WelTec  Whitireia  Open Polytech
Research Symposium

KNOWLEDGE THROUGH DIVERSITY

Thursday 22 November 2018
WelTec Petone Campus

For information please contact research@wandw.ac.nz
Table of Contents

Welcome .......................................................................................................................... 6
Acknowledgements .......................................................................................................... 7
Symposium Room Guide ................................................................................................. 8
Keynote: Distinguished Professor Paul Spoonley ............................................................. 15
The inhospitable welcome – A New Zealand history......................................................... 17
People are people? A reflective inquiry into social workers’ views of diversity. ............... 18
Seeing through the eyes of mindfulness, the illusion of diversity .................................... 19
In what ways can the use of peer and self-reflective activities through Māori values help develop student’s academic writing capabilities .................................................................................. 20
Factors affecting transition of youth into undergraduate degree study: A literature review ......................................................................................................................................................... 21
The lived experience of selectively mute adults while at school from early childhood to adult learning experiences .................................................................................................................... 22
Integrated anatomy: a need for new teaching models ..................................................... 23
Engaging Māori rangatahi into health careers: What works? ........................................ 24
The pounamu of pilot ..................................................................................................... 25
The mentoring experiences of Pacific student nurses .............................................................................. 26
Turanga Māori Framework and ‘Tracer Study’ ................................................................ 27
Drinking water treatment for Civil Defence situations - a practical approach ............... 28
An insight to renewable energy resources in New Zealand ............................................ 29
Alkali activated fly ash-slag blend for use in concrete as an alternative to cement paste . 30
Developing a degree apprenticeship in Engineering, with a focus on Infrastructure Asset Management ................................................................................................................................. 31
Recovery plans are a tool for re-engaging social work students ..................................... 32
Harnessing the strength of neurodiversity: Exploring ways to support neurodivergent students ............................................................................................................................................... 33
Whitireia paramedic graduates: On the road or in the air? ............................................. 34
Job burnout among Call Centre Agents in India .............................................................. 35
Political events and shareholder’s value: An event study analysis of the New Zealand Stock Market ............................................................................................................................................... 36
Social entrepreneurship: Emancipation and the issues that challenge the social value creation ..................................................................................................................................................... 37
The financial viability of circular business models for small fashion brands specific to New Zealand and Australia

Pre-degree nursing role-plays in Second Life

How learning is transforming with the evolution of digital technologies?

Education 2.0: Embedding learning analytics to improve educational outcomes

Using rapid authoring tools to mobilize learning

Rangahau in Te Wānanga o Aotearoa (TWoA): Values based approach to enquiry

How contemporary leadership engages critically with diversity

Cultural and professional leadership

Iwi in Māori research frameworks

Design options for an ageing New Zealand population: A life cycle energy (LCE) analysis

Exploration of the internal retrofitting of existing timber and light gauge steel framed buildings with highly insulated cassette type wall elements

Improving the health of the elderly through public space design

The Wellington CBD building inventory database and seismic issues

Don’t freak out! Most probably you’re a feminist too: A reflection on a feminist methodology for former refugees

Poverty informed social work practice in Aotearoa New Zealand

Diversity and other ambiguous words

The impact of Whitireia postgraduate studies on nurses’ career progression and promotion

How the wellbeing of addiction practitioners is affected by their professional practice

Zimbabwean registered nurses in New Zealand: A profile

Surveying the readiness to practise of newly qualified social workers

Evaluating teaching strategies that support nursing students comprehension of fundamental anatomical and physiological concepts

Case study teaching – limiting case solutions to sustainable use of Māori Business framework

Embedding environmental sustainability into management studies at Toi Ohomai

Teaching strategies for enhancing employability skills in learners

Exploring a space of responsiveness to Māori in journalism education

Weaving Mātauranga Māori in adult and tertiary education

Te mauri o te mana Māori: Reporting on works of significance for 2017/18
Privacy Regulation vs. the Information Gathering Practices of New Zealand Websites 2006-2018 ............................................................................................................................... 65
Web-based Application to Auto-generate Building Floor Plan ................................................. 66
Towards Automation of a Student Feedback System at Wellington Institute of Technology (WelTec) ......................................................................................................................... 67
Data interoperability challenges and solutions in patient-centred consultations .................. 68
Protocols to guide nursing on the administration of sleep enhancing medications in older adults ............................................................................................................................. 69
Challenges in care and management of type 2 diabetes mellitus in an urban community in Tanzania: An in-depth study of adults’ patients and their caregivers. ......................... 70
Understanding information culture for self-management health support for people with diabetes in Ghana.......................................................................................................................... 71
Knowledge through experience: How personal and practical skills influence the role of a mental health support worker ........................................................................................ 72
Insights on Te Kora research framework ................................................................................. 73
The Mythical World of Hīnātore: Quantitative and qualitative results .................................. 74
'Aere 'Aere 'Opara Ki Mua (Pursue, Pursue and Push On): Teaching Cook Islands Māori to adults in New Zealand ............................................................................................................. 75
Writer beware: Predatory publishers are looking for you ......................................................... 76
Building research capability using Appreciative Inquiry ....................................................... 77
Finding unifying themes to promote greater research collaboration..................................... 78
Preparation of a Data Analysis Training Package - A reflection from the Research Team.. 79
Integrated anatomy: a need for new teaching models [Exhibit] .............................................. 80
The consistency of data in published medical research............................................................ 81
A collaborative model to forge knowledge.............................................................................. 82
International students’ experience at early days in higher education in New Zealand...... 83
Practice Learning Centre – Social Work Education Model ................................................... 84
The sky is the limit, Journey towards further study and employment ..................................... 85
Data visualisation: Tracking educational pathways over time with Sankey diagrams ...... 86
Challenges facing the tertiary sector in New Zealand .......................................................... 87
List of Primary Presenters ................................................................................................. 88
Welcome

Tēnā koutou katoa

I am delighted to welcome you to the 2018 WelTec Whitireia Open Polytechnic Research Symposium. This is our sixth symposium which has grown to 75 abstracts from 31 in the first year it was held.

The symposium showcases the research and innovation in our discipline areas, which in turn informs our teaching and learning. This is our opportunity to highlight the hard work and commitment of our research active staff, support our emerging researchers and inspire those who have just begun their own adventures in research.

Registrations to attend the symposium have come from many different organisations, including our stakeholders, end users and collaborators. This shows the interest that other organisations have in our research and innovations indicating its value and potential impact.

I am very pleased to welcome Distinguished Professor Paul Spoonley, Pro Vice-Chancellor, College of Humanities and Social Sciences at Massey University, who will give the keynote address. Professor Spoonley will discuss “When Did We Become Superdiverse – And How Should We Respond?”.

This symposium continues to be a strong indicator of the strength of research in the regional ITP community and showcases the beneficial ways our research contributes to our teaching and learning, well-being, business, industry, and communities. In addition, it demonstrates the strength of the research partnerships among WelTec, Whitireia, and Open Polytechnic, while also encompassing the wider ITP research community.

Ngā mihi nui

Chris Gosling
CEO Whitireia New Zealand and Wellington Institute of Technology
Acknowledgements

Thank you to everyone who has contributed to and supported this symposium; in particular the presenters who have submitted abstracts and have come to share their work, reviewers who have given their time to peer review abstracts, and the session chairs who help keep the day on track.

It was heartening to see the response and an increase in submissions, given the challenging circumstances that 2018 has brought to our institutions. This acknowledges the vitality that research can bring to everyone.

Thanks to Craig Anderson for poster design; Roger Krishna for IT and technical support; Stefan Lesicki with venue support on the WelTec Petone campus. This year we would like to acknowledge the contribution of Sophronia Smith and Leonie Hall from Open Polytechnic.

Especial thanks to Lisa Love who never stops doing a sterling job of providing administrative support for the event. Thank you!!

Finally, thank you to everyone who has come to listen and gain insights into the diverse research areas of their colleagues. Your attendance continues to ensure the symposium remains the success it is.

Lisa Wong, Lisa Love, Ashok Parbhu
Research and Innovation
Whitireia WelTec
Symposium Room Guide

C116 • Mihi Whakatau
• Welcome
• Keynote
• Closing
• Karakia

C119 • Diverse Perspectives
• Sustainability in Business
• Allied & healthcare Workforce
• Managing Health Conditions

C117 • Teaching and Learning
• Digital Technology in Teaching and Learning
• Strategies for Teaching and Learning

C116 • Diversity In Health
• Diversity in Leadership
• Diversity in Teaching and Learning
• Diversity in Practice

C109 • Engineering and Resources
• Architecture and Buildings
• Information Technology and Management
• Strengthening Research and Collaboration

C108 • Student Perspectives
• Diverse Communities

Foyer • Poster Presentations
### Programme

**Programme**

**KNOWLEDGE THROUGH DIVERSITY - Thursday 22 November 2018**

<table>
<thead>
<tr>
<th>Session times</th>
<th>Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>0830-0845</td>
<td>Mihi Whakatau (C116)</td>
</tr>
<tr>
<td>0845-0900</td>
<td>Welcome - Chris Gosling, Chief Executive WelTec Whitireia</td>
</tr>
<tr>
<td>0900-0940</td>
<td>Keynote: Distinguished Professor Paul Spoonley, Massey University (C116)</td>
</tr>
<tr>
<td>0940-0945</td>
<td><em>time to move to sessions</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room C119</th>
<th>Room C117</th>
<th>Room C116</th>
<th>Room C109</th>
<th>Room C108</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session 1</strong></td>
<td><strong>Session 2</strong></td>
<td><strong>Session 3</strong></td>
<td><strong>Session 4</strong></td>
<td><strong>Session 5</strong></td>
</tr>
<tr>
<td>DIVERSE PERSPECTIVES</td>
<td>TEACHING AND LEARNING</td>
<td>DIVERSITY IN HEALTH</td>
<td>ENGINEERING AND RESOURCES</td>
<td>STUDENT PERSPECTIVES</td>
</tr>
<tr>
<td>Session chair: Stephanie Kelly</td>
<td>Session chair: Joey Domdom</td>
<td>Session chair: Jeanette Grace</td>
<td>Session chair: Minh Nguyen</td>
<td>Session chair: Jill Clark</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>0945-1005</th>
<th>Seeing through the eyes of mindfulness, the illusion of diversity. <em>Indu Peiris</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1005-1025</td>
<td>The inhospitable welcome – A New Zealand history. <em>Ann Cameron</em></td>
</tr>
<tr>
<td>1025-1045</td>
<td>People are people? A reflective inquiry into social workers’ views of diversity. <em>Susan Beaumont</em></td>
</tr>
<tr>
<td>1045-1105</td>
<td>Celebrating Disabled Women Writers. <em>Trish Harris</em></td>
</tr>
<tr>
<td>1105-1130</td>
<td>Morning tea</td>
</tr>
</tbody>
</table>

**Session 2**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0945</td>
<td>In what ways can the use of peer and self-reflective activities through Māori values help develop student's academic writing capabilities. <em>Sandra Waayer</em></td>
<td></td>
</tr>
<tr>
<td>1005</td>
<td>Drinking Water Treatment for Civil Defence Situations - a practical approach. <em>Induka Werellagama</em></td>
<td></td>
</tr>
<tr>
<td>1005</td>
<td>Recovery Plans are a tool for re-engaging social work students. <em>Michael Fitzsimons, Roger Ngahooro, Apii Rongo-Rae, Hawa Fitzgerald, Susan Beaumont, et al</em></td>
<td></td>
</tr>
</tbody>
</table>

**Session 3**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0945</td>
<td>Factors affecting transition of youth into undergraduate degree study: A literature review. <em>Claire Foronda, Belinda Mcgrath, Ari Neocleous, Molly Page</em></td>
<td></td>
</tr>
<tr>
<td>1005</td>
<td>The pouamā of pilot. <em>De’arna Sculley</em></td>
<td></td>
</tr>
<tr>
<td>1025</td>
<td>An Insight to Renewable Energy Sources in NZ. <em>Andrew Boyle</em></td>
<td></td>
</tr>
<tr>
<td>1045</td>
<td>Harnessing the Strength of Neurodiversity: Exploring ways to support neurodivergent students. <em>Kaaryn Cater</em></td>
<td></td>
</tr>
</tbody>
</table>

**Session 4**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0945</td>
<td>The Lived Experience of Selectively Mute Adults while at school from early childhood to adult learning experiences. <em>Isedora Lewis</em></td>
<td></td>
</tr>
<tr>
<td>1005</td>
<td>The mentoring experiences of Pacific student nurses. <em>Loma-Linda Tasi</em></td>
<td></td>
</tr>
<tr>
<td>1025</td>
<td>Alkali activated fly ash-slag blend for use in concrete as an alternative to cement paste. <em>Najif Ismail</em></td>
<td></td>
</tr>
<tr>
<td>1045</td>
<td>Whitireia paramedic graduates: On the road or in the air? <em>Ken MacIver, Alan Wilson, Howard Wills, Don Banks, Sean Thompson et al</em></td>
<td></td>
</tr>
</tbody>
</table>

**Session 5**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>0945</td>
<td>In what ways can the use of peer and self-reflective activities through Māori values help develop student's academic writing capabilities. <em>Sandra Waayer</em></td>
<td></td>
</tr>
<tr>
<td>1025</td>
<td>The inhospitable welcome – A New Zealand history. <em>Ann Cameron</em></td>
<td></td>
</tr>
<tr>
<td>1045</td>
<td>People are people? A reflective inquiry into social workers’ views of diversity. <em>Susan Beaumont</em></td>
<td></td>
</tr>
<tr>
<td>1105</td>
<td>Celebrating Disabled Women Writers. <em>Trish Harris</em></td>
<td></td>
</tr>
</tbody>
</table>

**Session chair:**

- Stephanie Kelly
- Joey Domdom
- Jeanette Grace
- Minh Nguyen
- Jill Clark

**Session times**

- From 0815
- Registration
- 0830-0845
- 0845-0900
- 0900-0940
- 0940-0945
- 0945-1005
- 1005-1025
- 1025-1045
- 1045-1105
- 1105-1130

**Session 1**

- DIVERSE PERSPECTIVES
- Session chair: Stephanie Kelly
- Seeing through the eyes of mindfulness, the illusion of diversity. *Indu Peiris* |
- The inhospitable welcome – A New Zealand history. *Ann Cameron* |
- People are people? A reflective inquiry into social workers’ views of diversity. *Susan Beaumont* |
- Celebrating Disabled Women Writers. *Trish Harris* |

**Session 2**

- TEACHING AND LEARNING
- Session chair: Joey Domdom
- In what ways can the use of peer and self-reflective activities through Māori values help develop student's academic writing capabilities. *Sandra Waayer* |
- Factors affecting transition of youth into undergraduate degree study: A literature review. *Claire Foronda, Belinda Mcgrath, Ari Neocleous, Molly Page* |
- The Lived Experience of Selectively Mute Adults while at school from early childhood to adult learning experiences. *Isedora Lewis* |

**Session 3**

- DIVERSITY IN HEALTH
- Session chair: Jeanette Grace
- The pouamā of pilot. *De’arna Sculley* |
- The mentoring experiences of Pacific student nurses. *Loma-Linda Tasi* |
- Turanga Māori Framework and ‘Tracer Study’. *Apii Rongo-Rae, Alittasi Su'a-Tavila, Hawa Fitzgerald, Michael Fitzsimons, Roger Ngahooro* |

**Session 4**

- ENGINEERING AND RESOURCES
- Session chair: Minh Nguyen
- Drinking Water Treatment for Civil Defence Situations - a practical approach. *Induka Werellagama* |
- An Insight to Renewable Energy Sources in NZ. *Andrew Boyle* |
- Alkali activated fly ash-slag blend for use in concrete as an alternative to cement paste. *Najif Ismail* |
- Developing a Degree Apprenticeship in Engineering, with a focus on Infrastructure Asset Management. *James Mackay* |

**Session 5**

- STUDENT PERSPECTIVES
- Session chair: Jill Clark
- Recovery Plans are a tool for re-engaging social work students. *Michael Fitzsimons, Roger Ngahooro, Apii Rongo-Rae, Hawa Fitzgerald, Susan Beaumont, et al* |
- Harnessing the Strength of Neurodiversity: Exploring ways to support neurodivergent students. *Kaaryn Cater* |
- Whitireia paramedic graduates: On the road or in the air? *Ken MacIver, Alan Wilson, Howard Wills, Don Banks, Sean Thompson et al* |
<table>
<thead>
<tr>
<th>Time</th>
<th>Session 6</th>
<th>Session 7</th>
<th>Session 8</th>
<th>Session 9</th>
<th>Session 10</th>
</tr>
</thead>
</table>
| 1130-1150 | Job Burnout among Call Centre Agents in India.  
  Shilpa Jain, Anup Singh | Pre-degree nursing role-plays in Second Life.  
  Merle Hearns | Rangahau in Te Wānanga o Aotearoa (TWoA): Values based approach to enquiry.  
  Sophronia Smith | Design options for an ageing New Zealand population: A life cycle energy (LCE) analysis.  
  Iman Khajehzadeh, Fatemeh Yavari | Don't freak out! Most probably you're a feminist too: A reflection on feminist methodology for former refugees.  
  Hawa Fitzgerald, Alitasi Su’a-Tavila, Apii Rongo-Raea, Michael Fitzsimons, Roger Ngahooro, et al |
| 1150-1210 | Political events and Shareholder’s value: An event study analysis of the New Zealand Stock Market.  
  Mathew Abraham | How Learning is Transforming with the Evolution of Digital Technologies?  
  Janak Adhikari | How contemporary leadership engages critically with diversity.  
  Stephanie Kelly | Exploration of the internal retrofitting of existing timber and light gauge steel framed buildings with highly insulated cassette type wall elements.  
  Richard Foreman | Poverty informed social work practice in Aotearoa New Zealand.  
  Lesley Pitt |
| 1210-1230 | Social entrepreneurship: Emancipation and the issues that challenge the social value creation.  
  Nazir Awan, Indu Peiris | Education 2.0: Embedding Learning Analytics to Improve Educational Outcomes.  
  Sophronia Smith, Tony Thistoll, Leise CochranE | Cultural and professional leadership.  
  Jean Mitaera, Alitasi Su’a-Tavila, Teramira Schutz, Loma-Linda Tasi, Roger Ngahooro, et al | Improving the health of the elderly through public space design.  
  Minh Nguyen, Thu Phuong Truong, Diane Brand | Diversity and other ambiguous Words.  
  Susan Beaumont, Alitasi Su’a-Tavila, Michael Fitzsimons, Roger Ngahooro, Hawa Fitzgerald, Apii Rongo-Raea |
| 1230-1250 | The financial viability of circular business models for small fashion brands specific to NZ and Australia.  
  Karishma Kelsey, Barbara Kneuer, Andrew Zalwiski WITHDRAWN | Using rapid authoring tools to mobilize learning.  
  Georgina Orsborn | Iwi in Māori Research Frameworks.  
  Jeanette Grace | The Wellington CBD building inventory database and seismic issues.  
  Najif Ismail | |
<p>| 1250-1330 | Lunch | | | | |</p>
<table>
<thead>
<tr>
<th>Session 11</th>
<th>Session 12</th>
<th>Session 13</th>
<th>Session 14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALLIED &amp; HEALTHCARE WORKFORCE</strong></td>
<td><strong>STRATEGIES FOR TEACHING AND LEARNING</strong></td>
<td><strong>DIVERSITY IN TEACHING &amp; LEARNING</strong></td>
<td><strong>INFORMATION TECHNOLOGY AND MANAGEMENT</strong></td>
</tr>
<tr>
<td>Session chair: <strong>Loma-Linda Tasi</strong></td>
<td>Session chair: <strong>Kaaryn Cater</strong></td>
<td>Session chair: <strong>Elizabeth Asbury</strong></td>
<td>Session chair: <strong>Ian Hunter</strong></td>
</tr>
<tr>
<td><strong>1330-1350</strong></td>
<td><strong>The impact of Whitireia postgraduate studies on nurses’ career progression and promotion.</strong></td>
<td>Evaluating teaching strategies that support nursing students comprehension of fundamental anatomical and physiological concepts. <strong>Sandra Waayer, Trudy Scott</strong></td>
<td>Exploring a space of responsiveness to Māori in journalism education. <strong>Bernard Whelan</strong></td>
</tr>
<tr>
<td><strong>1350-1410</strong></td>
<td><strong>How the wellbeing of addiction practitioners is affected by their professional practice.</strong></td>
<td><strong>Case Study Teaching – limiting case solutions to sustainable use of Māori Business framework.</strong></td>
<td>Weaving Matauranga Māori in Adult and Tertiary Education. <strong>Sujatha Gomathinayagam</strong></td>
</tr>
<tr>
<td><strong>1410-1430</strong></td>
<td><strong>Zimbabwean registered nurses in New Zealand: A profile.</strong></td>
<td>Embedding environmental sustainability into management studies at Toi Ohomai. <strong>Adele Carson, Don Kannangara</strong></td>
<td><strong>Te maori o te mana Māori: Reporting on works of significance for 2017/18.</strong></td>
</tr>
<tr>
<td><strong>1430-1450</strong></td>
<td><strong>Surveying the Readiness to Practise of Newly Qualified Social Workers.</strong></td>
<td>Teaching strategies for enhancing employability skills in learners. <strong>Gerard Duignan, Agustilia Rodrigues, Anne Webster, Carmel Haggerty</strong></td>
<td>Data interoperability challenges and solutions in patient-centred consultations. <strong>Sarita Pais</strong></td>
</tr>
<tr>
<td><strong>1450-1510</strong></td>
<td></td>
<td></td>
<td><strong>Afternoon Tea</strong></td>
</tr>
<tr>
<td>Session 15</td>
<td>Session 16</td>
<td>Session 17</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td><strong>MANAGING HEALTH CONDITIONS</strong></td>
<td><strong>DIVERSITY IN PRACTICE</strong></td>
<td><strong>STRENGTHENING RESEARCH &amp; COLLABORATION</strong></td>
<td></td>
</tr>
<tr>
<td>Session chair: <strong>Ruth Crawford</strong></td>
<td>Session chair: <strong>Sophronia Smith</strong></td>
<td>Session chair: <strong>James Mackay</strong></td>
<td></td>
</tr>
<tr>
<td>1630-onwards</td>
<td></td>
<td>Closing remarks and Karakia (C116)</td>
<td></td>
</tr>
<tr>
<td>POSTERS &amp; EXHIBITS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Integrated anatomy: a need for new teaching models.**  
*Phillip Silverman [Exhibit]*  
*WITHDRAWN*                                                                                                                                                |
| **The consistency of data in published medical research.**  
*Phillip Silverman (Presenter will be unavailable on the day)*                                                                                                                                                        |
| **A Collaborative Model to Forge Knowledge.**  
*Catherine Doughty, Molly Page, Joanna Dopson*                                                                                                                                                                          |
| **International Students’ Experience at Early Days in Higher Education in NZ.**  
*Ruwan Jayasooriya*                                                                                                                                                                                                 |
| **Practice Learning Centre - Social Work Education Model.**  
*Jean Mitaera*                                                                                                                                                                                                         |
| **The sky is the limit, Journey towards further study and employment.**  
*Tony Assadi, Manu Katene*                                                                                                                                  |
| **Data visualisation: Tracking educational pathways over time with Sankey diagrams.**  
*Rodrigo Costa*                                                                                                                                                                                                        |
| **Challenges facing the Tertiary Sector in New Zealand.**  
*Sarita Pais, Rosita Thomas*                                                                                                                                                                                           |
| **Don’t freak out! Most probably you’re a feminist too: A reflection on feminist methodology for former refugees.**  
*Hawa Fitzgerald [Exhibit]*                                                                                                                                                                                     |
Keynote: Distinguished Professor Paul Spoonley
Pro Vice-Chancellor, College of Humanities and Social Sciences,
Massey University

When Did We Become Superdiverse – And How Should We Respond?

New Zealand’s colonial history was characterised by dispossession of Tangata Whenua and an exclusionary white New Zealand immigration policy. The latter began to change with the arrival of migrants from elsewhere in the Pacific in the 1960s and then the changes to immigration policy in 1986-87. We have explored the implications of superdiversity for Aotearoa – but we want to argue that it is more than immigrant-related ethnic diversity. This complicates how we act as individuals, communities and as organisations. It is both challenging and exciting. So what has Aotearoa become and what role does diversity play?

---0---0---0---

Biography:

Distinguished Professor Paul Spoonley is the Pro Vice-Chancellor of the College of Humanities and Social Sciences at Massey University. He is a lead researcher on the MBIE-funded project, Capturing the Diversity Dividend of Aotearoa New Zealand (2014-2020) and previously, Ngā Tangata oho Mairangi. He is the author or editor of 27 books, including Ranginui Walker’s biography, Mata Toa. He is a Fellow of the Royal Society of New Zealand of the Auckland War Memorial Museum and the Max Planck Institute for the Study of Religious and Ethnic Diversity. He is a judge for the New Zealand Diversity Awards. He was a Fulbright Scholar at the University of California Berkeley where he wrote a book on the impacts of immigration on New Zealand and completed research on second generation Latino identities.
Celebrating disabled women writers

Trish Harris*, Robyn Hunt (Disability Commentator)

Whitireia

As other marginalised groups have done in recent decades, disabled writers are saying they write from a particular perspective and their voice has been largely missing from literature. This presentation will investigate the wider context of claiming a disabled voice in literature by looking at:

1. the disability rights movement
2. the fledgling group called Crip the Lit
3. Arts Access Aotearoa approaches and principles and;
4. the arguments generated by the upcoming debate at Wellington’s LitCrawl weekend around what constitutes a disabled writer and disabled writing.

It will outline the research output—a mini-book and electronic resource featuring eight disabled women writers—and the conversations that have occurred so far with the women who have agreed to be featured. Women writers have been chosen because this year marks the 125th anniversary of women’s suffrage in New Zealand.

It will conclude with how the resource will be made accessible for people across a range of impairments, how social media will be used to maximise audience reach and why a particular launch format has been chosen.
The inhospitable welcome – A New Zealand history

Ann Cameron*

Whitireia

While New Zealand has long used the friendly nature of the locals as part of the positioning of its tourism product, this welcome is less inclusive than it seems. A narrative history, built from a thematic analysis of legislation, royal commission reports, and newspaper stories, this presentation examines the legal rules and social conventions around who was permitted to visit and work in licensed hotels through New Zealand’s past. The expectation that tourists would conform to local norms is also considered. It then questions what influences this history has on the welcome to modern tourists and the workers who serve them.
People are people? A reflective inquiry into social workers’ views of diversity.

Susan Beaumont*
Whitireia

**Background**: Findings from my 2018 Master’s thesis evidenced that practising social workers engaging with diversity in an Aotearoa New Zealand context hold varying understanding of diversity and how they perceive they engage with diversity. Comments from in-depth, semi structured interviews about social work engagement with diversity include the following: “I treat people as people”; “I choose from the spectrum of who I am in the world”; “I am who I am, and who I am is what I bring to the table” and “It is not okay to say ‘I am who I am’”.

**Aim**: To reflect on my Master’s thesis findings that practising social workers use different approaches to engage with diversity. Using excerpts from participant interviews, focus is placed upon where social workers position themselves in relationship with those they professionally support, and who they perceive to be diverse.

**Methodology**: The methodology of constructionist qualitative methodology employed in the broader Masters research is continued in this reflective inquiry. Four Aotearoa New Zealand qualified and experienced social workers were interviewed in the Masters project by means of semi-structured, in-depth interviews. The chosen methodology enabled participants to share their own perspectives on what informs their practice engagement with diversity, and enabled the researcher to explore how participants talk about their experiences.

**Results**: Interview comments reveal a continuum of where social workers position themselves when professionally engaging with others they perceive as diverse. A connection between how social workers engage, social worker views of sameness and difference, and personal experience is evident.

**Implications**: Due to the interweaving nature of the professional-self and personal-self-evident from this research, the social work mandate and skill of critical reflexive practice is fundamental to competent social work practice with diversity.
Seeing through the eyes of mindfulness, the illusion of diversity

Indu Peiris*
Open Polytechnic

Background: Embedded within the spiritual philosophy of Buddhism, mindfulness has been practiced for centuries in the East. Professor Jon Kabat-Zinn who developed the Mindfulness Based Stress Reduction (MBSR) programme had been responsible for a massive global expansion of interest in mindfulness based interventions. The Western school of thought related to mindfulness is associated with the short-term suppression of the grief and distress associated with worldly affairs. Therefore, the concept of mindfulness was often paired with qualities like love, kindness, consideration of others, and had a distinct moral quality with its largely other-oriented focus (Sun, 2014). Furthermore, the concept of mindfulness has been perceived both as an interpersonal and intrapersonal process, but the operationalisation of mindfulness has been mostly focused on the interpersonal/social dimensions (Khoury, 2018). However, the original intention of mindfulness has been lost. This presentation is an early attempt to re-introduce the concept of mindfulness for the purpose it was originally intended: emancipation from the illusion of diversity

Objective: This presentation has three sections:

1. Origins and the meaning of ‘mindfulness’;
2. Application of mindfulness techniques to understand the diversity of our world;
3. Application of mindfulness techniques to emancipate from the diversity of our world.

Methodology: This presentation draws on more than a decade of practical and theoretical investigative work and applied research related to mindfulness development based on the Buddhist Theravada tradition (the most ancient and authentic version currently available to study mindfulness). Research is further supplemented by a review of literature, with key findings summarised, including recommendations moving forward.

Results: The western school of mindfulness asserts a way to deal with change and diversity (Sun, 2014), rather than a path to emancipate from them. Mindfulness Based Interventions (MBI) may provide short-term benefits and help individuals to deal with physical pain, grief, and distress. However, unpacking the real intention of mindfulness illuminates the true transformative potential it holds for the West.

Conclusions/Implications: The real benefits of mindfulness have not been realised. This requires returning to the original meaning of mindfulness to emancipate from the diversity of our world.
In what ways can the use of peer and self-reflective activities through Māori values help develop student's academic writing capabilities

Sandra Waayer*

Whitireia

The purpose of this study was to explore how using peer and self-reflection activities can develop student’s academic writing capabilities through Māori values of Manaakitanga, Whanaungatanga and Rangatiratanga. The study involves 15, year 3 nursing students with foundational writing capabilities developed from previous summative assignments. The study provides the participants with an opportunity to further develop their academic writing in preparation for future assignments and in readiness for post graduate study. The students were given the opportunity to review their assignment through the self and peer-reflective process, with additional time provided to further develop their assignment.

The Kaiako used a four step sequential process within this peer and self-reflective educational activity.

Step One: The nursing student self-selected to work in pairs or groups of three to four. The nursing students were asked to review the assessment task and academic writing process, to draw out and discuss the key concepts identified within.

Step Two: One nursing student (from the chosen small group) was asked to read their peers assignment out loud to them. During which the student whose work was being read out loud to them, was provided the opportunity to reflect upon their assignment and make notes from their self-reflection.

Step Three: The small group would discuss with the student their self-reflective findings of their assignment, their assignment content and their academic writing style, and areas where further development could be made. These steps were repeated for each student.

Step Four: Each student was provided time to discuss their assignment with the Kaiako, including their self-reflections of the strengths of their assignment/academic writing and areas which they could make improvements. The assignments were marked at the end of the study. The students report the benefit of peer and self-reflections for developing their academic writing capabilities. A number of students noticing an increase of their assignment grade in comparison to previous grades.

This presentation will discuss the Kaiako’ rationale for using this process, the informed consent process and the nursing students’ self-reflections of taking part in this process. This presentation offers an opportunity to critique and discuss innovative methods to support students’ academic writing.
Factors affecting transition of youth into undergraduate degree study: A literature review

Claire Foronda*, Belinda McGrath, Ari Neocleous, Molly Page
Whitireia

**Background:** The transition into degree study can be a challenging time for the youth age group (18 – 25 years). These challenges can affect how well they adjust to the tertiary study environment and the ability to perform to their potential. It is important for educators to understand factors that help facilitate this process and maximise student success. Over recent years there are numerous students aged 18-25 years from diverse backgrounds who enter the Bachelor of Nursing degree programme at Whitireia. This presentation covers themes that have been identified from this project that may be adapted to support nursing students to transition to the tertiary environment successfully.

**Aims/Objective:** The aim of this literature review is to explore youth transition into degree study and identify themes that have an impact on successful transition. Gaining knowledge and understanding the factors affecting this transition enables educators to develop and implement strategies and techniques to better meet the needs of youth and to aid in their success.

**Methodology:** A literature search was conducted from a variety of electronic databases including Proquest, Sciencedirect, Medline and Pubmed databases. Eligible articles included key terms such as; youth, transition, tertiary study, first year students.

**Results:** The literature search revealed that first year students often report a range of issues including uncertainty, anxiety, disconnection and pressure to succeed. This can impact student transition to tertiary study and is the focus of many research studies. Several themes were identified during this search which shows that the transition process is influenced by many factors. Student transition is a process rather than an event and is something that should be considered by everyone involved in the student’s educational journey. Key themes identified from literature include; peer mentoring within the programme, expectations of students and tertiary institutions, having a sense of belonging and social interaction.

**Conclusion:** There are many factors that affect the ability of first year degree students to transition successfully. Gaining more understanding of these factors means that institutions can be better equipped to manage the challenges students face, to help aid their success. The findings of this review will be valuable to teaching staff in all degree programmes, especially when planning for the diverse group of youth entering nursing.
The lived experience of selectively mute adults while at school from early childhood to adult learning experiences

Isedora Lewis*

Whitireia

**Background:** This study described participants’ experiences of living with Selective Mutism (SM) while they were at school, and whether they thought more could have been done in terms of their support. Selective Mutism is a social anxiety which is characterized by a consistent failure to speak in social situations where there is an expectation to speak (American Psychiatric Association, 2013).

**Aims of research:** The aim was to bring the narrative forward from adults who had lived with SM their whole lives. It was also an aim to make it more known that adults do grow up with SM, as research seems to suggest that it is only a childhood condition.

**Method:** This research used a qualitative approach informed by a narrative inquiry on adults with Selective Mutism. Participants were interviewed using an online questionnaire to reflect on school, their experiences with school staff, support services and their families’ reactions in relation to having SM present in the participant’s lives. The themes will become the categories that are analysed, using the analysis in a process of coding and organizing data until you have a thematic map that will be illustrated by the participant’s narratives (Braun & Clark, 2006).

**Findings:** One of the first themes was that of diagnosis or how participants found out about SM as participants related stories of how most found out by alternative means, such as making use of internet searches. The next key theme was the stories that participants related about school and educational experiences. Where they speak to experiencing isolation, struggles with misunderstanding staff and expectations of communication which made memories that has remained with them into their adult lives. Participants also spoke about seeking support from other services, and also how many of these services were not always achievable. Finding that because their teachers were not informed about SM, often the support that was needed did not happen. As a result of these themes derived from the participants’ narratives, a Selective Mutism Spectrum (SMS) was presented as an identifier of the SM’s trajectory.

**Conclusion:** The research concluded that SM could be placed on a spectrum much like other diagnosed conditions. It also had evidence of how SM is largely missed or misdiagnosed, and at times not treated in a manner that is appropriate, participants felt that it needs to be someone from the community to lead the further development of this information. The research made use of the narratives to gain further and clearer understanding about adults with SM and how so far they have survived their educational experiences from as early as early childhood into adult tertiary educational areas.
Integrated anatomy: a need for new teaching models

Phillip Silverman*
WelTec

The dissective approach of medical understanding has strongly influenced how anatomy is taught. While this descriptive approach is extremely useful for those with a surgical mandate, it has the potential to lead to confusion for those seeking an understanding of functional anatomy, especially where a more integrated structural understanding is required.

This presentation will provide an update on the living anatomy project, which aims to provide anatomical teaching resources or models that are designed with a functional rather than descriptive approach. It is proposed this shift in modelling and in turn teaching is required where a more integrated approach is required. For example those interested in posture and movement, or indeed emerging areas such as creature design.

The previous presentation focused on the initial models created, and the process to produce these. This presentation will discuss the shift from physical models into animation and the development of digital based models.

*Anatomical models are exhibited*
Engaging Māori rangatahi into health careers: What works?

Ruth Crawford*, Leigh Andres, Kerri Arcus, Janet Collier-Taniela

Whitireia

**Background:** Recruiting Māori into the health professions is required to meet future Māori healthcare needs. The Kia Ora Hauora (KOH) programme is a national programme which aims to increase recruitment of Māori youth into a range of health careers. KOH provides targeted interventions which expose secondary school students to culturally appropriate experiences of health careers. Collaborative research undertaken between the Central Region KOH programme and the School of Health at Whitireia Community Polytechnic, retrospectively investigated the efficacy of these interventions.

**Research question/Aims/Objectives:** The aims of this study were to investigate the efficacy of interventions offered in the Central region KOH programme, to explore which interventions offered to school students were most effective to increase recruitment of Māori into a range of health careers.

**Methodology:** Existing evaluations of interventions collected from 2010 – 2017 inclusive were checked for completeness and analysed using descriptive statistics and simple inferential statistics. Results Evaluations of 608 secondary students from years 9-13 who had attended interventions were analysed. Students from 80 schools from deciles 1 to 10 participated in interventions. Most students identified with Ngāti Kahungunu (57), Ngāti Porou (45), Ngāti Raukawa (42) and Ngāpuhi (31). Prior to the intervention, 48% of all students were interested in a career in health, post intervention that number rose to 62%.

**Conclusion:** Developing the Māori health workforce is critical to ensure the quality of the future New Zealand health system. The Kia Ora Hauora programme has tapped into initiatives to engage school students. This session will provide more information about this programme and the study findings.
The pounamu of pilot

De’arna Sculley*
Whitireia

Background: Inspired by my own personal history as a young Māori who was disconnected from my whakapapa and whanau, I graduated in nursing following college and I was encouraged to work within a kaupapa Māori mental health and addictions service. It is evident throughout the literature that there is a lack of knowledge and understanding of kaupapa Māori mental health and addictions services and clarification of the specific practices, which may improve health outcomes and the procedures required for these services to be successful remain unclear, (Banks, Lacey & Newton-Howes 2014; Barnes et al., 2017; King, 2005; Ellison-Loschmann & Pearce 2006; Wratten-Stone 2016) indicating a need for further research.

Research Question: What contribution does wairua make within kaupapa Māori mental health and addictions services for Māori and their whanau? A perspective of kaupapa Māori mental health and addictions kaimahi.

Research Aim: To improve the understanding of the experience of working with wairua in kaupapa Māori mental health and addictions services with Māori and their whanau.

Research Objectives:
• To investigate the contribution of wairua in the practice of kaupapa Māori mental health and addictions services.
• To determine the kaimahi experiences of working with wairua with whanau within kaupapa Māori mental health and addictions mahi.

Methodology: A consistent standpoint of kaupapa Māori methodology is being used (Smith, 1999) and therefore it is crucial to maintain a Māori worldview to ensure the project delivers its intended outcomes to the benefit of Māori communities (Malpas et al., 2017). Kaupapa Māori as “the desire to affirm cultural philosophies and practice”, in short kaupapa Māori is about being “fully Māori” (Cram, Pihama & Walker, 2002, p.30). To this end a pilot wananga was planned to ensure that the questions were appropriate and test the timing and process around the focus group approach that was the intended data collection method. It was important to ensure the questions aligned with whakatauaki to ensure a kaupapa Māori process occurs. Following a snowball recruitment process a pilot occurred within a marae-based service and seven participants who were kaimahi of Māori decent contributed.

Results: There was a rich source of information as a result of the pilot wananga with clear themes around the essence of wairua.

Conclusions: Although the research process is not completed, the pilot process was significantly informative and informed changes to the data collection method that was intended, including reshaping the questions. The themes and outcomes of the pilot wananga hope to illuminate the importance of a pilot when conducting research.
The mentoring experiences of Pacific student nurses

Loma-Linda Tasi*

Whitireia

**Background:** We understand mentoring to mean a process of interacting that enables growth and development of those being mentored (Chu, 2009). The student in the Bachelor of Nursing Pacific (BNP) programme is required to identify a “cultural” and an “academic” mentor to aide in addressing specific Pacific learning needs in support of their study journey. This paper discusses student’s experiences of mentoring and the impact this has on their learning journey (Southwick, Scott, Mitaera, Nimarota and Falepau, 2016).

**Research Question:** What are the benefits of mentoring for Pacific students in the BNP Programme?

**Objectives:**
- To understand the usefulness of having the criteria for Mentoring
- To identify strategies that supports the learning of Pacific students

**Methodology:** The Fa’afaletui model is a Samoan concept that identifies different levels of perspective when understanding a phenomena. This research is informed by the Fa’afaletui model which seeks to understand the perspectives of mentoring from the varied levels of the degree programme, thus offering an understanding of what contributes to successful learning outcomes for the Pacific nurse student.

**Design:** Following an initial survey of current students in BNP to enquire about the current usage of mentors, a selection of small group participants is followed up by way of “talatalanoa” or small group discussions, to include those who have accessed mentors to further explore the benefits of mentoring and the processes that enable mentoring to support their study and learning journey.

**Results:** A discussion of the methodology and application to the research process will be highlighted.

**Conclusions/Implications:** By understanding the multi-perspectives of mentoring that is utilised by the students within the BNP programme, this can lead to strategies that strengthen mentoring framework will further enhance successful outcomes for Pacific nursing students.
Turanga Māori Framework and ‘Tracer Study’

Apii Rongo-Raea*, Aliitasi Su’a-Tavila, Hawa Fitzgerald, Michael Fitzsimons, Roger Ngahooro

Whitireia

Two years ago the Bachelor of Social Work programme explored the possibilities for a ‘tracer study’ that involved graduates initially of the previous 5 years. The research questions and objectives were intended to understand the longer term impacts of a social work degree and with the following initial questions areas:

a) discover what BSW graduates are doing? where they are employed? and;

b) the impact of their tertiary education success on siblings, the immediate and extended families and important others in their lives, and;

c) given the opportunity, would they be interested in a social work graduate network? If so what would it look like and what might be key priorities?

2) Discussions with colleagues and reflecting on work that I have been involved in developing have determined the methodology for the BSW ‘tracer study’. This paper presents the “Turanga Māori Framework” as the methodology and “komakoma” as the method.

3) The key components of the Turanga Māori Framework are:

- Turanga - the acknowledgement by self and others of one’s position/standing. The research will seek to understand how a social work education, qualification and employment has enhanced or otherwise the Turanga of participants.

- Piri’anga - the individual and collective sense of belonging to a reciprocal network and their response to collective and shared responsibilities and privileges. The research will seek to explore with participants how relationships are now understood and how a social work education, qualification and employment have honed their relationships.

- ‘Akau’e’anga – the duties that stem from one’s turanga and piri’anga. What are the duties of care participants currently uphold? How are these the same or different prior to their social work education, qualification and employment?

- Ta’angaanga’ia – refers to the putting into practice of Turanga, Piri’anga and ‘Akau’e’anga. How and to what extent are these components put into practice by participants?

4) Talanoa is a term used by Fijians, Samoans and Tongans. It refers to the culturally structured conversational communication between parties. For Cook Islands Māori ‘komakoma’ refers to a deliberate, informal and peaceful conversation/engagement process that uses gentle tones. Komakoma’s informality allows for cultural and social engagement that might otherwise be ruled by gender or power constructs.

5) The presentation discussion/feedback will provide a last opportunity to refine the methodological approach and the submission of a research proposal.
Drinking water treatment for Civil Defence situations - a practical approach

Induka Werellagama*

WelTec

**Background:** Drinking water is a basic human need. Humans survive three weeks without food but only 4 days without drinking water. In natural disasters, drinking water is a priority. In Wellington, with main water supply piped from Hutt Valley, a pipe rupture in a major earthquake may disrupt the water supply to the Central Business District (CBD) up to 30 days (Wellington Water). If electricity is not available drinking water cannot be boiled to disinfect. This abstract describes treating surface water for drinking, during a disaster, using two water treatment chemicals that can be safely stored at home.

**Objective:** Making the water treatment technology simple so that anyone can treat their drinking water, in a civil defence situation, using resources available in a normal Kiwi home.

**Methodology:** Two chemicals used are Aluminium Sulphate (Alum) for removing suspended turbidity and Bleach (Sodium Hypochlorite) for disinfection. 10 g of alum was powdered and mixed with 1L tap water, making a 10000 mg/L stock solution. 1 mL of this solution contains 10 mg of alum. Hutt River water was dosed with this alum and a Jar Test (simulation of drinking water treatment process) was carried out. From the clarity of water 40 ppm (mg/L) was selected as the optimum Alum dose. This may vary depending on the source water turbidity, but usually in the range 10-40 ppm. Bleach solution (as Sodium Hypochlorite) was obtained from Chlorogene, Petone. Commercially available strength is 15% V/V. 2 mL of this 15% solution of Bleach was mixed in 1 L of water, which gave a 0.03% bleach solution. 3.5 ml of this dilute solution is needed to treat 1 L of water. One bottle cap of dilute (0.03%) bleach solution is enough for this purpose. Chlorine residuals (after dosing) were measured using a chlorine tester.

**Results:** The availability of aluminium sulphate and bleach fit for water disinfection (from local NZ suppliers) was verified. The volume of average plastic bottle cap (from a fizzy or water bottle) is 4 ml. To get 40 ppm dose of alum, 1 bottle-cap full of 10mg/L alum solution has to be added to 1 L of water. Shake well and allow 15 minutes to settle. Decant the water to another 1 L bottle, leaving the settled sediment out. For disinfection, add one bottle cap of 0.03% bleach solution to 1L of alum decanted water. This will ensure approximate 1 ppm (1 mg/L) chlorine residual. After a contact time of 30 minutes, the water is safe to drink.

**Conclusions/Implications:** A simple method of treating water for drinking is developed for civil defence purposes (especially if power is not available to boil the water). Local availability of chemicals alum and bleach is verified. All measurements are given in the easy to measure unit of “bottle caps”. The paper explains how to make the alum and bleach stock solutions to be kept in Civil Defence storage cupboards, and how to treat water using only two empty plastic bottles as the equipment.
An insight to renewable energy resources in New Zealand

Andrew Boyle*

Open Polytechnic

With air pollution and climate change developing to be issues of major concern, energy, its sources and transformation had to be closely investigated. Here in this Abstract changes to Energy sources in New Zealand has been analysed, and it has been found that we are moving towards 90% level of renewable energy sources. Source - Data obtained from MBIE 2017 material
www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data.../renewables

As could be observed from the graph over the years 1990 to 2006 our sources of energy had been constant. From 2006 onwards there has been steady growth in Geothermal and other renewable energy sources. The reliance on Hydro power as a percentage of power being supplied has declined.

Overall, it could be said that we heading towards 100% renewable energy in 2025, the government’s target. The reasons being New Zealand possessing renewable energy reserves, investment in such plants. In addition the new innovation in the Solar Energy sector and Battery Technology will hasten the development of energy storage models. These models could then be used to provide energy to satisfy wide requirements including to charge and run ELV technology vehicles. Investigation of Solar, Hydro and PV systems have been undertaken to show their advantages and disadvantages to providing renewable energy to local consumers to create a more suitable and sustainable energy system.
Alkali activated fly ash-slag blend for use in concrete as an alternative to cement paste

Najif Ismail*
WelTec

The large carbon dioxide (CO2) emissions associated with cement production has led to a number of research studies on finding a sustainable alternate binder with lower emissions.

An alternate binder is synthesised by alkali-activation of an alumina-silicate rich reactant material in this study. An experimental programme investigating the development of geopolymer binder from fly ash, slag and dune sand was undertaken. Precursor materials were characterised by undertaking sieve analysis, x-ray fluorescence, x-ray dispersion, and spectral electron microscopy. A fix binder/sand ratio of 0.4 was used whilst the effect of fly ash/slag ratio, curing temperature, alkali solution modulus, and water/binder ratio on binder’s flowability, setting times, and compressive strength were reported and discussed.

The test results were analysed to find correlations and tendencies and were compared with those from published technical literature. The test results indicated that produced binder showed excellent mechanical properties, well in access of that typically obtained from cement based binders, yet can result in substantial reduction in associated CO2 emissions.
Developing a degree apprenticeship in Engineering, with a focus on Infrastructure Asset Management

James Mackay*

WelTec

As with many countries worldwide, New Zealand is facing a critical shortage of infrastructure asset managers, engineers who understand the nature and infrastructure of the country and who can draw on interdisciplinary knowledge to solve the problems that arise from infrastructure deterioration as well as future needs and natural disasters.

At present, New Zealand does not train engineers specifically for this growing niche, but rather traditional civil, electrical and mechanical engineers “grow” into the role through their own experience on city and district councils. This paper describes the processes involved in the development of a pilot curriculum for a three year engineering technologist apprenticeship degree in New Zealand, with a focus on infrastructure asset management engineering.

Initially, a sample of 20 engineers based across New Zealand was used as a reference group to draw up an apprenticeship standard that would outline the desirable knowledge, skills and behaviours of the degree candidates. This pool of engineers was then expanded and the expertise of this group used to drive the development of the curriculum. The expanded group included both city and district engineers, engineering consultants and contractors and also engineering educators from the polytechnic sector in New Zealand.

Once the degree apprenticeship standard had been ratified and interview data collected from this reference group, the degree was planned in terms of the nature of the delivery methods, the level of the degree, the structure of the programme and critically the end point assessments. The strength of this approach to curriculum development is that it is driven by the engineering community and not the engineering education sector and focused on their needs thus addressing a critical shortage that is a looming national problem.
Recovery plans are a tool for re-engaging social work students

Michael Fitzsimons*, Roger T Ngahooro, Apii Rongo-Raea, Hawa Fitzgerald, Susan Beaumont, Aliitasi Sua-Tavila

Whitireia

Background: From day one of their entry into the Bachelor of Social Work (BSW) degree programme students begin engaging with their learning. Through recovery planning the student is able to identify movement, or challenges, as they re-connect social work theory with practice.

This paper explored recovery planning as a critical tool for the development of Social Work practitioners, assessing recovery experience as it relates to learning. Three examples of how recovery planning supports student learning and movement were examined to evidence both the usefulness of the tool and the movements students experienced through their programme of study.

As a tool for documenting and accompanying students’ actions, the recovery plan has an educational value: it can be used to record, recollect and re-elaborate experiences through a planned, non-judgemental pathway process.

Methodology: Rapport building with individual students. “At risk” students identified and invited by a specific tutor to re-engage with their learning.

A group of students in the BSW, 4 year course, was invited to re-engage with their studies by specific tutor. Recovery planning allowed them to describe challenges to their learning experience. Subsequently, the recovery plans were evaluated and qualitative content analysis was used to identify themes arising from the data.

Results: Three recovery plans were analysed. Students had recovery ability. The main findings showed that actively engaging with a recovery plan helped students to effectively enhance their experiential learning across the recovery timetable period. The following themes emerged: awkwardness and disquiet, anonymity, evaluation, effectiveness of the tool in experiential learning.

Conclusions: The study enriched the debate on the use of recovery plans confirming what has already been described in literature with respect to recovery plans potential in terms of fostering and stimulating and re-engaging a professional practice as a social work student.
Harnessing the strength of neurodiversity: Exploring ways to support neurodivergent students

Kaaryn Cater*

Whitireia

The term Neurodiversity was first coined by Autistic sociologist Judy Singer in 1988, and in a 1998 issue of The Atlantic, journalist Harvey Blume wrote ‘Neurodiversity may be every bit as crucial for the human race as biodiversity is for life in general. Who can say what form of wiring will prove best at any given moment?’

Neurodiversity is both a biological human characteristic, and a paradigm. The paradigm holds that neurodiversity is necessary for the survival of the species, in the same way that biodiversity is essential for the survival of the natural world. Nick Walker, autistic teacher and author, refers to neurodiversity as ‘the diversity of human brain and minds - the infinite variation in neurocognitive functioning within our species’.

Attention Deficit Hyperactivity Disorder (ADHD), Dyslexia, Dyspraxia, Dysgraphia, Autism Spectrum Disorder (ASD) – what do all these have in common? They all share a dysfunction, that is, they begin with the Greek prefix dys, meaning bad, or difficult. And yet, all of these dysfunctions remain in the gene pool today and are essential variations in the tapestry that is the human genome.

The neurodiversity paradigm holds that neurological differences must be respected and celebrated in the same way as other diversities including race, religion, gender, etc. Instead of focusing on the deficit notion of dysfunction, the neurodiversity paradigm seeks to redress the deficit rhetoric through focusing on strengths.

Research projects currently in progress at Whitireia are exploring the journeys of neurodivergent students and investigating ways to better support them to be successful in their study. Kaaryn Cater and Elizabeth Asbury are conducting a four year longitudinal study exploring Sensory Processing Sensitivity (SPS), Irlen Syndrome and Dyslexia; and Kaaryn Cater is investigating the impact of SPS on learning. Both research projects are on-going and are receiving international interest.

The presentation will outline some initial findings, discuss possible interventions and accommodations and ideas for future directions in supporting neurodiverse students.
Whitireia paramedic graduates: On the road or in the air?

Ken Maclver, Alan Wilson, Howard Wills, Don Banks, Sean Thompson, Cameron Small, Stuart Glover, Bee Westenra, Josie Corkery, Jim Bott, Glenn Mitchell, Elizabeth Asbury*

Whitireia

Introduction: New Zealand professional paramedicine is coming of age. Tertiary paramedic education has been available for almost 20 years, but once students graduate, little is known about subsequent career progression. The Whitireia New Zealand paramedic degree cohort were traced to explore attrition, promotion and longevity within the paramedic workforce.

Method: All 508 Whitireia Bachelor of Health Science (Paramedic) graduates (2004 – 2017) were approached to participate by email. A link was provided to an online questionnaire, which comprised 25 forced response questions covering paramedic practice, occupational pathway, attrition and further study. Qualitative narrative data was obtained through free response questions. Descriptive statistics and thematic analysis were used to explore the data.

Results: One hundred and fifty nine Whitireia paramedic graduates participated in the study, indicating a 31% response rate. Ninety-two percent were currently working in New Zealand, 87% were employed in an ambulance service and 84% worked fulltime. The majority of responders were frontline emergency (68%) or Emergency Care Paramedics (22%). Fifty-five percent held Paramedic Authority to Practice (ATP), 31% Emergency Medical Technician ATP, and 6% held Intensive Care Paramedic ATP. Thematic analysis identified general satisfaction with the New Zealand model of education, but dissatisfaction with career advancement opportunities and resourcing.

Conclusions: Whitireia paramedic graduates remain and practice in New Zealand, disputing the accepted wisdom of graduate enticement overseas. While preliminary analysis suggests that Whitireia paramedics experience career longevity, dissatisfaction with career advancement opportunities and under resourcing may prompt attrition. Impending paramedic registration may increase the alternative career opportunities available, therefore in order to promote career longevity, a structured, accessible career pathway should be available to all degree qualified paramedics.
Job burnout among Call Centre Agents in India
Shilpa Jain*, Anup Singh
Open Polytechnic

Without work, all life goes rotten. But when work is soulless, life stifles and dies - Albert Camus

Background: Burnout is defined as “a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do ‘people work’ of some kind,” (Maslach, 1982a). This research study was designed to understand the prevalence of job burnout and the contributing factors among call centre agents in the service sector in India. This paper focuses on the degree to which each of the perceived factors - work overload, social undermining, and negative affectivity predict job burnout in this sample. Job Burnout in this study was defined as a state of Meaninglessness, Exhaustion, Demotivation and Job Involvement (lack of) that has an origin in the work context (Surana and Singh, 2009). Call centre agents face an excessive pace of work and averagely talk to between 60-250 clients per 8-hour shift (Henn et al, 1996).

Research Objectives:
• To analyze the nature and prevalence of job burnout among call centre agents.
• To investigate the degree to which work overload, social undermining and negative affectivity contribute to job burnout.

Methodology: This questionnaire-based study was conducted among voice-based call centres in India. Respondents consisted of 303 call centre agents employed in eight large to medium-sized voice-based call centres in two cities in India. Data was analysed via correlation matrices and regression analyses to determine predictors of job burnout.

Results: Prevalence of job burnout: Widespread job burnout reported with 59% of respondents experiencing moderate to very high levels of burnout. Work overload and job burnout: A strong positive relationship was reported between work overload and the burnout dimensions. Social undermining and job burnout: Social undermining was related to job burnout though not in the hypothesized direction as explained by the employee work profile and organizational culture characteristic of call centres. Role of personality dispositions: Individual traits such as negative affectivity was related to the dimensions of job burnout.

Implications for Practice: Through use of standardized questionnaires, job burnout can be assessed so as to inform appropriate individual and organizational level interventions as it is prevalent among the sample studied. Implications for recruitment of call centre agents since study identifies negative affectivity as an important personality variable affecting job burnout. Recommendation to redesign the call centre agent jobs-addressing the increased workload and adding elements of challenge and complexity.

To conclude, healthy staff are a key to healthy workplaces and job burnout is a critical phenomenon with possible implications for workplace wellness. Future study could examine the service oriented roles within the New Zealand context and also among students in higher education when demands exceed the resources available.
Political events and shareholder's value: An event study analysis of the New Zealand Stock Market

Mathew Abraham Purvady*
Whitireia

This study examines the properties of daily market and stock returns and assesses the share price impact of recent political events (Brexit in 2016 and New Zealand election results and government formation in 2017) on the New Zealand stock market using the event study analysis.

The study first investigates the statistical properties of both observed daily stock returns and daily excess returns, and then examines the probability of rejecting the null hypothesis of no average abnormal performance when it is true, and evaluates the impact of the aforementioned political events on the New Zealand market.

The data for the study is secondary in nature which includes the NZX 50 Index and the closing prices of the 50 largest, eligible stocks listed on the Main Board (NZSX) of the NZX (New Zealand Stock Exchange) by float-adjusted market capitalization.

The results show that the New Zealand listed firms included in the NZX 50 Index were negatively impacted by Brexit, the New Zealand Election Results and the New Zealand Government Formation. A possible reason for the overall negative announcement effects of these three events could be the negative market sentiments of the investors caused by uncertainty in overseas markets and domestic policy directions especially in the areas of immigration and housing.
Social entrepreneurship: Emancipation and the issues that challenge the social value creation

Nazir Awan*, Indu Peiris
Open Polytechnic

Background: The act of setting free from the power of another or in other words ‘emancipation’ is a notion of entrepreneurship. Despite the predominant focus on wealth creation as a perspective in entrepreneurship research, today we see a growing trend of social entrepreneurs who have made their life goal to serve their society through social value added activities. However, their journey is not as easy as their profit oriented counterparts who focus on individual wealth creation. Current literature also has been mostly confined to traditional for-profit entrepreneurial organisations in the North American context. A promising yet understudied aspect of social entrepreneurship is now emerging with the intention of understanding how social entrepreneurs use their ventures for emancipating themselves and those they serve.

Objective: This presentation focuses on the challenges faced by a social entrepreneur through her emancipatory journey of building one of the initial and most successful social enterprises in New Zealand from the ground up.

Methodology: Using a single in-depth case study, the authors investigate two key perspectives: the entrepreneurial and the social venture. Using entrepreneurial perspective of emancipatory behaviour we seek to uncover the key dimensions behind the meaning of emancipation in relation to: autonomy seeking; authoring and intention to create change. From the social venture perspective, we look at factors behind the emergence of a social venture and the challenges it faced through its journey to the top.

Results: Case findings revealed that the idea origination/opportunity identification of social entrepreneurs are primarily driven by a passion to serve the society. They seek autonomy and help others to break free. The take ownership of oneself and one’s group and re-write the rules of engagement. Over the years, venture goes through a significant transformation and challenges related to branding, governance, maintenance of virtual ethics, due diligence when entering into partnerships, measuring the social return on investment and managing staff and volunteers’ expectations for an effective balance between social mission and making money.

Implications: This study is a start to a wider study on social entrepreneurs that will contribute to the literature from three perspectives. First, this study will be one of the first studies to look at social entrepreneurship through the lens of emancipation; Second, the findings will bring insights from the New Zealand context where there is little research done using social enterprises, third this study provides an in-depth analysis of challenges faced by social enterprises from inception to its maturity.
The financial viability of circular business models for small fashion brands specific to New Zealand and Australia

Karishma Kelsey*, Barbara Kneuer, Andrew Zalwiski
Whitireia

Irrespective of its image on the catwalk, the fashion industry is, in fact, a ‘dirty industry’ (Fredriksson, 2011; Solomon and Rabolt, 2009) with prevailing adverse impact on the environment. According to the view presented by Formentini & Taticchi (2016), business sustainability requires that economic, social, and environmental dimensions will be considered simultaneously. The ‘circular’ economy, being an answer for environmental problems, is a conceptual (Lofthouse, V. & Prendeville, 2018) model presenting an alternative to our current ‘linear’ economy (make, use, waste). Two key approaches are directly related to the circular economy: closing resource loops through recycling and slowing resource use cycles (Bocken et al. 2016, 2014; Cooper 2017). The circular economy concepts and advocacy were mostly popularized in business by the Ellen MacArthur Foundation (Ellen MacArthur Foundation, 2014). Independently on many research frameworks (e.g. Formentini & Taticchi , 2016; Van Bommel, 2011; Vurro et al., 2009) there is no adequate translation of proposed in literature sustainability strategies and business models into practice aligned with governance mechanisms at the same time allowing for environmental aware small fashion businesses to be more competitive. There is no visible advantage of “being environmentally aware” for the mentioned companies. Even more, these companies are working in more risky conditions due to lower profits related to taking care on the natural environment.

This research focuses on the relationships between business environmental sustainability and financial sustainability of the small businesses in NZ performed in the fashion industry.

The paper analyses the financial situation of small businesses who decided to follow the circular economy model to provide environmental sustainability. The basic research question is whether the environmental awareness of the business impacts their financial performance and in fact their survival on the market.

In further research, these data will be used to formulate recommendations and business models proposed for small fashion companies to improve their market survival skills as they have a better environmental impact than analogical companies not following the circular economy concepts. Generally, this process should provide growing environmental awareness and promote this awareness in a business environment not only in the fashion industry with positive effects on the life of all of us.

The research methodology comprises qualitative methods and ethnographic type of research done by interviews and long-term observations of the inside environment of several selected small fashion companies. The research is supported by current literature reviews and comparative case studies.
Pre-degree nursing role-plays in Second Life

Merle Hearns*
Manukau Institute of Technology

Background: Virtual worlds are persistent 3D environments which provide a sense of real space. For many years Second Life (SL) was the main virtual world used by educators with its use peaking from 2007 to 2009. Although virtual worlds are no longer proposed to be a panacea for education’s ills, there is a group of stalwart educators who have seen the benefits of virtual world learning and teaching activities. There is now research data to support the advantages of learning and teaching in a virtual world. However, few assessments have been moved into a virtual world scenario and there is a sparsity of data investigating the efficacy of virtual world assessments. This research was aimed at investigating the effectiveness of assessment for and as learning within a virtual environment.

Methodology: This research focussed on the use of SL for foundation nursing students who participated in role-plays with virtual world educators who volunteered their time and expertise. Students conducted research into a body system, investigated a problem that arose when that body system did not function as it should, and then produced a leaflet for a potential patient who had been diagnosed with the problem the student had selected to study. Students were introduced to SL and prepared for a competency role-play assessment. Volunteer “patients” were assigned to student “nurses”. Role-play performance was assessed by the patients and by the lecturer who acted as the computer lab supervisor, recording performance during role-plays. All students who participated in SL assessment were surveyed immediately after their role-plays, then six months into their nursing training. Feedback was collected from volunteer patients. The initial survey was based on 15 statements, using a 6-point Likert scale, plus four open questions. Results from two representative statements were as follows:

• “I felt as if I had a real patient”, 18% strongly agreed, 56% agreed, 11% partially agreed, and the remainder equally spread between partially disagreed, disagreed, and unanswered (5% each).
• “Role playing as a nurse in SL was a positive experience”, 39% strongly agreed, 36% agreed, 15% partially agreed. The remaining partially disagreed or disagreed (5% each).

A theme analysis from the open questions revealed the following:

• The Best Aspect main themes were: general positives (30%), making connections (20%), learning SL skills (20%), learning clinical skills (20%), and gaining experience (10%).
• The Worst Aspect main themes included technical issues (30%), miscellaneous comments (27%), inadequate personal preparation (10%), and no real-life visual cues (6%). The remaining 27% said there was no worst aspect to the role-plays.
• When asked “Suggestions for Improvement”, 35% stated no improvement needed, 45% wanted more time in SL. Other themes were to upgrade software or hardware (15%) or miscellaneous (5%).

91% of respondents saw the SL role-play as having long-term benefits.

Conclusions/Implications: All feedback from students indicated that the SL environment provided a worthwhile, realistic, and quality learning environment for these students. Although the environment was seen as “fun” and “exciting”, the students focus on the actual role-play led to a depth of learning that had not been achieved previously in classroom role-plays. Those who completed surveys a semester into their nursing programmes reported a greater level of confidence in their first encounters with real-life patients because of their SL experience.
How learning is transforming with the evolution of digital technologies?

Janak Adhikari

Open Polytechnic

Background: Teaching, when assisted by digital tools and systems, helps to transform teaching and learning practices (Mardis & Everhart, 2013; Sampson, Ifenthaler, Isaías, & Spector, 2014). Teachers in any of the learning environments create their context-adapted teaching approaches (or learning delivery styles) in their attempt to make the learning more pedagogically innovative as they integrate digital technologies into their teaching deliveries. Further, with advances in technologies, opportunities to search and retrieve information have improved immensely, especially among learners who can explore themselves. The penetration of mobile, handheld devices and 24/7 access to the internet have created more prospects for both educators and learners to collaborate on learning activities from anywhere (Newhouse, Lane, Cooper, & Twining, 2014). However, simply the availability of technologies and the ability to operate those devices are less than likely to improve the learning experience and outcomes (Bailey, Schneider, & Ark, 2012). Information literacy skills are essential for learners to be able to make efficient use of available material resources and realise their learning potential and outcomes (Mardis & Everhart, 2013; Meyers, Erickson, & Small, 2013).

Research question/Aims/Objective: With an ever-growing trend of making teaching and learning more technology supported and technology-mediated with practices like blended and online learning, this study seeks answers to the question of how learning is transforming with the evolution of digital technologies. Methodology: Using a Cultural Ecological Frame for Mobility and Learning as a lens for the analysis, a longitudinal study conducted over the four-year period has investigated how technology integration into the curricular practices have evolved over the four year period.

Results: Study findings reveal increased information literacy skills and self-efficacy among the learners. However, the most exciting outcome was to learn about the significant shift in boundaries between formal and informal learning spaces. Increased use of technologies like personal learning devices and the internet provides the link between formal learning spaces (classrooms) and the informal learning spaces (home and outside the school), as students take more ownership of their learning, and teachers become facilitators. Increased acceptance of the student-led and self-paced learning have given greater agency to students, resulting in extensions of learning activity beyond formal classroom spaces.

Conclusions/Implications: These practices have the potential to change the learning landscape by providing better learning opportunities for individual learners, thereby paving the way for an inclusive digital transformation in education. However, to achieve a more holistic view, there is a need for further studies conducted in diverse teaching and learning environments.
Education 2.0: Embedding learning analytics to improve educational outcomes

**Sophronia Smith, Tony Thistoll*, Leise Cochrane**

**Open Polytechnic**

It is common in most face-to-face institutions in New Zealand to use an Inquiry Cycle (Timperley et al., 2014) that analyses student achievement to plan improvements in educational practice (PLD Advisory Group, 2014). However, systematic engagement data is not generally used as part of Inquiry Cycles, because it is only available through technology based delivery. This research project provides the unique opportunity to use Open Polytechnic’s online Learning Management System, iQualify, to capture learning analytics in both online and blended learning environments and embed their use in the Inquiry Cycle process. OP Academic Staff Members will be introduced to learning analytic tools and resources to use in a blended delivery model for specific units, while the Inquiry Cycle process will be adapted for use in the ODLF environment.

1. Baseline surveys will measure the initial use of learning analytic tools in participating institutions.

2. Learning analytic tools and resources such as an early warning system of student engagement, easy-to-use learning analytics reporting tools, and professional practice standards will be introduced to participating staff through bi-annual workshops.

3. These tools and resources will be used throughout programmes/units to support teaching and learning.

4. On completion of the programme/unit staff will be surveyed to determine the successes and/or failures of the process.

5. Tools and resources will be improved based on feedback and re-introduced in the next workshop.

This process will be completed bi-annually throughout the first two years, while the third year of the project will disseminate results through professional development workshops and courses. This project has been socialised with Ako Aotearoa and received encouraging feedback. It builds on previous research (Gunn et al, 2016; Gunn et al, 2017a, b; Kennedy et al, 2017; Productivity Commission, 2017) which found that the use of learning analytics in New Zealand is still in its infancy, with the fundamental challenge being to bridge the gap between research and practice. The project seeks to demonstrate a measurable improvement in learner outcomes through the embedded use of learning analytics in the inquiry cycle. Success will be indicated by a statistically significant improvement in learner outcomes (student engagement, grades, course completion, retention, parity) against baseline measurements. The bi-annual online surveys with learners will examine learner satisfaction, perceived success, and perceived reasons for success. This will enable other reasons for success to be explored and documented which may not be related to the learning analytics and Inquiry Cycle framework.
Using rapid authoring tools to mobilize learning

Georgina Orsborn*
Whitireia

Creating mobile learning (mLearning) opportunities for distance and blended students is becoming increasingly important. Students are seeking the ability to complete learning anytime, anywhere and on any device. This movement has been aided by the surge in the development of ‘rapid authoring tools’. Rapid authoring tools are powerful platforms that enhance an educator’s ability to create interactive meaningful eLearning experiences without the need for sophisticated programming skills. Rapid authoring tools such as Articulate Storyline and Articulate Rise provide new opportunities for educators to create professional, highly engaging content that can be accessed on any device at any time, which allows them to ‘rapidly’ curate mobile learning experiences that meet 21st century learner’s needs. This presentation will examine the value of rapid authoring tools such as Articulate Rise by illustrating an example of a short online plagiarism and academic integrity module developed rapidly as a result of a need identified in the Postgraduate Nursing and Health Studies team. It has been observed that a number of postgraduate students struggle with understanding academic integrity and plagiarism, and the development of this project aimed to respond to this need. Many postgraduate students study in isolation and have little face to face contact with educators, so creating a way for students to access engaging and relevant information about academic integrity can enhance their chances of academic success. The aim of the project was to create a short online plagiarism and academic integrity module that could be developed rapidly and that could be accessed on any device, at any time. While there is a plethora of resources available to students on avoiding plagiarism, it was deemed important to create content that was meaningful and relevant to postgraduate Whitireia and WelTec students. The educator/ developer chose Articulate Rise for its automatic responsiveness to all mobile devices and ability to develop engaging content faster than most other rapid authoring tools, due to its suite of templated lessons. Once content was gathered, using both existing institution resources and additional new content, a short online module was created using Articulate RISE in less than 12 hours of the educator’s time. The module included a short quiz, video in links to plagiarism content, screen recording of how to use Turnitin and information specifically for students studying at Whitirea and WelTec. Feedback from academic staff has been positive and this module is now being used in a variety of courses in the Centre of Learning for Health and Social Services. Further evaluation is needed to establish the usefulness of the module for students. This presentation will identify some of the initial observations and feedback.

mLearning enables the delivery of educational content without any geographical or temporal constraints and shows great potential to reduce costs and educator time. Using rapid authoring tools such as Articulate Rise allows educators to develop their own mLearning content that is accessible to students anytime, anywhere via their phones, tablets or PCs. Further evaluation of the effectiveness of this module will inform the refining and development process.
Rangahau in Te Wānanga o Aotearoa (TWoA): Values based approach to enquiry

Sophronia Smith*

Open Polytechnic

**Background:** Rangahau is a values based approach to enquiry. Ranga – to weave, and Hau – is the weaving of spiritual energies and life forces to produce something. Rangahau is located in pūrākau - our indigenous stories embedded with cultural lessons and morals. Underpinning Rangahau are tikanga rangahau – principle values that guide all engagement, relationships and activities towards wellbeing of the collective. In 2015, I co-wrote Te Wānanga o Aotearoa Rautaki Rangahau 2015-2019 which included a conceptual framework, tikanga rangahau a set of guiding principles, and Kia Manawatina an aspirational framework to measure quality rangahau. Rangahau was created in response to the pervasive Eurocentric worldview, philosophy, paradigm or methodology. And a long history of exploitative research practices.

**Research question/Aims/Objective:** When Te Tira Rangahau – the rangahau team - was created in 2014, the most pressing question was what does enquiry look like, taste like and feel like at TWoA?

**Methodology:** A Māori centered approach was designed, drawn from Kaupapa Māori theory and principles-using qualitative methods such as wānanga, hui and whakawhitiwhiti kōrero. Kōrero occurred with respected Māori academics including Whatarangi Winiata, Leonie Pihama & TWoA staff. A review of tribal literature through the ngā moteaea series collected by George Grey was conducted along with a traditional maimai – song of mourning from Raukawa Tainui, & teaching described by revered leader Pei Te Hurinui Jones found within the Sacred Whare Wānanga – higher centre of learning at Tainui.

**Conclusions/Implications:** Rangahau is a culturally relevant position that demonstrates belief in Māori traditions and worldview. By examining some of the key value principles of Māoritanga, such as whakakoha rangatiratanga – respectful enduring relationships, we could better understand what values based bicultural/multicultural approaches to research are, specific to the Aotearoa context.
How contemporary leadership engages critically with diversity

Stephanie Kelly*, Tony Carton

WelTec

**Background:** In the WelTec-Whitireia Master of Professional Practice programme I teach the courses Professional Leadership for Practice and Diversity for Professional Practice. Since 2014, both Leadership and engaging with Diversity and Inclusion, have been identified by Deloitte International, in their annual publication Global Human Capital Trends, as within the top ten trends for concern for organisations worldwide. Critical leadership and diversity studies are emerging fields. For leaders and practitioners their practice worlds are becoming more complex, diverse, and uncertain, while social inequalities and mental health issues are growing among the populations we work with. Social problems are growing into ‘wicked’ problems and operate in the context within which we look to senior leaders to help. Yet, initial searches of the literature and research indicate there is limited academic research which critically examines the complex relationship between leadership and diversity, and how leaders understand and apply these understandings in their practice.

**Research question/Aims/Objective:** The research aim is to better understand how senior leaders, managers and practitioners in health and social services consider the relationship between leadership and engaging with diversity, and how this affects their practice.

**Methodology:** This research is a literature review which aims to identify the research and critical academic theory that has examined the relationship between leadership and diversity, and the assumptions, meanings, and practices implicated in this relationship, with particular attention to health, social services, and education.

**Results:** Initial review of the literature suggests that the language and practices of both leadership and diversity are ambiguous, complex, and unclear. In fact, this starts with ambiguity around understandings of what leadership and diversity actually are, and how these are defined. The research is still in progress. Initial findings from the literature review will be presented.

**Conclusions/Implications:** The implications and significance of this research will be in its application to informing leaders and managers working in health and social services.
Cultural and professional leadership

Jean Mitaera*, Alilitasi Su'a-Tavila, Teramira Schultz, Loma-Linda Tasi, Roger Ngahooro, Hawa Fitzgerald, Michael R Fitzsimons, Ana Kinikini, Ana Simmons, Apil Rongo-Raea

Whitireia

As the Chief Advisor Pacific Strategy for WelTec and Whitireia, I am well aware of the lack of Pacific leadership across both organisations. In fact encouraging Pacific staff to apply for promotion and or progression is a long time challenge. From a Pacific perspective applying for one’s own promotion or progression is contrary to everything Pacific. You are born to serve without credit or record.

The purpose of this research is to find a pathway that will engage Pacific staff to be willing participants in their professional leadership. Using the Turanga Maori methodology I intend to gather the relevant information to furnish the participants promotion/progression application. The Turanga Maori methodology is the most appropriate because it draws on Pacific cultural concepts that resonate with Pacific participants, and the concepts themselves align with notions of leadership and service:

- turanga - strengthening position, place and status
- piri’anga - being aware of the layers and levels of relationships that support one’s turanga; and
- ’akau’enga - the duties of care (professional and cultural) inherent to one’s turanga.

The research will adopt the method of Komakoma (informal but structured gentle conversation) to engage Pacific participants.

This presentation will demonstrate the use of the Turanga Maori methodology and the komakoma method to participants - both to test the approach and to refine the approach.
Iwi in Māori research frameworks

Jeanette Grace*

Whitireia

A systematic review to discover how iwi were considered in Māori research frameworks provided evidence based components potentially relevant to an iwi specific research framework. The definition for Māori research frameworks and iwi research frameworks in the context of this project referred to frameworks derived for and from research undertaken by for and with Māori that met the inclusion criteria. 879 sources were identified and screened. 49 sources were retained for the review.

Two critical appraisal tables were produced along with a narrative about the four primary themes of: commitment to iwi ways of being; iwi as the source of mātauranga and identity; the undermining of tikanga and mātauranga Māori; and the role of the academy relative to Iwi-Māori tikanga and mātauranga.

An inductive reasoning process was used to identify potential components of an iwi research framework from the four themes. The development of this framework might be of benefit to emerging Māori health, education and social practice researchers.

Acknowledged limitations were the failure to use the term rangahau in the search terms, and the inability to capture the myriad Māori research studies that are available. A yawning abyss separating my worldview and that of the institution and the hope engendered by the study were surprising.
Design options for an ageing New Zealand population: A life cycle energy (LCE) analysis

Iman Khajehzadeh*, Fatemeh Yavari

Open Polytechnic, Victoria University of Wellington

Many elderly New Zealanders live in houses larger than they need and some find it difficult to maintain them. Some struggle on while others prefer to move to retirement villages or similar options. This study takes a typical three bedroom house in New Zealand and shows it is possible to convert this into small units for the independent elderly to enable ageing in place.

The aim was to see the resource use impacts of each housing option. Two schemes are shown, one with separate units and a shared entrance and one with separate en-suite bedsits with shared living spaces. The conversions meet the New Zealand Lifemark standards for such housing and provide the type of accommodation found in retirement village units. Seven scenarios were created for households in both the original and converted house. A life-cycle energy assessment of each scenario of the house before and after conversion, including its operating energy and the energy embodied in the building and furniture, appliances, and tools shows that occupancy and design are key factors in whether resources can be saved using this approach. Over 50 years the conversion with four occupants showed a 27% saving in life-cycle energy (per person). However, two people living in the original house used less energy per person over 50 years than either two or three people living in the same house converted into two separate units. This is because of the duplication of appliances and furniture and more use of hot water in the two bathrooms. The resources going into converting the house were minimal.
Exploration of the internal retrofitting of existing timber and light gauge steel framed buildings with highly insulated cassette type wall elements

Richard Foreman*
WelTec

Background: The housing stock of NZ performs notoriously poorly in terms of heat loss and air infiltration. This includes the vast majority of houses built in the last ten years as well as older buildings and is partially due to the type of construction used (to accommodate seismic movement) and a consumer and industry acceptance of meeting the minimums of the NZ Building Code. It is relatively easy to improve the thermal performance of ceilings and floors but walls are much more complex. Current methods used to improve the thermal performance of walls are relatively expensive and prone to issues that reduce performance over time. Walls in framed construction contain numerous thermal bridges that reduce performance. Successful and high performing thermal envelopes require holistic assessment that seldom occurs in New Zealand in the retrofitting of insulation. If NZ were to apply the same thermal envelope requirements that are employed in countries such as Germany and Denmark, it is likely that there would be little or no requirement to heat or cool the building during typical use. If the installation of such systems was supported and encouraged nationally the ensuing improvements to quality of life and health would be substantial as well as obvious economic and CO₂ reduction impacts.

Aim: This research could be broken into three stages. The first stage explores feasibility, the second the tangible benefits and processes and the final stage the development of a supportable strategy for implementation. The first stage would explore the development of a methodology of retrofitting walls in existing housing with high performing insulation. This would involve three investigations:
1. Use of point cloud scanning units to create accurate internal surveys suitable for the CNC creation of internal elements.
2. The design of methodologies and construction details outlining processes to be used on existing houses of various ages (it can be expected that most housing older than 1978 will have no wall insulation). This will include details providing solutions at existing penetrations and services to not only improve thermal performance but air infiltration reduction also.
3. The design of the cassette/composite panels themselves, exploring the use of materials such as aerogels in a robust panel. If the findings of the first stage prove that such a system is viable the next stage would be to widen the scope of the research to include estimating costs and benefits of large scale implementation of retrofitting in New Zealand. This would include an assessment of the improvement in community health if implementation was supported throughout New Zealand.

Methodology:
1. Investigation of existing technologies that could make the process of surveying and creating CAD information into an efficient and accurate method.
2. The design and documentation (drawings) of assemblies and methodologies for a range of situations, conditions and ages of existing buildings.
3. The research of material types and design and documentation (drawings) of panels. Construction and testing of panel assemblies.

Implications: It is hoped that if the first stage and second stages of research were successful a proposal could be made to the government to consider ways of implementing and funding the retrofitting of houses throughout the country.
Improving the health of the elderly through public space design

Minh Nguyen*, Thu Phuong Truong, Diane Brand

WelTec, Victoria University of Wellington, University of Auckland

With a growing aging society, many developed countries have advanced their policy to support the concept of active ageing. However, a general lack of resources have placed a big challenge on policy makers during the implementation process. In this regard, this study examines a possible low-cost solution using spatial design to improve the health of the elderly in an urban village, a low-income neighbourhood in China. In particular, we investigate whether the design of this local public space supports not only the physical but also the social interaction needs of the elderly.

The public square of Shangsha village in Shenzhen City is selected as the case study as it features many similar characteristics of redeveloped urban villages in China. Direct observations, including activity mapping, were conducted to study the patterns of physical activities and social interactions among older users. We pay great attention to the location where social interactions are most likely to take place in the square as well as key features such as the number of seats, provision of a good view and weather protection that encourage people to interact. In addition GIS techniques were used to better visualise the findings.

More importantly, we found that, unlike physical activities, social interactions tend to cluster around a particular setting in which a pleasant view is critical for the success or failure of the social space. In addition, we also identified that moveable furniture is the key feature that substantially promoted social interaction among the elderly.

The experience, drawn from the Chinese setting, suggests that spatial design could be a low-cost solution to support the active-ageing process. As many countries are developing policy towards age-friendly communities and cities, this study provides helpful guidance regarding the development of open public spaces.
The Wellington CBD building inventory database and seismic issues

Najif Ismail*

WelTec

Wellington is known to have a high seismicity and the statistical records of earthquakes at the Wellington fault line and the Alpine fault line suggest that a large earthquake is well over-due. In view of this Wellington City Council is taking a pro-active approach to increase the seismic resilience of buildings and infrastructure in its jurisdiction. The first step in such a process is the accurate estimation of the seismic risk, this being the main driver to initiate this collaborative project and to involve Quake CoRE, GNS Science, and WelTec.

The main objective of this project is to better understand characteristics and structural attributes of the building inventory in the Wellington CBD that would inform resilience projects within the city.

The project starts with collating different existing building inventory databases (BID) developed as part of a number of other earthquake resilience initiatives. The information across these different databases is validated by correlating and comparing information on building attributes. The collated BID was then updated and validated by undertaking street surveys and a review of available drawings. Post-1974, five storey and higher buildings were prioritised and focused on, with an intention to extend coverage to other building typologies depending on time and remaining funding. As an estimate, about 709 buildings were surveyed on which structural attributes with photographic details were documented. The collected raw data for each building was matched to a building footprint geospatially. Further information on retrofits undertaken on buildings was extracted from council consent archives and was added to the BID.

A general overview of the project, with building attribute statistics, and discussion on key seismic deficiencies noted will be presented. Trends and correlations between different data variables were investigated and will be discussed.
Don’t freak out! Most probably you’re a feminist too: A reflection on a feminist methodology for former refugees

Hawa Fitzgerald*, Alitasi Sua-Tavila, Apii Rongo-Raea, Michael Fitzsimons, Roger Ngahooro, Susan Beaumont, Jean Mitaera

Whitireia WelTec

**Background:** My front-line social work experience with former refugees and research study on refugee resettlement have shaped my knowledge on the refugee sector in Aotearoa New Zealand. Using the Mana Wahine concept, the research findings show refugee women have bigger challenges to integration compared to their male counterparts, however, community services and development are delivered the same way for men and women disregarding women’s specific cultural needs and rights related to their gender and religion. In order to fill these gaps and create social change practitioners and researchers need to consider that one’s attitudes towards feminism are constructed by a number of factors, including political orientation, religiosity and knowledge. This conceptual paper explores the benefits of using multiple feminist methodologies when conducting research studies on former refugee women, taking into account their specific needs.

Feminist research is when the differences between femaleness and maleness and the domination within them are made a central feature. Former refugee women, in particular, have distinct needs compared to men. With research now regarded not only as evidence, but a social work response that requires a reflection incorporating professionalism and values, the use of a variety of methodologies is strongly encouraged. Research studies on former refugee women contribute not only to the richness of knowledge in social work but as a boost of energy in the social justice arena for refugee communities. The great thing is factual knowledge or research findings in social work practice is being regarded as a contributory element rather than a one-off application.

As the saying goes there is no one-size-fits-all practice in social work, it would be appropriate to suggest a combination of methodologies when working with former refugee women. If researchers could only use written scientific methodology, there would not be much social workers could do to improve and reflect on their practice.

**Research question/Aims/Objective:** How does the application of multiple methodologies influence research studies on refugee women?

**Results:** A greater awareness of social work in the refugee sector, in particular, the differences of working with male and female former refugees. A greater awareness hopefully then enhances equal opportunity for former refugee women to have a voice and feel empowered in their resettlement and ultimately integration into New Zealand society.

**Implications:** The practical implications of this research relate to informing researchers, practitioners, social workers and social work students on what methodologies can be considered applicable when working with former refugee women. The objective of this study is to develop a model that informs insights into the feminist methodology, particularly for former refugee women.
Poverty informed social work practice in Aotearoa New Zealand

Lesley Pitt*

Open Polytechnic

Background: Poverty is an issue for social workers regardless of the field of practice they are working in. This social work practice approach is drawn from my doctoral research, a qualitative study exploring the lived experience of poverty in a rural community. While there is a significant body of knowledge about urban poverty in Aotearoa New Zealand there is limited research about rural poverty which was the rationale for this study. From the research a local, poverty informed approach for social workers working with the poor was developed. The approach takes into account intersectionality and is underpinned by a human rights perspective; poverty is viewed as a breach of human rights.

Research question/Aims/Objective: The research questions of the overall study were:

• What is the experience of poverty like for those who live in rural communities?
• How do they cope with financial hardship and what impact does it have on their daily lives?
• What are the implications for social workers working in rural communities of poverty in their client group and how can they work with the rural poor effectively in empowering and socially just ways?

Methodology: Twenty-eight people living in Stratford District who self-identified as being poor were interviewed for the research using a qualitative approach. Key informants in the community were also interviewed and a field work journal written as a process of critical reflection. The data was analysed using applied thematic analysis. The study was underpinned by critical theory and critical feminism.

Results: What will be reported on is the development of a poverty informed approach to social work which incorporates deep listening, advocacy, conscientisation, making the personal political, intersectionality, critical reflection and human rights.

Conclusions/Implications: Poverty informed social workers need an understanding of the insidious nature of poverty; that poverty impacts on every part of daily life. The approach outlined draws on a commitment to human rights; a recognition that poverty is a breach of human rights and not an individual failure. Social work which is poverty informed incorporates the micro and macro dimensions of practice without a division between the two. If there is fluidity in practice between working with individuals or family/whanau and working at a societal level to create change then social workers will be more useful as advocates for clients and less likely to judge or blame clients for their situation. Drawing on the feminist ideas of consciousness raising and linking the personal to political it is argued that social workers can work for social change alongside their clients.
Diversity and other ambiguous words

Susan Beaumont*, Aliitasi Sua-Tavila, Michael Fitzsimons, Roger Ngahooro, Hawa Fitzgerald, Apii Rongo-Raea

Whitireia

**Background**: The social work profession’s objective to work towards individual, whanau and community empowerment are inextricably linked to the context and worldview of the individual, whanau and community. Supporting people in their own growth unconditionally requires their knowledge and lived experience. Acceptance of multiple realities is therefore central and ‘knowledge through diversity’ appears a good fit. However, literature evidences that terminology such as the term diversity that is used to facilitate professional discourse can be problematic.

**Aim**: The presented research aimed to gain insight into the usefulness of commonly used social work terminology to promote knowledge and empowerment within multiple realities, particularly for social work students.

**Methodology**: Action research was employed to explore and examine the research focus. Action research enabled a cycle of acting, evaluating and reflecting upon the use and effectiveness of social work terminology within the Bachelor of Social Work team’s various practice contexts. The methodology drew from critical theory to support the action research aim to reduce inequality, with particular focus on the relationship between power and language.

**Results**: Preliminary results show that commonly used social work terminology has varying usefulness in representing social work objectives. Particular commonly used words were viewed as potentially prompting deficit assumptions and homogeneity, and as counter to a strengths based social work approach. In addition, the results highlighted how the Whitireia Bachelor of Social Work team individually and collectively model knowledge through diversity with or without the use of social work terminology.

**Implications**: The results suggest that social work terminology provides one of many starting places to explore foundational social work concepts and objectives, particularly for students. This finding prompts questions about the effectiveness of beginning the exploration of social work concepts with terminology, and warrants further research.
The impact of Whitireia postgraduate studies on nurses’ career progression and promotion

Kerri Arcus*, Elizabeth Asbury

Whitireia

Background: Nurses enrol in postgraduate study for a variety of professional and personal reasons. Postgraduate qualifications have been shown to provide positive benefits for nurses. Whitireia has delivered postgraduate nursing qualifications since 2003. There have been significant changes in the health sector, the profession and education opportunities for nurses at postgraduate level during this time.

Aims: This research explored the impact of Whitireia postgraduate studies on graduates’ practice, further education choices and career progression. While this presentation provides an overview of the findings relating to career progression, it also highlights one aspect of the findings which was a measurable positive impact of a postgraduate qualification on the careers of Pacific registered nurses.

Methods: A Tracer study was undertaken to examine the impact of postgraduate study on the nursing career advancement of graduates of Whitireia postgraduate programmes. Ethics approval was gained from the WelTec-Whitireia Ethics and Research Committee. Survey methods were used to gather data which were coded and analysed using one-way ANOVA and Tukey post-hoc tests.

Results: Of the 731 Whitireia postgraduate nursing graduates contacted, 94 completed the online survey, indicating a 13% response rate. Eighty-two percent of respondents were female, 78% were aged between 30 – 59 years. Forty-seven percent self-reported New Zealand European ethnicity, 21% reported Pacific ethnicities, 16% self-identified as Māori and 16% recorded ‘other’ for their ethnicity. There was a significant difference in reported promotion (p=0.043) and a trend towards significance in perceived career development (p=0.06) between the three main ethnic groups. Post-hoc tests found significantly more Pacific postgraduate nurses gaining promotion (1.55 ± 0.51 vs. 1.93 ± 0.25, p=0.033) than Māori nurses, with a trend towards increased career development opportunities for Pacific postgraduate nurses compared with postgraduate nurses with New Zealand European ethnicities (1.00 ± 0.00 vs. 1.20 ± 0.40, p=0.06).

Conclusions: Whitireia postgraduate students represent the ethnic diversity of our wider community. While it is difficult to draw conclusions regarding the differences for nurses who identified as Māori and/or Pacific, it is clear that there are positive benefits for career progression for nurses’ who completed postgraduate qualifications.
How the wellbeing of addiction practitioners is affected by their professional practice.

Lisa Phillips*, Stephanie Kelly, Cynthia Young
WelTec

It is not a new concept for staff working in health fields to ‘care themselves into the ground’, however there is very limited information on the health outcomes for addiction practitioners specifically. Addiction practitioners often speak about feeling overworked, stressed and undervalued. At the same time, practitioners in these services speak about feeling rewarded by the meaning they glean from their work. This sense of meaning often does not provide the adhesive to be able to maintain a career in these fields.

This presentation explains how addiction practitioners are impacted by their work – in terms of impacts on their connections with Whanau, culture, spirituality, self-identity and physical/mental wellbeing. The aim of this research is to better understand the ways that addiction practitioners are affected by their work, through the application of the Te Whare Tapa Whā model of health.

The research objective is to provide an evidence base to inform employers and agencies to support addiction practitioners with strategies to cope with the potential health and wellbeing related consequences of the work. The focus of the study was to understand how addiction practitioners consider their wellbeing has changed since working as a practitioner. It set out to do this by applying the Te Whare Tapa Wha model of health developed by Durie (1984) and using the indicators developed by Durie and Kingi (1997) to identify data related to each dimension of Te Whare Tapa Wha.

This research used a questionnaire method, framed by the theoretical model of considering individual wellbeing, provided by Te Whare Tapa Wha. The findings indicate that addiction practitioners in this sample have experienced changes in their health since becoming employed as an addiction practitioner, in relation to the dimensions of Te Whare Tapa Wha. There are interactions between a shorter length of service and deterioration in physical and mental health. Findings also show a relationship between increased length of service and improvements and stabilisation in a practitioner’s physical, mental, social and spiritual wellbeing. The significance of this study can be reflected in the recommendations that have been identified to support this workforce.

This research also marks the first time that addiction practitioner wellbeing in New Zealand has been considered by application of Te Whare Tapa Wha specific to New Zealand. This study addresses a gap in addiction practitioner specific literature in New Zealand and internationally. Although there is some addiction workforce specific research, this body of research has focused solely on the concepts of stress and professional burnout. No other literature explores the wellbeing of addiction practitioners through a multi-dimensional lens, specifically Te Whare Tapa Wha. Recommendations from this research include the development of an addiction practitioner’s wellness monitoring tool, addiction practitioner specific education and development opportunities, and the implementation of wellbeing plans for practitioners even before professional practice commences.
Zimbabwean registered nurses in New Zealand: A profile

Joey Domdom*, Toga Katyammaenza

WelTec

While there is a range of literature on nurses migrating from developing countries to developed countries, there is a gap in the knowledge and understanding of the profile and migration experiences of Zimbabwean registered nurses. This objectives of this research include identifying the socio-demographic and professional characteristics of immigrant Zimbabwean registered nurses and exploring their migration and work experiences as internationally qualified nurses. Its overall aim is to profile the immigrant Zimbabwean registered nurses employed in New Zealand and to gain an understanding of their experiences migrating to this country. Twenty-one immigrant Zimbabwean registered nurses living and working in New Zealand were surveyed through an online questionnaire to collect information on the demographic and professional characteristics and experiences of the participants. The gathered data was analysed using descriptive and thematic analyses to gain insights into their profile and experiences.

The method used by this study is a descriptive exploratory approach in understanding the profile of the Zimbabwean registered nurses who live and work in New Zealand, and in seeking insights into their experiences in migrating and working in this country. The results indicate that an average immigrant Zimbabwean registered nurse who lives and works in an urban area in New Zealand is a highly qualified, 40 to 49-year-old female of African ethnicity, who has an immediate family in New Zealand, and with at least ten years of experience in their current District Health Board or aged care role. Coming to New Zealand, the Zimbabwean immigrant nurses described experiencing some form of bullying, racism and discrimination, hurdling language barriers, culture shock, feelings of being deskilled and the challenges of securing employment having no initial local experience.

The implications of this study are discussed and recommendations to professional practice, education and further research are made.

Key words: Demographic profile, immigration experiences, work-related challenges, opportunities, professional practice
Surveying the readiness to practise of newly qualified social workers

Neil Ballantyne*, Liz Beddoe, Kathryn Hay, Jane Maidment, Shayne Walker

Open Polytechnic, University of Auckland, Massey University, University of Canterbury, University of Otago

Social work education in Aotearoa New Zealand operates in a highly political and contested terrain. Criticism by public figures, including government ministers and the Children’s Commissioner have stimulated debate within the profession. In 2015 the Children’s Commissioner, drawing on anecdotal evidence, questioned social work graduates’ knowledge of human development, family violence, mental health, addictions and their preparation for work in child welfare.

In 2016, Ako Aotearoa funded a three-year research programme titled Enhancing the Readiness to Practice of Newly Qualified Social Workers (NQSWs) involving a collaborative research team of social work academics from one polytechnic and four universities. The project was designed to answer three questions: firstly, what was currently taught in the social work curriculum; secondly, how ready were new graduates to practice; and finally, what do stakeholders consider to be the professional capabilities required for effective social work practice.

This paper reports on findings from the second question. How well prepared are NQSWs (social workers in their first two years of practice) to enter professional social work, and how is their learning supported and enhanced in the workplace? This phase of the project was a replication (with some local adaptations) based on a previous project funded by the UK Department of Health and conducted by the Social Care Workforce Research Unit at Kings College, London. We captured data by undertaking an online survey of NQSWs (N=119) and manager/supervisors of NQSWs (N=158). In addition, a sample of NQSWs and managers/supervisors were interviewed but this presentation will focus on the survey data. NQSWs and managers of NQSWs in Aotearoa New Zealand were broadly satisfied with preparedness to practice provided by programmes.

There are some key areas where managers’ and supervisors’ ratings of NQSWs skills and abilities were high (for example, information technology, team working, and effective engagement with service users and carers) and others where confidence and satisfaction levels were lower (for example, analytic abilities and evaluating the impact of interventions). NQSWs identified perceived gaps between their understanding of certain specialist knowledge areas and the expectations of employers, and they highlighted topics they wished they knew more about: for example, working with trauma, assessing risk, dealing with hostility aggression and conflict, and the legal basis for interventions.

The data provided by phase two offers a much more nuanced view of the strengths and shortcomings of the social work curriculum than we have had to date. It will enable the research team to enter the final phase of the project – working with stakeholders to identify key capabilities of NQSWs – with a solid evidence base and will help to put the more anecdotal comments of some stakeholders into perspective.
Evaluating teaching strategies that support nursing students' comprehension of fundamental anatomical and physiological concepts

Sandra Waayer*, Trudy Scott

Whitireia

Many nursing students find learning about anatomy, physiology and pathophysiology (Waiora) a difficult subject to grasp. Understanding anatomy, physiology and pathophysiology (disease) is fundamental to nursing practice. It enables the nursing student to recognise the pathophysiological changes associated with disease and the impact that disease can have on their patient. It supports the nursing student’s assessment skills and clinical practice, enabling the nursing student to develop individual patient care plans to facilitate their patient’s return to health or provide palliative care should the disease process become incurable. The new concepts and terminology related to this subject cause high anxiety for many nursing students, resulting in high failure and poor retention rates.

This presentation describes the formative teaching and learning strategies used by two tutors to enhance nursing students’ comprehension of anatomy, physiology and pathophysiology and the evaluative outcomes of these strategies.

The outcomes of these strategies were evaluated through student feedback and the comparison of past and present exam results.

The evaluation data confirmed that these strategies have resulted in a reduction in nursing students’ levels of anxiety, an increase in success rates within the summative exam, and the retention of nursing students within the programme.
Case study teaching – limiting case solutions to sustainable use of Māori Business framework

Andrew Zalwiski*, Karishma Kelsey
Whitireia

**Background:** In our previous research we proposed visual and methodological extension for teaching case studies. Usually, the case study is based on a real-life story from the real company where a case hero meets several challenges immersed in their business practice. Usually case studies have more than one solution. We are looking for any satisfactory solution, not necessarily the best one. What if during interactive work with students we remove some not-sustainable solutions? The purpose of the proposed research is to emphasize sustainability issues in the business teaching process.

**Research:** The paper proposes a data structure to store the picture created as a result of interactive discussion with the students on a business case problem. However, this data structure may have additional applications. It represents the case study solution and how it can be filtered against a model solution. A model solution does not describe a whole sample solution, instead this is rather a general framework containing a set of desired selection criteria. The model solution (framework) is verified against the original case solution to assess the quality. As a primer for creating this model framework, we propose to formalize the Māori business framework (Spiller et. al., 2011; Harmsworth, 2009) which is aligned with sustainability by its nature.

**Methodology:** We use the jMap notation. The jMap’s are multidimensional decision tables are able to capture and represent the meaning of the situation. The idea of jMap was created by the late professor W.M. Jaworski (Concordia University, Canada), (Jaworski, et. al., 1993; Zaliwski, Jaworski, 1999). He strongly emphasized using it directly as a notation for information systems analysis and design. However, the idea presented in this paper is the opposite. We use jMap as data structure (Zaliwski, 1996) to represent the case study with solution data and a model framework. The data are used then by the AI system to generate analytics on students and instructor performance.

**Results:** The results will be presented at the InSite Conference at Jerusalem College of Technology, Israel, 30 June -5 July 2019.

**Conclusions/Implications:** The research efforts are paired with our previous research related to embedding cultural sensitivity into case studies. All the research will give additional insights into the case teaching process based on cultural inclusion and sustainability as we believe that a whole business teaching process should be based on sustainable ideas.
Embedding environmental sustainability into management studies at Toi Ohomai

Adele Carson*, Don Kannangara

Toi Ohomai

The Māori economy has seen significant growth over the last 100 years. Research conducted in 2010 estimates the Māori economic base to be valued at $36.9 billion (MBIE, 2015). While this figure represents the Māori economy, Māori tourism makes a significant economic contribution to this asset base. Furthermore, Statistics New Zealand indicate that Māori participation in, and proportion of the labour market, will increase in the future (Stats NZ, 2015). Understanding the effects that Māori values have on business sustainability could contribute to further growing this asset base by mitigating conflicts between values and sustainability. This knowledge could be beneficial to government, industry and researchers involved in the tourism industry. From a practical viewpoint, having a study that focuses on Māori tourism businesses and their incorporation of Māori values into their business has the potential to generate best practice that could be applied to other Māori tourism businesses (Harnsworth, 2005). The key research question for this study which will form a Master’s thesis is: ‘How do traditional Māori values affect the sustainability of Māori tourism businesses?’

An interpretivist paradigm will be used to examine the research questions. The Māori worldview is not static – change is embraced suggesting that development is ongoing with no finite end. Keelan and Woods (2006) refer to this concept as “Te Ao Hurihuri” or the Turning World. This view supports the notion that Māori tourism is a field that is constantly evolving and developing. This aspect compliments the use of an interpretivist paradigm.

Taking this aspect into consideration, the research methodology must be influenced by a Kaupapa Māori (Māori ideology) research methodology. Smith (1999) defined Kaupapa Māori (Māori ideology) research methodology as “research by Māori, for Māori and with Māori” (p. 184). Semi-structured interviews were selected as an appropriate method of data collection to obtain relatively large amounts of rich data from respondents. The interview questions will be structured in an open way to allow for narrative to develop. The sample size for this study is eight CEO/management teams from eight different Māori Tourism businesses from around New Zealand. Convenience sampling and snowball sampling were seen as being the most effective methods for the recruitment of research participants for this study. Personal relationships with Regional Tourism Organisations (RTOs) and Māori Tourism businesses should provide the researcher with the number and type of respondents required to inform the study.
Teaching strategies for enhancing employability skills in learners

Gerard Duignan*, Agustilia Rodrigues, Anne Webster, Carmel Haggerty

WelTec, Whitireia

This session reports findings from an Ako Aotearoa Regional Hub funded collaborative research project undertaken in 2017-18 by a dozen educational developers from seven ITPs, including WelTec and Whitireia. The project team sought to identify where and how excellent teachers currently enhance their learners’ skills for employability, life-long learning and contributing to society. The Tertiary Education Commission (TEC, n.d.) and other stakeholders seek evidence of the effectiveness of programmes of study in preparing graduates for industry.

Inspired by Australian research (Kinash, S. et al., n.d.) on university preparation for employability, the project team wondered how to assist teachers in New Zealand ITPs to design teaching and learning strategies for embedding skills that enhance employability. The literature revealed a concern about employability skills gaps by teachers, institutions and industry, but very little talks about how the gaps are being addressed in teaching practice. The research question asked how teachers in New Zealand ITPs design teaching and learning strategies for embedding skills that enhance employability.

**Method:** Twenty-three case studies involved classroom observations and face to face semi-structured interviews with effective teachers. They were asked “Where do you consciously, purposefully teach employability skills?” as described in an Employability Skills Framework released in 2017 (Youth Guarantee Vocational Pathways, n.d.). The specific skills include, positive attitude, communication, teamwork, self-management, willingness to learn, thinking skills, resilience. The team also added further employability attributes, including, innovation, entrepreneurship and cultural competence.

**Results:** Dozens of teaching methods were identified and a web site (accessible via Ako Aotearoa) called "Teaching Employability Skills" was produced. It contains dozens of proven teaching approaches all of which are easy to embed into teaching practice and likely to be effective for learners in diverse contexts.
Exploring a space of responsiveness to Māori in journalism education

Bernard Whelan*
Whitireia

This presentation explores the tension between how Aotearoa New Zealand journalism educators prepare students for jobs, at the same time as Honouring Te Tiriti o Waitangi. Interviews in this PhD project have been conducted against a backdrop of dramatic changes for news media. Technology has changed the way journalism is created and accessed, and at the same time, there appears to be a change in attitude. For example, broadcasters, from Radio NZ through to TV weather presenters, slip in and out of Te Reo. Meanwhile, The Dominion Post newspaper, originally named after that project of global colonisation, The Dominion of Great Britain, renamed itself in Te Reo for three weeks during Matariki.

However, this presentation argues that greater use of Te Reo is just the beginning for a responsiveness to Māori which has been a long time coming in news media, and which logically should be found in journalism education. Journalism education though, can still be entrapped by the news values which have their roots in colonial Anglo-American culture. Notions of objectivity, visual impact, immediacy and conflict are examples of rhetoric which have been shown to have their roots in the supremacy of whiteness, and which disadvantage indigenous self-determination.

The presentation begins to unpack the first stories from journalism schools in Aotearoa New Zealand. The methodology of narrative inquiry is being used in an attempt to model and explore a relational space which, given the topic, strives to maintain reasoning from a Māori paradigm. This is a secondary layer of tension in the study because the researcher and most, if not all, of the participants collaborating in the interviews are Pākehā. The research recognises that the mix of firstly journalism education, secondly the practice of journalism, and finally Te Ao Māori together have the capacity to make a difference to this country. With that generative ideal in mind, the semi-structured interviews begin with an appreciative standpoint that in any system something works, and so the interviews start with what is working. Critical thinking, however, is maintained throughout the series of interviews with each person by using the lens of whiteness theory, which challenges not only journalism education norms, but also the institutional spaces both physical and systemic, within which it is taught. The related notion of cultural consciousness is another critical lens maintained during the interviews and the ensuing analysis.

The presentation also considers the process and progress of grappling with the relational interviewing. Negotiating meaning in narrative collaboration, rather than being analysed in traditional academic forms which are remote from the relationship, is one thing in theory, and another in practice. A potential way forward explored in the educator stories, and which will be reflected on in the presentation, is the potential for journalism educators to be allies in Te Tiriti o Waitangi. Taking the lead from Tiriti educators who see themselves as working as allies, journalism education can reach back to some of its deepest roots which call on it to give a voice to the voiceless, comfort the afflicted and afflicts the comfortable.
Weaving Mātauranga Māori in adult and tertiary education

Sujatha Gomathinayagam*

Whitireia

In Aotearoa New Zealand, adult educators operate in a range of settings and are involved in teaching literacy, numeracy, social work, engineering, information technology and health. The Code of Professional Responsibility and Standards for the Teaching Profession document ‘Our Code, Our Standards’ reminds all teachers to demonstrate a commitment to the Treaty of Waitangi in the learning environment (Education Council, 2017).

This presentation elaborates on how knowledge of indigenous philosophies aids intentional teaching practices and stimulates personal reflection in teachers. It is based on the personal experiences of a teacher educator from completing an Adult and Tertiary Teaching programme grounded in Māori philosophies, principles and mātauranga Māori (Māori knowledge).

The programme incorporated four aspects of Māori Kaupapa; Kaitiakitanga (guardianship), Ahurutanga (safe spaces), Koha (gift) and Mauri ora (life force). This Adult and Tertiary teaching programme, embedded with Māori Kaupapa enables the teacher educator to apply indigenous knowledge meaningfully into learning environments and reflect the Treaty of Waitangi partnership in professional practice.

As a result of undertaking the programme and implementing the Māori Kaupapa with students in the classroom, the educator is driven by personal curiosity and is looking to explore these notions further through formal research in the future. The presentation reports on upcoming research that seeks to hear the voices of early childhood student teachers who have experienced the application of Māori Kaupapa principles in their learning within their study. This proposed research will explore how and to what extent the purposeful weaving of mātauranga Māori in teaching practices supports student engagement.

Finally the presentation concludes that knowledge of diverse philosophies can be optimally applied in teaching to engage students in their learning journey, with a positive and deliberate action on the part of educators.
Te mauri o te mana Māori: Reporting on works of significance for 2017/18

Kevin Shedlock*, George Tongariro, Manu Katene, Scott Morton, Marta Vos, Jeanette Grace, Eru Ruwhiu

Whitireia

Background: This abstract reports on capstone projects and research activities completed by Māori and associated students, tertiary staff and iwi/organisations working with Whitireia. Māori-owned or Māori investment-backed technology companies are emerging as significant contributors to the NZ tech sector. However, in a report ‘Māori me te ao hangarau’ Forbes, (2016) states, Māori access to mobile phones is on par with the national average but Māori barely participate in the tech industry with just 2.5% working in the sector. Māori are seen as being high users of technology but low participants in the tech workforce. Speakers of te reo as architectural designers, developers and networkers in the sector are nigh on non-existent. With low numbers of Māori in the tech workforce, a portal to address the challenges confronting Māori is essential or else Māori companies and investors will turn to non-Māori experts; creating an inequitable position for the future.

Aim and Objectives: To report on the performance of Te mauri o te mana Māori technology framework employed by Whitireia Polytechnic.

Research Question: Can an indigenous platform be adopted to deliver benefits to Māori as students, educators, researchers and partnership members of the wider Māori community by the School of IT?

Methodology: A mixed method approach is adopted for the delivery of Te mauri o te mana Māori. The approach supports an indigenous model that is indigenous Māori by nature involving five layers with subsequent meta-layers enclosed within each. The five layers are; (1) a framing layer; (2) a relationship layer, (3) an engagement layer, (4) a discovery layer, and (5) a layer that initializes the artefact lifecycle construction link between the physical and the digital either in research or Capstone projects.

Results: Accomplishments include building 3D virtual reality models for displaying traditional flora and fauna, building technology for Māori organisations such as Te Taupanga, a Māori application automating the Wellington kapa haka regional competitions, creating mobile phone teaching applications to learn Te Reo, hangarau mana wahine in technology, establishing partnerships linking researcher’s and tertiary providers to support the emergence of Māori involved with technology, in technology based forums and communicating research ideas throughout Australasia.

Conclusion: As a result, Te Mauri o Te Mana Māori continues to gain momentum as an indigenous technology based framework that supports the development of Māori pathways for students, educators, researchers and the community alike.
Background: Over the course of the last 20 years the way websites interact with their users and the types of data they collect from them has changed considerably. Along with this change has come an increasing understanding of the privacy implications of website data collection. Lagging behind has been regulatory approaches to the privacy protection of users, leading to a disconnect between regulation and website privacy practices. Many early websites were basic “brochure-ware” websites. They did not collect information from their users; they simply presented business information - much as a business brochure would have done. Today websites are highly interactive, with many different data collection practices. Understanding the change in data collection practices over time contrasted with the change in privacy regulation allows website owning organisations to understand and adhere to current privacy legislation, along with industry best practice.

Research Aims/Objectives: This research seeks to understand the change in information gathering practices of websites owned by leading New Zealand organisations over the last 12 years, and contrast this change with the New Zealand privacy regulatory environment. Therefore the research question is: How have the data collection practices of New Zealand websites changed between 2006 and 2017/8 compared to change in the New Zealand privacy regulatory environment?

Methodology: A content analysis of a random sample of 200 websites selected from a list of the top 800 websites in New Zealand in 2006 was undertaken. Only websites hosted in New Zealand with a ".nz" domain were considered. This analysis recorded the information gathering practices of the websites. The same websites were analysed again in 2017/8 using the same content analysis questionnaire, giving a longitudinal data set. Descriptive statistics were used to compare the two samples and quantify the change in website collection practices over time. These changes were then contrasted with New Zealand privacy legislation and regulation.

Results: This research shows that the information gathering practices of New Zealand websites have changed considerably over the last 12 years as New Zealand organisations move away from brochure-ware websites to highly interactive storefronts with social media connectivity. New Zealand legislation has not kept pace, with the New Zealand Privacy Act (1993) still being the main legislative framework under which New Zealand websites operate.

Conclusions/Implications: While technology change continues apace, regulation often lags behind. This research shows that in New Zealand the data collection practices of websites has changed considerably over the last 12 years while legislative guidelines have not. This places the onus of ethical data collection and storage practices largely on businesses themselves with little regulatory guidance being provided.
Web-based Application to Auto-generate Building Floor Plan

Chalinor Baliuag*, Minh Nguyen

WelTec

Background: Building layout auto-generation has become an important subject given the time pressure in the construction industry. Over the last decade, many studies have attempted to explore different ways to generate building layout automatically with various degrees of success. Most of these methods require extensive knowledge in coding and the use of professional expensive drawing software such as Rhino-Grasshopper, Revit-Dynamo, to name a few. Also, these methods are often designed to support professional designers who have years of experience in the area. Hence, ordinary people such as homeowners and young students often find it extremely difficult to use these methods.

An easy-to-use and light application that serves a wide range of users is still missing in the market.

Objective: Given this aforementioned market and knowledge gap, the primary goal of this research is to explore whether it is effective and possible to create a web-based application which could auto-generate a building floorplan from a text-based program. If successful, this application will potentially be useful in the design brief phase when homeowners are engaging professional designers.

Method: We propose to use Processing or P5js language to develop the app. The app will be produced as a traditional app first using Processing language, and then will be coverted to P5js language to create the web-app. Several Tree-map algorithms will be reused and modified to match the purpose of the research.

Expected results – Conclusion: We expect to have an application running on two different platforms: the standard version and the web version. We also intend to publish a paper on this research and present this paper at an international conference in the area of computational design.
Towards Automation of a Student Feedback System at Wellington Institute of Technology (WelTec)

Michael Hollmann*, Yuliya Khrypko
Whitireia

Student feedback system is a business tool, which helps tertiary academic institutions effectively collect, evaluate and reflect on students’ experiences. At Wellington Institute of Technology (WelTec), the student feedback system aims to collect ideas from students regarding improvement of the institute’s services. WelTec aims to provide its students with positive and rewarding service experiences and student feedback (referred to as student voice) is seen by the institute as a main approach for achieving this objective. However, currently WelTec employs a highly ineffective manual student feedback process, where students share their feedback about services with teaching or non-teaching staff. It then gets delivered to the appropriate WelTec services administrator to evaluate the feedback and comment on it back to the staff member. Thus, the staff member becomes a mediating channel of communication between the student and services administrator, seeking clarification and updating both parties.

There is no standard practice or time restriction for closing the feedback loop. The objective of this research was to make the first step towards creating automated student feedback system by suggesting a business model that would become a backbone for the system and make the process of collecting and responding to students’ feedback more efficient. In March-May 2018, we analysed existing automated student feedback processes in five other tertiary academic institutions and focused on their most successful practices, which could benefit WelTec. We also evaluated different business models, concluding that the components of the Business Model Canvas should be adopted and customised to the business needs of WelTec with regards to the automated student feedback system. As a result, a business model for the WelTec automated student feedback system was designed and recommended as a guideline for the future development of the system.
Data interoperability challenges and solutions in patient-centred consultations

Sarita Pais*
Whitireia

**Background:** A patient-centred model helps improve clinical consultations (Levenstein, McCracken, McWhinney, et al. 1986). With technological enhancements, it can be achieved. In the Swedish quality register for arthritis (Ovretveit et al., 2013), patients entered their self-assessment data through a web interface and shared that data with their clinicians. The clinic then arranged follow-up appointments depending on the patient’s health data. It is important to understand how clinical data organised in various systems at primary and secondary care can be exchanged. Patients have access to various wellness mobile apps which they can share with their clinicians.

**Research Question:** How do health informatics standards aid in data interoperability between different clinical and non-clinical systems? What is the progress and future direction of such standards?

**Methodology:** Research projects from literature and author’s own research sought to answer the research questions.

**Results:** Ackerman, Filart, Burgess, et al. (2010) discussed the data perspective of acquiring patient data from various sources into the EHR systems. Wynden et al. (2010) defined an integrated data repository for clinical data using technologies such as XML, HL7 standards and ontologies. In New Zealand, GP2GP project (Jordan, 2012) allowed patients’ records to be electronically transferred between health providers using the CDA data format. In clinical systems health informatics terminologies such as SNOMED CT, LOINC and health exchange standards, such as HL7 and emerging Fast Health Interoperable Resource (FHIR), are utilised to retain the semantic meaning of data when transferring patient data from one system to another. A vendor application has successfully integrated patients’ laboratory results into an EHR system using FHIR resources (Mandel, Kreda, Mandl, et al. 2016). Meaningful Use Stage 2 standard was adopted to allow patients access to their health data. In another project (Franz, Schuler, & Kraus, 2015), the architecture had the ability to obtain weight data from a weighing scale and integrate that data using FHIR resources - Device and Observation. Hong, Morris, and Seo (2017) built an ecosystem to store patient health data from HIS to a PHR system. The PHR system based on IoT module can communicate using FHIR to share wellness data. Patient generated wellness data is not stored in clinical systems because of a lack of functionality to do so. FHIR has the potential to maintain such wellness data (Pais, S., Parry, D., & Huang, Y. (2017). The author is undertaking other projects using FHIR to overcome data interoperability while exchanging data between systems. Technological solutions are being sought to overcome issues of data interoperability identified in the clinical industry.

**Conclusion:** Health informatics standards such as HL7 and SNOMED CT have been used in clinical systems to overcome data interoperability issues. However implementation has not been an easy task. FHIR has the potential to change this as it is a health exchange data standard at implementation level which can be easily used in software development projects.
Protocols to guide nursing on the administration of sleep enhancing medications in older adults

Molly Page*
Whitireia

Background: Falls have serious consequences for older adults. Risk factors include a combination of intrinsic and extrinsic factors (Browne, et al. 2014). The risk of falling increases with age. Older adults commonly report sleep problems (Hunter & Miller, 2016). A range of pathophysiological conditions and associated symptoms contribute to poor sleep, often exasperated by pharmacology (Hunter & Miller, 2016, Eliopoulos 2014). However, whether independent or in institutionalised living, there is no correlation, with poor sleep quality and older age. Benzodiazepines and hypnotics are significant risk factors for falls (Browne et al., 2014). They are commonly prescribed for older adults with sleep problems (Min et al., 2016) and widely used in Aged Residential Care (Bakken et al., 2014). As a person ages the amount of prescribing increases (Bakken et al., 2014). Common ‘effects’ include disorientation, sedation, orthostatic hypotension, and extrapyradmidal effects (Cadwell, et al. 2017). Prescribing for longer durations and at higher doses than is recommended makes misuse common, particularly beginning dosages and maximum dosages (Lee et al., 2017). The use of these medications therefore is strongly linked with falls.

Aim: This literature review sought to explore the relationship between insomnia, the use of pharmacology and falls in older adults.

Methodology: Using a range of resources and date range of 5-10 years, this review was undertaken in a 2 week period by a Bachelor of Nursing student with guidance from a senior librarian. Databases included, Proquest, Science Direct, PubMed, CINHAL and Cochrane Library. Key words included “older adult”, “sleeping medication”, “sedatives”, “insomnia”, “falls”, and “nursing guidelines”. A range of global resources were found, with much of it from the America’s and Australasia.

Results: Compared with older adults living independently, benzodiazepines and hypnotics are widely used in Aged Residential Care. Institutional living is associated with depression and anxiety. Older adults in care are more likely to encounter sleep disorders (Bourgeois et al., 2014). This questions ‘need’; and supports the necessity of in-depth assessments of depression and anxiety disorders as contributing factors to falling. There exists a range of interventions for fall prevention (Church, Haas, & Goodall, 2015). One of the most cost effective includes medication reviews. In acknowledgement of the ‘fine’ balance between safe prescribing and polypharmacy, protocols are critical to achieving safe care.

Conclusion: Poor sleep quality is reported by older adults. Falls, and fall related injuries, are attributed to benzodiazepines and hypnotics. These medications are prescribed for long periods and at higher doses than recommended. Prescribing guidelines are evident but overall protocols are limited. This concludes that older adults who use sleep medications are at risk of falling. Whilst registered nurses are not prescribers, they are accountable for safe doses of medications and safe administration. Accordingly therein lies the expectation that registered nurses implement strategies and guidelines that accompany safe practice.
Challenges in care and management of type 2 diabetes mellitus in an urban community in Tanzania: An in-depth study of adults’ patients and their caregivers.

Lucy Kinavi Nguma*

Whitireia

**Background:** Diabetes is a global problem as well as in Tanzania. It is among the ten leading causes of death globally. Around 90% of people with diabetes are living with Type 2 Diabetes (TP2D). Estimates show that 79% of adults living with TP2D are in low-and-middle-income countries (LMICs), Tanzania included. Care and management of T2D is a challenge worldwide, Tanzania included.

This is part of my PhD research conducted at the University of Otago under the Commonwealth scholarship. However, the data collected in Tanzania was a requirement.

**Aim:** The aim of this study was to explore health seeking and health-related behaviour among adult patients with TP2D in an urban community in Tanzania.

**Methodology:** This qualitative study used structured in-depth interviews. Data were collected in 2007 & 2008 in a local language (Kiswahili) and interpreted in English by the researcher. McKinlay’s (1972) framework was adopted in data collection due to the limited theoretical framework in exploring factors influencing health seeking and health-related behaviour in Sub Saharan Africa, including Tanzania. The analysis was done using Miles and Huberman’s (1994) approach. The ethical clearance was obtained from the University of Otago in New Zealand and Muhimbili University of Health and Allied Sciences (MUHAS) in Tanzania.

**Results:** Challenges encountered in care and management were classified into two main themes — “Care service demand” and “Care service supply”. Care service demand includes four sub-themes — geographical long distance to diabetes clinic; poor transport/infrastructure; costs for medical services and transport and competing family demands. While care service supply comprises five sub-themes — inadequate quality of care services; long waiting time at diabetes clinics; inadequate/lack of diabetes equipment; inadequate client education/counselling and lack of affordable diabetes drugs.

**Conclusion and recommendation:** Quality care and management of diabetes are recognised as a challenge on a worldwide scale, including Tanzania. For better TP2D care and management outcomes, effective comprehensive planning, improvement of treatment and care services including proper patient and community education on alternative diabetes services is required in existing public health services in Tanzania.
Understanding information culture for self-management health support for people with diabetes in Ghana

Eric Boamah*, Andrews Druye

Open Polytechnic, University of Cape Coast

**Background:** Various factors influence the abilities of people with diabetes mellitus (DM) to access and use the information they need to self-manage their disease in Ghana. The increasing global prevalence of chronic conditions presents a significant burden to affected people, families, and the health system. Self-management is a cost-effective and pragmatic approach to chronic disease care, demonstrated internationally to improve patients’ health outcomes, and reduces health care cost. Self-management helps patients learn daily tasks such as glucose control, management of medications and complications, and the impact on their physical, emotional and social lives. It is optimised when relevant health literacy is acquired, and can be achieved when relevant, authentic, accurate and timely information is available and those affected have the information competencies and skills to access and use the information they need to effectively manage their conditions.

**Research questions/Aim:** Whilst information is key to promoting health literacy and patients’ self-management, the information culture and infrastructure differs widely in their health support information. In developing countries like Ghana there may not be easy access to information. In the modern world of fast developing digital technologies, information has become available in various forms. Nevertheless, many people in Ghana are unable to access DM management information. Where information is available, some lack the competency to access the information they need. The aim of this research was to explore the contextual factors that determine awareness and use of the information needed to self-manage their health and to explore various information cultural patterns influencing their information behaviour. The research is guided by these questions:

- What factors determine awareness of the information required for self-management health support for diabetes patients in Ghana?
- What information cultural patterns influence people’s behaviour around the use and share of information for self-management health support for diabetes patients in Ghana?

**Methodology:** A mixed methods approach was used. The first research question was addressed using a questionnaire, the second was explored using interviews. Participants were; people with DM, health professionals and information professionals in Ghana. The study is underpinned by Oliver and Foscalini’s (2014) information culture analysis framework.

**Results:** Existing information infrastructure in Ghana has a significant impact on people’s knowledge of DM and their awareness of diabetes-specific complications, medications and clinical parameters. Behaviour patterns in information culture, such as respect for recorded information, information preferences, trust, and willingness to share information also have a strong influence on how people use and share information for self-management health support for people with diabetes in Ghana.

**Conclusion/implication:** Improved information culture and infrastructure are very likely to enrich diabetes patients’ awareness, access and use of relevant information to help them effectively self-manage their condition to improve their health outcomes and extend their survival in Ghana.
Knowledge through experience: How personal and practical skills influence the role of a mental health support worker

Abbie Ranui*, Stephanie Kelly, Carmel Haggerty

 WelTec, Whitireia

**Background:** The mental health support worker role is a substantial component of the mental health workforce in New Zealand. The mental health support worker is described as a frontline workforce role, having emerged through de-institutionalization policy in the 1970s and 1980s in New Zealand. Little is known about the type of support provided in this setting of healthcare. Recent national and international studies show that there is limited knowledge about the functions and efficacy of the role, with few qualitative studies depicting the day-to-day experiences and perceptions of support workers. The mental health support worker is situated in a unique setting in healthcare, different to that of other healthcare professionals. Additionally, distinctive skills and ways of working interpersonally with tangata whai ora (supported people) are beginning to emerge.

**Research questions/Aims/Objective:** The aim of the Masters study was to better understand how relationships are constructed between support workers and tangata whai ora, contributing knowledge to a current gap in academic research. How do mental health support workers view experience in their role, and how does the use of their historical, personal, and ‘practical hands on’ experience shape, build and maintain relationships with tangata whai ora?

**Methodology:** The study used a qualitative constructionist methodology to explore the perceptions and experiences of mental health support workers of their role and specifically the relationships they build with tangata whai ora. Six semi-structured in-depth interviews were conducted with six mental health support workers, working in a community residential care setting. A thematic analysis was used to identify and report patterns or ‘themes’ within the data.

**Results:** All support workers who participated in the study emphasized that the relationship they build with tangata whai ora was the most important part of their role. This is consistent with literature from other New Zealand authors in the field. The maintenance of the relationship was seen by support workers as a continuous part of their role and contributed to the management of the practical aspects or the ‘tasks’ both support workers and tangata whai ora are accountable for. Experience was acknowledged as a form of knowledge used by support workers to understand each individual they support, build individual relationships, and ultimately make decisions within their role.

**Conclusion/Implication:** This study contributes to the wider understanding of the mental health support worker role. It highlights particular skills support workers are engaging with and tapping into to develop their relationships with tangata whai ora and ultimately enhance their scope of practice within their role. The findings and discussion from this study suggest that while the relationship between the mental health support worker and tangata whai ora is critical to the role, this is a complex phenomenon worthy of further research.
Insights on Te Kora research framework

Teramira Schutz*

Whitireia

Pacific researchers may find it challenging to choose a culturally appropriate research methodology and method that will best suit their specific research question, guide the research process, yield meaningful data and best support the values, beliefs, and worldviews of I-Kiribati (indigenous people of Kiribati) participants. Te Kora is a Kiribati string, made up of two soft fine coconut fibres (binoka) that are rolled into a single string. I use Te Kora as a metaphor for understanding how I-Kiribati immigrants bring with them to the new host country their cultural health practices which are merged with the health practice of New Zealand. This presentation reflects on my initial learnings on Te Kora framework as a consequence of the interviews I have conducted so far for my PhD thesis. As the designer of Te Kora framework, insights gained from the interview process are:

• It is possible that there are more than two binoka/strands to Te Kora;

• That my initial thinking of two was limiting I-Kiribati migrants to a single cultural health practice and is there even such a thing as a single New Zealand health practice;

• That I-Kiribati potentially have more than one worldview and this is the same for New Zealanders;

• That more than one binoka/strands is potentially stronger than my original thinking of two fibres

• Understanding the health needs and perspectives of I-Kiribati is far more complex than I first assessed.
The Mythical World of Hīnātore: Quantitative and qualitative results

Merle Hearns*

Manuaku Institute of Technology

**Background:** The Mythical World of Hīnātore is a literacy game developed in the virtual world of Kitely. The game was funded jointly by the Northern Hub of Ako Aotearoa and Manukau Institute of Technology. The game can be used as a literacy intervention to improve written literacy. The Mythical World of Hīnātore has a distinctly New Zealand environment and six playing levels based on Māori legend. To complete each level, players must complete sentence tasks accurately. The game was tested repeatedly over a two-year period and both quantitative and qualitative data were collected using two completely different research approaches.

**Aim:** This research was aimed at examining the two different sets of data to gain a greater insight into the complementary nature of data types and research strategies.

**Methodology:** Initial testing of the literacy game appeared in a report (Hearns, 2014). This data was collected over two semesters. Each semester, two classes played The Mythical World of Hīnātore. An analysis of writing samples was taken before and after game play. Literacy scores were compared to students who did not have the opportunity to use the game. Surveys were also conducted with both students and lecturers. A second study was conducted in an attempt to replicate some of the data obtained for the Ako Aotearoa report. At the same time, a narrative inquiry research study was completed, with students selected from the total pool of literacy game participants. Narrative data was collected from student reflections, surveys, and interviews. Follow-up surveys and interviews were also completed in the following year. Results from the second study showed similar results to the initial study. The narrative inquiry data provided a deeper level of understanding of the impact of the game. There was a strong parallel between the data collected using the different methodologies.

**Conclusions/Implications:** All results support the use of the game to improve written literacy skills. Transfer of learning and the movement towards a growth mindset were also indicated by the data collected. As the game is available for use 24/7 and can be run using free software, the potential of the game is not being utilised adequately. Advantages of the game, indicated by the research, could be provided to individual students with literacy gaps or for entire classes, to foster improved written literacy skills.

'Aere 'Aere 'Opara Ki Mua (Pursue, Pursue and Push On): Teaching Cook Islands Māori to adults in New Zealand

Joey Domdom*

WelTec

This study examines the teaching and learning of the Cook Islands Māori language in New Zealand. It focuses on pedagogical frameworks and models currently used in teaching indigenous or heritage languages to adult learners.

The Tīvaevae-Systematic Review Framework, a combination of the systematic review methodological approach and the Tīvaevae conceptual model, is used in the search, selection, appraisal, critique and analysis of the fourteen literature that provided evidence on how the Cook Island Māori is taught to adult learners in New Zealand. The Tīvaevae-Systematic Review Framework is an attempt to approach research from both the Cook Islands and Western perspectives. From the review of the literature, the study found that the most appropriate frameworks for teaching an Indigenous language or Cook Islands Māori to adult learners are pedagogies that are culturally responsive along with the ‘language mixing’, the immersion, and the traditional indigenous models of teaching the Cook Islands Māori language.

The review further revealed key and essential components in effectively teaching an indigenous language or Cook Island Māori to adult learners. These include the learner’s autonomy being the central focus of the teaching and learning or language revitalisation process, the support and involvement of the community in the language programme development, delivery and evaluation, and lastly, the stakeholders’ commitment to a structured, well-planned programme.

For the study’s implications to indigenous languages facing similar challenges, the evidence points to effective pedagogical frameworks and models of teaching indigenous and heritage languages. The study’s recommendations include strengthening the teaching of Cook Islands Māori underpinned by evidence-based pedagogical framework or models, addressing the gap in literature by conducting more research specifically around teaching and learning Cook Islands Māori, and for professional practice that focuses on the learners and their contexts.
Writer beware: Predatory publishers are looking for you

Pam Bidwell*
Open Polytechnic

**Background:** Publishing in the Internet age is more challenging - dodgy publishers can appear very legitimate. Our research outputs should be well read by an appropriate audience, but predatory publishers can undermine those dreams. Open-access journals make scholarly articles freely available online without firewalls. Sadly this very well meaning practice is undermined by unethical publishers leaping on the same bandwagon. Boundaries between vanity and predatory publishers are blurring, making it harder to distinguish between respectable and predatory journals. Why is this important? It’s a trap. The primary purpose of a predatory journal is to make money for little effort. They solicit articles by flattering emails, typically accept all or most items submitted. Their prey is inexperienced authors, undermining their credibility. Instead of promoting a unique scholarly contribution, the article might be barely read, not indexed in resources like DOAJ, and not identified by search engines. There is a diversity of victims – authors from developing countries waste funding they can ill afford, but New Zealand researchers have been caught too. It’s also a multidisciplinary issue, but of particular concern for new and emerging researchers who may miss important clues.

**Objective:** This presentation helps authors join the legitimate research community by learning how to recognise and avoid dubious publishers.

**Methodology:** I draw on my own experiences as Academic Librarian at the University of New England, as well as more recent experiences as an Open Polytechnic Programme Delivery Manager. This is supplemented by a review of the literature, with key findings summarised.

**Results:** Determining the credibility of a journal is key. It is important to research the past practices of publishers before deciding to submit your work. Learn from experience - look for reports from previous victims online. Ignore unsolicited invitations (or check them very carefully). Don’t respond to trawling emails - these show your email account is active and will only increase email traffic. Think carefully before paying an Article Processing Charge - particularly if this is only offered after acceptance. Avoid reviewing or editing for predatory journals, which just adds to their veneer of respectability.

**Conclusions:** New and emerging researchers looking for publication opportunities should take time to reflect and check journal credentials before submitting. Just as with buying a car – writers beware. This presentation should help to avoid potential snares.

**Selected References**
Building research capability using Appreciative Inquiry

Kerri Arcus*, Leanne Pool, Wendy Trimmer

Whitireia

Background: Appreciative Inquiry (AI) emerged over the past two decades as a qualitative research methodology emphasising transformation and positive change. AI was adopted by the School of Health as an approach to research that would be adopted in collaborative projects. AI has now been used in a number of collaborative research projects including: evaluating professional development needs for registered nurses in aged residential care; preceptorship of new graduate mental health nurses; and exploring cultural safety teaching practices and pedagogies.

Objective: The School of Health developed a strategic approach to building research capability among academic staff to increase research outputs. This included promoting collaborative projects and developing breadth and depth in using identified methodologies. AI was identified as a research approach that resonated with the School’s teaching/learning philosophy which is underpinned by a commitment to transformational pedagogies. Although AI originated from an organizational development setting, it has been used in health and professional development research, and across cultures. AI also appealed for its suitability for research in the unique bicultural New Zealand context (Cram, 2010).

Methods: The four phases of AI: Discovery, Dream, Design and Destiny (the 4-D model) provided a useful framework for structuring research projects. The Discovery phase enabled participants to take a strengths approach to identify and relate what was working well. The Dream and Design phases enabled a focus on a vision for the future and co-creation of improvements, and the Destiny phase promoted a shared approach to implementing new knowledge or addressing particular concerns.

Results: Using AI across teams, professional disciplines and in different projects stimulated collaborative research, scholarly discussions, co-ownership of improvements, and furthered the research agenda of the School of Health. It has also supported the inclusion of novice researchers in projects who have advanced their research skills, including publication. In this presentation we will outline the use of AI and perceived benefits. Cram, F. (2010). Appreciative Inquiry. MAI Review, 3, 1-13. http://review.mai.ac.nz
Finding unifying themes to promote greater research collaboration

Rick Fisher*, Iman Khajehzadeh, Gregory De Costa

Open Polytechnic

Taking advantage of changes to faculty structure at The Open Polytechnic, we sought to find ways in which research collaboration could support an interdisciplinary approach to problem solving. The rationale for this approach was based upon increasing demand for interdisciplinary research, as the result of the ascendency of what are termed ‘wicked problems’. These are pervasive, intractable problems in diverse areas such as software development or housing which require engagement from many stakeholders.

The overall goal was to link existing faculty expertise at the Open Polytechnic in construction, engineering, and the environment, and apply it to a selected research problem.

A variety of methods were used to identify common research threads which could unite teaching faculty interests, including the use of word cloud generators, based upon information in CVs and PBRF portfolios. This was used to create a list of multidisciplinary research areas, which could be combined as needed for selected research problems. One of these is the effects of residential housing intensification upon infrastructure, specifically, water supply and water conservation.

Our research objective was to identify hard (regulatory) and soft (voluntary) options for water conservation which are presently employed by district councils in New Zealand, and note areas of current best practice which might be promoted more holistically throughout the country. A keyword search of ‘water’ and ‘water conservation’ was undertaken for 67 local authorities. The results showed that 22 councils employed volumetric water metering as the primary regulatory method to encourage water conservation. A total of 76% of councils also offered advice about voluntary initiatives available to residents who wish to reduce water use. The initiatives on offer ranged from basic lists of ‘doable actions’, to more comprehensive advice, including videos, NGO links, and partnering relationships with regional councils/private providers about matters such as the provision of water collection tanks.

The results of our research have been directed to date towards influencing local government decision making, through the submissions process. Submissions were made in 2018 to Horowhenua District Council’s Long Term Plan. The submissions have resulted in evidence-based changes to district planning, which elevates water conservation and use as priorities for future planning. This may foster future research, one goal of which is to support the efficiency of residential builds in New Zealand, acknowledging social, technical, and planning impacts caused by intensive use of residentially-zoned land.

The value of our research for conference participants is likely to be most relevant with regard to the current government review of the ITP sector. Indicatively the review signals a reduction in overlap in delivery and identifies areas of shared strength. We believe that this will also apply to research. Consequently, our results can be viewed more broadly, in terms of the value of identifying other ‘wicked problems’, or more general topic areas, which may invite the aggregation of expertise in applied research.
Preparation of a Data Analysis Training Package - A reflection from the Research Team

Aliitasi Sua-Tavila*, Apii Rongo-Raea, Susan Beaumont, Roger Ngahooro, Michael Fitzsimons, Hawa Fitzgerald

Whitirea

Undertaking an academic research with a multidisciplinary team highlighted collaborative strength and challenges from individuals throughout the process. Fundamental to the completion of the research project in a timely manner was the team’s ability to utilise various skill sets relevant to research. This paper reflects on the research team’s collaborative approach of engaging in an academic research project. Upon reflection on the team approach to doing research, it was notable that there is some limitation on their skill sets during the process of doing research. In particular the data analysis phase. For that reason, the focus is to prepare a data analysis training package for researchers who may have limited knowledge of exercising various phases of analysing data. The intention is to prepare and pilot the training package for staff members who wish to build their knowledge and skill relevant to data analysis. The reflection informs the objective of this paper.

a) The preparation of a data analysis training package to support new and emerging researchers when doing academic research projects.

b) Pilot the data analysis training package amongst Whitireia and WelTec staff members to familiarise themselves with specific skill sets relevant to data analysis.

Once the training package is piloted and evaluated then it can be utilised as a resource for individuals and research teams from Whitireia and WelTec in the future.
Integrated anatomy: a need for new teaching models [Exhibit]

Phillip Silverman*
WelTec

The dissective approach of medical understanding has strongly influenced how anatomy is taught. While this descriptive approach is extremely useful for those with a surgical mandate, it has the potential to lead to confusion for those seeking an understanding of functional anatomy, especially where a more integrated structural understanding is required.

This presentation will provide an update on the living anatomy project, which aims to provide anatomical teaching resources or models that are designed with a functional rather than descriptive approach. It is proposed this shift in modelling and in turn teaching is required where a more integrated approach is required. For example, those interested in posture and movement, or indeed emerging areas such as creature design.

The previous presentation focused on the initial models created, and the process to produce these. This presentation will discuss the shift from physical models into animation and the development of digital based models.
The consistency of data in published medical research

Phillip Silverman*
WelTec

Research Objectives:

1. Identify the frequency of inconsistent data points in the abstract compared to full paper of the same article in a specialist field of medicine, specifically the Archives of Physical Medicine and Rehabilitation.
2. Provide a preliminary comparison of the frequency rates of inconsistent data in abstracts in general versus specialist medicine. 3. Categorize and quantify ‘major’ abstract data inconsistencies, specifically those deemed to potentially lead to misinterpretation

Design: The design was consistent with prior research with the addition of comparing research on specialist and general medicine, and classifying and quantifying ‘major’ data inconsistencies. The data is presented in two parts: the first part reviewing abstracts covering 2002 and the second part for the period 2003-2016.

Main Outcome Measure(s): The number of abstracts and numerical data points that contained an inconsistency was calculated. A further assessment and quantification of major inconsistencies was performed.

Results: Overall, in Part One and Part Two 92 and 182 abstracts were reviewed respectively. The number of inconsistent abstracts and data points identified were 41.30% and 6.19% for 2002 and 58.79% and 10.50% for 2003-2016 respectively. No statistically significant differences were identified between specialist and general medicine publications. Major inconsistency was identified in 24.82% of sampled abstracts. Major categories of inconsistencies created and quantified included transpositional, statistical significance, major omission, and unconventional rounding.

Conclusions: Abstract data inconsistency appears a universal problem in medicine. Previous research has attributed cause to a lack of diligence, this research further suggests a review of publication guidelines and a focus on quality of publication over publication citation as a metric for scientific contribution in medicine. A century of mounting evidence supports the persistence of inaccuracy in medical literature. Concern is raised for the researcher who draws on the authority of prior research in the construction of new knowledge and indeed the clinician applying evidence based practice, where there is the potential for compromised care.
A collaborative model to forge knowledge

Catherine Doughty*, Molly Page, Joanna Dopson

Whitireia

**Background**: A nursing tutor/researcher sought to investigate the literature on a particular topic that could direct future research. The health librarian was asked to participate in the project by mentoring a recent nursing graduate in conducting this initial literature search.

**Aim**: To utilise the professional skills and strengths of a librarian, a nursing tutor/researcher and a recent nursing graduate, to develop a working model that produces a thorough initial span of the literature on a nursing related research topic.

**Method**: Collaborative and inquiry-based frameworks were employed to conduct this project. Qualitative reflections about what worked and what could be improved upon were submitted by the librarian, the tutor and the student at the end of the project.

**Results**: This collaboration created a model, with the tutor as the nursing expert, who led exploration of the content, whilst the librarian, as expert literature searcher, led and mentored the student with the literature searching. The student conducted the literature searches, organised and presented the literature to the team with ease, due to her relative level of nursing knowledge and experience with online searching. Knowledge was gained insofar as the tutor obtained an overview of the literature on her research topic and could use this information to help decide if it was worth pursuing the study further; the student furthered her information literacy skills and the librarian gained insights into how to work collaboratively in the team with each.

**Conclusions**: This framework may serve as a useful model for future projects at tertiary institutions and it may also encourage tutors’ research outputs in the future.
International students’ experience at early days in higher education in New Zealand

Ruwan Jayasooriya*

WelTec

International students (IS) from various countries are coming to New Zealand for their higher studies. The complete process from initial application to attending the class for an international student is quite complex. Even when an IS is granted admission to a programme in a polytechnic or a university, there are issues relating to attending classes in the early weeks of a term. Some IS may first appear in classes a few hours within arriving in NZ. This impacts their studies and they may show very poor performance in the early stages of the programme.

These students may have performed well in their own countries and wish to continue in the same way in New Zealand too. However, they may soon discover that many of their learning strategies and beliefs about education do not work well in the new environment. If teachers are aware of these expectations, they can help their students by pointing out good learning strategies and techniques that would help them achieve the learning goals set for their courses.

Some IS are struggling to keep up with the local students especially for engineering related courses. This is happening because engineering courses need strong mathematics knowledge, and some physics. Therefore, special strategies need to be implemented to improve the learning capabilities of IS. This is a real challenge for the lecturer.

This research investigated these issues and identified better teaching and learning strategies that help IS to perform well at any stage in their learning journey in New Zealand.

Existing knowledge was evaluated along with day to day classroom teaching experiences to identify effective teaching and learning strategies for IS, in comparison to local students. Some WelTec international students’ experiences were recorded.

One strategy used was Seven Principles for Good Practice in Undergraduate Education by Chickering et al., 1987. This strategy was found to be effective for IS in the early days of their study in NZ. The performance of new IS was critically evaluated. In addition, the effects of pastoral care for IS were investigated to identify suitable strategies to complement academic support. Analysing the feedback of new students to both academic and pastoral help allows further improvement to the class room environment for effective learning.
Practice Learning Centre – Social Work Education Model

Jean Mitaera*

WelTec Whitireia

In July 2018 I presented a paper at the Social Work, Education and Social Development Global Conference held in Dublin entitled "A school's 'service practice' in its community". Initially the model focussed on reciprocity - a two way exchange between the Whitireia BSW programme and a community organisation. 'Service' was later adopted to reflect the deeper intent of social work education and the expertise of specific academic staff to be utilised in community organisations. It also validated earlier discussions within the Faculty of Health around programmes 'service' engagement with community.

The presentation and discussion in Dublin, and numerous individual conversations with attendees from around the world have informed the refinement of the model. This poster presents the revised version of the Practice Learning Centre - Social Work Education Model. The objectives of the model are to:

* Engage social work academics in 'service' for which the community organisation has identified its specific need
* Build the capacity of the community organisation to confidently and independently manage their 'service' skills
* Prepare a space for a student placement - the space and social work academic model collaboration and service
* Develop student learning experiences that are informed by service.
The sky is the limit, Journey towards further study and employment

**Tony Assadi*, Manu Katene**

**Whitireia**

The consistency of graduate outcomes provides assurance that all graduates of New Zealand qualifications meet the outcomes to an equivalent, nationally acceptable standard (NZQA, 2018). Whitireia School of IT offers Programmes from Level 2 Computing to Master of Information Technology (Level 8). NZ Certificate in Information Technology, CertIT Level 2 (NZ CertIT L2), at Whitireia Polytechnic was one of the Programmes that was scheduled for a 'Consistency Review', in 2018. This review was administered by NZQA and facilitated by an independent reviewer. This research aims to explore the efficacy of foundation Programmes in IT and how it helps graduates staircase into higher qualifications as well as preparations to join the IT industry. In particular, we investigated graduate outcomes against graduate profile for the NZ CertIT L2 programme and Whitireia. Results from this study were also used in a National NZQA Consistency Review across other polytechnics in New Zealand that offer the same programme. Research questions for this study were:

1 - What are the impacts of NZ CertIT L2 Programme on its graduates? (Where are they now, what are they doing?)

2 - How graduate outcomes for NZ CertIT L2 Programmes at Whitireia can help students to further study and employment.

Graduates workshop and surveys were used to gather data for this study. 10 graduates who successfully completed the NZ CertIT L2 Programmes in 2017 took part in this study. Participants were asked to complete an online survey. Survey questions were designed to gather demographic information, what they were currently doing, whether it be working, studying or at home as well as assessing how skills gained from NZ CertIT L2 assist graduates.

In addition to that, staff in higher level courses were interviewed to provide feedback on how graduates have participated in class discussions and activities while also commenting on assessment results. Originally 12 students enrolled in this programme with ten successful graduates. Of those 10 graduates, 7 continued further studies, with five of those enrolling in various higher-level IT related courses ranging from BIT degree, Diploma in Information Systems Level 5 and Certificate in Information Technology Level 5. Tutors from Whitireia higher level courses speak of a maturity and good work ethic in the classroom, regarding punctuality, preparedness, class discussions and active participation.

Results also show the graduate outcomes has prepared them well for higher level courses as 75% of graduates managed to pass all their higher level courses with a B grade or higher. Feedback and survey results show graduates are very happy with this course and strongly agree that it helped prepare them for higher level studies. Results from the higher level courses also reinforce this finding. Feedback from tutors supports the notion these graduates are prepared for further study.
Data visualisation: Tracking educational pathways over time with Sankey diagrams

Rodrigo de Costa*
Open Polytechnic

The Nursing Council report that Internationally Qualified Nurses (IQNs) continue to make up 26% of the nursing workforce in New Zealand. Those IQNs who undertake postgraduate study at Whitireia not only have to transition to higher level study but also to a new country's education approach. These students need to make this double transition as quickly as possible to be successful in their studies. This study, undertaken in partnership between the School of Health and Poutama, Whitireia, aimed to explore ways of supporting IQNs to be academically successful. This poster reports on the first research phase. The first phase was an online survey that collected demographic data and opinions on the nurses’ perceptions of their prior skills, their learning needs, and support required in order to be successful in their studies. An invitation to participate was sent in semester 2, 2016 and semester 1, 2017. Postgraduate teaching staff in semester 2, 2016 were invited to answer a similar survey. Seven of the nine IQNs who responded were from the Philippines, and five had trained in the English language. The majority were in the 30-39 year age bracket, and had worked as a Registered Nurse in NZ for an average of 4.8 years.

The IQNs identified their nursing knowledge as their main prior skill, and were expecting to extend their nursing knowledge alongside developing their academic scholarship. The support they wanted was from experienced and knowledgeable staff with whom they could develop a relationship. Academic staff identified the IQNs' cultural competencies as a prior skill, but also that these students needed to acquire an understanding of the NZ cultural context. Cultural knowledge and skills were not generally identified by either cohort of nurses. Furthermore, staff were clear about the academic scholarship needs of IQNs, alongside acknowledging the IQNs’ prior nursing knowledge and experience and a motivation to learn new nursing knowledge. Staff also commented on IQNs’ personal attributes, especially related to their resilience.

The next phase of the research will design and pilot specific support interventions that take account of IQNs’ and staff members’ views as indicated by this survey, within the constraints of current resources and with a view to establishing sustainable and effective practices.
Challenges facing the tertiary sector in New Zealand

Rosita Thomas, Sarita Pais

Whitireia

**Background**: NZ’s education system is being challenged by the need for innovation and creativity. The tertiary sector, particularly ITPs, recognise the need to change, reviewing course offering and delivery methods. Our educational system has to be based on “future-focussed learning”. The strategy that we adopt needs to engage with the industry, community and the global economy.

**Research Question**: Does the Sector recognise the need to change our present educational system?

**Aim**: To view education in a time-perspective and to respond to the terms of change. In the 21st century, innovation, technology, and research are indispensable tools of education. Educational innovations are imperative, and would no doubt be effective if they are research-based. The purpose of this study is to review how education is responding to these changes. Articulating a strategy for change including the best use of digital technology will help students to develop their academic or vocational skills. It will also allow the tertiary sector to respond to the growing needs of our stakeholders and allow New Zealand to position itself as a world class education provider.

**Methodology**: This research involves document analysis and literature review. A review of policy, employer requirements and educator responses has been undertaken. Externally data sources were: Document Analysis, Government Sources, Literature Reviews, from Media, and the Internet.

**Findings**: To view education in a time-perspective and to respond to the terms of change. Change implies choices and the Tertiary Education sector should ensure that the availability of choices offer a better quality of life to our diverse population.

- Employer requirements. Study to work visa, Skilled labour force to contribute to our economic growth, Immigration New Zealand wants to ensure that post-study pathways for international students are fit-for-purpose and contribute to the skills and qualifications that New Zealand needs.
- Steps currently being taken such as micro credentialing. New Zealand government aiming at skills shortage solutions. The New Zealand Qualifications Authority (NZQA) undertook micro-credential pilot projects with three organisations from 1 August 2017 to 30 June 2018.
- Possible technology solutions. Use of digital technologies involving active learning at schools is encouraged, Importance is given to STEM (Science, Technology, Engineering and Mathematics) subjects in school to prepare students for future jobs. At tertiary level, ICT is integrated in various programmes of study. Example digital marketing, health informatics, supply chain management.

**Conclusions/Implications**: This presentation is offered in the hope that it will encourage an ongoing discussion and aid in the reorientation of education. There is potential for further research by involving participation from academics, employers and students into this study. The requirements and preparedness from various stakeholders can contribute to the change of education system. Emerging concepts will be categorised for frequency analysis and further examination.
List of Primary Presenters

**KEYNOTE**
- Distinguished Professor Paul Spoonley, Massey University

**ORAL PRESENTATIONS**

**Session 1**
**Diverse Perspectives**
- Trish Harris
- Ann Cameron
- Susan Beaumont
- Indu Peiris

**Session 2**
**Teaching and Learning**
- Sandra Waayer
- Claire Foronda, Belinda McGrath, Ari Neocleous, Molly Page
- Isedora Lewis
- Phillip Silverman WITHDRAWN

**Session 3**
**Diversity in Health**
- Ruth Crawford, Leigh Andrews, Kerri Arcus, Janet Collier-Taniela
- De’arna Sculley
- Loma-Linda Tasi
- Apii Rongo-Raea, Aliitasi Su’a-Tavila, Hawa Fitzgerald, Michael Fitzsimons, Roger Ngahooro

**Session 4**
**Engineering and Resources**
- Induka Werellagama
- Andrew Boyle
- Najif Ismail
- James Mackay

**Session 5**
**Student Perspectives**
- Michael Fitzsimons, Roger Ngahooro, Hawa Fitzgerald, Susan Beaumont
- Kaaryn Cater
- Ken Maclver, Alan Wilson, Howard Wills, Don Banks, Sean Thompson, et al

**Session 6**
**Sustainability in Business**
- Shilpa Jain, Anup Singh
- Mathew Abraham
• Nazir Awan, Indu Peiris
  • Karishma Kelsey, Barbara Kneuer, Andrew Zalwiski

Session 7
Digital Technology in Teaching and Learning
• Merle Hearns
• Janak Adhikari
• Sophronia Smith, Tony Thistoll, Leise Cochrane
• Georgina Orsborn

Session 8
Diversity in Leadership
• Sophronia Smith,
• Stephanie Kelly
• Jean Mitaera, Aliitasi Su’a-Tavila, Teramira Schutz, Loma-Linda Tasi, Roger Ngahooro
• Jeanette Grace

Session 9
Architecture and Buildings
• Iman Khajehzadeh
  • Richard Forman
  • Minh Nguyen, Thu Phuong Truong, Diane Brand
• Najif Ismail

Session 10
Diverse Communities
• Hawa Fitzgerald, Aliitasi Su’a-Tavila, Apii Rongo-Raea, Michael Fitzsimons, Roger Ngahooro
• Lesley Pitt
• Susan Beaumont, Aliitasi Su’a-Tavila, Michael Fitzsimons, Roger Ngahooro, Hawa Fitzgerald, Apii Rongo-Raea

Session 11
Allied & Healthcare Workforce
• Kerri Arcus, Elizabeth Asbury
• Lisa Phillips, Stephanie Kelly, Cynthia Young
• Joey Domdom, Toga Katayammaenza
• Neil Ballantyne, Liz Beddoe, Kathryn Hay, Jane Maidment, Shayne Walker

Session 12
Strategies for Teaching and Learning
• Sandra Waayer, Trudy Scott
• Andrew Zalwiski, Karishma Kelly
• Adele Carson, Don Kannangara
• Gerard Duignan, Agustilia Rodrigues, Anne Webster, Carmel Haggerty
Session 13
Diversity in Teaching & Learning
- Bernie Whelan
- Sujatha Gomathinayagam
- Kevin Shedlock, George Tongariro, Manu Katene, Scott Morton, Marta Vos, et al.

Session 14
Information Technology and Management
- Marta Vos, Simon Dixon, Iwan Tjhin
- Chalinor Baliuag, Minh Nguyen
- Michael Hollman, Yuliya Khrypko
- Sarita Pais

Session 15
Managing Health Conditions
- Molly Page
- Lucy Kinavi Nguma
- Eric Boamah, Andrew Druye
- Abbie Ranui, Stephanie Kelly, Carmel Haggerty

Session 16
Diversity in Practice
- Teramira Schutz
- Merle Hearns
- Joey Domdom

Session 17
Strengthening Research & Collaboration
- Pam Bidwell
- Kerri Arcus, Leanne Pool, Wendy Trimmer
- Rick Fisher, Iman Khajehzadeh, Gregory De Costa

POSTER PRESENTATIONS
- Phillip Silverman
- Catherine Doughty
- Ruwan Jayasooriya
- Jean Mitaera
- Tony Assadi / Manu Katene
- Rodrigo Costa
- Sarita Pais / Rosita Thomas

EXHIBITIONS
- Phillip Silverman - WITHDRAWN
- Hawa Fitzgerald