sri Lanka, employers are consistently looking for English skills and teamwork skills. Research shows that technical vocational education and training (TVET) curriculum need to be revised to meet employers’ demands. Pedagogies such as collaborative learning has the potential to develop both English skills and teamwork skills. Studies show that when collaborative learning is mediated via technology such as mobile devices it can further enhance English and teamwork skills. Therefore, the main purpose of this study was to investigate the potential influences of mobile collaborative learning method as pedagogy in developing English skills and teamwork skills in a vocational education centre in Sri Lanka. A total of 94 tertiary students participated in the quasi-experimental mixed-method study. Three classes were selected: comparison group - traditional teacher-centred instructions, treatment 1 - face to face collaborative learning instructions and treatment 2 - mobile collaborative learning instruction. The findings are currently being analysed.
Contemporary higher education spaces have been increasingly characterised by knowledge economy discourses focusing on productivity measurement and the development of human capital. Within these spaces, any unexpected performances may locate and threaten academic subjects in the periphery in enacting academic subjectivities. These are their senses of themselves in thinking, feeling and becoming academic, in expressing recognition of competition and evaluating what someone does or says remains outside the sphere of the appropriately academic. Research has critiqued how these discourses insidiously work to produce academic subjectivities of female academics and doctoral students as differences. Drawing on Deleuze’s thinking around categorical difference as a matter of othering through categorisation and his perspective of affective intensities, I examine the affective constitution of academic subjectivity resulting from these categories through stories of Vietnamese female academics and doctoral students in Australian universities. These stories were generated through individual interviews, a focus group interview and my research field notes. I argue that a complex configuration of knowledge economy discourses in higher education spaces and cultural historical discourses of the Vietnamese and/or womanhood categorises their academic subjectivities as differences through affective intensities of fear, ambivalence, disrespect and joy. This analysis offers much-needed insights into the enactive role of alternative discourses of continuous difference, as Deleuze suggests, which focus on emergent possibilities within the multiplicities of being and becoming in developing academic subjectivity and improving the future of higher education spaces.
9. Meta-analysis on effects of teaching strategies and gender on students’ achievement in chemistry in Nigeria

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This research is made up of a meta-analysis research conducted in Nigeria. It includes journal articles, Proceedings and unpublished research projects (first degree projects, masters and doctoral) works from 1990 to 2010 on the effect of specific chemistry teaching strategies and gender on students’ achievement were determined. This research was carried out under six phases namely; collection of the study, coding of the study, determination of inter-coder’s objectivity, establishing criteria for inclusion of studies, computation of effect sizes for statistical analysis and conducting analysis. The required studies were only quasi-experimental research studies carried out in Nigeria, published in Nigeria Journals and must have mean and standard deviation for computation of effect size. Forty-five studies met the criteria for inclusion in the meta-analysis. The following seven categories of teaching strategies were revealed during analysis of the studies with their effect sizes enclosed in a bracket: mastery learning (-0.013), Computer Assisted Instruction (0.146), Instructional Materials (0.208) Problem solving (0.315) Constructivist/concept mapping (-0.203), games/simulation/animations (0.173), student grouping/cooperative learning (0.218). The overall effect sizes which represent the strength of the gender difference in achievement is 0.147 and it is in favour of male students. The significant variations in the magnitude of effect sizes were resolved to some extent by application of random-model effect size meta-analytic technique. The major implication of this research is that we have generated empirical evidence supporting the effectiveness of alternative teaching strategies in chemistry.
112. Engaging the process for professional development

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Background:
The New Zealand Curriculum vision is for young people to demonstrate a set of 21st Century skills that are outside of standardized measures of assessment for teaching and learning (Ministry of Education). Yet internationally, schools and teachers are struggling to embody these shifts in teaching and learning; there is a disconnect between this vision and the way teachers and students are held accountable for learning. Best Evidence Synthesis (BES) and Teaching as Inquiry (TAI) have been used in professional development models to improve outcomes for both students and teachers. These models fail to address the importance of the collaborative process in engaging teachers and developing ownership of change in teaching practice.

Purpose:
To create an engaging model for teacher professional development that reflects a 21st century skills framework.

Methodology:
This doctoral research took place in a small independent school in the USA and asked teachers to embody the curriculum through a Participatory Action Research (PAR) model of professional development in order to reconnect the means and the ends of transformative professional development. PAR is a form of collective self-reflective enquiry by participants in order to institute a change within their organization. Through the PAR, teachers discussed the mission of the school, observed each other’s practice and reflected on how well the school’s stated mission was actually happening in the classrooms, and identified a desired change.

Findings/Conclusions:
Findings revealed three key points in the power of process in developing ownership of curricular change. First, change comes from within; it must authentically emerge from the group. Second, honour the process; even if the facilitator feels certain of the change or needed outcomes the group must come to these decisions themselves. Third, there must exist a contextual knowledge or historical knowledge of the institution. Through PAR teachers were able to articulate their understanding of the schools’ mission, come to an agreed-upon goal, and set out a plan to achieve that goal. The research offers an answer to enduring questions about how to create transformative educational change through teacher professional development. Results demonstrate how meaningful engagement in a problem and respect for the process is essential for teachers to buy in to change and sustain their motivation.

References
Middle leaders addressing concerns of teaching quality in New Zealand secondary schools

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In today’s schools, middle leaders are pivotal in addressing issues of teaching quality with their staff (Dinham, 2007; Bennett et al., 2007). This research examines middle leaders’ action addressing concerns surrounding the quality of teaching practice, factors that influence their actions, and the consequences of those actions. The research used a Problem-Based Methodology focusing on examining people’s theories-of-action in regard to a specific problem (Robinson & Lai, 2006). Theories-of-actions examine the linkages between people’s underlying beliefs, values and understandings, together with the conditions they find themselves in, and the actions they take which result in intended or unintended consequences. We examined middle leaders’ beliefs, actions and resulting consequences in addressing specific concerns of teaching quality with their staff. Eight middle leaders from three New Zealand secondary schools participated in two semi-structured interviews. To elicit their actual theories-of-actions rather than their espoused theories, we used a critical incident interview technique. We asked participants to describe two cases where they had worked with teachers on teaching concerns. Analysis of the transcripts allowed us to construct a theory-of-action for each middle leader’s cases and examine them for commonalities and differences in the handling of the cases by middle leaders and the beliefs that drove those actions.

The findings indicated four main themes that influenced the middle leaders’ actions. First, a common driver of their actions was the protection of the interpersonal relationship between them and the teacher. In these cases, middle leaders’ concerns were rarely disclosed, subsequent actions were usually indirect, and little change in teaching practice resulted. A second theme arose from the different accountabilities middle leaders experienced. Internal accountability, generated by a desire to improve outcomes for students, resulted in actions that were more student-centred and effective in the long-term, whereas actions motivated by external accountability were more instructional and less developmental. Third, adding to the success of actions was the leadership experience and skills of the middle leaders, in particular their ability to address ‘tough’ issues in a respectful manner. The time and support available to middle leaders to address their concern was a final theme. The findings emphasised the need for specific training and support for middle leaders in handling situations involving concerns around the quality of staff’s teaching practice. Such training and support should be available within schools, but also needs to be addressed on a wider level by professional development providers and policy makers.

References:
56. Transformative leadership and the leadership self

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The principal role is complex as it combines knowledge, skills and understandings across many different paths and dimensions (Leithwood, Sun, & Pollock, 2017; Notman & Youngs, 2016; Robinson, Hohepa, & Lloyd, 2009; Wylie, Cossett, & Burgon, 2016). Principals lead change on a number of fronts from property and finance to human resources and new pedagogies of learning. It is unlikely principals can emerge from these processes unchanged themselves. Yet there is a paucity of research about the development of principal professional identity (Robertson, 2017). An understanding of how principals change and adapt to sustain themselves and maintain success in their roles is required to better understand, support, and enhance the principal role. In this presentation, the experiences of four primary school principals are shared as they lead transformative change in their schools. Insights are provided into the principals’ response to external influences, and perceived change in leadership practice and professional identity.

Informed by a qualitative study with a constructive theoretical framework (Creswell, 2013), this presentation references identity theory that describes the self as reflexive, identity as fluid, and the individual as having some agency (Burke & Stets, 2009; McCall & Simmons, 1978). Four case studies were undertaken with a purposive sample of principals who had held their current roles for at least four years. Data collection included semi-structured interviews and observations with principals, boards of trustees and senior leadership teams. Data were analysed using constant comparative analysis for both individual and cross-case analysis (Maykut & Morehouse, 1994). Five overarching themes emerged from this deductive process: external influence, the believing self, the feeling self, the thinking self, and the acting self.

Findings suggest that as principals grow in their role, they experience change in each of the four aspects of self. Change occurs in response to external influence but also from self-reflection. Greatest change was perceived in the acting self as the principals gained expertise but this change was often driven by the thinking and feeling aspects of self. The believing self was the most resistant to change. A simple model is proposed to enhance understanding of development of professional identity. The model aims to guide principal reflection in each of the four aspects of self thus leading to better understanding of how identity transformation is managed by the self. Knowledge of principal identity transformation has implications for leadership development programs, sustainable leadership, policy decisions, and future research directions.

References
127. Manaaki Tauira: Creating indigenous spaces in higher education

Leonie Pihama\(^1\), Jenny Lee-Morgan\(^1\), Mera Lee-Penehira\(^2\)
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Discussant/Chairperson: Dr Sarah Jane Tiakiwai, Professor Linda Tuhiwai Smith

This panel presents research findings from a series of Māori and Indigenous postgraduate projects that explore the views of both staff and students in relation to the experiences of Māori and Indigenous students engaged in Doctoral studies in Aotearoa (New Zealand). Presenters will discuss issues that face Māori and Indigenous students and will provide an overview of research findings as to the effectiveness of three programmes (1) MAI Te Kupenga: A national Māori and Indigenous Doctoral support programme; (2) Taikaka: Optimising Māori academic achievement: An indigenous-led, international, inter-institutional higher education initiative.

This panel provides an opportunity to share to an internationally postsecondary scholars audience the findings from research related to three key Māori and Indigenous postgraduate projects that have been developed to support Māori and Indigenous Doctoral Scholars. The projects are (1) MAI Te Kupenga: A national Māori and Indigenous Doctoral support programme; (2) Taikaka: Optimising Māori academic achievement and (3) Te Tātua o Kahukura: Supporting Māori and Indigenous Postdoctoral Pathways. The key objective of the session is to share the ways through which these programmes foster learning and development for Māori and Indigenous Doctoral scholars, and how having culturally grounded programmes support these scholars in their postgraduate journey. This work is considered to be critical in Aotearoa, New Zealand, in that the contributions of these programmes are essential to maintaining what has been significant growth in the numbers of Māori and Indigenous scholars undertaking Doctoral study. An outcome of the work being undertaken in this area has been the establishment of a number of similar initiatives internationally, including the SAGE Programme, developed at the University of British Columbia by Professor Jo-Ann Archibald and Professor Graham Smith.

The panelists will present research findings from a series of Māori and Indigenous postgraduate projects that explore the views of both staff and students in relation to the experiences of Māori and Indigenous students engaged in Doctoral studies in Aotearoa (New Zealand). Presenters will discuss issues that face Māori and Indigenous students and will provide an overview of research findings as to the effectiveness of the three programmes and will share how these programmes foster learning and development for Māori and Indigenous Doctoral scholars, and how having culturally grounded programmes support these scholars in their postgraduate journey.

MAI Te Kupenga: Supporting Māori and indigenous doctoral scholars with higher education

Over the past 10 years the number of Māori postgraduate degrees has grown significantly (Statistics NZ, 2013). A key development that has contributed to this growth is the Māori and Indigenous (MAI) doctoral programme (McKinley et.al. 2011, Ormond & Williams 2013). McKinley et.al. (2011) note that effective Māori doctoral supervision requires attention to key cultural approaches in areas of topic, identity and forms of engagement. For Māori students cultural approaches, identity, positioning and engagement within an institution need to be a part of developing pathways within graduate study. The Māori and Indigenous (MAI) doctoral support programme in Aotearoa (New Zealand), MAI Te Kupenga, is a programme focused on supporting Māori and Indigenous doctoral (MAI) scholars and operates across regions, all of which include a number of academic institutions. MAI was initiated by Professor Graham Smith, with the Māori Education group of the University of Auckland, in the late 1990’s and became a national programme, MAI
Te Kupenga. with the establishment of Ngā Pae o Te Māramatanga, the National Māori Centre of Research Excellence, in 2002. As a national programme MAI Te Kupenga saw the growth of the programme and an exponential growth in Māori and Indigenous enrolments into doctoral programmes in Aotearoa. Where the creation of the MAI programme was to contribute to increasing numbers of Māori and Indigenous participation in Doctoral programmes, it also created spaces within which Māori cultural approaches and pedagogies could operate and be sustained in the university context. It has been argued that for Māori students to be retained within university contexts there is a need to intentionally create cultural spaces that are inclusive of physical, cultural, theoretical, methodological and pedagogical spaces (Morrison 1999; Smith 1999; Lee 2008). The MAI programme has also been driven to support Maori and Indigenous students through the doctoral journey in order to make meaningful and transformative contributions beyond the doctorate. This presentation shares the views of MAI scholars and those Māori faculty associated with the programme, including issues raised in relation to (i) systemic racism faced within the mainstream academy; (ii) effectiveness of supervision; (iii) levels of Indigenous staffing and the role of the MAI Programme in mitigating these issues for students.

Te Tātua o Kahukura: Developing post-doctoral pathways
‘Te Tātua o Kahukura’ refers to the red belt of sky on the horizon that you see at sunset. Kahukura is associated with knowledge and tapu at a higher level and as such relates to a higher level of learning. Understanding the meaning of ‘Te Tātua o Kahukura’ is to understand that our people have always maintained processes of education, learning, knowledge transmission, and pedagogical ways of learning and teaching that assume excellence and are grounded upon deeply intellectual and scholarly ways of knowing. The aim of ‘Te Tātua o Kahukura’ was to undertake Kaupapa Māori research that would provide knowledge about the capacity building and career development needs of Māori and Indigenous early career scholars to inform university staff and leadership in the tertiary sector to develop appropriate provide programmes of support and to gain an awareness of systemic issues facing Māori and Indigenous Doctoral scholars. The project was developed over two phases that began with the collective sharing of stories and experiences of Māori and Indigenous doctoral scholars over six locations. ‘Te Tātua o Kahukura’ provided hui and workshop opportunities with senior Māori academics, committed to supporting participants in planning their academic and research pathways. The project findings highlight that Māori and Indigenous scholars often struggle with systemic issues of institutional racism and marginalisation in their doctoral journey. These structural issues are further intensified by limited financial support and isolation within their faculties and universities. It was noted that in order to support Māori and Indigenous doctoral students and early career scholars in the development of post-doctoral opportunities, institutions need to provide for the cultural needs of Māori and Indigenous scholars including the need for greater emphasis on hiring Māori and Indigenous Faculty; showing a commitment to Treaty obligations; ensuring Pākehā (white New Zealanders) Faculty have an awareness of the needs of Māori and Indigenous scholars and provide cultural safety/competency training for Faculty. It was also asserted that universities need to create a range of opportunities for; professional development, networking, connecting to Māori and tribal organisations, and provided more sponsored activities to support Māori and Indigenous scholars attendance at key events such as conferences, workshops, and symposiums where they are able to network with other Indigenous researchers. This symposium will present the experiences of Māori doctoral students and views of senior Māori scholars with a focus on enhancing support programmes and increasing success in higher tertiary education.

Optimising Māori academic achievement (OMAA): An indigenous-led, international, inter-institutional higher education initiative
Taikākā: Optimising Māori academic achievement in a Māori medium teacher education programme is a project funded by Ako Aotearoa (National Centre for Tertiary Teaching Excellence). The aim of the project is to build upon existing teaching and learning strategies to improve academic outcomes in an undergraduate degree level Māori medium ITE programme. Māori-medium initial teacher education (ITE) is a small but highly important group ‘on stage’ in Māori communities and New Zealand education. While education plays a major role in Māori language revitalisation, Māori language is also pivotal to...
Māori education if the aspiration ‘to live as Māori’ (Durie, 2001) is to be fulfilled. Māori-medium teachers are critical to the success of learners and their whānau who select a Māori-medium pathway and who can make a meaningful difference to the educational outcomes of Māori (Hōhepa, Hāwea, Tamatea, & Heaton, 2014). This paper draws on the students’ voices in a two-year research project that centered on the development of a teaching and learning initiative within one Māori-medium ITE programme. The panel will discuss some of the complexities associated with Māori language regeneration facing students of Māori-medium ITE, with the understanding that whatever appears on the stage is always part of a greater narrative behind the scenes. This project centred on the investigation and adaptation of selected elements of the U.S. professional teaching and learning system called AVID (Advancement via Individual Determination). Through the experiences and perspectives of staff and students involved in this project, the findings not only highlight some of the strategies that are most useful to support student engagement and success, but the complexities inherent in Maori-medium ITE. The presentation chronicles an international inter-institutional Māori-led small-scale tertiary intervention that has potential for larger scale future implementation. The educational intervention, Optimising Māori Academic Achievement (OMAA), is based in Te Puna Wānanga (The School of Māori Education) in the Faculty of Education at the University of Auckland (UoA). It aims to increase the completion rates of Māori students enrolled in the Bachelor of Teaching Māori-Medium Specialisation (Huarahi Māori) at the UoA and the Bachelor of Nursing at Waikato Institute of Technology, Bay of Plenty. The OMAA initiative is based on the adaptation and implementation of a tertiary intervention that has a research-based track record in North America and has also been successfully adapted for use in Australia.
Overview of symposia
Aotearoa New Zealand’s early childhood curriculum framework Te Whāriki (Ministry of Education, 2017) positions learning and development as socially mediated by “people, places and things” (p. 12) within holistic and often non-structured, playful experiences. The sociocultural enactment of Te Whāriki requires that adults understand the complex notion of mediation within their contexts.

Young children’s learning and development is a complex interplay of intrapsychological and interpsychological interactions within culturally derived sign systems (Vygotsky, 1987). From this perspective, teachers, parents, children, dialogue, resources and environments are psychological signs and tools mediating young children’s relationships, language, concept development and working theories. “The central fact about our psychology is the fact of mediation” (Vygotsky, 1997, p. 138). Through social interactions we learn how to use the psychological signs and tools in our contexts towards higher mental functions. To this end, language (communication) is the most important.

This symposium comprises three qualitative case studies of PhDs-in-progress which broadly explore Vygotsky’s notion of mediation in early years settings. Paper one presents literature and methodology about teacher and parent story-time interactions with infants and toddlers in multicultural communities; paper two presents some early findings about early childhood teachers’ conceptualisations of their role as mediators during storybook interactions with young children; and paper three presents an innovative model of young children’s working theories development in the STEM domains. We consider the complex roles of adults and context in mediating young children’s relationships, language, conceptual development, and working theories.

References

Paper 1. Story-time interactions between adults and toddlers in a multicultural community: Exploring the literature
Amanda White
University of Auckland

Sociocultural theories of child development emphasise the importance of responsive, nurturing interactions between children and their adult caregivers for children’s learning and well-being, and the central role that cultural and historical resources play in mediating interpersonal relationships and cognitive development (Vygotsky, 1978). Sharing stories is one way that cultural-historical resources can underpin warm and socio-emotionally bonding interactions between children and caregivers, as well as support the development of language, cognitive and emergent literacy skills valued in many cultural communities. Cultural variations are known to exist in the types of story contexts and resources used, in the ways in which adults and children participate in stories together, and in the ways that shared understanding or intersubjectivity develops during story sharing (Rogoff, 1990; Rogoff, Mistry, Goncu, & Mosier, 1993). Relatively little
research, however, has explored the range of ways that stories might be shared between adults and children under the age of 2 years across both home and early childhood settings within the increasingly multicultural communities of Aotearoa New Zealand. The aim of this presentation is to present literature that explores the nature of story-time interactions between adults (parents and teachers) and children under 2 years of age from a sociocultural perspective. The selected literature will accentuate the diversity in story practices related to cultural and historical traditions. The ways in which key literature has informed the research design and methods underlying my doctoral study-in-progress on story sharing between adults and toddlers aged 1-2 years in multicultural community of New Zealand will also be outlined. The findings of this study will make an original contribution to our understanding of how story-sharing interactions occur in both family homes and early childhood settings in culturally and linguistically rich communities of New Zealand. In addition, the findings will shed light on ways to encourage teacher-parent partnership and dialogue around ways to nurture early communication development within everyday contexts involving shared story interactions.

References:

Paper 2: Early childhood teachers’ conceptualisations of their role as mediators during storybook interactions with young children
Joanna Williamson
University of Auckland

Close examination of teacher-child storybook interactions and teachers’ mediation of concepts is timely in light of the limited early childhood research in Aotearoa New Zealand in these specific areas; and the importance of opportunities for language-rich interactions between teachers and children where children have opportunities to verbalise and negotiate their thinking (Meade & Cubey, 2008; ERO, 2017).

The dialectic relationship between language and thinking is illustrated by Vygotsky. “Language arises initially as a means of communication between the child and the people in his environment. Only subsequently, upon conversion to internal speech, does it come to organise the child’s thought, that is, become an internal mental function” (Vygotsky, 1987, p. 89). Thus, all higher mental functioning occurs within some dialogic encounter with self and other as language knowledge and use transforms how children think. Alongside this sits Vygotsky’s theory of concept formation as the social processes of children’s thinking shifting from concrete to more abstract conceptualisations (1987).

Such sociocultural views of learning inform Te Whāriki, Aotearoa New Zealand’s early childhood curriculum framework (MOE, 2017), which sees thinking and knowledge creation as mediated, shared encounters, practised within the socialised ways of a community through the collective cultural tools and signs of language, relationships, resources and settings.

This paper considers part of a larger PhD-in-progress using qualitative case study methodology including observations and interviews of early childhood teachers with three and four year old children during storybook interactions. I will present some early findings seeking to understand the teachers’ role in mediation during said interactions that may lead to conceptual thinking and talking. This research should further insights into teachers’ pedagogical knowledge to realise opportunities for extending young children’s language and thinking.

Daniel Lovatt
University of Auckland

Children’s working theories are an holistic learning outcome from the early childhood curriculum framework Te Whāriki (Ministry of Education, 2017). They are multi-faceted, involving knowledge, skills and attitudes, strategies and expectations which children combine to build tentative and evolving understandings about the world. By enriching their working theories, children better understand their world, develop a sense of power over their lives, and form life-long abilities to solve problems. While research into working theories is building, the notion remains under-explored. Further research into working theories is vital to provide understanding and engagement into the notion, and to enhance teaching approaches that foster and enrich children’s working theories.

This paper considers part of a larger qualitative case study undertaken in two early childhood centres in Auckland. The study investigated teaching approaches that foster and enrich three and four year old children’s working theories about the STEM domains. Innovative findings about working theories will be shared, first that working theories can be considered as being threefold: as process, outcome and interpretive framework. Working theories might then be considered as mediators in themselves. Second, a model unpacking working theory enrichment: the spiral of working theories will be presented. The model builds on Wells’ (1999) notion of the spiral of knowing by contextualising it to the Aotearoa New Zealand context, and in particular to the notion of working theories. One vignette from the research showing children’s enriching working theories will be presented and analysed by using the spiral of working theories model.

A deeper understanding of the construct of working theories and their formation and refinement leads to significant implications for teachers to consider in their practice, for children’s learning, and for further research. Teaching approaches, curriculum planning and interactions between teachers and children that focus on the aspects of the spiral of working theories model might enhance learning in early childhood education settings. This paper therefore offers theoretical and practical insights for teacher educators, researchers and teachers to consider.

References
154. Learning analytics to inform transformative teaching, learning and support

**Andy Nguyen**¹, Lesley Gardner¹, Don Sheridan¹

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This paper develops and proposes a conceptual framework for aligning transformative education with learning analytics. This describes how the developing field of learning analytics can support students, instructors, course authors and learning designers in transformative teaching, learning, and support. Transformative education involves individuals gaining an awareness of their current behaviour, understanding the self, and going through the process of effecting change in a frame of reference. With the advent of learning analytics and new opportunities of representing the decisions and actions of individuals, educators and researchers can now apply insightful reporting information in the process of "perspective transformation". Learning analytics refers to the practice of measuring, collecting and analysing educational data to report insightful information about the learners and their learning context. For instance, learning analytics can track a learner’s digital traces on learning management systems and use of online materials to offer a model of their engagement with online learning. Learning analytics can inform the interpretation of the outcomes of a transformative lesson and facilitate pedagogical action. Transformative learning process consists of three central dimensions: psychological, convictional, and behavioural. For each of the three dimensions, this paper discusses the contribution that learning analytics can make to enhance transformative education. The paper seeks to inform academics an overview of learning analytics applications to enhance transformative learning and teaching. Research propositions are also proposed to highlight new research opportunities for the applications of learning analytics in these dimensions for different educational stakeholders including teachers, students, administrators, and governance. The framework demonstrates how various features of learning analytics systems can be developed and applied to provide potential benefits for all transformative educational stakeholders.
102. **Nurses' voices on mandatory continuing professional development: A mixed methods study explaining factors affecting the decision to participate**

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Continuing professional development (CPD) has been of concern since Florence Nightingale made it her mission to improve hygiene practices to lower hospital death rates. Whilst the century may have changed, the task has not and, in an increasingly challenging healthcare environment, nurses must keep educationally abreast of enormous technological advancements. So important is keeping abreast in maintaining the safety of the public, Nursing Council of New Zealand has mandated a required number of CPD hours to be completed 3-yearly. Linked to renewal of Annual Practising Certificates and demonstration of Registered Nurse competencies, entire education programmes have grown up around mandatory CPD. Particular types of CPD, Professional Development and Recognition Programmes (PDRP), have been widely adopted by public and private health organisations. Where PDRP is mandatory, engagement rates are more than 90%. In organisations where participation is voluntary, engagement rates are below 20%. These rates do not deter the diverse and influential range of programme stakeholders who include the Nurse’s Union, Nursing Council and District Health Boards. Programmes are linked to financial allowances, nurses’ regulatory requirements and workforce planning. PDRP has become an ‘ecology’.

Previous research had not ascertained nurses’ views about PDRP and I wanted to hear their voice. This paper presents the findings of a mixed methods study to explain factors affecting nurses’ decisions to participate in PDRP. Cross’ (1981) Chain of response Model was used as the conceptual framework. 129 registered nurses in one Crown Health Organisation were direct mailed a survey to determine knowledge about the programme, attitude to learning and response to factors affecting engagement with CPD. Quantitative data provided by 82 respondents showed that PDRP was understood; met nurses’ education needs; was within their capability, and they were positively disposed to it. The qualitative phase of the study explained the disparity between positive quantitative findings and low voluntary participation rates. Participant interviews revealed significant differences between the nurses and educators understanding of the programme purpose; showed the personal landscape of factors affecting a decision to participate and that vicarious learning about PDRP put nurses off. Analysis showed the direct manager was instrumental to creating a culture of completion, a narrative of encouragement and in supporting self-belief.

This transformative educational research highlights that pedagogical change is needed in the health sector to foster the wellbeing of people, not only nurses, but the people they care for. You.

34. “That was like the moment of reality”: Using the currere process for transforming educational research

Carol Mutch

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Much educational research is hampered in its implementation and dissemination by restrictive rules and expectations. It is not my intention to promote research that is harmful, disrespectful, flawed or unethical – but rather the opposite – to challenge the strictures that prevent us from exploring new ways of seeing and sharing. I would like to re-introduce Pinar’s (1994) idea of currere – as a way of writing ourselves, our history, identity and experiences into our work in a way that honours the places, events and people that we research. My most recent research has followed schools in Christchurch as they responded to, recovered from, and tried to rebuild their lives after the 2010/2011 Canterbury earthquakes. Thus far, I have followed the rules – as much as one can in a fluid, volatile and unpredictable setting such as a post-disaster context. The experience taught me much about myself and much about the act of research. I learned to be ready for the unexpected. I laughed and cried and hugged a lot. I then did as was expected of me by my university and wrote up the findings in peer-reviewed academic journals. I was complicit in allowing academic conventions and reviewers’ feedback to squeeze the life out of my participants’ emotionally-wrought narratives. In recent times, I have taken up the challenge to put the emotion – the anger, the sadness, the frustration and the hope – back into my writing. This paper will share how I have used Pinar’s (1994) currere process to do this, working through the four stages of regressive (returning to the past); progressive (dreaming of a possible future); analytical (sharing the lived reality) and synthetical (drawing past, present and future together). I will present the story of post-earthquake school closures in Canterbury through four juxtaposed voices: personal – the voices of those affected (research participants); intrapersonal – the voice of the author (me); interpersonal – the voices of supportive observers and commentators; and impersonal – disembodied voices of the authorities. In this way I write myself into the story but not at the expense of my participants. I put their voices at the forefront and into their real-time context. We hear their concerns as they become lost in a melee of competing power struggles. My hope is that this presentation connects with the audience, emotionally, methodologically and politically – and that those present – researchers, writers, students, reviewers and editors take up the challenge of rethinking transforming and transformative research.

Reference:
Personalised pathways and personalised learning mean different things, in different contexts, to different people. This divergence of understanding about what is meant by personalisation is due, in part, to the plethora of terms and existing definitions and in part to the political contexts within which discourses about personalised learning occur.

This paper examines the theoretical background of these concepts, developments in New Zealand and findings from other jurisdictions. There is general agreement among educationalists that the concept of personalised learning arose from a policy emphasis on personalisation in the public services in the United Kingdom. While this pedagogical construct is not new, personalised learning has recently become more broadly endorsed as a key strategy to improve student curricular engagement and academic attainment.

The penultimate section, ‘Critiques of personalised learning’, explores the risks of increased inequality, the role of student voice, the vagueness of personalisation theory, marketisation of education, and issues around teacher capability. Lastly, the paper explores what is and is not meant by personalised learning and pathways.

Further consideration of the evidence of impact of teaching practices associated with personalised learning will inform the debate on the value of this construct.

The key competencies have been the subject of debate and research attention ever since their inclusion in the New Zealand Curriculum (NZC) was first mooted. This session will report on our recent inquiry into how they have been understood at various stages of this journey. The different visual models produced to support working party discussions before NZC was finalised catch early insights and debates. We will use these models to show how some key ideas came to the fore while others became less visible.

Once NZC was published the key competencies attracted further research attention and this has continued over more than a decade. In the main part of our session we will outline the contribution this research effort has made to understanding: what key competencies are (their nature); how they should be included in a local curriculum (their weaving together with other curriculum components); and how they should impact the intended learning (their role). We collected relevant research on the key competencies from across the decade. Our focus was mainly on larger, systemic studies, usually funded by the MOE. This corpus of work was read and annotated to find emergent high-level themes. These were then used to define four phases in the ways that key competencies have been understood and enacted in the overall school curriculum. Collectively these four phases trace the main conceptual and practical shifts in understanding of the key competencies across the decade. In our view, the overall trajectory traces a significant paradigm shift in how the curriculum can be understood and enacted. Once we have outlined the four phases we will invite discussion of the implications of the fourth phase. How might the curriculum be better used to help students be more proactive in shaping their futures?
119. The Knowledge-Rich Project: Researching the Curriculum Design Coherence Model

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The presentation gives an account of the New Zealand Knowledge Curriculum Research Project currently being undertaken by the presenters. The Project addresses the problem caused by the localisation of the New Zealand curriculum. Curriculum knowledge and course design is now decided at the level of the school. The result is a lack of standardisation across the country with respect to the knowledge taught to students. Without a standardised curriculum it is not possible to guarantee that all students receive equal access to academic knowledge. We trace curriculum localisation to a number of factors which negatively affected trust in disciplinary knowledge more generally and in academic subjects more specifically. In New Zealand this led, from the 1980s, to a profound shift in how the curriculum was understood and enacted.

The Project has a number of phases. The first phase, which has been completed, was to explain and justify a theory of knowledge in support of academic subjects. The aim was to restore trust in academic knowledge as objective, universal, and available for all. We reject the idea, one popular since the 1980s, that knowledge is always ideology; that it creates an ‘invisible curriculum’ which reproduces students into ongoing inequality. In contrast we argue for the importance of access to this knowledge as the means to interrupt, not reproduce, societal inequality. The presentation will provide a brief outline of this theoretical position with reference to publications by the presenters.

Phase two, recently completed, is the ‘Depth Pedagogy Curriculum Design Model’, developed in a University of Auckland Faculty of Engineering Project. We will introduce the model and demonstrate how it is used to design an alternative national standardised curriculum. The model has four elements: 1. ‘Identifying the episteme’; 2. ‘Connecting the episteme’; 3. ‘Teach to link knowledge-that to knowledge-how’; and 4. ‘Teach to motivate’. Identifying the elements enabled us to show at a general level the coherence between what is taught and how it is taught. At a specific level we are able to identify the logical relationship between concepts, content, and activities.

The purpose of the presentation is to show how the model provides the design template for a New Zealand knowledge curriculum consisting of prescribed material for all levels of compulsory schooling. We conclude with a brief description of Phase Three of the Project. This is the trial of the curriculum design in selected schools.
130. **Assessment is an emotional practice: Beginner teachers’ experiences**

**Frances Edwards**

1University Of Waikato, Hamilton, New Zealand

The impact of emotion on teacher development is important to consider, as emotion has been shown to affect teachers’ cognition, motivation and their approaches to teaching. It is important that teacher educators make preservice teachers aware of the emotional nature of their work, and their own emotional responses to it. However there is not a large range of empirical research on emotion in initial teacher education and teacher development.

This study focussed on teachers’ summative assessment practice, and was completed over a two year period. A group of eight secondary science teachers were tracked through their 10 month graduate teacher education programme and for the following year as they worked in their first schools. At spaced intervals over this time frame they were interviewed five times and were asked to show the researcher artefacts that they felt represented their developing assessment literacy. The data gathered was analysed through the development of themes by considering the interview transcripts and artefacts.

Emotion was found to affect summative assessment practice and decision-making for the teachers in this study. Their emotional responses impacted on their classroom assessment decisions and their confidence when they were being assessed by others and when they were assessing others. All teachers communicated a sense of emotional engagement with their students with respect to assessment, and experienced a range of emotions as they assessed students, especially when they faced ethical dilemmas. A number recalled their own feelings of anxiousness when being assessed, and projected these feelings onto their students. This study illustrates the link between emotion and cognition, and findings are in line with other studies which highlight the emotional work of teachers and the strength these emotions bring to bear on teachers’ decisions. All beginner teachers described times when they felt particularly emotionally vulnerable and provided many examples of emotional engagement in their work, adding to teachers’ emotional labour.

Professionals working with preservice and beginner teachers need to be cognisant of the influences of emotion on their behaviour and decisions that affect students and the quality of their assessment practice. By making teachers aware of the potential effects of emotion they are better able to rationalize their decision making and reflect on their own practice.
Finding the ‘More Knowledgable Other’ in the teaching-learning moment

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No matter how well-planned a teacher is, the very act of teaching requires them to rapidly respond to a myriad of student demands and responses - what can be known as ‘teaching on the fly’; the micro-acts of teaching; and, deliberate acts of teaching.

This PhD research explores the on-the-spot decision-making that occurs within the micro-acts of teaching. Drawing on understandings from socio-cultural theory, I have considered that the ‘on-the-fly’ teaching practice can be seen as interactions within the Zone of Proximal Development. From a western viewpoint, the More Knowledgeable Other operating within the Zone of Proximal Development is usually considered to be the more mature partner within the learning, or the more formally trained. We therefore, in any teacher-learner interaction, look to the teacher as the ‘More Knowledgeable Other’. However, within a Māori worldview, knowledge does not reside solely within the teacher, and imparted to the learner. Instead, ako is considered to be naturally occurring in all humans, that is, we are born with a natural instinct of how and what to learn.

From an analysis of literature, and in collaboration with teachers, students and whānau, I am deconstructing the types and sources of knowledge that are drawn on as the participants engage with the teaching moment. Together we are unpacking teaching moments within a teaching unit, and identifying the knowledge sources drawn from within that interaction, the opportunities for enhancing understanding that are realised and those that could have been further developed. We have been discovering that ako is multi-dimensional - with the teacher, the learner and (when rich opportunities are opened) whānau all drawing from different knowledge sources to enhance the learning opportunities.

In this session, I will present some initial and tentative findings from the three case studies completed to date. This will look at some of the particular understandings that come from this intense analysis of (sometimes) very brief interactions between a teacher and their student(s). I will also share on the challenges and risks of isolating and separating out atomised areas of knowledge from complex teaching interactions.

The purpose of this PhD research is to investigate the micro-interactions between teacher and students in the busy-ness of a classroom. While it is yet too early to draw definite conclusions, it is hoped that the understandings co-constructed with the participants will add some clarity to our ongoing endeavour to transform our understandings of what happens in teaching and learning moments.
144. Embedding wellbeing in the context of qualification design

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The Terms of Reference for the review of the National Certificates of Educational Achievement – NCEA – identify five principles as measures of the success of changes to the qualification: wellbeing, inclusion and equity, coherence, pathways and credibility. Wellbeing – in the sense of how a person’s personal, emotional and social circumstances catalyse or limit their agency – is a critical component of NCEA policy-making, underpinned by the place of wellbeing in the National Curriculum and government expectations for school performance. This paper explores and tests a framework to assess the wellbeing implications for New Zealanders of qualification design decisions in the context of NCEA reform.

Embedding wellbeing within policy development and monitoring isn’t novel with growing domestic traction across New Zealand’s social sector agencies, including Treasury’s development and adoption of the Living Standards Framework, and international focus from the OECD and others on the back of the Stiglitz Report. Yet applying macro-level frameworks to optimise the impact government policies have on New Zealanders’ wellbeing can be more challenging, particularly when identifying the narrower wellbeing impacts of qualification design and system performance.

This paper articulates an outcomes framework and assessment tools, using Treasury’s Living Standards Framework (LSF) as a basis, to consider explicitly the facets of New Zealander’s lives most likely to be impacted by changes to keystone qualifications – in this instance, NCEA. The methodology tests proposals for change against a set of outcomes, and maps educational and labour market outcomes back to concentrations of human, social, economic and natural capital across New Zealand’s economy and society.

We explore how such a framework can be used to embed wellbeing as a key measure of success within senior secondary education alongside more traditional metrics, such as those focused on literacy and numeracy, and some of the challenges in reflecting competing facets of wellbeing which impact diverse learners, their families and whānau and the teaching profession, and in measuring disproportionate impact on vulnerable populations.

To test the model’s viability, we then apply the model to Big Opportunity 1 – an initial idea from the NCEA Review Ministerial Advisory Group to refocus NCEA Level 1 on project-based learning – by using the framework to estimate the likely wellbeing impact of change as proposed on New Zealanders.
100. Closing the gap in Level 1 Science

Darcy Fawcett

Gisborne Boys’ High School, Gisborne, New Zealand

This presentation will discuss an attempt to enhance academic performance in Level 1 Science at Gisborne Boys’ High School (GBHS). Changes in curriculum, course selection procedures and teaching/learning activity will be linked to significantly enhanced outcomes including lifting the performance of Maori students to the level of Pakeha students.

GBHS is a Decile 3 school with 65% Maori and 30% Pakeha students and offers three pathways for Level 1 Science: Year 10 and 11 Accelerate Science (10SIA and L1SIA); Year 11 General Science with internals and externals (L1SIB); Year 11 General Science with internals only (L1SIC). In 2013 and 2014 the Science department undertook a detailed review of the curriculum offered, student voice and NCEA outcomes. This review revealed a mismatch between students’ needs and aspirations and the courses offered, and that Maori students were significantly underperforming. The following changes were made: (1) the standards offered in each course were refined to create an academic strand leading to tertiary study (10SIA, L1SIA and L1SIB) and a science for all strand (L1SIC); (2) e-Learning was introduced for all internal standards; (3) each student was interviewed and guided into the course suiting their needs and aspirations; (4) Learning in L1SIC was focused on local issues, and was prioritised in both staff allocation and professional development time. As these changes were implemented from 2015 – 2017 a variety of NCEA outcomes improved significantly including credits earned, grade distributions endorsement rates. In 2017 Maori students earned as many credits as Pakeha students.
16/2. The fruit fly outbreak: Community perspectives of biosecurity regulations during a biosecurity crisis

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Nations that rely on export of primary produce to drive the economy are increasingly under pressure from rapid globalization because it has the potential to introduce invasive species. This phenomenon became reality when the destructive Queensland fruit fly was discovered in February 2015 in the suburb of Grey Lynn, Auckland, New Zealand. The discovery set in motion an extensive plan by the authorities to detect and stop the spread of the pest. Qualitative data through interviews were gathered to gauge the community's understanding of biosecurity. Results show that although the affected community cooperated with the authorities, they did so with little understanding about biosecurity. Furthermore, the community's source of biosecurity information was mainly through their experience while transiting through international airports and from television shows. It is recommended that education coupled with effective marketing about biosecurity may increase community involvement in the biosecurity cause.
“A gas expands when heated”. Using the language of science in teaching and assessments

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The New Zealand curriculum outlines five key competencies; Using language, symbols, and texts is one of these key competencies (Ministry of Education, 2007, p12). As part of specifying this competency, scientific language is explicitly mentioned.

While supervising the marking of student responses to questions in TIMSS 2014/15 (the Trends in International Mathematics and Science Study), I observed that markers, all trained teachers, were very strict on language with some questions and not with others. A particularly intriguing question from this standpoint required an answer explaining the concept “A gas expands when heated”.

Because TIMSS is administered in more than 60 countries, consistency of marking is a desired and necessary behaviour of the markers. Therefore, an understanding of the language used in the marking guide is important. If this is an important feature of marking, then this must also be an important feature of assessment. Following this logical sequence, appropriate language used in teaching and learning is crucial for students to be able to access the language of the assessment.

This paper will examine this notion of language in science and how we should use it. It will use examples of questions from TIMSS 2014/15 as well as some outcomes from this study.
143. Consultation and participation in the (re)design of school learning spaces

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Human participation in the development of Innovative Learning Environments (ILE) and Flexible Learning Spaces (FLS) is the context for this study. This participation may take multiple forms engaging bureaucrats and officials, designers, educators, students, and community members, especially parents and caregivers of students affected by the (re)design of their school. This presentation considers early evidence gained from interviews with parents/caregivers who currently have, or recently have had, children in flexible learning spaces, and architects who have designed such facilities. ILE/FLS embody a view that the built learning environment enables teaching and learning for participation in a global, 21st century ‘knowledge economy’. Although the broadest possible participation by stakeholders in any (re)design of educational facilities and the practices they enable, is positive, this study recognises that experiences of participation will be variable. For parents/caregivers, at best, participation is not always possible, or, at worst, is intentionally not sought, or is actively neglected. Consequently, parents/caregivers may feel marginalised and compelled to accept changes to facilities and/or pedagogical and learning practice they regard as negatively impactful on their children, and to have been adopted without any research-based evidence. Furthermore, there is a view that architects are driving the changes in facilities design in education. This particular phase of the study gives voice to parents/caregivers and architects, both under-represented in educational research on new learning environments, and thus will contribute to a transformative educational agenda. It is a qualitative study, underpinned by a critical theoretic analysis of power and policy, and informed by a Lefebvrian theoretic view of space as socially produced by human practices. This phase of the study is designed as a multiple case study—parents/caregivers at schools newly built since 2011; parents/caregivers at existing schools that have retrofitted new learning spaces since 2011; and architects who have designed either retrofits or new builds, or both. The interview data utilised in this presentation has been analysed thematically and inductively, supported by NVivo software. The interpretive analysis seeks to consider the experiences of participants through a critical theoretic lens that focuses on the exercise of state power inherent in education policy at the level of conceptualisation, development and implementation. The outcome of the research will be deeper understanding and knowledge, contributing to fill a present gap in learning environments research in New Zealand.
21. The critically reflective practice of online educators: Constructing a dialogic pedagogy in virtual learning environments

Sana Farooq

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Friere’s notion of dialogical pedagogy, where the student and teacher mutually grow and learn together and provide opportunities for personal and social gains, assumes the development of deep and meaningful dialogue in the learning environment. The virtual learning environment poses an interesting challenge to this notion, whereby dialogue is constrained by time lags in communication over discussion forums, blogs and even over email. Successful online courses must, therefore, go beyond technological changes only, and require teachers to commit to pedagogical changes while transitioning from a classroom environment to an online environment. For the study on which this presentation is based, qualitative data was collected from educators who have recently transitioned from face to face to virtual teaching at New Zealand tertiary providers of education. It intends to develop an understanding of how online educators pick cues from the discussion platforms offered by virtual learning environments to critically reflect on their pedagogical practice, and the associated changes they make to help students achieve their learning outcomes. The findings will be discussed within a post-intentional phenomenological framework, which focuses on what structure the phenomenon might take rather than what it already has. This dynamic inquiry will help online educators develop deeper understanding of the ever-changing nature of social, ethical and political relations in an online context.

The philosophical underpinnings of this research assume critical reflection, as popularized by John Dewey, and dialogical pedagogy, developed by Paulo Freire, to be compatible concepts. Developing critically meaningful relationships with students, through dialogue, complements critically reflective practice. A healthy dialogue between the teacher and students, where each is encouraged to actively engage in discussions and amend or revise their views about various aspects, can make the process of reflection more productive. The virtual learning environment does not offer the same promptness and flexibility that is there in the conventional, face to face context. Developing this personalised relationship with students, and limited space for conventional dialogue, can act as a challenge for online educators to critically reflect and make relevant pedagogic adjustments.

This research aims to critically assess how dialogical pedagogy can be adapted to fit in the framework of virtual learning. With its focus on the increased flexibility and inclusivity offered by virtual learning, this research addresses the conference theme of shaping our futures, informing the audience how teachers of online courses perceive reflection, and how they adapt tools of dialogic pedagogy to suit their needs.
The influence of innovative learning environments on student learning in a mainstream secondary school context

Melanie Patrix
Auckland University of Technology

The spatial organisation of schools is seen as the potential vehicle through which 21st century skills, competencies, capabilities and knowledge are acquired. Architectural designers and policy makers alike have called for the reconceptualisation of the place of learning in schools from traditional single cell classrooms to open plan areas designed to accommodate various learning activities simultaneously. The flexibility of the innovative learning environment (ILE) should promote the integration of digital technologies into teacher pedagogies but has implications too for the professional identities of teachers who have to reconceptualise the way they teach and think about their work.

Drawing on Vagle’s (2014) post-intentional phenomenological approach, this study examined the intentional relationship of teachers and students with the phenomenon of interest (teaching and learning in an ILE) in a single mainstream secondary case study school. This study investigated the influence of ILEs in this school context on student learning, gathering a snapshot of the perceptions of participant teachers and students regarding classroom design and teaching and learning in the ILE. Data from questionnaires and a student focus group were thematically analysed in order to make sense of the lived experiences of the participants in the ILE. The findings suggest the existence of both potential opportunities and barriers to learning with regard to the implementation of pedagogy in the ILE, which may influence student outcomes. Based on the analysis, recommendations at a school level, teacher education institution level and policy level, including recommendations for future research; are suggested.
This qualitative case study was part of a wider research project which utilised Kaupapa Māori (KM), Positive Youth Development (PYD) and Sport for Development (SFD) theoretical perspectives. It examined how education ‘plus’ sport can positively change the lives of ‘at-risk’ youth. The study’s purpose was to reveal if and how their lives had been transformed? Alternative education provider ‘Feats’ and partners, the Taranaki Rugby Football Union’s (TRFU), Māori and Pasifika Rugby Academy’s (MPRA) past students (4) and staff (4) participated in focus group interviews. Data generated were transcribed and thematically analysed. Specifically, wayfinding leadership’s five ‘waypoints’ guided analysis in relation to evaluating the study’s ‘sport for social change’ aims.

Results revealed that the unique combination of education ‘plus’ rugby was MANA (Manaaki, Awhi, Niho taniwha, Aroha) enhancing for youth and facilitators. A sense of Manaki from the MPRA facilitators was reported by their learners who obviously respected themselves and others. Youth, who did not always experience educational success, had their mana uplifted regularly.

MPRA’s facilitators demonstrated Awhi, helping learners achieve educational success. Youth spoke about ‘aunty’ (facilitator), working with them 1:1, providing attention, care and the support that they required to “achieve amazing feats”. The whanau environment, where youth felt they belonged, was key. The ambience generated in “Te Whare Haumaru” (the safe learning space) showed: “Taku tu rangawaewae! Our safe place of learning, our home away from home! Where I belong” insofar as youth reported this.

From a KM perspective, Niho (sharp tooth) and taniwha (mythical creature; or chief), refers to innovative leadership. The MPRA, thus, symbolised the cutting edge of educational solutions. Youth rarely mentioned rugby-related learnings. Instead they used values-based statements like respect and forgiveness (instead of passing or tackling) to articulate learnings.

Finally, Aroha underpinned their kaupapa. Youth used “love” to describe “aunty” helping them connect meaningfully with curriculum content. Facilitators loved their job “doing it for aroha” not financial reward. A driver was seeing youth realise their potential, reaching ‘Pae Tawhiti’ (‘distant horizons’).

In terms of Feats’ learners finding their way, youth knew where they had come from (orientation) and consequently where (new destinations) they were going: NCEA, fulltime employment, representative Rugby/League teams. Life skills and values prepared them for future successes, as majority had entered the programme without qualifications, then graduated with NCEA levels 1 and/or 2. Ultimately, this study demonstrated that ‘Pae Tawhiti’ (Feats) are achieving amazing feats through encouraging universal values within sport.
This study is sited within the wider context of the maintenance and revitalisation of te reo Māori, and has two goals. The first goal (and main question) of the research was to explore what supports the wellbeing of te reo Māori in kura and schools. The second goal was to share the supporting actions and practices we identified with teachers, school leaders, whānau, and policy makers.

Our exploration focused on three areas: how whānau and other stakeholders work with kura and schools to support te reo Māori; the actions kura and schools take to support te reo Māori; and perceptions of government policies in supporting or constraining the language. All these areas were considered in the context of whānau aspirations for te reo and whānau perceptions of the wellbeing of te reo Māori.

The project drew on a kaupapa Māori whanaungatanga methodology that focusses research on whānau engagement in education and is whānau driven (Bright, Hotere-Barnes, & Hutchings, 2015). Three kaupapa—ngā moemoeā, te rangatiratanga, and te reo Māori—were used as a lens to guide us and to focus our research question and sub-questions as we investigated the wellbeing of te reo Māori in kura and schools.

The findings suggest that the determined efforts and dedication of some whānau and pouako have been the mainstay of support for the wellbeing of te reo Māori in kura and schools in our study. At the same time, the findings show that support for te reo Māori was strengthened when relationships were strong between and among whānau, kura, and schools. Support for te reo Māori could be strengthened further with more comprehensive, cohesive government policy, informed by the success (or otherwise) of existing initiatives. Findings also show the complexity and interconnection of factors that affect the wellbeing of te reo Māori.

The strength of whānau commitment, the importance of leadership by teachers and senior leadership in kura and schools, and the fragmented nature of government policy all impact on te reo Māori in education.

The kaupapa Māori methodological framework that guided this research has a focus on transformation that benefits Māori.
The assessment allows students to both read and hear the questions. It assesses receptive knowledge through the domains of listening and reading. Following psychometric analysis of questions from an initial trial, questions that were not psychometrically sound were either removed, or modified for the second trial. A provisional te reo Māori Assessment scale was then developed through psychometric analysis of the trial data.

Results from the trials confirm earlier research that the majority of Year 4-8 students in English medium are working largely within level of the NZC. In the presentation, we will provide an overview of the development of the assessment tool and demonstrate the tool.
Professional learning communities (PLCs) are a well-recognised approach to teachers’ ongoing professional learning and development, particularly within international schooling contexts. The characteristics of effective PLCs (e.g., Hipp & Huffman, 2010; Stoll, 2011) and how they support shifts in teachers’ practices that strengthen student learning (Stoll, 2011) are increasingly identified in the literature. Such characteristics include having a shared vision and values, relational trust and the de-privatisation of practice with teaching colleagues (Hargraves, 2007; Hipp & Huffman, 2010). Few studies have, however, investigated PLCs within early childhood education (ECE) contexts.

This paper presents data from a three-year project that investigated the development and sustainability of two PLCs in New Zealand ECE contexts, with a particular focus on the impact of PLC engagement on teacher practice. Shifts in practice in two key areas are presented: (i) shifts in teachers’ discourse and (ii) shifts in teachers’ pedagogical practice with children and their families. Analysis of the language used by teachers during PLC meetings and in their reflective journals was undertaken to reveal the extent to which engagement in their PLC led to shifts in how they talked about teaching and learning, and in how they perceived the work of their PLC. Data from PLC meeting notes and transcripts, reflective journals and emails, and interviews were analysed to identify shifts in the teachers’ pedagogical practices. Implications arising from this research in relation to the provision of teacher professional development and learning opportunities that have a positive impact on teaching practices and children’s learning, and the potentially transformative nature of PLCs are discussed.

References
This paper explores implications for doctoral supervision practice from the findings of a research project on intercultural doctoral supervision (Doyle, Cornforth, Tallon, Prinsen & Manathunga, 2017). Whereas higher education students from Sub-Saharan Africa are among the most mobile groups globally until recently few of these students have chosen to study in New Zealand. The growth in their numbers prompted the study discussed in this paper. There is a growing literature exploring the supervision experiences of doctoral students and this includes studies of international doctoral students. There has been little research on international doctoral students from African countries and little on intercultural supervision and African students. The participants were 16 international doctoral students from Sub-Saharan African countries, and 14 supervisors from diverse disciplines in two universities. Semi-structured interviews were loosely framed around Manathunga’s (2014) work on intercultural supervision as a social and relational space. This paper focuses on what the students in particular, but also what the supervisors identified as influences in shaping the nature and effectiveness of intercultural supervision relationships. The findings are categorised in terms of interlinked themes—namely History and Time; Connectedness and Belonging; Epistemology—Ways of Knowing; English Language and Writing; Pedagogical Relationships, and the emphasis of the current paper Suggestions for Future Practice. The findings illustrate relationship navigating intercultural supervision relationships and encountering new perspectives may disrupt and challenge taken-for-granted assumptions and practices of students and supervisors, and open up new possibilities. These findings have potential application beyond intercultural supervision relationships with African students and for doctoral supervision practices more generally.
PPTA Panel – Discussion on education reviews including NCEA and Tomorrow’s Schools

Tom Haig  
CHAIR

Jack Boyle  
PPTA President

Angela Roberts  
PPTA Senior Vice President

Melanie Webber  
PPTA Junior Vice President

James Morris  
Chair of Secondary Principals’ Council
23. Making new schools: Influences, practices, disruptions

Noeline Wright¹

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Published information on how new schools come into being is sketchy. On the other hand, there is growing evidence about what happens in schools, the influences on pedagogy and teacher dispositions when schools create flexible learning spaces; often when buildings or classroom spaces are refurbished or replaced. But what happens when brand new secondary schools are created in buildings designed as flexible learning spaces? There is a growing number of secondary schools in Aotearoa New Zealand built using these principles.

The purpose of this presentation is that it offers an interpretation about what it means to create a new school. It considers how future-thinking ideas have been influencing and shaping structures, curriculum and assessment as new schools come into being as positive and transformative places for learners and teachers. It draws on evidence published as a book in June this year and connects with emerging data from a TLRI at another new secondary school. This newer school has drawn on work undertaken at the book’s site of research to establish itself as a school for this century’s learners. The newer school has interpreted those ideas for a different context, but the influence is readily discernible. Some of the thinking described in the book is similar to that which appears to have found its way into a review of NCEA provision undertaken in the middle part of this year.

My presentation interprets the conference theme of Māui Taumata Rau by focusing on this transformation being expressed in new secondary schools. School leaders can now, when they embark on creating new schools, imagine education in divergent ways. They can develop a vision that grapples with what it means to be a learner in this century, and create new schools that reinterpret curriculum to address some of the wicked problems that appear to persist in current educational provision at the secondary school level. They have also been making decisions about who learners might be, and what counts as learning, and designing a curriculum that builds on the key Values and Principles of the New Zealand Curriculum. The presentation thus traces connections and identifies possible trends for secondary education in Aotearoa New Zealand.
The discourse of ‘selectivity’ within Australian select-entry schools: Impacts on student subjectivities and their lived experiences

Melissa Tham

Monash University, Oakleigh East, Australia

Within contemporary school systems, students are increasingly selected for school enrolment based on a range of demonstrated abilities such as academic, sport, music and leadership just to name a few. The presentation here presents findings from a broader PhD research project and focuses on the impacts of academic selective examination upon the lives of students as enacted by Australian select-entry schools. Select-entry schools are Government schools, but enrol students upon the basis of their academic outcomes determined by a standardised exam. The selective exam comprises student testing in the areas of writing, math, literacy and numeracy. According to the Victorian Government, “Selective entry high schools provide an educationally enriched environment for academically high-achieving students”. Underpinned by Foucauldian theorizing, the research frames select-entry school selective processes and such government rationalities as a discourse of ‘selectivity’, or a set of ideas that bear power by influencing the ways in which individuals perceive themselves and their futures within select-entry school institutions. Analysing student interview and focus group data obtained from four select-entry schools, the findings map a range of outcomes for students as they are successfully selected into select-entry schools through standardised examination. These include students’ construction of new aspirations for prestigious careers such as in medicine and law, increased sense of confidence in their abilities, increased sense of pressures felt to academically perform and new conceptions about select-entry schooling as both a privilege and burden. It is argued that upon this basis, the discourse of selectivity constitutes ‘selected’ or docile subjects who engage in processes of self-surveillance and self-regulation of their academic conduct, but also aspirational subjects who begin to imagine their futures in ways that extend beyond previous horizons. The results of the study highlight the ways in which processes and discourses of selectivity operate within select-entry schools and the impacts and consequences that these bear upon the lives of academically selected students. Although New Zealand doesn’t have such select-entry schools per se, it is argued that amid current climates of increased school competition that underpins processes of school-based student selection, a deeper understanding about the impacts, outcomes and implications that selective processes have on the lives of students needs to gained across school sectors more broadly.
153. Using photo elicitation to empower research participants

Philippa Butler

Massey University, Palmerston North, New Zealand

As a Pākehā researcher, how do you go about conducting research with Māori and Pacific Islands students in a respectful and genuine manner? Whose voice is given precedence in data collection and analysis? One method I found particularly useful to address these issues was photo elicitation. Photo elicitation has its roots in mid-twentieth century realism, but has been used more recently as a way of passing the power of the research relationship to the research participants (Clark-Ibáñez, 2004; Harper, 2002; Vila, 2013).

This presentation discusses the photo elicitation interviews I conducted as part of my PhD research with senior secondary students who identified with more than one ethnic group. Each of my participants was given a disposable camera and asked to take photos of things in their everyday lives that were important to them and showed their ethnicities. Their photos told a story about their values and the place of their ethnicities in their lives. The use of this method empowered the participants, allowing them to show me what was important, rather than being directed by my questions.
62. Culturally inclusive pedagogies

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Purpose and Significance:
This presentation explores culturally inclusive pedagogies of care to achieve more equitable outcomes for those at the margins of our education system. The project focuses on the authors’ narratives of the teaching and learning experiences with students in a tertiary education setting that includes Pasifika and Indian students. Our aim is to share our experiences as teachers in a diverse and multi-ethnic city in New Zealand. It is about transformatory pedagogies which explore Pacific and Indian identity for future learning. The paper draws on critical pedagogy to develop a discourse of care; empowerment and participative democracy that is authentic. We emphasize an enactment of pedagogy that recognises other knowledge and other ways of knowing.

Teaching and learning are grounded in socio cultural realities and perspectives. 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 becomes more diverse, teachers are challenged to incorporate inclusive pedagogies The authors consider previous experiences and cultures to promote a pedagogy of care for learners and support early childhood teachers to work in diverse settings in critically inclusive and culturally relevant ways.

The paper relates to the New Zealand early childhood education context that incorporates the principles of the founding document of Aotearoa New Zealand, the Treaty of Waitangi. The discussions are thus grounded in the New Zealand early childhood education curriculum and context.

A culturally relevant pedagogy has become significant in today’s culturally and linguistically diverse society. This research hopes to add to the discourse of culturally inclusive pedagogy of care that is responsive to the needs of the community.

Methodology:
Authors draw on narrative methodology to deconstruct our experiences and share how we position ourselves in teaching and learning. Narrative inquiry as a research approach today is reshaping qualitative inquiry in the academic world. Simply stated narrative inquiry is a way of understanding experience. They are stories that are lived and told. We employ a narrative framework to uncover our perceived truths based on our experiences. Our narratives capture our stories and values of teaching and learning. This narrative analyses experiences, creating knowledge about diverse pedagogies The paper emphasises an enactment of pedagogy that recognises other knowledge. Culturally responsive pedagogy is about honouring our own cultures and respecting other cultures.
Minnesota has one of the largest urban American Indian populations in the United States. Urban American Indian students often have little connection with their culture, traditions, land and language. They might be multi-racial and unable to connect with this part of their identity in the K-12 and higher education systems. American Indian high school and college students also have one of the lowest graduation rates of all ethnic groups. In 2015, a group of educators created an immersive education program for American Indian high school and college students. Our research inquires how this program connects American Indian students with their culture, identity, language and land, and improves academic success and graduation rates for these students in both K-12/high school and higher education.

American Indian students face many barriers in higher education, including access and opportunity, lack of faculty and staff that look like them and a lack of curriculum that represents them. Minnesota’s opportunity gap for American Indian high school and college students is the one of the worst in the nation. American Indian students are often excluded from data because of their small sample size – which leads to an increased sense of visibility in schools and on college campuses, and a greater lack of awareness by educators about how to address the particular needs of this group.

Graduation rates from 4-year institutions:

<table>
<thead>
<tr>
<th></th>
<th>MN</th>
<th>Nation</th>
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<tbody>
<tr>
<td>All</td>
<td>63.5%</td>
<td>60.0%</td>
</tr>
<tr>
<td>Men</td>
<td>60.1%</td>
<td>56.8%</td>
</tr>
<tr>
<td>Women</td>
<td>66.3%</td>
<td>62.6%</td>
</tr>
<tr>
<td><strong>American Indian</strong></td>
<td><strong>47.9%</strong></td>
<td><strong>41.8%</strong></td>
</tr>
<tr>
<td>Asian</td>
<td>62.6%</td>
<td>71.4%</td>
</tr>
<tr>
<td>Black</td>
<td>44.3%</td>
<td>41.2%</td>
</tr>
<tr>
<td>Hispanic (may be any race)</td>
<td>54.4%</td>
<td>53.9%</td>
</tr>
<tr>
<td>White</td>
<td>65.8%</td>
<td>63.6%</td>
</tr>
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***Even these statistics are an example of how data for American Indian students is excluded - many American Indian students in MN attend 2-year or tribal colleges before transferring (data from the Chronicle Of Higher Education).

According to NCES (National Center for Educational Statistics), American Indians have the lowest graduation rates of all ethnic groups (70 %, in comparison with 84 % for their white peers,) and the highest high school dropout rates (22 % in comparison with 4 % of white students and 6 % of black students). We will discuss our research on how the Dave Larsen American Indian Immersion experience enables American Indian students to develop their cultural identity and knowledge, increases the success and graduation rates of American Indian high school and college students, as well as the challenge of carrying out this work within the limitations of white academic spaces. Immersion activities and assignments are designed around immersive learning experiences for students to increase their knowledge of American Indian peoples, places, culture, history, language and spiritual and ceremonial beliefs and practices. We have been intentional about creating a variety of traditional and non-traditional activities and assignments that connect with different learning styles, including audio (lectures, oral histories from elder on bus, language instruction, drum ceremonies), visual (presentations, demonstrations, such as beading, traditional
cooking methods) and kinesthetic learners (birchbark gathering in forest, traditional fishing and hunting methods, hiking and kayaking to sacred sites). How do we incorporate traditional ways of knowing, traditional art forms, story-telling into assignments that are valued in our academic institutions?

**Research questions:**
- Does this program increase participants’ cultural identity as American Indian/Indigenous learners?
- Does this program increase graduation rates for high school participants?
- Does this program increases retention rates and graduation rates for two-year community college students?

**Theoretical underpinnings of the research**
- Community Engaged Scholarship
- Impact of immersion experiences in increasing academic success for Indigenous students

**Precise methodology:**
1. Qualitative research methods –
   - interviews with students before, during and after immersion experience
2. Survey of participant knowledge acquisition
   - conduct and analyze results from pre tour and post tour survey of participants’ knowledge about tribal sovereignty, treaty issues, indigenous cultural sites and leaders
3. Survey of educational outcomes
   - develop survey, collect and analyze results of on educational outcomes on program
4. Photo Voice Project
   - Participants take pictures of each other / places/people we visit and interview each other using their phones.
   - They create their own visual story of the tour
   - At the end or immersion experience, they choose their own favorite photos
   - We use the pictures that students self-select and create a photo immersion experience, where people can walk through the immersion experience. We “travel” this to different schools and campuses and then the students can share their experience with their home campus/institution
5. Ripple effect mapping – “Understanding Our Impact”
   - Using appreciate inquiry and story-telling to understand the long-term impacts on program participants using the “But For” methodology
The Annual Dave Larsen American Indian Immersion Experience: Creating transformative educational experiences for indigenous high school, college and university students

Ana Munro1, Randy Gresczyk2
1North Hennepin Community College/St. Cloud State University, 2Edina Public Schools

We are researching the impact of immersion education experiences on American Indian high school and college students from urban Minneapolis in developing their cultural identity and improving academic success as indigenous learners. Our case study is the Dave Larsen American Indian Immersive Experience. The Dave Larsen American Indian Immersive Experience is a transformative educational annual five-day tour of Indian reservations, tribal governments and schools, Indigenous elders and leaders in Minnesota and Wisconsin for high school, community college and university students. This panel will explore the cross-institutional collaboration and transforming the project into a credit-bearing class. This cross-institutional collaborative partnership between North Hennepin Community College, Robbinsdale Area Schools, the University of Minnesota, Columbia Heights School District, Anoka-Hennepin School District, Edina Public Schools, St Paul Public Schools and several tribal nations and colleges including the Mdewankaton Sioux Community, Leech Lake, Fond Du Lac, Red Lake, White Earth, Prairie Island, the Upper and Lower Sioux Communities, Bemidji State University and the University of Minnesota-Duluth in Minnesota, and Red Cliff, Lac du Flambeau, Lac Courte Oreilles, Ashland College and Waadookodading Ojibwe Language Immersion School in Wisconsin takes American Indian high school, college and university students on a five-day immersion experience of tribal nations in Minnesota and Wisconsin, and is designed to provide students and staff with an up-close experiential education of the places, peoples and events throughout American Indian history that have helped shape and define Native America. Students meet with elders, educators, language instructors, activists, artists and community leaders to learn about Indigenous ways of being and strengthen their identity as young American Indian scholars and researchers. Annual scholarship themes are; Our Voices, Our Story (2015) All Healing Comes From the Earth (2016), Take A Stand: Indigenous Activism (2017) and Gidizhitwaawininaan: Preserving Our Culture in the 21st Century (2018).

In 2018, faculty from NHCC turned the tour into a four-credit college class. The experience now also enables students to develop and utilize their research and scholarship skills and apply them to addressing issues such as colonization, treaty rights, racism, social movements, student activism, service learning, and political power learned in their everyday coursework or lived experiences. Upon their return, students prepare and participate in state, national and district-wide presentations and panel discussions for their campuses and area elementary, middle and high schools, administration and school board members, where they share their experiences and insights. Students who participate in this immersive experience are exposed to different educational opportunities with the goal of breaking down barriers for American Indian peoples in higher education, closing the achievement gap and creating pathways for success for Indigenous students. We hope that tour participants will help transform the American Indian experience in K-12 and higher education through engaged scholarship and this unique cultural immersion experience.

This interactive panel will explore all aspects of the partnership, including planning and implementation, program design, funding and grant-writing, collaborating with high school, community college, four-year universities, tribal colleges and tribal nations, gaining institutional support, creating community among high school, community college, and graduate and post graduate students in the classroom and on a tour bus, and the complex process of turning the tour into a four-credit college class. We will also screen excerpts from our tour documentaries.

Attendees will gain a working knowledge of the collaboration and how it has developed over time. Named after our beloved Dakota elder Dave Larsen, a founding member of this project, this immersive experience honors and continues his legacy in education for all American Indian students.
Research questions:

- Does this program increase participants’ cultural identity as American Indian/Indigenous learners?
- Does this program increase graduation rates for high school participants?
- Does this program increases retention rates and graduation rates for two-year community college students?

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10. Ripple effect mapping – “Understanding Our Impact”
    - Using appreciate inquiry and story-telling to understand the long-term impacts on program participants using the “But For” methodology
16/1. Why biosecurity matters: Students’ attitudes, understanding and interpretation of biosecurity information

Rajesh Ram

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The biosecurity system is extremely important to New Zealand because the economy is based largely on exporting products derived from primary industry practices. Recent developments in trade practices such as online trade have put the biosecurity system in New Zealand under further strain.

In light of this, enabling young people, including adolescent students to build positive attitudes towards biosecurity is crucial. A qualitative approach using the interpretive mode of inquiry was used to investigate the attitudes towards biosecurity of New Zealand Year 9 students. Questionnaires, responses to biosecurity educational material and interviews were the data collection tools. One hundred and seventy one students completed a questionnaire that consisted of Likert-scale type questions and open ended questions that focused on getting students understanding of biosecurity related educational material.

The findings show that students with superficial knowledge of biosecurity had a very relaxed or no attitude towards biosecurity measures. Findings also show that students have little understanding of the level of seriousness of biosecurity in New Zealand. Students connected emotionally with the biosecurity educational material but they lacked positive attitudes towards changing their behaviour in response to instructions on the biosecurity educational material.
109. Incorporating indigenous knowledge in a primary school environmental studies programme in Aotearoa New Zealand

Joanna Higgins1, Jennifer Adams2, Raewyn Eden3, Marissa Bellino4
1Victoria University of Wellington, Wellington, New Zealand, 2The University of Calgary, Canada, 3Massey University, New Zealand, 4The College of New Jersey, USA

With a growing global concern about the environment coupled with increased activism around recognizing sovereignty and valuing knowledges of indigenous peoples, indigenous knowledge is becoming more central to discussions about environmental sustainability. This includes in environmental education in English-medium schools in Aotearoa New Zealand. Indigenous perspectives offer more inclusive and holistic ways of thinking about our relationship to nature, community participation and valuing interpersonal relationships (Helu Thaman, 2003). Using a photovoice methodology this presentation examines the use of the Māori construct of kaitiaki in an environmental studies program in Year 5 and 6 classes in Aotearoa New Zealand. We found that students and teachers mostly defaulted to a Western environmental perspective that focuses on damage to the environment and its remediation. Such views miss the nuances of indigenous peoples’ value systems that embody a spiritual relationship to land.

As Kidman, Abrams and McRae, (2011) remind us “saying something in an indigenous language does not automatically mean that an indigenous world-view is being drawn upon, nor does it necessarily reflect indigenous knowledge of even something that is culturally relevant to the speaker”. Kaitiakitanga (or kaitiaki) demonstrates the complexity embedded in many cultural constructs, and speaks to the embodied notions of ways of being in the world. English words commonly used to describe this term include “guardianship,” and “resources management,” yet it cannot be understood without any regard to key Māori concepts including mana ‘authority’, mauri ‘spiritual life-principle’, tapu ‘sacredness’, rahui ‘prohibition or conservation’, manaaki ‘hospitality’ and tuku ‘gift’ (Kawharu, 2000). In relating to the land and other beings (human and nonhuman) that share the land, the embedded spiritual component is almost always removed from Western discourses around science and the environment. As often the case in many settler colonial societies, there still exists spaces where Māori culture and language remains subjugated to Pakeha/Western European approaches and perspectives. Therefore, it is important to examine ways that indigenous cultures and terms are incorporated and enacted in primary classrooms as, these are the spaces were young people begin to formulate their understandings of the way the world works. As a result of the research, we asked ourselves if kaitiaki in the classroom was used as a cultural metaphor or in a more appropriative way? We also asked if the term was being interpreted and transcribed with a “green” perspective of environmental education (Paperson, 2014) or if there was a movement towards a more Māori meaning?

References
The value or not of working in an expert scientist identity in dramatic inquiry

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Student disengagement from school science and the rejection of science as a possible career choice is a well-known phenomenon. Students without a productive science identity are less likely to pursue science careers or have a positive attitude towards science. Collaborative, active inquiry based approaches have been identified as enhancing learning and engagement in science. One drama-based approach that meets those criteria and allows exploration of identity is Mantle of the Expert. Mantle of the Expert is a dramatic inquiry pedagogical approach that transforms the structure of the classroom and learning through repositioning the curriculum and students. Students learn curricular subjects in a purposeful manner by working in role as experts fulfilling a commission for a fictional client.

This paper draws on data from a mixed methods action research project that explored whether Mantle of the Expert would support or constrain the learning of science at Years 7/8 and the possibility of science in their future. 29 students aged 11-13 years and their teacher participated in a 22 episode Mantle of the Expert unit over nine weeks. During the unit, students and teachers explored buoyancy and stability using an expert scientist identity and an ethical imperative – to reinvestigate the science behind the sinking of the Wahine in Wellington harbour in 1968. Data generated from pre and post unit assessments, audiotaped episode observations, student and teacher interviews and artefacts from classroom teaching was analysed statistically and thematically. Data was interpreted through the identity lens of figured worlds and positioning theory.

Working in role as expert scientists transformed the structure of classroom instruction, student and teacher interactions and knowledge generation. Operating in an expert scientist role enabled the students to mirror how scientists construct and verify knowledge in a realistic manner as they investigated the sinking of the Wahine. Data showed that the students significantly increased their knowledge of the scientific concepts taught. However, working in an expert scientist identity did not enhance the students’ career trajectory to include becoming scientists but they did gain a greater awareness of the variety of science-based careers and the role of science in society.
25. **Embodied interactions for meaning-making in the material world of quiltmakers**

*Linda Warner*¹

¹*Massey University Institute of Education, Palmerston North, New Zealand*

Learning and teaching in everyday activities has a marginal place in scholarly literature. The common conception of learning is rooted in theoretical frameworks of traditional schooling, rather than giving consideration to the processes of learning, no matter where it occurs. Without a set curriculum, objectives to identify, or learning outcomes to evaluate, informal learning is often treated as the polar opposite to formal, didactic instruction. As a consequence, informal learning is frequently conceived as having little or no organisation since such learning appears to occur haphazardly in the moment of everyday activities. Collective learning-and-teaching is an important dimension within everyday settings, but it remains the least researched aspect of adults’ informal learning. A contributing factor to this mainly untheorised phenomenon is the difficulty of uncovering pedagogic processes in less structured community settings, such as quilting groups.

This paper reports on one aspect of my doctoral research which investigated informal learning and teaching situated within, and across, two quilting communities. While language - and particularly talk - is an effective means of enabling quilters to engage with new information, much quilting knowledge is tacit in nature and embodied in the participants’ material practices. The physical interaction with textiles and quilting tools, as well as social interaction between the quilters, all work together to support their meaning-making processes. Consideration is given to how craft practitioners’ embodied knowing involves, and builds on, sensory experiences through interactions with their tools, environment, and other individuals. During textile explorations the quilters seem to ‘think through their hands’, which allows thinking to become visible through their actions and material artefacts. From a sociocultural perspective, it is important to conceptualise the quilters’ meaning-making as emerging from their interpretative practices of interactions within their quilting activities.

Educational research into creative ‘hands on’ and ‘minds on’ leisure activities, transform the way we view learning and teaching in our everyday lives. When the quilters collaborate, their acts of communication and co-ordination go beyond linguistic expressions. The embodied and mediated nature of quilting practices reveals hidden means of interaction for learning craft knowledge and skills.
Worldwide it is accepted that teaching is a stressful profession. Teacher absenteeism, dissatisfaction and burnout are commonly cited outcomes of stress. Without a sense of thriving in their chosen career, teachers experience greater difficulty coping with their employment responsibilities and their mental and physical health. The New Zealand attrition rate is 37 per cent by their fourth year of teaching (Secondary Teacher Supply Working Group, 2016; and the New Zealand Council for Educational Research (NZCER) findings on a range of measures such as managing workload stress and slipping morale, suggest primary and intermediate teachers and principals are stretched too thin on the job (Wylie, 2014).

Meanwhile, there is growing evidence of teachers increasingly taking individual steps themselves to de-stress body, soul and mind. This presentation reports the results of a heuristic inquiry (Moustakas, 1990, 1994) in the field of socio-poetic mindfulness. Using a seven-line, 27-syllable form of poetry known as the mindfulness of seminaria (TMoS), six classroom teachers and educational leaders employed in state and independent settings from early childhood to higher education in New Zealand and the UK, integrated it into a daily, three-week practice and found it to be surprisingly creative and grounding. Though introduced to its theoretical construct, the research participants were encouraged, in practise, to explore it in enjoyable ways that suited their personal and professional needs. From a standpoint of ‘teacher as reflective practitioner,’ possible applications included: recording events, processing feelings, problem solving, child study, contemplative inquiry, ‘bookending’ the day, and planning ahead. The findings highlighted the vitality of the nature and being, use and potential of the mindfulness of seminaria, whether for personal–professional direction, emotional understanding, or cognitive enrichment. Support was found for the protective effects of this poetic device in reducing occupational stress and its value for teachers’ personal and professional wellbeing. Participants attributed to their practice of seminaria, a sense of vitality through self-realisation and meaningfulness—recognised by the OECD Guidelines (2013) as key subjective wellbeing indicators. With its transformative potential for teacher wellbeing, TMoS was deemed accessible, companionable and energising—like a poetry app. to which teachers and leaders could turn and return for solutions when stressful feelings mitigated against their concentration, calm, and creativity.
An ecology for pedagogy: developing an ecosystem for educational philosophies and theories

Robin Lane

University of Auckland, New Zealand

There are many theories of learning and teaching, so many that both newcomers to education and experienced educators might be challenged to find a way to choose between them for a given pedagogical purpose, or to integrate them into their professional belief system and teaching practice. There is therefore an opportunity to develop an holistic approach that provides a place for all valid theories and an overview of the field. An ecological metaphor suggests parallels between the features of natural ecosystems (e.g. niches, habitats, webs of influence, and environmental effects) and similar features of educational systems – localised effects within a learning environment, complex interacting influences on learning, and interactions between people (organisms) and their environment. Bronfenbrenner’s ecological levels (micro, meso etc) also provide a useful structure when considering interacting influences between people and their learning environment.

Most learning theories can be grouped within one of five main areas - behaviourist, cognitivist, constructivist, humanist, and social learning. Each of these theories inform parts of pedagogical practice, and so occupy niches within the learning habitat. None of them explain all of what happens during learning, but each one has a contribution to understanding parts of a learning experience. For example, behaviourist principles are useful when managing classrooms, cognitive ideas when thinking about memory and information processing, constructivism informs the ways that people put concepts, experiences, and knowledge together, humanism emphasises interpersonal and emotional influences on learning, and social learning principles emphasise that all learning happens within social structures. Interactions between influences on learning can be more easily identified in an ecological structure e.g. cognitive and social influences on behaviour can be traced out, motivational and interest effects on learning can be tied to personality and personal histories, or situated learning can be connected to communities of practice.

Overall, ecological learning theory offers a way to simplify and structure what can be a bewildering landscape. By viewing learning theories as complementary rather than conflicting, an educator can identify the area of their practice that is problematic and take inspiration from the insights of the relevant theories, using those that fit their current classroom situation, and applications of each theory can be seen as providing partial explanations for classroom events. It may also offer teacher educators a means to organise key learning theories needed by a beginning teacher, reducing their cognitive load.
This paper offers an in-depth exploration of Māori systems of knowledge, outlining an ecological literacy grounded in a deep interconnectedness to land, rivers, and other geographical features made available to children through their integral engagement with whenua (land) and whānau (extended family). This ecoliteracy was symbiotically emergent in relation with the cohabitants of these places, generating a mutually beneficial biocultural diversity. This biocultural diversity, that is, the Māori language, their lands, and the biodiversity that previously thrived upon these, has all been threatened by the onslaught of colonization, of which the ultimate result is monocultures of the mind and of the land. The complexity of Māori onto-epistemologies, their belief and knowledge systems, is illustrated with an explanation of how their complex navigation systems enabled their settlement of Aotearoa and ongoing navigation around their own islands, as well as between those of the South Pacific. These knowledges are passed on intergenerationally through children’s participation in biocultural practices such as sustainable mutton-birding. Tribal sayings serve as detailed identity markers and also preserve wisdom that is thus transmitted to young children. Finally, some key Māori values that relate to biocultural sustainability are explained, along with some examples of their application within early childhood care and education settings.
49. Viewing infants and toddlers as already competent and confident – highlighting agency in a mixed-age community

Kylie Smith¹
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The aspirational statement in the previous iteration of the New Zealand early childhood curriculum Te Whāriki was for children “to grow up as competent and confident” (Ministry of Education [MoE], 1996, p. 9). This research looked at how teachers saw infants and toddlers as already competent and confident in one mixed-age community. It found that the mixed-age setting allowed infants and toddlers to be viewed as agentic and purposeful contributors in their social and physical engagement with peers and adults.

This research, using case study methodology, was positioned to capture how agency is evident in infant and toddler learning. Wenger’s (1998) ideas of community, culture, identity, and belonging were used to theorise the findings of this research within a community of practice and formed the conceptual framework for this study. Shared cultural practices indicated that community, culture, identity, and belonging were important ways of learning and functioning in this setting. These key concepts were drawn on, in particular, to investigate how teachers viewed infants and toddlers as capable and competent contributors, initiators, and followers of cultural practices that situate them as agentic and purposeful in their relationships with other children and adults.

Key findings revealed that intergenerational relationships connecting teachers, families, and children as a community were highly valued in this mixed-age setting. Multiple teachers indicated that infants and toddlers would often access other children to respond to their wellbeing, rather than an adult. Infant and toddler wellbeing was supported by meaningful connections to siblings and older members of the extended family and therefore led to teachers identifying that infants and toddlers were confident contributors in their interactions with others in the community. This finding adds to the knowledge that relationships are a valuable and appropriate learning context for infants and toddlers, while also proposing that mixed-age grouping is a highly appropriate way of supporting community.

Infant and toddler contributions to the mixed-age setting were recognised and valued when teachers saw that the sense of belonging and identity of each child as entwined with their relationships with others. Access to intergenerational relationships and community connections allowed teachers to practise pedagogy that was representative of both children’s and teachers’ cultures. This pedagogy of connectedness recognised teachers’ unique ways of responding to the curriculum, particularly interpreting the principles of relationships, family and community, and empowerment (MoE, 1996) reflecting practice that was specialised to infants’ and toddlers’ ways of being.
13. (Re)negotiating consultative spaces in early childhood education: Governing agendas seen through an Australian context

Kim Browne1
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In the Australian state of Victoria, consultative services operate presently as the Preschool Field Officer (PSFO) program. Providing guidance to all practitioners working in funded preschool services, practices are framed within a model of collaboration with children, families and educators. Described as a service delivery model (DET, 2015), the PSFO program ‘ensures that early childhood teachers continually improve their capacity to provide young children who have additional needs with the experiences and opportunities that promote their learning and development, and enable them to participate meaningfully in the program’ (DET, 2015, p. 8).

To date, little research about the PSFO program has been undertaken. Since the emergence of this official program in 1984 and before this timeframe, it has been unclear how PSFO consultants have operated and negotiated their practices within governing agendas. Underpinned by Foucault’s genealogical approach (1977) and critical ethnography, this study explored the complex processes and discursive shifts in negotiated practices from the 1960 – 1985 timeframe through an examination of written and visual documents.

By problematising consultancy, an examination of the power-knowledge relations producing dominant discourses, tensions and a rupture of certain truth claims was presented in the research. It transpired that interrelating multiple discourses have historically dominated consultative practices. Discourses included: health with supervision, additional needs education with developmentalism, and community organisations with welfare.

Consultants are informed by literature based in psychological developmental paradigms and early intervention models from Western nations. Research findings indicated that, in contemporary times, discourses of governmentality dominate consultative practices and policy agendas. Compelling PSFOs to enact complex ‘techniques and procedures for directing human behaviour’ (Foucault, 1997, p. 81), educators turn to technical methods to ‘fix things’ by treating children as redemptive agents (Goodley, Lawthom & Runswick-Cole, 2014; Moss, 2007). Further, children and families have been swept up in the governmentality of consultancy, where under the guise of collaborative partnerships and capacity-building, consultation appears inclusive of the voice of children and families. While this appears as a shift away from a deficit-based approach, it emerged through the analysis of the data that a lack of authenticity may pervade in these relations.

Situating between governing agendas and remedial practices in early childhood communities, this paper reports into the tensions which arise for consultants in these juxtaposed positions. This allows for a reconsideration in contemporary times of what may be reimaged and renegotiated in light of neoliberal governing agendas in consultative practice in broad contexts.

References:
142. Cultural responsive pedagogy for Chinese immigrant children in a home-based early childhood education service in New Zealand

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This study aims to find out what forms of culturally responsive practice occur in home-based early childhood education (ECE) settings providing for the children of Chinese immigrants in New Zealand. As some of the values and beliefs of Chinese immigrant families are different from mainstream kiwi families, this study aims to identify what culturally responsive practice looks like for: educators who look after children, visiting teachers (who are employed by the Home-based ECE service to support educators), and parents and whānau. Participatory action research is providing a framework for working in partnership with visiting teachers as co-researchers. Participants will be drawn from the licensed home-based ECE made up of up to 9 visiting teachers, 380 educators and 400 children from 380 families. It is estimated that 20 families will participate. In the initial part of the research educators, parents and visiting teachers were interviewed to provide different perspectives within each family, which then formed individual case studies. After more than ten interviews were conducted across five families, six contradictions emerged in relation to what Chinese immigrant families want for their children in comparison to what educators might be expected to advocate for based on Te Whāriki, the New Zealand early childhood curriculum. The contradictions cover the area of family expectation; children’s play; adult led learning; ‘in-law relationships’; maintaining language and culture of origin; superficiality of Pakeha understanding of Chinese culture; as well as an aversion to being seen as different. These contradictions, which appeared as common themes across the five families, will be reviewed within the presentation to highlight the difficulties in providing a culturally responsive curriculum for all children in Home-based ECE settings. There are very few studies about culturally responsive pedagogy in relation to either home-based ECE settings or children of Chinese immigrants. In time it is hoped that this ongoing action research will encourage the sector to engage in a discussion about how to work with immigrant families in the provision of high quality culturally responsive curriculum.
31. Dancing in the dark: Finding your feet in the transition from face-to-face teaching to a blended delivery

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¹Te Rito Maioha Early Childhood New Zealand,
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More initial teacher education providers (ITE) have embraced blended learning as their preferred mode of delivery for their programmes which brings with it some challenges; for example, student and lecturers transitioning from a face-to-face to an online learning environment. Whilst there is a sound body of research that focusses on student experiences of learning through blended approaches there appears to be a gap in the literature that explores lecturer and students transitions and experience from working within the traditional face to face model to working within an online blended environment.

Te Rito Maioha Early Childhood New Zealand (ECNZ) is a bicultural field based initial teacher education provider. In 2015, ECNZ changed their Bachelor of Teaching (ECE) from a face-to-face to a blended delivery approach. The rationale underpinning this change was to provide a flexible learning environment where students could engage in their study whilst strengthening links between theory and practice. This approach enabled students to connect with peers both locally and nationally by engaging in critical discussions and reflections in relation to their developing identity as a teacher. This transformative change was a complex and challenging process for staff and students, however this change has ultimately been successful. Teaching can be described as a dance or performance, and blended delivery is a different kind of dance. In this research, we are using this metaphor to describe these transitions as like learning a new dance. For example, understanding the affordances of new technology, the notion of e-pedagogy, and working in a community of learners within virtual spaces.

This presentation reports on a small research project completed by the co-authors, which explored this new kind of dance during the transition of both students and staff to a blended delivery approach. This research, gathered through a student online survey and lecturer self-report, captured both students' and lecturer’s voices who were part of this change. These survey results were then analysed for key themes. Themes identified included; the flexibility of study/work/home relationships, the importance of support, and what a successful learning community might look like.
80. Learning to Teach Teachers: Pedagogical models for teacher educators

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This presentation illustrates pedagogies of teacher education as a set of interactive models. Through a research-based exploration of specific pedagogies of teacher education we can begin to consider how we might imagine naming, codifying, and teaching certain pedagogies to future teacher educators. We are particularly concerned about developing equity, social justice, and opportunity for all students within education contexts and focus on concepts related to these ideals.

Teacher education scholars have found that, “while research on teaching informs research on teacher education, the latter needs a specialized knowledge base of its own” (Knight et al., 2014, p. 268). Established scholars call for a more developed understanding of the pedagogies of teacher education (Darling-Hammond & Bransford, 2005; Zeichner, 2005). Pedagogies of teacher education tend to be guided by overarching, generalized descriptions that are then applied to areas of content knowledge broadly and often without distinction (Loughran, 2006; Russell & Loughran, 2007). This research study is grounded in the assumption that specific pedagogies can be named and described in the form of “models.”

We define model a fundamental instrument for representing a phenomenon, a system of interactions, or a theory (Frigg & Hartmann, 2017). We think models capture and allow us to share among teacher educators the complex, interactional aspects of pedagogies. Maybe one day, what the Bohr model of the atom and the helix model of DNA are to the scientific community can be akin to what these types of models are to teacher educators—commonly known, used, and challenged through further inquiry. We note that the models presented in this research are not a set of essential practices for novice teachers as other research in teacher education seeks to define.

For the study, teacher educators participated in a year-long learning series about pedagogies for teacher preparation. Data included observations of each session and a focus group of teacher educators. Data were analyzed and translated into seven pedagogical models. Each of these models are presented in turn, highlighting the interactional elements and limitations of each one: 1) talking about race; 2) coaching development of dispositions; 3) practicing mindfulness; 4) deconstructing academic language; 5) responding to trauma; 6) building and sustaining relationships in community engagement; and 7) modeling critical inquiry. Expressing pedagogies as models allow us to represent interactions and theories in a way that makes the invisible visible. This has the potential to transform the way we think about and practice teacher education.

References
Lesson studies are an effective form of professional development supporting student achievement. The process of lesson study varies but can generally be described as such: Teachers collectively choose a broad goal that they want to address. They design a lesson around a specific topic. One teacher implements the lesson in his/her classroom. Collaboratively, teachers reflect upon and revise the lesson based on students’ understandings. Another teacher facilitates the lesson in his/her classroom. Together, teachers reflect on students’ understandings. It is necessary for more researchers to explore how facilitators learn to guide post-lesson discussions in ways that support teachers’ development.

The purpose of this study is two-fold. First, we explored ways teachers noticed students’ mathematical reasoning through lesson study. Second, we examined how facilitators transformed their interactions with teachers during post-lesson reflections. Lesson study is a method of professional development designed to sustain teachers’ ongoing learning about student thinking.

The theoretical framework guiding this study stems from Vygotsky’s sociocultural learning theory. We subscribe to the notion that people learn through interactions with knowledgeable others before internalizing new ideas. Participation in professional learning communities is essential for changing one’s own practice. The process of lesson study provides teachers opportunities to share their expertise with each other as they reflect on the student learning outcomes of a lesson.

In this study, we report on data from transcribed video recordings of teachers’ post-lesson discussions over three years. Teachers were from New Zealand primary schools participating in the Developing Mathematics Inquiry Communities Project. We found that teachers transformed their perceptions about students’ mathematical reasoning over time. Teachers learned how to elicit students’ mathematical knowledge during inquiry-based lessons. Teachers shared opinions about the purposes of various pedagogical moves, which in turn shaped the goals of their practice throughout the curriculum. Facilitators learned how to guide the post-lesson conversations in ways that effectively elicited teacher reflections. Over the course of fifteen months, one facilitator transitioned from talking 55% of the time during post-lesson discussions to talking for 26% of the conversation. Implications of this research illustrate ways facilitators learned to support teachers in their development of understanding student thinking.

Our research celebrates transformative education by highlighting the ways teachers shift their beliefs about students’ mathematical reasoning. Additionally, facilitators learned to lead discussions in ways that prioritised teachers’ expertise rather than their own. The teachers and facilitators’ transformation has powerful implications for changing and supporting traditional classroom practice.
137. Investing in youth students: The policy-data nexus of neoliberal governance

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Social Investment in New Zealand is a contentious political topic. Drawing on a neoliberal rationality of governing, Social Investment became a way to invest in the welfare of its citizens as well as create future financial savings. Youth who were not engaged with education, employment or training (NEET) became a target for early intervention. Those youth who were not economically productive or were at risk of future financial dependence became easy government targets for social intervention.

Using Carol Bacchi’s (2009) ‘What’s the problem represented to be approach’ (WPR) I undertake a post structural method of New Zealand policy analysis. I problematize the dominant knowledges of risk and bio-psychology that underpin neoliberal education and interlinked policies from the previous government. This preliminary data analysis shows that NEET youth are problematized as a threat to the economy, due to their risk of becoming future welfare dependants. Therefore, early intervention strategies are used to ensure NEET youth become productive future financial investments. The NEET youth population are monitored and targeted through integrated data analytical governmental technologies.

It is argued (drawing on Foucault) that the dominant discourses of risk and bio-psychology construct and govern the NEET youth population by creating specific forms of problem representations. These representations position NEET youth as distinctive types of social welfare subjects within the social investment model.
53. Conditional public entities in market-driven education

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Education has become more market-like, and while some entities in education have long taken the form of businesses, the number and extent has undoubtedly increased. There is a growing and expansive literature on the influence of edu-businesses as providers of education, consultancy and accreditation (Thompson et al., 2016; Gunter & Mills, 2017), documenting the erosion of public education. This paper steps aside from critique of edu-business to consider whether some kinds of governance structure, like cooperative and mutual ownership structures, can mitigate the worst aspects of educational markets.

This paper focuses upon entities that attempt to moderate the effects of market competition through adopting governance structures that engage with concepts of the public either wholly or partially outside of the state sector. It focuses on the structures these entities adopt, including legal forms, ownership models, the regulatory fields in which they operate, and the extent to which they can be classified as public entities. It draws from public sphere theory to define what counts as a public entity, reconceptualising the public in public education as pluralist, contextually specific and partial (Fraser, 1990; Warner, 2002). The public entities discussed in the paper exist in the world, are non-ideal and therefore constructed as conditional public entities. They share a commitment to social goals, mutual human relations or environmental ethics that extends beyond even as they engage with economic development.

The paper uses the illuminative techniques of policy sociology and focuses upon the fragmented context of schooling in England, where there is an extreme variety in school types. Examples of public entities from England are compared with similar structures and frameworks from other jurisdictions that share with England aspects of its common law system (including Australia, United States, New Zealand and Canada) and wider social discourses of the public, using an extended case methodology that relates specific and social concerns (Burawoy, 1998). It maps out different approaches to the governance of conditional public entities in four interrelated areas: Cooperative and Mutual Ownership; Charitable, Not-for-Profit and Public Benefit Organisations; Public-private Partnerships; For-profit Public Benefit and the Rise of Social Enterprise. Cases from each of these areas are considered in the light of legislation that holds them to public account (including education, company, and charity law). In each case, tensions between public and private interests play out, and entities are co-opted by, restricted by or forced to resist the homogenising effects of market relations.

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A history of the Direct Subsidy Scheme (DSS) in Hong Kong

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There are many schools that are publicly funded and privately managed or governed worldwide, including charter schools in the United States, academies and free schools in England and free schools in Sweden. Boyask (2018, p. 107) found that these schools are shaped by globalization. However, unlike these schools, the Direct Subsidy Scheme (DSS) schools in Hong Kong are not only shaped by globalization, but also the distinct history of colonization and decolonization in Hong Kong. DSS means that secondary schools can enjoy greater flexibility and autonomy in areas such as curriculum, staffing, student admission, and other school policies. DSS schools may collect tuition fees and receive subsidies from the government on a per-pupil basis (Tse, 2008, pp. 630-634; Zhou, Wong & Li, 2015, p. 627). Based on literature reviews, this presentation aims to discuss the history of colonization and decolonization in Hong Kong and how it shapes the DSS and the future education in Hong Kong. Research on the history of the DSS is important as it helps individuals, particularly education policymakers to understand how the history of colonization and decolonization shaped the current education policy in Hong Kong and develop better education policy in Hong Kong in the future. A good education policy can enhance the economic and social development in Hong Kong. Prior 1991, there were government, aided and private schools in Hong Kong. Most elite schools were public schools. Private schools were unfavourable as they catered underperformed students and Chinese immigrants. Parents prefer sending their children to public schools, and only a few aided schools turned to the DSS (Tse, 2008, pp. 630-634). There are two factors that explain the growing popularity of the DSS after the handover. Firstly, an increasing number of people come to Hong Kong and bring new expectations and practices for education. Since 1997, Cantonese replaced English as the medium of instruction within public schools. As children of returnees and foreigners cannot cope with the public education, it is inevitable for the government to introduce the DSS. Secondly, many parents lose faith in Hong Kong’s education after 1997. The mother tongue policy causes fear among parents who value English as a global language. As the DSS can enjoy autonomy in curriculum, many elite schools turned to the DSS (Tse, 2008, pp. 647-648)
The literature on culturally responsive and culturally sustaining education calls for ensuring learning experiences are relevant for, and compatible with the wider experiences and lives of students while strengthening their cultural identities. Focus areas of research and policy have included ways of establishing and nurturing teacher-student relationships, effective teaching profiles, drawing learning activities from historical cultural contexts, involving whānau/families/aiga in educational decision-making, and demonstrating cultural competencies and values. Alongside these valuable contributions to understanding culturally sustaining practice, further shifts in practice are needed to help reduce inequities in learning opportunities and achievement. In the New Zealand context, limits to the advancement of culturally sustaining practice in educational settings include modest teacher knowledge of the heritage languages and cultures of their students, and variation in teacher confidence that they can make a positive difference for Māori and Pasifika learners. To date, less attention in the literature has been given to the power of specific pedagogical approaches for enhancing practice in culturally responsive and sustaining ways. Critique on culturally responsive pedagogy includes that it focusses on helping indigenous and ethnic minority learners manage in Eurocentric educational settings and that it does not go far enough to challenge and change the status quo towards liberation and greater equity in opportunity. Drawing from research within and outside education, this presentation will focus on the potential of the pedagogical approach of singing, a powerful teaching and learning strategy common to many diverse heritage cultures, for promoting student engagement and learning while developing group and individual wellbeing. Research shows that singing with others enhances group cohesion and understanding, fosters a sense of belonging, and strengthens the sense of the collective. Singing can assist language development, memory, cognitive skills, concentration, self-discipline, motivation, and understanding. Singing promotes well-being and is joyful and life enhancing. Research shows that singing in a group can be relaxing, uplifting, help deal with stress, and can create chemical changes in the body, reducing stress and enhancing the immune system. Singing helps us express emotions and facilitates mood changes. Singing also helps us listen to one another and together create a shared experience. Frameworks for culturally responsive practice will be used to examine how enhanced use of singing in learning programmes may assist in engaging our learners in holistic, caring, and diverse ways. The argument for singing as a powerful pedagogy in this presentation is drawn from a wide range of literature. New avenues for culturally sustaining research will be discussed.
39. Three- and four-year-old children’s use of singing in social interaction

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Music is fundamentally social and inherently communicative. This idea is often presented within music psychology, music sociology, and music education research, and is reflected in the way music is described as a ‘language’ within the communication strand of Te Whāriki. In the field of early childhood music research, the communicative nature of music has largely been explored through mother-infant relationships. Less attention has been paid to young children’s own uses of singing within social contexts. Research into young children’s singing is often framed within developmental models, and the ways in which young children exercise musical agency are rarely considered.

In this paper I draw on findings from a study of three- and four-year-old’s spontaneous singing at home to explore how young children make use of singing as a tool for social interaction. The study was based on audio data collected using LENA all-day recording technology supplemented by semi-structured parental interviews. The participants were 15 white, middle class children (7 boys, 8 girls), aged between 3:0 and 4:10 years (average age 3:8) living in the United Arab Emirates and New Zealand. Over 183 hours of audio recording were collected during continuous periods within the children’s normal everyday routines. These recordings contained more than nine hours of spontaneous singing in total. Approximately a third of this singing took place within social interactions.

Interpretive analysis of the data, informed by theories drawn from music sociology and childhood studies, indicated that the children made use of singing to manage social interactions. Singing was used not only to communicate thought and emotion, but also to manage relationships, influence others, and express identity. Considering young children’s singing through a lens of musical agency can transform how we think about young children’s music-making. Rather than focusing on the development of musical skills, it can help us to notice how children are able to make competent use of singing as cultural tool to act in and on the world around them. This session will highlight some of the ways in which children use singing in social interaction and the implications for parents and early childhood educators.
43. Authentic implementation of Teu Le Va and Talanoa within the early childhood curriculum in Aotearoa: transformational practice

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The Pacific child has become less visible, less understood and less accessible to kaiako in Aotearoa New Zealand as a critical analysis of the early childhood curriculum documents (1993, 1996, and 2017) attest. The consequential effect of this marginalisation is to render kaiako disempowered as they attempt to authentically implement culturally responsive pedagogy with a focus on Pacific approaches, metaphors and knowledge bases. This presentation reports the planning and progress of an inquiry in four kindergartens involving: linking principles and strands of Te Whāriki; the early learning aims of the Pasifika Education Plan; and a typology of culturally responsive pedagogy for Pasifika learners (Mara & Kumar, 2016). Within these frames of policy, self review and analysis kaiako work with a Pacific facilitator to establish and maintain a safe “va” for Pacific children and families, and to employ the Talanoa methodology (Vaioleti, 2006) for collaboration and decision-making essential for innovative and culturally responsive practice.
Research and practice both in Aotearoa NZ and internationally confirm the important role that parents, caregivers and whānau/fanau play in students’ educational journeys. These stakeholders influence students’ academic outcomes as well as their socioemotional experiences of schooling. Effective engagement with parents, caregivers and whānau/fanau is therefore critical to transform schools into places that foster students’ wellbeing and achievement. Such engagement should include approaches for partnering with parents/caregivers/whānau/fanau as well as approaches for gaining feedback from these important stakeholders.

This session reports on the development and validation of a survey designed to gain feedback from parents/caregivers/whānau/fanau in relation to the socioemotional school climate. The Parent and Caregiver Survey (PaCS) was developed as part of a wider school improvement and teacher professional development initiative focused on examining and improving school climate. Enhancing school climate is important both in its own right (given its importance for students’ wellbeing) and as a lever for supporting improved academic achievement.

The newly-developed PaCS is a quantitative (Likert-style) survey examining parents’ perceptions both of their children’s experiences at school (for example, the support their child/ren receive from teachers) and their own experiences at their child’s school (for example, the extent to which parents, caregivers and whānau/fanau feel part of the school community). The survey is underpinned by strength-based and culturally responsive perspectives on parent/caregiver/whānau/fanau engagement as well as a socioecological perspective of child and adolescent development.

In 2018, the PaCS was completed by parents and caregivers of students at 15 Australian schools. The data from this sample was used to examine the reliability and validity of the PaCS in terms of its factor structure and internal consistency as well as its discriminant, concurrent and predictive validity.

Although developed and validated in an Australian context, the PaCS may also be a useful tool for schools in Aotearoa NZ. Creating educationally powerful connections with parents and whānau/fanau is a national priority, and the theoretical underpinnings of this survey mean that it aligns well with NZ-based research, policy and practice. The PaCS thus provides a practical, research-based tool that NZ schools may use to gain feedback from parents and whānau/fanau, informing ongoing transformation of schooling and its outcomes.
125/2. Fostering congruence for children living with developmental delays in early learning and school educational institutions (CLIDDE) by engaging indigenous pedagogy

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This paper intends to outline an indigenous pedagogy, Te Mana o ngaa Mokopuna as an encapsulation of guardian (parental) knowing (wisdom) about children living with developmental disability in learning environments at early learning and educational settings. The challenge of effectively utilising pedagogies to inform developing relationships that are necessary if effective delivery of education is to be achieved for a child, eg; guardians, educators (teaching staff), State learning support services, governing bodies in education (BOT, ECE owners, government) in a nurturing philosophy and practice for CLIDDE, is being promoted to serve CLIDDE where mainstream education did not meet their learning modality.

Te mana o ngaa Mokopuna, utilises the four traditional principles of ira tangata (self), ako (responsive teaching), te ture aroha (habitual, tacit and edifying) and whanaungatanga (relationships) – enriches the four child developmental domains in education - access, wellbeing, academic, and language, to enhance the opportunity for collaboration of the essential learning support services for CLIDDE success. My intention is to meet learning modalities of our CLIDDE demographic.

The knowledge paradigms of guardian (parental) knowing (wisdom) stems from guardian experience with CLIDDE, provides both the guidance and aspirations for the expression and the collaborative pedagogy that facilitates CLIDDE learning and the transformation of educator education for CLIDDE and essential learning supports where they and CLIDDE can nurture and be nurtured into states of attainment, progress and growth.

The model for guardian (parental) knowing comes from cultural epistemology. The element of intuition is represented by the “parent model”, the intentional, personal commitment and personal dedication to CLIDDE learning and development goals are represented by the “arms” of management staff where fully supportive, consistent and responsive practice supports these goals. The “manawa” is provided by Te ture aroha with its principles embedded within it. This model for the essential learning support services promotes practice of whanaungatanga (kanohi ki to kanohi, reciprocity relationships), kaitiakitanga,(mana and honour) and manaakitanga (duty of care, respect and kindness for, integrity teaching (education staff) for certainty to be provided to a CLIDDE child.

Educators and teachers have shown the need for a more ethically appropriate teaching and learning pedagogy for CLIDDE other than that of the dominant western approaches (Bevan, 2018). As a guardian led organisation, CLIDDE AG theorises, creates and engages in indigenous pedagogies that are underpinned by cultural epistemology.
30. **Constructing giftedness: responding to gifted children’s learning needs through ethics of care**

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This presentation draws from the findings of a doctoral study investigating different constructions of giftedness in early years education in Aotearoa New Zealand. The concept of social constructionism in this study describes and explains how the research participants make sense of their own and their children’s experiences. The data were collected through a national online survey, interviews and from a Facebook closed-group discussion. One set of constructions was about care ethics and how sustained relationships can help to meet the needs of gifted children. This presentation illustrates many participants shared that, by recognising differences, teachers who are professionally open and curious are able to explore and develop strategies that will address the educational needs of all the children in their practice. These actions reflect that teachers consider care ethics. This requires a commitment and effort to maintain the caring attitude that produces ethical behaviours (Noddings, 1984). Data also illustrated the potential of care ethics through constructions of giftedness: namely, that the needs of children can be met, and learning can take place, when there is a meaningful and sustained relationship between children, families (whānau) and teachers. Indeed, much data was collected from the participants about the importance of relationships in gifted education. The implications of the study’s findings include the need for society in general and education professionals in particular to have a greater awareness of responding to giftedness through relationships with children and families (whānau). This presentation aims to start the conversation about care ethics in constructions of giftedness, and how important relationships are in terms of supporting gifted children, families and teachers.
Students’ motivational beliefs and self-regulatory behaviours have been established as playing an essential role in students’ science learning, yet student motivation in STEM subjects is in a worldwide crisis of decline. Given these issues, together with the global agenda to increase participation in STEM subjects by maximising student motivation and improving outcomes in science, this study focused on examining the influence of the psychosocial learning environment in middle school science classrooms on students’ motivation and self-regulation. The study was situated within the context of an education system undergoing an extensive educational transformation: Abu Dhabi; an emirate of the United Arab Emirates. Within a pragmatist paradigm and informed by a social cognitive epistemology, quantitative data were collected from 338 students in 16 Grade 6–9 science classes, across 6 schools, using two questionnaires: one to assess students’ motivation and self-regulation and another to assess students’ perceptions of their learning environment. Analyses of the data established strong factor structure, internal consistency reliability, discriminant validity, and concurrent validity for both questionnaires.

Structural equation modelling analysis of the data indicated that students’ self-reports of the learning environment constructs of teacher support, involvement (that is, their interest and participation in the learning dynamics of the classroom), and cooperation, had a statistically significant ($p<0.001$), positive influence on the motivation constructs assessed in my study; learning goal orientation, task value, and self-efficacy. In addition, each of the motivational constructs had a statistically significant influence on students’ self-regulation of effort ($p<0.001$ for learning goal orientation and self-efficacy, and $p<0.05$ for task value).

This study contributes to the literatures of learning environment, motivation, and self-regulation as very few studies have previously investigated all of these constructs at the same time. The results of this study provide exigent information to both teachers, policy-makers and researchers, with regard to the influences of the psychosocial learning environment on middle school students’ motivation towards science, as well as the influence of motivation on students’ self-regulatory behaviour. Understanding the influence of students’ perceptions of their psychosocial classroom learning environment can support transformed pedagogical practice as it is possible for teachers to make tangible changes in the learning environment (for example, increasing the level of teacher support), that result in the increase of less tangible constructs such as motivation and self-regulation; vital attributes for today’s learners.
The educational world has become increasingly dominated by the language of measurement. This is evident at an international level (e.g., in the PISA rankings), within countries (e.g., via ‘national standards’ in schools), and within institutions (e.g., in systems of performance review). There is now a growing reliance on ‘big data’ in structuring educational decisions. Concomitant with this has been an appeal to the ‘science’ of learning in determining policy priorities for education. This paper critiques these trends, arguing that they rest on problematic epistemological and ethical foundations. Drawing on the work of Søren Kierkegaard, Simone de Beauvoir, and Paulo Freire, I suggest that the quest for certainty currently prevalent in education is misguided, dehumanizing and life-denying. An alternative approach, built on the idea that much of what is most important in education and human existence is immeasurable, unpredictable and uncertain, is advanced and the implications for a theory of pedagogical agency are explored.
Atareta is eight years old. She is a fluent speaker of Māori who has been raised speaking te reo Māori exclusively. She attends a Kura Kaupapa Māori and, while some English vocabulary is gradually creeping into Atareta’s conversations, English is very much her second language. In this Symposium three generations of Atareta’s whānau, her mother, grandmother, and great-grandmother, discuss the readiness of our society for Atareta, and the barriers that face Māori whānau who want to claim educational sovereignty for their children in Aotearoa today. Are we ready for this transformation?

In spite of sustained efforts by iwi and Māori, initiatives supported by the Government, and a supposed revitalisation of te reo Māori, the language remains under threat and in fact, continues to decline. The Māori Language Strategy (Te Puni Kokiri, 2014) recommends five focus areas to support the revitalisation of the language. These include: increasing the status of the Māori language in our society; increasing the number of Māori speakers, increasing critical awareness about Māori language revitalization, supporting the quality and appropriate use of the Māori language and iwi dialect maintenance, and increasing the use of the Māori language, especially in the home. The research presented in this symposium explores the politics of learning “as Māori” and learning te reo Māori, in the home, in our school system, and at tertiary level, which get in the way of our best intentions, and work against these goals.

Atareta’s mother, Kahurangi Milne’s (Kahurangi Maxwell) Master of Indigenous Studies thesis (Maxwell, 2015) explored the realities for parents raising tamariki with te reo Māori as their first language in Aotearoa. Atareta’s grandmother, Keri Milne-Ihimaera, brings a community perspective to the symposium, with the topic of her doctoral research, the experience of a Māori community and the school where she was the principal, whose aspirations for an education model which fitted their Māori children was blocked by education officials. Atareta’s great-grandmother, Ann Milne’s doctoral thesis (Milne, 2013) examined the monocultural backdrop which determines what knowledge counts and how the game of education is played out in our education system.

At each of these levels in our education system, the evidence in these studies expose both personal and institutional racism that has been mapped in Atareta’s whānau over three generations, and which continues to invade Atareta’s world, and the world of all our mokopuna.

Abstract: Kahurangi Milne

How do parents successfully raise tamariki in te reo Māori as their first language in Aotearoa? This question is asked at a moment in time when te reo Māori speakers continue to decline and the value of our indigenous language in New Zealand society is debatable. Language in the home and the need to raise tamariki with te reo Māori is hailed as the solution, however, what is the reality for whānau who make that choice?

This research tells the stories of five whānau active in raising their tamariki with te reo Māori to understand how normalising te reo Māori in their home has impacted upon them, their children and their whānau. The qualitative case studies describe the lived experiences of parents in their effort to affirm te reo Māori in their home despite living in a society that is characterised by significant monolingualism in English.
The primary means of data gathering was through individual whānau semi-structured interviews. However, the whakawhiti kōrero method accurately describes the nature of the interviews themselves. The sharing of ideas and the collective discussion provided answers to the research questions and the narrative data itself was transcribed and coded into the three main themes that emerged.

There were three key findings. First, the motivation to raise tamariki with te reo Māori is significantly influenced by parents own background and journey with the language. The decision itself is made naturally for some and through a process of discussion and debate for others. Second, there is far greater support required both nationally, as well as within whānau to ensure the journey is successful. A structured approach to supporting and resourcing whānau must be implemented. Lastly, the research discovered challenges and barriers which all participants encountered.

Significant are the pervasive and negative attitudes towards a reo Māori lifestyle that are founded in a belief that English must remain predominant and might be threatened. The benefits of bilingualism are not widely understood or encouraged and Māori-speaking whānau continue their efforts to affirm te reo Māori within their homes and for their tamariki.

Abstract: Keri Milne-Ihimaera DMDA (Doctor of Māori Development and Advancement)

On 23rd April, 2012 the Minister of Education disestablished the Board of Trustees at Moerewa School, a rural, predominantly Māori school in Northland, New Zealand, and appointed a Commissioner. The Commissioner’s arrival in the school two days later was recorded on national television and in print media in the day’s national news. What happened in this small Māori community to invoke the highest level of statutory intervention from the Minister of Education, and what were the events that brought the school and community to such prominent national focus?

The Moerewa School experience is a story of a community and a people marginalised and rendered powerless in a Eurocentric education system. It is also a powerful counter-story. The story played out in the media, only told one part of the story. This case study uses the stories of the Moerewa community who were actually involved, as students, parents, teachers, school leadership, and whānau, to tell the story from their perspective. This school’s experience is mirrored in many similar schools and communities across the country, where statutory intervention, designed for schools defined as “failing”, should not have been the option. Their experiences, while possibly not as public, are stories of disempowerment in communities that were led to believe the education system gave them autonomy to shape an education model to fit their children.

The case of Moerewa School, and the Moerewa community’s battle for educational sovereignty pitted white privilege and a monocultural, white-centred system, against a Māori community who were very clear about their aspirations. This dream, clearly articulated in the community’s submission to the Ministry of Education in 2003, was that Māori knowledge, a Māori voice, history, tikanga and experiences be the foundation of their children’s learning. The vision was driven by the whakapapa of the community’s history and the history of the whānau involved. The ensuing battle was between an urban and centralised government bureaucracy and a small rural Māori community. The whānau and the community brought their own experiences of colonisation and assimilation through the tool of education into the whakapapa of the struggle. The fact that key players in the government-led decisions were Māori added a further layer of complexity. The community is left with many scars from this battle. In many ways they believe they triumphed in the end. In other ways, and from the position of the students involved, they lost.
Abstract: Ann Milne PhD

This year’s NZARE Conference features a Keynote address from the Warrior-Researchers of Kia Aroha College. This group of Years 12 and 13 students (and previous groups) have been working with Dr Ann Milne, researching issues that impact them as Māori learners in an education system that places little value on their identity and knowledge.

This presentation will examine how these young Māori and Pasifika researchers work together via a critical, culturally sustaining pedagogy, and youth participatory action research (YPAR) approach to expose these issues, and why this is important. It will also discuss how this pedagogy is influencing teachers, both within Kia Aroha College, and across the country. In the first year of the NZARE Blog, Te Ipu Kererū, the most-read contribution was the seven-part blog series investigating Communities of Learning, written by the 2017 Warrior-Researchers of Kia Aroha College, which was read over 10,000 times.

Culturally Sustaining Pedagogy is an approach that demands more than our previous attempts in schools to be culturally relevant or culturally responsive. It speaks to what Paris and Alim (2017) describe as “the fallacy of measuring ourselves and the young people in our communities solely against the White middle-class norms of knowing and being, that continue to dominate notions of educational achievement.” Culturally Sustaining Pedagogy raises fundamental questions about the purpose of schooling in changing societies. It decentres Whiteness, takes the critique away from the children, and on to the systems that have failed them. CSP proposes that schooling should be a site for sustaining the cultural practices of communities of colour, rather than eradicating them. As we have done in the past, and continue to do in our Whitestream education system.

This presentation will build on the previous two stories of struggle to reclaim te reo Māori and Māori identity through three generations of our whānau, and the story of the Moerewa School whānau, to ask why has so little changed? How does White supremacy and White privilege work in our education system, to keep our children in the margins? What do the White spaces in our schools mean for Atareta and for all our mokopuna in today’s world, and how do we transform our practice?

References


86. “I feel like making something” The contextual factors that impact how young children develop relationships with the visual arts

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The visual arts have been proven to be a central means through which young children can communicate their ideas, reflect on experience, and construct new knowledge. Despite this, perceptions of, and the degree to which the visual arts are valued within education, vary widely within political, educational, community and family contexts. These differing perceptions informed my doctoral research project, which explored the contextual factors that affect how children come to value and use the visual arts in their learning. The study was positioned within an interpretive qualitative paradigm. The theoretical framework and study design were informed by sociocultural and social-constructivist theories and by arts-based research. The inclusion of arts-based methods such as teacher’s reflective art journals and the collection of images by child participants and their parent/caregivers allowed the research participants to have a significant role in the research.

Early childhood settings at which the visual arts were deeply valued as a meaning-making device in children’s learning, were purposively selected to be involved in the research. At each setting, the study found a unique and complex web of influences and interconnections which shaped how children utilised the visual arts to mediate their thinking. For many of the children involved in this study, visual art was the primary means through which they learned. Through the teachers rich and contextualised visual arts pedagogies and families that recognised the importance of the visual arts in their children’s learning, the children in this study used visual art to represent their experiences, relationships, to explore working theories, their interests (including those related to popular culture), to make sense of their own and other cultures, and to enrich their imaginative play. This research demonstrates that teachers have fundamental roles in fostering and disseminating the importance of the visual arts within their educational communities.
20. Touchscreen tablet use and non-use amongst early childhood services in New Zealand

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Despite ongoing dualism on young children’s information communication technology (ICT) use in early childhood education (ECE) (Fleer, 2013), numerous evidence on how these devices are shaping our children’s futures (i.e., Fleer, 2017; Sakr, 2018) abounds. This study adds to the scant research on touchscreen tablets use and non-use amongst New Zealand ECE services via a national survey and a collective case study which included video stimulated-recall interviews. This presentation reports on the extent of touchscreen tablet use, reasons for services’ use and non-use, how teachers/educators use touchscreen tablets to support children’s learning, and the barriers and affordances to using them as part of ECE pedagogy. Results showed that teachers/educator’s touchscreen tablet use synchronises with the updated strands of communication and exploration in Te Whāriki 2017 (Ministry of Education, 2017). A spectrum of touchscreen tablet use/non-use is presented, adopted from Kierl’s (2015) three curriculum scenarios. Finally, I discuss how my adaptation of Snape and Fox-Turnbull’s (2011) Model of Authentic Technology for Producing Quality Technological Outcomes can guide ECE teachers/educators in facilitating touchscreen tablet use.

References
89. **Conceptualizing Ngā kōrero tuku iho as an assessment approach in kōhanga reo**

*Te Kōhanga reo ki Rotokawa,* Hoana McMillan¹, Tiria Shaw, Heather Patu

¹ University of Waikato

*Te Kōhanga reo ki Rotokawa*

This presentation draws from a Teacher-Led Innovation Fund project concerned with conceptualizing an assessment approach suitable to kōhanga reo. Finding an assessment approach that is suitable for individual communities is important for several reasons. First, it is the learning community that decides how well the assessment approach captures learning that meets their needs (Ministry of Education, 2004). Second, Māori assessment can look different to Western assessment and is crucial “if it is to make sense to Māori” (Rameka, 2011, p.246). According to Hemara (2000) “Māori is in a continual state of recreation, re-interpretation and re-negotiation of itself . . . assessment practices need to respond appropriately “(p.39) thus validating the development of a Māori derived approach to assessment that works for kōhanga reo.

The conceptualization of *Ngā kōrero tuku iho* developed over a 12month period and was guided by Kaupapa Māori research protocols and *Te Whāriki a te Kōhanga Reo* (Ministry of Education, 2017). *Wānanga matawhāiti* were held with kōhanga reo kaikō (teachers) to discuss the theoretical underpinnings of *Ngā kōrero tuku iho* and how these might be used to inform the approach. *Wānanga matawhānui* with kōhanga reo whānau (families) were also held to ensure the approach did not develop in isolation and included what was important to whānau.

The findings of the research highlight *Ngā kōrero tuku iho* as an assessment approach that sits within the wider framework of *wānanga mātātara* (discussions about learning) and the process of *te mātai, te pūmahara* and *te wānanga* outlined in *Te Whāriki a te Kōhanga Reo*. Woven together *Ngā kōrero tuku iho* are transformative, expressed in multiple shapes with the potential to grow in various ways.
113. Education for globalisation in a Vietnamese university

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Drawing on a theoretical perspective of positioning theory, this study explores the experiences of Vietnamese students who were taking the Advanced Program in a Vietnamese university. The Advanced Program is an initiative of the Ministry of Education and Training of Vietnam aiming to lift up the ranking of universities in Vietnam and Vietnamese higher education. The Advanced Program is an undergraduate program using English as a medium of instruction conducted in a Vietnamese university with the curriculum of the program imported from universities in other countries, mainly from the US, the UK and other European countries. Meanwhile, the normal undergraduate program of the Vietnamese university is called Traditional Program. A case study research design with semi-structured interviews, document selection and field notes were employed to generate the data. The study aims to explore how Vietnamese students position themselves with regard to the Advanced Program in relation to discourses of international and traditional, foreign and local, English and Vietnamese. The analysis shows how Vietnamese students identify themselves in relation to these selected discourses through their experiences with the program. My findings demonstrate how Vietnamese students on this Advanced Program position themselves: as superior to students of the Traditional Program in Vietnamese education; and as inferior to students in education of other countries. These positionings, I suggest, depicts the manifestation of English imperialism and colonisation in the context of educational internationalisation in Vietnam.
Towards an inclusive approach to internationalising the curriculum: A case study of an undergraduate accounting programme in New Zealand

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International Education is New Zealand’s fifth largest export earner, contributing $4.5 billion to the economy (Education New Zealand, 2018). There has been increasing attention to the sector from the Government, as evidenced by last year’s release of the International Student Wellbeing Strategy and the even more recent publication of the official International Education Strategy 2018-2030. However, there is a paucity of research on the practice of institutional internationalisation in New Zealand.

To address this gap in the literature, this paper reports on key findings drawn from a mixed qualitative case study that investigates the internationalisation of an undergraduate accounting programme in a New Zealand university. The data were sourced from policy documents at national, university, and departmental levels and in-depth interviews with 13 stakeholders including administrators, lecturers, support services staff and staff of accounting professional body. The study employed a social constructionist epistemology, an interpretative framework as research paradigm, and a theme-based, inductive approach to data analysis. Contemporary conceptualisations of internationalisation and internationalisation of the curriculum (de Wit and Hunter, 2015; Hudzik, 2011; Knight, 2012; Leask, 2015) were adopted as the conceptual underpinnings of the study.

The findings reveal that internationalisation of this undergraduate accounting programme was economically driven and engaged diverse stakeholders among whom the accreditation and professional bodies were the key drivers. There was much collaborative effort from the institutional bodies in embedding global, international, and intercultural dimensions in both formal and informal aspects to enhance global awareness and competence as one of the key institutional graduate attributes to the whole student population. The growth of international students on campus and the outbound mobility of domestic students contributed to enhancing the quality of internationalisation. Nonetheless, an array of existing challenges prevented the positive outcomes and impacts from such internationalisation initiatives from being fully realised. These included: a tight budget for on-going student support mechanisms; differences in cultural norms, national identities, and styles between domestic students and international students, as well as between international students and lecturers and staff; and a lack of professional development for academics. The study calls for a more inclusive approach to internationalisation of the curriculum that embraces academic and socio-cultural factors, and facilitates the engagement of all stakeholders on campus to foster impacts and outcomes that benefit the whole university community.

References:
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The knowledge economy discourses in higher education spaces have prioritised a regulatory mechanism through which the efficiency and performance of academic labour is measured by largely quantitative performance indicators. Research has critiqued how this mechanism disrupts the production of new, creative and intellectual knowledge and produces academic subjectivities whereby feeling, thinking and becoming academic is caught up in the framework of judgement. Such account is too negative. Drawing on Deleuze’s thinking around different types of coexistent processes of change in assemblage and his perspective of affective intensities, I theorise academic subjectivity as constant processes of change and as affective constitution. I examine academic subjectivity constitution through the stories of Vietnamese female academics and doctoral students in universities in Australia. These stories were generated through individual interviews, a focus group interview and my research field notes. I found that the constitution of academic subjectivity and knowledge production complexly reproduced the established assemblage of neoliberalism with affective intensities of fear, frustration and aspiration. I argue that such reproduction tends to be disrupted through the ambiguous production or even apparent creation of alternative assemblages with affective intensities of ambivalence and joy whereby academic subjectivity and new, intellectual knowledge are in continuous processes of negotiation and development. This analysis suggests that within this regulatory technology of measurement that now dominates the university, there lies the possibility for exploiting alternative discourses that are more positive regarding the production of academic subjectivity and knowledge.
120. A rubric for framing content design in the secondary English classroom

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English teaching is designed and assessed around the teaching of text. There are no prescribed lists for English in New Zealand, although the essence statement for English of the 2007 New Zealand Curriculum (p18) suggests attention to identity, bicultural heritage and the world. This does not mean however a *tabula rasa* when teachers choose texts. Research conducted in 2011 with seventeen experienced English teachers (Hubbard, 2017) suggested teachers have a range of implicit criteria that they bring to their decisions about text choice. English teachers know through practice what English teaching needs to involve.

In the current climate of overall education and curriculum review it seems helpful to distil and articulate some of these dimensions of English teaching in a common-sense way. It is important that the things English teachers value are not lost or distorted by over-attention to some of the parts of a complex mosaic. I propose the following rubric, drawn in part from the research and in part from the curriculum statements of other learning areas:

- English teachers support and develop analytical and creative thinking skills about texts
- English teachers develop skills for thinking about society and relationships in society
- English teachers develop skills for personal growth
- English teachers develop creative skills for presenting ideas
- English teachers develop skills for social engagement

These broad principles do not exclude what Doecke & McClenaghan (2015, p30) describe as a series of ‘pedagogical bandwagons’ which have impacted on English teaching: “‘Growth’ pedagogy, ‘genre’ theory, ‘critical’ literacy, ‘multiliteracies’”. Nor do they exclude teaching classic or canonical texts or close reading or New Critical approaches to text. They are rather a fairly common sense summation of things English teachers actually do, in varied combinations according to need and the context of the teaching. The first statement relates to “disciplinary” English and the last to the development of core literacy skills. English teachers need to be concerned with both and it is a matter of social justice that students in any kind of school or class are not excluded from either. International research suggests that both are best developed in ways that engage students, often creatively, and through ideas to which they can relate, often about personal relationships or justice in the world. What is to be avoided is decontextualized literacy teaching or elitist prescription of national texts assessed only by examination.
145. Teaching trade unionism in schools: possibilities for Aotearoa

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This paper presents a critical policy analysis of the possibilities for teaching trade unionism in New Zealand schools. As an analysis both of and for policy, it examines existing policies, practices and conditions to propose that trade unionism should be actively taught in New Zealand schools. A broad range of policy and other texts, secondary literature, and public data are utilised, as well as data from interviews conducted with local and international policy actors. The significance of the paper is two-fold. Firstly, by positioning its contentions within a broader literature on education and social justice, it addresses a gap in existing scholarship. The goals and values of trade unionism align with prevailing concepts of equity and social justice in education, such as those embodied in the New Zealand Curriculum/Te Marautanga o Aotearoa. Increasing levels of socioeconomic inequality, challenges to social cohesion, and the negative implications of both for democratic governance should justify support for education on the importance of trade unions in schools. The overrepresentation of Māori in unemployment, low-paid and casual work, as well as tikanga Māori values of equity and cooperation, also position the proposal favourably within bicultural and decolonising frameworks. Secondly, the paper seeks to make practical suggestions for more active teaching of trade unionism in schools. This includes surveying the work of existing local organisations, such as the Young Workers’ Resource Centre, as well as international programs, such as Unions into Schools (UK) and the Young Workers’ Centre (Australia). The author’s research into enterprise and entrepreneurship education has shown that employers’ perspectives are already well-represented in New Zealand schools, with little representation for unions. Curiously, analysis of enterprise education schemes may assist the project of developing trade union education. Challenges and limitations, such as questions of funding, are considered against more positive indicators, including supportive attitudes among key policy actors and a relatively unrestrictive policy environment. It is hoped that the paper will contribute to a broader discourse around transformative education in contemporary Aotearoa, as well as usable research for educators and policy actors.
He aha te mea nui o te ao. What is the most important thing in the world? **He tangata, he tangata, he tangata.** It is the people, it is the people, it is the people.

We believe education is about making the world a better place and to make everyone’s place in it more successful and knowledge-focused. It is only by putting people at the centre of decision-making that they can collectively achieve their visions, hopes and dreams. People and relationships are central to the information literacy space.

In 2016 the Information Literacy Spaces research team, based at Massey University secured a three-year Teaching and Learning Research Initiative funding, with the aim to improve students’ information literacy competencies and learning across the senior secondary and tertiary sectors. The partnerships between teachers and librarians are focused on the development of collaborative relationships, planning and implementing instructional approaches, and designing resources that prioritise the critical use of information literacy. This maximises the strengths of all participants by placing the students at the centre of the mahi/work, the librarians as research and information literacy experts on one side of them and the classroom teacher as subject and curriculum experts to the other side, forming an interactive circle in a learning-focused relationship. This aligns with the New Zealand Curriculum (2007) principles, values and key competencies for all students and teaching as inquiry for staff.

Within this context, this workshop will review what has been occuring for students in the TLRI contract when a collaborative partnership is maximised. Identifying both pedagogical and transformational leadership qualities has been an important finding in the research. For the student; the classroom and library have been opened up so that neither are a silo working in isolation from one another. Consequently the students have worked collaboratively alongside this team and deepened their understanding of how they research and consequently learn.

This culturally responsive approach fosters a symbiotic relationship that allows students to follow their passions and get the most out of their learning, where subject-specific knowledge and the invisible nature of information literacy skills becomes transparent and more contextual. Co-construction capitalises on the knowledge world in which they live, learn and play.
40/1. Weaving research and best practice: Theoretical alignment of the developing mathematical inquiry communities project

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Researchers have called for culturally responsive approaches to transform inequitable educational practices for several decades, yet the realisation of these aspirations in mainstream educational institutions has been slow. Among the reasons for this slow progress are the many difficulties practitioners experience in conceptualising what culturally responsive or culturally sustaining education might look like in practice. Both in Aotearoa NZ and internationally, a number of theoretical frameworks have been developed to guide culturally responsive practice, as have a number of specific educational interventions that enact culturally responsive or culturally sustaining pedagogies. What has been lacking to date, however, is a comprehensive integration of theoretical frameworks and practical interventions.

This session reports a new analysis of the theoretical alignment of the Developing Mathematical Inquiry Communities (DMIC) project, a teacher professional development initiative that promotes culturally responsive and culturally sustaining approaches to mathematics education in NZ schools. DMIC was initially developed 15 years ago as a practical intervention based on local and international research underpinnings; since then, it has grown and developed in tandem with research findings in the areas of mathematics education, teacher professional development, and culturally responsive and culturally sustaining pedagogy. The result is a highly successful practical intervention that enacts a range of research-based principles of best practice.

In this session, DMIC is critiqued against three best-practice frameworks:

   - Anthony’s (2009) ten principles for effective pedagogy in mathematics / pāngarau; and
   - Timperley’s (2008) four understandings and ten principles for effective teacher professional development.

The first of these best-practice frameworks theorises culturally responsive approaches to school improvement; the other two models summarise key findings of the NZ Ministry of Education-commissioned Best Evidence Synthesis iterations.

This session will demonstrate how the philosophies, pedagogies, supporting practices and teacher professional development strategies involved in DMIC align with these three best-practice frameworks. Together, the strong alignment of DMIC to these three theoretical frameworks provides insight into the reasons for the success that has been observed in the practical implementation of DMIC in over 100 NZ schools. This analysis of DMIC also offers researchers and practitioners a rich example of the interweaving of best-practice recommendations into classroom practice – an example that may help accelerate progress toward transforming educational practices and realising the aspirations of culturally responsive and culturally sustaining pedagogies.
75. Are the 2011 National Assessment principles still fit for purpose?

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Earlier this year the Ministry of Education commissioned a literature review of recent trends in assessment policy and practice. The primary purpose for this work was to inform MOE as they considered updating their position on assessment. This was last articulated in the position paper titled *Assessment (Schooling Sector) 2011*, which drew on a 2009 paper commissioned by the Ministry, titled *Directions for Assessment in New Zealand (DANZ): Developing Students’ Assessment Capabilities*. The central recommendation of the DANZ report, in brief, was that we should work to ensure the assessment system supports the growth in “assessment capability” of everyone with a stake in using assessment information, including teachers and students, but also parents, and policy-makers.

Now in 2018 MOE is considering whether the principles that had been developed to underpin this position are still fit for purpose. Do they need updating or changing? What evidence exists about how well they are being enacted in practice? Are there any important omissions that might require development or one or more new principles? In this session I will report on the literature we found in relation to each of the six existing principles. The current principles are: the student is at the centre; the curriculum underpins assessment; building assessment capability is crucial to achieving improvement; an assessment capable system is an accountable system; a range of evidence drawn from multiple sources potentially enables a more accurate response; and effective assessment is reliant on quality interactions and relationships.

There are a number of interesting international trends and pressure points to report. For example there is advocacy in published system-reviews (e.g. the “Gonski 2” report in Australia) for a shift away from system-level emphases on summative assessment, as the critical role played by assessment-for-learning (AFL) comes to the fore. (I will outline the relationship between AFL and the idea of assessment capability in the DANZ report and in two of the principles.) Driving this shift is a clear move to reporting “progress” over time rather than only reporting point-in-time judgements of achievement. The rapid evolution of digital technologies for assessing and reporting learning also brings a whole suite of interesting issues. We concluded that these digital developments expand and deepen the scope of all the existing principles rather than there being a need for new principles with a technology focus. However we do think there are several possible candidates for additional principles, which I will also introduce and explain.
Is PB4L Restorative Practice transforming the way schools relate across their learning communities?

Sheridan Gray, Moana Brown

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PB4L Restorative Practice has been running in Aotearoa, NZ for the last three years and is currently contracted to work with 175 schools nationwide (contracted by the Ministry of Education through the University of Waikato, Institute of Professional Learning). The approach looks at school wide implementation of Restorative Practice to improve school culture, inclusion and teaching and learning relationships. We will present an independent evaluation and survey results from the implementation of this three year project. The data collected has been largely quantitative (through survey tools) but includes some qualitative data (teacher/student voice and some focus group feedback). Findings indicate recommended actions for school leadership, learning communities, school systems/structures and PLD programmes to support effective implementation of relational and restorative practices.
17/1. A teaching and learning hive: Exploring differentiation in practice through research

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Differentiation occurs when educators modify the learning environment, content, learning and teaching processes or student expressions of learning (products) in response to learners’ readiness, strengths and abilities. Although differentiation is promoted as an inclusive teaching and learning strategy within Aotearoa and internationally, there are few evidence-based Aotearoa exemplars for effective differentiation in today’s increasingly diverse mainstream classrooms. This presentation shares an innovative participatory approach to developing effective differentiation teaching and learning strategies. This research places an observational beehive at its centre as a means for exploring how the study of a living system can provide a context for STEM (science, technology, engineering, and mathematics) content that is conceptual, complex and sophisticated. We are curious to figure out how accessing rich content, through observational processes, will encourage students to express their learning artistically – through dance, drama, music-sound, and the visual arts. As a Teaching Learning Research Initiative, this exploratory study brings together expertise from teachers, community members and researchers from education, arts and sciences. By applying Ivankova’s Mixed Method Action Framework, we are working collaboratively to bring together research and practice, aspiring to foster practice-led differentiation research and research-led differentiation practice. Our team have worked collaboratively to (a) assess learner knowledge and skills, (b) develop relevant professional learning and support for teachers to grow in their ability to differentiate effectively and (c) differentiate responsively to provide authentic, relevant learning opportunities that met students’ needs. Discover, through the voices and experiences of teachers, researchers and students, what is working well and what challenges remain as we collaborate together to differentiate the curriculum in response to student diversity. We will share the results from the first two phases of the research – Reconnaissance and Planning – which have explored the students’ learning differences and teachers’ professional strengths and challenges in relation to how they respond to the students with differentiation. As an ongoing study, we do not yet have conclusions; however, we note that as teachers, our conceptions of differentiation may be limited, which, in turn, impact classroom planning and delivery for diverse learners. A range of measures of student readiness, strengths and interests are required to determine how to differentiate the curriculum.
Mystery box design challenge as a pedagogical tool to develop the key competency of participation and contribution in ESOL learners

Bhavana Mehta
AUT University

According to the Education Counts data, the number of ESOL learners in Auckland intermediate schools are showing a steady rise with every passing year. This paper offers an innovative approach to develop and refine the key competency of participation and contribution in ESOL learners. Design Thinking Process (DTP) is a team-based model comprising five steps - empathise, define, ideate, prototype and test (Shively, Stith, & Rubenstein, 2018). DTP supports interdisciplinary problem solution approach where empathy is at the centre of the design process, the prototype is made with keeping the end user in mind (Lake, Ricco, & Whipps, 2018). The concept of mystery box design challenge is situated in the DTP model. In my practicum class, my mentor teacher schedules weekly session for the mystery box design challenge where groups of learners are challenged with a mystery design task in a flipped black box. Learners brainstorm, communicate and discuss multiple viewpoints to solve the mystery design challenge. Each group makes a prototype and presents the peculiarities of their prototype in class. Prototypes may be improvised based on suggestions and comments received during class presentation. It was noticed that the ESOL learners in every group were being overshadowed by proficient speakers of English language while presenting the prototype. Following the teaching as Inquiry model, the researcher added roles/designations along with the mystery design task for each design group. Each group member was held accountable for contributing and participating according to their negotiated role/designation. The introduction of providing designations/roles to each member is related to transformative pedagogy as it creates conditions for learners to develop capacities as “beings-in-relation” as well as “beings-in-becoming” through the mystery box design challenge. This provided a challenging context for ESOL learners to work with peers, communicate and put forward personal view points for diverse issues facilitating well supported language learning within the concept of tuakana teina. This may stand true for gifted learners too, thus making it an appropriate pedagogy for inclusive education. ESOL learners feel supported connected and contributing member of the collaborative class community during the mystery box design challenge. OTJs and a group interview with participants formed the main source of data collection and analysis. The findings presented will have implications that may be useful to future researchers who may wish to research the impact of mystery box design challenge for ESOL learners in intermediate class.

Reference
Session 7: Wednesday 28 November  Room: MH320  Time: 10.30am – 12.00pm  Theme: Educational Leadership  Type: Individual

72/1. Building trust through action

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Trust is essential to gain staff commitment to change actions (Bryk & Schneider, 2002; Simpson, 2007). While trust is defined as one’s willingness to being vulnerable to another person (Daly, 2009; Tschannen-Moran, 2009), there is little discussion in the literature about specific practices leaders can engage in to build trust, especially in a change climate (Lapidot, Kark & Shamir, 2007; Luthans & Avolio, 2003). Change is difficult to achieve and often laden with emotions such as fear, anxiety and risk (Day, 2011; Le Fevre, 2014). One of the difficulties for school leadership lies in acknowledging emotions and building a culture of trust. It is in situations where it is difficult to trust that trust is needed the most to establish and sustain collaborative relationships to implement change (Lapidot et al., 2007; Yamagishi, 2011).

We report on an ongoing research collaboration between university researchers and three schools. The schools recently appointed new principals who face historic challenges in improving equity in student outcomes. Using a case study approach, we focus on the question of how perceptions of trust enable or hinder effective goal-setting and school improvement processes in these schools. Through ongoing practitioner inquiries led by principals and staff and supported by the researchers, we continuously aim to shift practice and generate new knowledge to support schools in the process. We draw on several data sources including interviews with staff and principals, workshop artefacts, staff meeting observation, schools’ strategic plans, and student outcome data to write case studies for each school identifying enablers and challenges for improvement.

Initial analysis showed the importance of building trust alongside the implementation of finely honed implementation practices. Our findings highlight the importance of leaders’ willingness to show vulnerability and openness about their own feelings and perceptions in the face of difficulties. Progress was made when leaders acknowledged the problem and its complexities, publicly shared ideas and committed to actions. Leaders needed to follow-through on agreed actions. Interestingly, these findings were relatively consistent across schools despite their different sectors, deciles and size. Implications include the needed acknowledgement of the difficult nature of change leadership. Our research shows the importance of trusting relationships with external expertise that can support leaders to change tack and negotiate the affective and managerial aspects of change simultaneously. We further note the importance of hearing the voice of principals and other school leaders who are tasked with the implementation of change processes.

References

Actor-network theory as a transformative approach

Annelies Kamp¹

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As an approach to exploring and conceptualizing the social, actor-network theory (ANT) has, over recent decades, been taken up in diverse disciplinary fields that move beyond its genesis in the ‘hard’ sciences. However, research that works with actor-network theory and other approaches within the realm of material semiotics continues to be framed from within a EuroAmerican theoretical framework (Law and Lin 2015). While the increasing body of research conducted within these approaches is global in its reach (and while simplistic demarcations of the western/eastern or northern/southern kind are problematic), there is an emerging line of argument that while empirical work is global, this work continues to be theorized within established Western theoretical frameworks.

Law and Lin note that the principle of symmetry argues that ‘true’ and ‘false’ knowledge claims are treated – traced – in the same terms, as are humans and nonhumans in any exploration of ‘the social’. They argue for a third addition to the principle of symmetry – between EuroAmerican, and other, versions of the ANT. In this roundtable, I am interested in forming my own assemblage with academics interested in the possibly of a conversation around the idea of ANT and/or Aotearoa and the contribution such an assemblage might make to tracing the paradigm shift currently occurring in education in Aotearoa.
44. Hei oranga Māori i te ao hurihuri nei: Te whakamahi i Te Aho Matua.

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Nā te kaha o ngā whānau Māori, rātou i para i te tuhi, kia ora ai tō tatou reo Māori, i whakaturehia e te kawanatanga te kura kaupapa Māori i te tau 1989. Whai muri i tērā, i titohia e Kāterina Mataira Te Heikōkō mā, Te Aho Matua, te kaupapa tūāpapa o te kura kaupapa Māori.

Mā tēnei whakaaturanga ka whakapuaki ahau i ngā kura kaupapa Māori tuatahi o Tāmaki Makaurau, ka whakahua hoki ahau i 1989, i whakatūhia e te kura kaupapa Māori. Nā te arahi me te whakamahi i ngā mātāpono o Te Aho Matua me ngā tikanga Māori, i whai kaha ēnei raukura ki te tū māia i tō rātou putanga a Wharekura ahoko a Wharekura hoki i te ao hurihuri. I whakamahia hoki e ngā raukura ētahi rautaki kia whai oranga i tō ratou urunga atu ki ngā mahi o te ao whānui, pēnei i ngā tūranga o te pouaka whakaata, te mahi kaiko me te ako ki te whare wānanga.

Nā taku whai i ngā āhuatanga o te kura kaupapa Māori, kei te whakatūhia e te kura kaupapa Māori me ngā tikanga, te aroha me te manaakitanga, ā, kua mau ahau ki ēnei āhuatanga i waenganui i taku rangahau.

Ko te tūmanako, ka manawa reka te whakaaturanga nei ki ngā whānau o te kura kaupapa Māori me rātou o ngā akomanga reo Māori.
Ahakoa ngā whakaaweawe o mua, kua te huri te tai i te ao rangahau Māori. Ka toko ake te pātai, ka ahatia te rangahau mēnā ka whakakapia te hunga mō rātou te rangahau ki te hunga nā rātou, mā rātou te rangahau? (Smith, 2012). Ko te wero nui ki ngā kairangahau Māori kia whai whakaaro ki ngā momo tikanga rangahau e pōraurahuhu ana i te whakaaro Māori. Ko ētahi pātai hei whakaaroaro mā tātou, āe rānei he whakapapa Māori tō te tikanga rangahau nei? He aha ōna hāngai ki te reo Māori me te tikanga Māori? He tikanga rāwaho rānei kua uru mai ki te whakapōnānā i tāku e rangahau nei? E tautoko ana tātou rautaki rangahau i te mana Māori motuhake? (Graham Smith, wh 187). Ko te uho matua o ōnei urupounamu he akiaki i ngā kairangahau kia kuhuna te tatau o te tika me te pono, e māuru ai te ngākau o te hunga, mō rātou, mā rātou te rangahau. Ko te painga atu mēnā tātou ka ū ki ō tātou ake reo, ki ā tātou ake tikanga engari hei tā Irwin (he mea kitea i te tuhinga a Smith, wh.186) ko te mea nui ko te whakawhirinaki atu ki ētahi pou hāpai o te kaupapa, mā rātou koe e ārahi ki te tika, mā rātou hoki e noho hei tai tuarā mōu i ngā wā o te pōkaikaha o te kauminingingo. Ko te ahuru mōwai tēnei o te whare rangahau (kaupapa Māori). Ko ngā pou-o-roto kua tāraia ki ngā mātāpono, ngā tūmanako me ngā awhero o uki kia tōia mai ki ēnei wā moroki nei. Kia tiritiria, kia poupoua ki te whenua, ki te onetū a Paetahi, e pūāhuru ai te noho a te iwi i te rua ngarehu o te ao rangahau, e Māori ake ai tā tātou kawe i a tātou anō. Nau mai ki taku whare rangahau.
Research is a necessary element of the education system with potential to increase knowledge and understanding of the organization and practice of teaching. Research in schools is also important, given that schools are a site of educational discourses, artefacts, structures and people and provide a context through which to examine phenomena important to the education system. However, given schools are not ‘in the business’ of doing research, school-based research competes with the myriad of other ‘must do’ and ‘nice to do’ activities. This can mean research participation is not top of the list for schools, staff and their communities.

Emerging from the reflexive process of one doctoral researcher conducting qualitative school-based research, in this presentation I argue that conditions for school-based research may be undergoing a sea-change, where the desire to participate in research is swamped by new or heightened realities. The challenges relating to research in schools as I have experienced them, are considered in light of the societal and sectorial shifts that may be impacting on research conditions. Personal experience is supplemented with initial stakeholder conversations on the status of educational research in New Zealand and a review of the scholarship.

The presentation will share, for discussion, preliminary analysis that suggests New Zealand school-based research is negatively impacted by: the socio-political environment of neoliberalism and neocorporatism, which reconstitutes the roles of teachers and parents in restricted ways; the sheer volume of ‘must do’ accountability and assessment related activities that teachers and schools are required to undertake; the emphasis on collaborative and teacher-led research or inquiry; conditions that are conducive to research fatigue; the fragmented and little understood / ill-defined status of the New Zealand educational research environment; and the overall low priority given to research in New Zealand. These issues emerge as areas deserving of further research and discussion by the sector for improved understanding of our education research environment.

The conference theme is centered on ‘shaping our future’ and the transformative influence of educational research. In order to accurately celebrate this, we must better understand the environment within which educational research occurs; this paper aims to start a conversation that contributes to that understanding.

Jacqui Burne
Massey University
(Supervisors: Associate Professor Alison Sewell and Professor Howard Lee, Massey University)

Teachers matter. Stories matter too. However, in the context of education, teachers’ stories matter even more. What happens in classrooms—in New Zealand and elsewhere—affects not only the teachers and pupils concerned, but also those interested in teaching pedagogy and teaching in general. Teacher stories are a way to tell others about what really happens in educational environments.

As part of my Doctor of Education (EdD) thesis, I have told the partial teaching story of one post-primary Commerce teacher—Will Potter—who taught in New Zealand from 1958 until 1976. Will was also my father. His story has unique features: he was an immigrant who came to teaching later in life without a degree or teaching qualifications, English was not his first language, and he went on to write textbooks in his chosen subjects. He also began teaching in the 1950s—a time when school rolls were increasing, but there was a lack of facilities and teachers. The influence of the Thomas Report of 1944 with its emphasis on education of the whole pupil as well as the revised School Certificate and the introduction of new subjects was also being felt.

This qualitative study used a case study methodology. I used document analysis of Will’s memoir as well as other relevant records and documents, and a focus group discussion with my siblings and semi-structured interviews with some of those who taught with or were taught by Will to glean the data that formed the basis of Will’s story. My social constructivist leaning meant I used an interpretative approach to analyse the data. I wanted to understand Will’s actions and used sociocultural and sociocultural–historical theories as lenses to view Will’s background and teaching experiences.

Will’s story is an intrinsic case study, chosen because of both its unique characteristics as well as its ordinariness. His story helps to put a face to one teacher and explains how aspects of the time, such as the lack of classrooms in the 1950s, practically affected teachers. Any such historical record is necessary as the lives and work of ‘ordinary’ teachers are rarely told, yet such stories can be interesting and useful for teacher motivation, inspiration, and identification. This presentation (and thesis) could be useful for those interested in the history of education or those keen to tell other teacher stories.
164. Students with disabilities lived experiences on attitude and behaviour in a Ghanaian university

Yaw Akoto
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The higher education of students with disabilities is important for the same reasons as for nondisabled students. However, knowledge about students with disabilities experiences in Ghanaian higher education in regard to the attitudes and behaviour of nondisabled students, university staff and policy makers is limited. In Ghana, issues associated with disabilities are not given much attention because of the belief systems that associate disability with evil. This lack of attention makes it difficult to evaluate the impact of attitude and behaviour on students with disabilities in higher education. This research explores how attitudes and behaviours of others affect the educational opportunities of students with disabilities in a Ghanaian university. Data collection involved observation, documentary analysis, in-depth interview with ten (10) students with disabilities and one (1) lecturer in the university who has a disability and a former student. The findings show that some of the students and university staff seem to have positive attitudes and behaviour towards students with disabilities, despite the broader societal context. However, that positive orientation is based on their own volition rather than any policy or action on behalf of the university. In addition, there are some of the students with disabilities who, despite less positive attitudes and behaviour persist because they are determined to act against the belief system that sustains the existing paradigm. However, the majority of the university staff, students and policy makers discriminated against, stigmatised and marginalised students with disabilities. The study also highlights factors that influence the attitude and behaviour of policy makers, university staff and non-disabled students in the Ghanaian university. The study stressed the need for the Ghanaian university to sensitize the university community to the issues associated with disabilities in order to make the university attractive to students with disabilities and to ensure their retention and participation. Failure to address the attitude and behaviour problems in the Ghanaian university would be a lost opportunity to act against discrimination at other educational levels; and make the realisation of the academic potential of students with disabilities difficult.
63. Teachers' attitudes towards the implementation of inclusive education for children with special educational needs (SEN) in schools in Melaka, Malaysia

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Inclusive education is an ongoing process to offer quality education for all while respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination (UNESCO, 2008). Research in many countries has highlighted a range of factors that assist or hinder the successful of inclusive education. This study aims to explore the special education and mainstream teachers’ attitudes towards inclusive education for children with special educational needs (SEN) in a few elementary schools in Malacca, Malaysia. This study also looks at the teachers’ understanding, concerns and suggestions for improvement of the inclusive education. The study involves 3 special education teachers and 3 mainstream class teachers that involved in the implementation of inclusive education for SEN in their schools. Data was collected through semi-structured interviews with the teachers. The teachers’ opinions regarding the implementation of inclusive were recorded and analysed using qualitative data analysis. Findings show that although most teachers are not against inclusive education, they do express concerns on the process of implementation. As found in other research (e.g. Gilmore, 2001; Kearney & Kane, 2006) most teachers feel they need more support to adapt the curriculum to meet the needs of the children. They express the need for more knowledge and training so that they play a more positive role in the inclusive education. The teachers make recommendations which include: improving pre and in-service training so as to promote positive attitude towards inclusive education and provide more resources and facilities to support inclusive education for children with SEN.
160. Perceptions of teaching in Aotearoa New Zealand: Lessons from applicants to a field-based ITE programme

Jay Allnutt1

1Teach First NZ: Ako Mātātupu, Auckland, New Zealand

This presentation will explore the motivations and perceptions of applicants to Teach First NZ, a field-based Initial Teaching Education (ITE) and leadership development programme. It will contribute to the growing literature about how we can attract greater numbers of applicants to teach, with a specific focus on schools serving low-income communities and employment-based teacher education.

Aotearoa New Zealand, like many other countries around the world, is faced with a major shortage in the supply of teachers as the rate of departure from the profession increases, the number entering the profession decreases, and demographics change. Increasingly, studies have looked at what motivates people to enter initial teacher education, including how perceptions of the teaching profession affect these motivations.

The presentation will draw on survey responses from a sample of applicants in 2018 to the field-based secondary teaching and education leadership programme run by the charity Ako Mātātupu (Teach First NZ). The research was undertaken as part of Teach First NZ’s recruitment process in 2018 for applicants to start teaching in the 2019 academic year, and includes responses from approximately 150 applicants. It includes responses from both applicants who were successful and unsuccessful in their application.

This qualitative study contributes to the literature on motivations to join the teaching profession, and uses the simple framework of intrinsic, extrinsic and altruistic motivational factors as its base, but with critique drawing on the considerable development of this framework in recent years, such as in the FIT-Choice framework and other research.

The intention of the research is as a starting point for a broader and more systematic study of the motivations to teach of those who apply to the Teach First NZ programme, and whether there is any difference in motivations for this employment-based programme versus alternative pathways into teaching.

Preliminary qualitative analysis of the responses suggests that, whilst respondents identify motivations across the framework above, a focus on altruistic factors, including specifically ‘service’ or ‘making a difference’ is a key driver. We use a critical discourse analysis methodology to consider the predominance of this focus as a motivation for applicants.
When CLIDDE thrive in environments that support them at their level of function, this means considerate, empathetic and effective learning supports are provided for throughout their entire education. This article highlights an indigenous pedagogy, Te mana o ngaa mokopuna, He tohu Umanga Maatauranga and best practice implementation process of guardian (parental) “knowing” for “Te Hauora Maatauranga o ngaa Mokopuna” - the wellbeing and education of the child. The CLIDDE AG objective was to advance for CLIDDE together with their parents/caregivers as consumers of education policy (legislation), education systems (methods) and learning curriculum (models) to be heavily weighted in their holistic needs, and informed by parental ‘knowing’ and indigenous knowledge drafted from a lived experience diagnosis. Such a vision raised the question of best practice teaching models for CLIDDE and frameworks for accommodating the learning needs of CLIDDE to be seen consistently across the education sector.

**Method**

In May this year, public hui/meetings were held across Aotearoa both in person and online. The purpose was to connect and hear the voices with parents/caregivers of CLIDDE, collectively share and learn information with each other.

**Results**

The perceptive factors and causes were common across the country which was a lack of adequate learning support provisions from the Ministry of Education, teachers or school lack of commitment to the CLIDDE’s ongoing learning needs. Almost all parents of CLIDDE were frustrated, upset and felt unheard both by teachers, schools and Ministry of Education that sharing these concerns brought awareness, of “light”, “hope”, “mana (strength)” and “integrity” in what most parents/caregivers have described their experience advocating for their CLIDDE as ending in “a dark tunnel to nowhere”.

Appropriate educational methods of delivering to CLIDDE which includes: use of indigenous pedagogy teaching outlines for CLIDDE (relational monitoring) are discussed. The TMoNM can also be viewed as a representation of the organic cycle of CLIDDE and requires high to medium levels of consistent due diligence across the education sector.

**Conclusion**

Parents raising CLIDDE face daily pressures aside from their CLIDDE learning. Having no say in or control over access to functional age funding of education supports to CLIDDE can provoke adverse behavior from CLIDDE in the classroom. The TMoNM approach is to follow in collaborative teacher education to maximize manage support to CLIDDE.
Fatugatiti: A Samoan Heutagogy in development of self-determined and long –life learners?

Lila Mauigoa-Tekene
Manuau Institute of Technology

The transition of transforming learners from being passive to active life-long leaners in the 21st century entails tertiary education to pursue effective approaches and pedagogies in promoting Pacific students’ academic and social skills. Many research have found the importance of inclusion of students’ cultural capital in curriculum design but there is still a gap. There’s abundance of empirical and theoretical evidences that point to the importance of supporting Pacific students in tertiary levels. For example, Tertiary Education Strategy of 2010-2015 posits that tertiary sectors have a fundamental role in meeting the developmental desires and ambitions of the Pacific people in New Zealand. Furthermore, the New Zealand Qualification Authority (2009) in their Pasifika Strategy speculates the importance of developing Pasifika learners to become highly skilful and qualified hence a commitment to Pacific education at policy and implementation levels. Consequently, one of the goals of Manukau Institute of Technology Strategic Plan of 2013 is for all faculties to locate approaches that contribute to the retention and success of Pacific students. An approach that is proven effective in higher education is heutagogy (Keyon & Hase, 2010). These benefits include; improved teacher outcomes; more capable teachers (learners) who are better-prepared for the complexities of the learning environment; increased learners’ confidence in perceptions; engaged learners in communities of practice; learners scaffolding of peers’ learning processes; improved ability of the learner to investigate ideas, and further development of the learner’s ability “to question interpretations of reality from their position of competence” (Ashton & Newman, 2006, p. 829; Ashton & Elliott, 2007). This finding is confirmed by Canning & Callan (2010) who reported on three higher education institutions in the UK that used the heutagogy approach in the teacher education programmes.

Although the effectiveness of this new Samoan Heutagogy pedagogical approach has not been researched a it is still work in progress, this could be one of solutions to the problem of disparity in education. However, it is the intention of the writer to do a research on the effectiveness and validity of this pedagogical approach in the future. This paper discusses a new pedagogical approach in developing Pacific students as long-life, self-determined learners and therefore, propose a Fatugatiti: A Samoan Heutagogy pedagogical model.

The transition of transforming learners from being passive to active life-long leaners in the 21st century entails tertiary education to pursue effective approaches and pedagogies in promoting Pacific students’ academic and social skills. Many research have found the importance of inclusion of students’ cultural capital in curriculum design but there is still a disparity gap between Pacific and non-Pacific students. For example, Tertiary Education Strategy of 2010-2015 posits that tertiary sectors have a fundamental role in meeting the developmental desires and ambitions of the Pacific people in New Zealand. Furthermore, the New Zealand Qualification Authority (2009) in their Pasifika Strategy speculates the importance of developing Pasifika learners to become highly skilful and qualified hence a commitment to Pacific education at policy and implementation levels.
This paper presents an adaptation of Bronfenbrenner’s theory of bio-ecological human development that is particularly relevant to ECE, since the theory is widely used in that sector to inform interactions between personal, cultural and environmental factors during child development. This paper reports on how the adapted theory can help ECE teachers to incorporate new understandings of a range of personal factors into their knowledge base, beliefs and pedagogies, and to more easily consider the interplay between influences on learning and development.

A central problem in education is that some students are not able to take up the learning opportunities provided to them. Some of the reasons lie in mismatches between the beliefs and cultures of the learners and those of the providers, so teachers need to find ways to reduce these. While the ECE sector emphasises affective, cultural and relational factors to complement content and centre management, current theories of learning consider these separately, so a holistic theory of learning may help teachers to better integrate these factors. In particular, the synergies between students’ personal characteristics, relational and cultural factors have been under theorised.

Bronfenbrenner’s theory proposes that four factors interactively influence human learning – person characteristics, processes and context of learning and development, and the time taken (PPCT). Alongside these Bronfenbrenner uses the concept of four ecological levels (micro, meso, exo and macro systems) to theorise and describe interactions between personal, social, cultural and environmental influences on development. However, there has been a great deal of recent research that has greatly improved understanding of how internal characteristics of a person affects learning, and how those interact with other factors. To integrate these into the theory, the person characteristics need to be expanded to include effects on learning from genetics, epigenetics, neuroscience, and cognitive, emotional and social psychology. This paper therefore proposes a new endo level to contain these, which will allow better understanding of the effects of these factors, their synergies and interactions.

The adapted theory and an associated ecological database of learning principles and teaching practices has been trialled in five schools with eleven teachers over the past 18 months to answer three research questions: Is an ecological approach to teaching and learning helpful to teachers in their lesson and pastoral planning? How can the theoretical, philosophical and practical implications be most usefully presented to teachers? How do teachers use the ecological concepts and format to inform their pedagogies?
Venue Map

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640 Great South Road, Manukau 2025

SERVICES AND FACILITIES
Library - Ground floor, MA building
Learning Lab - Level 1, MA building
Café - Level 2, MB building and Level 1, MH building
Fitness Centre - Level 1, MB building
Boardroom - Level 3, MB building
Estates Service Centre, Security - MB building

PrintLine (print services) - Level 2, MC building
Student Medical Centre - Level 1, MB building
Student Counselling & Mental Health - Level 1, MB building
AuSM (Auckland Student Movement & AUT) - ME building

STUDENT HUB & RECEPTION
Level 1, MB building
Phone: 0800 AUT SOUTH (0800 288 798)
Web: www.aut.ac.nz/studenthub
STATEMENT
Based on the existing Code of Ethics to be published in conference handbooks around expectations for respectful dialogue at conferences.

The existing Code of Ethics acknowledges Te Tiriti o Waitangi including active protection of te reo Māori me ōna tikanga, and tino rangatiratanga or Māori self-determination. It also acknowledges the United Nations Declaration on the Rights of Indigenous Peoples which state:

> Recognizing the urgent need to respect and promote the inherent rights of indigenous peoples which derive from their political, economic and social structures and from their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources


The Code states explicitly “the conception, design, conduct, reporting and dissemination of the research there should be thoughtful concern for the rights and interests of all the individuals, groups and institutions involved and affected by it”. Furthermore, “Association members are expected to engage with and examine different perspectives in a spirit of genuine curiosity and enquiry”, via collegial dialogue and rational analysis.

Educational researchers should seek at all times to avoid harm and do good developing relationships based on trust and mutual respect.
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