OPSITARA 2023

Book of Abstracts

30 November & 1 December, Invercargill, New Zealand

SOUTHERN INSTITUTE OF TECHNOLOGY
TE WHARE WĀNANGA O MURIHIKU

Te Pūkenga

OP·SIT·ARA 2023

OPSITARA Research Symposium 2023 Book of Abstracts

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Introduction

In 2023 the joint Otago Polytechnic, Southern Institute of Technology, and Ara Institute of Canterbury Research Symposium ('OPSITARA') was hosted by SIT in Invercargill. All three institutions are now business divisions within Te Pūkenga — New Zealand Institute of Skills and Technology, making this event also the first joint symposium for Region four of Te Pūkenga. As no national symposium took place in 2023, we opened OPSITARA to all business divisions across all regions of Te Pūkenga.

The symposium was held at Te Rau o te Huia (Southern Institute of Technology Centre for Creative Industries) from 10:00 on Thursday 30th November to 15:20 on Friday 1st December. Abstract submission was open from 20 June to 1 September, and all submissions were peer reviewed. In total, 115 presentations took place at the event including pre-recorded talks and meetings of Research Communities of Practice (RCoP), and there were around 120 in-person attendees. Fourteen business divisions of Te Pūkenga were represented at the event.

The symposium was organised and co-chaired by SIT Research Coordinator James L Savage and SIT Research Manager Sally Bodkin-Allen. We are grateful to all the presenters, attendees, abstract reviewers, caterers, and SIT staff who participated in and supported the event.

This Book of Abstracts contains an index of presentation authors, the final programme for the symposium (including links to online pre-recorded talks), and then a full list of abstracts ordered by presentation type and first author surname. If you have any questions about the event, feel free to contact us at researchoffice.sit.ac.nz.

James L Savage & Sally Bodkin-Allen

Chairs, OPSITARA 2023

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Symposium Programme

Thursday 30 November

10:00-11:00

Mihi Whakatau — Church (JG20)

Welcome to the symposium from **Raniera Dallas**, **Megan Pōtiki** (Regional Executive Director), **Sally Bodkin-Allen** (Research Manager) & **James Savage** (Research Coordinator), followed by morning tea.

11:00-12:00

RCoP Meeting: Health & Wellbeing — Church (JG20)

Organisers: Sally Baddock (Otago Polytechnic) Anita Jagroop-Dearing (Eastern Institute of Technology) Phil Handcock (Otago Polytechnic)

RCoP Meeting: Construction & Infrastructure — Performance (JG16)

Organisers: Rehan Masood (Otago Polytechnic) Priyanka Raina (Otago Polytechnic) Samanthi Menike (Southern Institute of Technology) Sadegh Aliakbarlou (Unitec) Milad Bistouni (Toi Ohomai) Mazharuddin Syed Ahmed (Ara Institute of Canterbury) Adam AJ Khan (Ara Institute of Canterbury) David Finnie (Otago Polytechnic) Rizwan Ali (UCOL); Nayani Landage (Otago Polytechnic) Omer Altaf (Otago Polytechnic) Imelda Piri (Otago Polytechnic) James Flanders (Otago Polytechnic); Nick Wilson (Otago Polytechnic)

RCoP Meeting: Business — Multimedia (J205)

Organisers: Neeru Choudhary (Open Polytechnic of New Zealand) Pii-Tuulia Nikula (Eastern Institute of Technology) Indrapriya Kularatne (Otago Polytechnic Auckland International Campus)

12:00-13:00

Lunch — Foyer

13:00-14:20

Teaching & Learning 1 — Church (JG20)

Chair: Jerry Hoffman (Southern Institute of Technology)

The impact of two COVID-19 lockdowns on New Zealand tertiary education students studying at a regional Polytechnic (20m)
William Jenkins (UCOL)

Lecturing for Neurodiversity: A Guide to Inclusive Teaching (20m)
Rachel van Gorp (Otago Polytechnic)

Learning for all: Designing for Learning in our Work-based contexts (20m)
Amy Benians, Rachel McNamara & Helen Mataiti (Otago Polytechnic)

Creating a sense of community and wellbeing through events (20m)
Rachel Byars & Greta Bauer (Otago Polytechnic)

Construction & Infrastructure 1 Performance (JG16)

Chair: Naveed ur Rehman (Southern Institute of Technology)

The additional fee for infrastructure design services beyond the initially agreed scope of work (20m)
Samanthi Menike (Southern Institute of Technology)

Developing Micro-credential content for teaching Māori Sustainable values using Building Information Modeling (BIM), Immersive Learning Theories and Culturally Sensitive Pedagogies (20m)
Mazharuddin Syed Ahmed & Adam Khan (Ara Institute of Canterbury)

Critical Analysis of Invercargill Road Network in Case of Natural hazards (20m)
Mujaddad Afzal (Southern Institute of Technology) Sujan Maharjan (Southern Institute of Technology) Rehan Masood (Otago Polytechnic)

Health & Wellbeing (prerecorded) Multimedia (J205)

The inclusion and exclusion experiences of kaiako with disabilities in early childhood education in Aotearoa New Zealand (10m)
Kerry Purdue, Veronica Griffiths, Derek Hartley & Jenny Malcolm (Open Polytechnic)

An exploration of the push and pull factors for New Zealand registered nurses who move from clinical practice roles to nursing education (10m)
Andrew Toneycliffe, Kate Norris & Isabel Jamieson (Ara Institute of Canterbury)

Food and nutrition perceptions and practice and sustainability in urban Vietnam: Insights from a school survey in Ha Noi (10m)
Angie Dang (NorthTec)

Engagement of New Zealand Allied Veterinary Professionals with Continuing Professional Development – a meta-analysis (10m)
Kristina Naden & Cherie Reid (Otago Polytechnic)

The strength and conflicts of the Human-Animal Bond (10m)
Francesca Brown (Otago Polytechnic) Jane Jones (Otago Polytechnic) Sylvia Ma (MPI)

Comparison of iron content in kōkihi (New Zealand native spinach) and English spinach (Spinacia oleracea) (10m)
Barbara Dolamore & Brooklynne Foreman (Ara Institute of Canterbury)

How does fostering psychological safety support engagement and improve educational outcomes for level 5 ākonga? (10m)
Andrea Jones & Wendy Olsen (Nelson Marlborough Institute of Technology)

14:20-14:50

Afternoon Tea Break — Foyer

14:50-16:10

RCoP Meeting: Teaching & Learning — Church (JG20)

Organisers: Sonja Swale (Southern Institute of Technology) Claire Goode (Otago Polytechnic)

Hospitality — Performance (JG16)

Chair: Selena Coburn (Southern Institute of Technology)

The Culinary Koha Project: a Ringa Hora and Te Pūkenga collaborative project to rethink hospitality education. (20m)
Adrian Woodhouse (Otago Polytechnic)

Abandoning the siloed curriculum and embracing holistic and integrated portfolios: A culinary arts story (7m)
David Gillespie (Otago Polytechnic)

Sizzled creations & culinary care: Transforming burnt cheese rolls into hauora champions (7m)
Juliane Tautz (Otago Polytechnic)

Mastery in the Making: A Case for Deliberate Practice within Vocational Education (7m)
Hayley Dodd & Chloe Humphreys (Otago Polytechnic)

Construction & Engineering (prerecorded) — Multimedia (J205)

Mapping Quantity Surveyor Graduate profile against NZIQS Competency Standards (10m)
Rehan Masood, Nayani Landage, Imelda Piri & Nick Wilson (Otago Polytechnic)

An analysis of embodied carbon in student accommodation buildings in Southland (10m)
Samanthi Menike (Southern Institute of Technology)

Skill requirements for Low-Prefabricated Timber Building Technologies (10m)
Yan Xu (Unitec) Sadegh Aliakbarlou (Unitec) Rehan Masood (Otago Polytechnic) Luban Chan (Unitec) Anna Kimaro (Unitec)

Improving Prefabrication Supply Chain to Alleviate the Housing Shortage (10m)
Rajiv Mukunthan (Unitec) Sadegh Aliakbarlou (Unitec) Rehan Masood (Otago Polytechnic) Riffat Shaheed (Unitec Institute of Technology); Ronnie Matafeo (Unitec Institute of Technology)

BIM-enabled collaborative automated quantity take-off of buildings for better efficiency and effectiveness - A Learner's perspective (10m)
Nick Wilson, Rehan Masood, Nayani Landage & Omer Altaf (Otago Polytechnic)

Application of Circular economy principles by Prefabricated housebuilding companies (10m)
Rehan Masood (Otago Polytechnic) Kenny Soper (Southern Institute of Technology) Samanthi Menike (Southern Institute of Technology) Milad Bistouni (Toi Ohomai Institute of Technology); Bill Morrison (Otago Polytechnic).

Rethinking performance and sustainability of timber wall framing practices (10m)
Chris Fersterer (Otago Polytechnic)

Cyclone Gabrielle Housing Recovery through Prefabricated Construction (10m)

Rizwan Ali (UCOL) Rehan Masood (Otago Polytechnic)

Developing Sustainable Airless Tyre Technology for Enhanced Performance and Durability (10m)
Carlo Gabriel (Southern Institute of Technology) Juvenel Mark Rosario (Saint Louis University) Laura Greenaway (NDY Wellington)

16:20-17:00

Short Talks: Teaching & Learning — Church (JG20)

Chair: Rachel van Gorp (Otago Polytechnic)

Reimaging Bourdieu in Aotearoa New Zealand 2023 (7m)
Selena Coburn (Southern Institute of Technology)

First I was afraid, I was petrified – without my clunky old assessment practice by my side (7m)
Fiona McLaren (Otago Polytechnic)

The influence of personal experience on teaching practice (7m)
Maria Grace (Otago Polytechnic)

From written to visual, how to communicate the unknown – a doctoral journey (7m)
Tim Lynch (Otago Polytechnic)

Time Travelling in Aotearoa: Using Unreal Engine to Visualise Pre-European Ōtākou (7m)
Morgan Oliver (Otago Polytechnic)

Short Talks: Construction — Performance (JG16)

Chair: Jonathan Muhl (Southern Institute of Technology)

Critical Success factors for Indigenous construction companies in New Zealand (7m)
Tiwa Pene (Southern Institute of Technology) Rehan Masood (Otago Polytechnic) Samanthi Menike (Southern Institute of Technology) Sina Mualia (Otago Polytechnic)

Developing a Whole Life Costing Analysis for the SIT International House Building (7m)
Samanthi Menike (Southern Institute of Technology)

Root causes of Request for Information (RFI) on commercial construction projects (7m)
Rehan Masood (Otago Polytechnic) James Flanders (Otago Polytechnic) Priyanka Raina (Otago Polytechnic) Sadegh Aliakbarlou (Unitec) Mujaddad Afzal (Southern Institute of Technology)

Application of building information modelling in prefabricated Housebuilding (7m)
Rehan Masood (Otago Polytechnic) Xinyan Li (Southern Institute of Technology) Samanthi Menike (Southern Institute of Technology) Nick Wilson (Otago Polytechnic) Mujaddad Afzal (Southern Institute of Technology)

Short Talks: Health & Wellbeing — Multimedia (J205)

Chair: Karyn Madden (Southern Institute of Technology)

An exploration into the work life balance experience by Nurse Managers working in public (DHB hospitals) and private sector (aged care sector) in Southland, New Zealand. (7m)
Natasha Cunningham (Southern Institute of Technology)

New Graduate nurses' experiences of caring for patients with pain in the acute hospital setting (7m)
Jane Elder (Southern Institute of Technology)

Summative Assessment – Does it predict clinical performance or it a barrier to nursing student progression? (7m)
Michelle Miller (Southern Institute of Technology)

Time to Warm Up (7m)
Debbie Watson & Sharon Harper (Southern Institute of Technology)

What interventions exist to train nurses to communicate bad news? A Systematic Review (7m)
Paula Stephenson (Southern Institute of Technology)

17:15-20:00

Grazing Platters — Foyer

Enjoy food and drink as you view the posters and creative showcase throughout the venue.

Creative Showcase — Throughout the Venue

Chair: Sally Bodkin-Allen

The Benefits of ORCID for Researchers — 17:15 talk in Church (JG20); Stand in Church (JG20)
Alex Freemantle (Royal Society Te Apārangi)

Exploring Interconnectedness through Found Objects and Local Waste: A Cross-Cultural Investigation — Interactive display in Foyer from 17:30
James Smith-Harvey (Eastern Institute of Technology) Rumen Rachev (Auckland University of Technology) Adam Ben-Dror (University of Auckland) Chris Berthelsen (University of Auckland) Linda Liujia Zhang (Zhejiang Yuexiu University of Foreign Languages) Wins Yichen Fu (Zhejiang Yuexiu University of Foreign Languages)

Quadrangulating Interconnected Crafting Practices: Handcraft Art, Calligraphic Poetry, Musical and Video Compositions — 17:30 performance in Church (JG20); Artwork exhibition in Church (JG20)
Jay Horan (Te Pūkenga)

Intentional Camera Movement in Unmanned Aerial Vehicle (UAV) photography — 17:50 talk in Church (JG20); Artwork exhibition in Church (JG20)
Clive Copeman (SIT2LRN, Southern Institute of Technology)

Virtually Unreal: Exploring the Applications and Limitations of LED Virtual Production Walls in Emerging Virtual Production Technology — Interactive discussion/installation from 17:50 in Green Screen (JG02)
James Wilkinson (Southern Institute of Technology)

Down the Rabbit Hole: My Continued Journey of Discovery into the Land of Animation — 18:10 talk in Church (JG20)
Patrick Gillies (Southern Institute of Technology)

Not Sitting Down Quietly: The Work of Sandra Thomson — 18:30 talk in Church (JG20)
Dorothee Pauli (Ara Institute of Canterbury)

Augmenting Brown Noise Within a Chorus of White Noise — 18:50 talk in Church (JG20)
Caylieh Hausser-See (Southern Institute of Technology)

Teaching game theory through game play — 19:10 talk in Church (JG20); Display in Pod A (JG21)
Rachel Mann (Southern Institute of Technology)

The Hands of the Artist: Neo-Artisan/Digital Pipelines in the Screen Arts 19:30 talk in Church (JG20) Display in Church (JG20)
Traci Meek-Reid & Gayle Clearwater (Southern Institute of Technology)

Research Posters — Foyer

Information for Researchers: Te Pūkenga Publishing Group (exhibit)
Te Pūkenga Publishing Group

The Tokyo Olympics had no Soul: A swimming cap controversy (poster)
Peter Olsen (Ara Institute of Canterbury) Lindsey Alton (Ara Institute of Canterbury) Michael Hamlin (Lincoln University) Graeme Harris (Ara Institute of Canterbury)

Nurturing an effective and enjoyable inter-institutional research group: An autoethnography (poster)
Peter Olsen (Ara Institute of Canterbury) Helen Marshall (Ara Institute of Canterbury) Maria Choukri (Ara Institute of Canterbury) Catherine Elliot (Lincoln University); Heperi Harris (Ara Institute of Canterbury) Claudia Leong (Ara Institute of Canterbury) Nick Draper (University of Canterbury); Catherine Lizamore (Ara Institute of Canterbury) Patrick Boudreau-Alguire (Ara Institute of Canterbury) Michael Hamlin (Lincoln University)

Property cards: serious games in Materials Engineering (poster)
Jonathan Muhl (Southern Institute of Technology)

Micro-investigators: citizen science in Southland around microplastics (poster)
Karen Luttrell (Southern Institute of Technology)

Friday 1 December

09:00-10:20

Teaching & Learning 2 — Church (JG20)

Chair: Jerrylynn Manuel (Southern Institute of Technology)

Meeting the challenge of AI and assessment security (20m)
Bruno Balducci (Otago Polytechnic Auckland International Campus)

Are we prepared for assessing AI content? (20m)
Rehan Masood, James Flanders, David Finnie & Maria Grace (Otago Polytechnic)

AI in vocational education: Interim findings from a study integrating AI into learning activities across six disciplines (20m)
Selena Chan (Ara Institute of Canterbury)

Alternative modalities of postgraduate research assessment (20m)
Lesley Brook, Michael Greaves, Megan Kitching & Leoni Schmidt (Otago Polytechnic)

Health & Wellbeing 1 — Performance (JG16)

Chair: Anita Jagroop-Dearing (Eastern Institute of Technology)

The Psychological Experiences of Indoor and Outdoor Rock Climbers (20m)
Patrick Boudreau (Ara Institute of Canterbury)

They did not know how to journey with me: Injury experiences in Women's rugby (20m)
Phil Handcock (Otago Polytechnic) Tahlia Strachan (Papatoetoe West Primary School)

A Workplace Health and Wellness Case Study (20m)
Regan Cotter (Careerforce)

Exploring the impact of remote work on the psychological wellbeing of software professionals in New Zealand (20m)
Jayani Dissanayake, Olufemi Omisakin & Indrapriya Kularatne (Otago Polytechnic Auckland International Campus)

Business (prerecorded) Multimedia (J205)

Enhancing Internal Financial Management in New Zealand Charities: Bridging Knowledge and Skill Gaps for Sustainable Community Impact (10m)
Sujani Thrikawala & Nicola Hollis (Waikato Institute of Technology)

Data collection during a pandemic (10m)
Puvanambihai Natanasabapathy (Open Polytechnic of New Zealand)

The interactions of leverage and firm performance: The effects of agency costs (10m)
Swati Puri (Whitireia and WelTec)

Addressing climate change: Insights from New Zealand's insurance industry and comparative perspectives (10m)
Mary Gay Mendoza, Indrapriya Kularatne & Bing Dai (Otago Polytechnic Auckland International Campus)

Addressing Gender Pay Equity in the Future of Work (10m)
Genevie Mendoza, Indrapriya Kularatne & Bing Dai (Otago Polytechnic Auckland International Campus)

Evolving Family Preferences: A Study of Airbnb Evaluations in New Zealand (2018-2023) (10m)
Carl Gianelly Manalili, Mitra Etemaddar & Shu Su (Unitec)

Implications of Geographical Indication Integration in Supply Chains: A Case Study of the Cashmere Industry Operating in the Global South (10m)
Imran Ishrat (Ara Institute of Canterbury)

Employees on social media: A multi-spokesperson model of CSR communication (10m)
Ninitha Hamza Koya (Waikato Institute of Technology) Juliet Roper (University of Waikato)

Engaging with Te ao Māori as a Marketer: Resources for Marketing Students (10m)
John O'Sullivan (Ara Institute of Canterbury) Heperi Harris (Independent)

Exploring Factors Influencing the Success and Failure of Rural Micro-enterprises in Choiseul Province, Solomon Islands (10m)
Daniel Willie, Mitra Etemaddar & Glenn Simmons (Unitec)

10:20-10:50

Morning Tea Break Foyer

10:50-12:10

Health & Wellbeing 2 Church (JG20)

Chair: Kerry Purdue (Open Polytechnic of New Zealand)

A Strengths approach to child welfare In Aotearoa New Zealand: collaboration is key. (20m)
Lorna Allott (Southern Institute of Technology)

Skirting the issue: barriers to discussing the links between animal abuse and family violence in veterinary practice (20m)
Catherine Rice (Otago Polytechnic)

Actions to Address the Epidemic of Youth-Vaping Among Intermediate and High School Students in Aotearoa, New Zealand. (20m)
Anita Jagroop-Dearing, Sue Scott-Chapman, Helen Ryan Stewart, Jocelyn Lañas-Pangan, Melody Khan & Rachel Forrest (Eastern Institute of Technology)

The Impact of The Floor© Boardgame on the Clinical Decision-Making Skill and Prioritisation Knowledge of Nursing Students (20m)
Jenica Ana Rivero, Malinda Hill & Analise Wilson (Southern Institute of Technology)

Business 2 Performance (JG16)

Chair: Neeru Choudhary (Open Polytechnic of New Zealand)

Customer Satisfaction Enhancement Using AI-based Feedback Systems (20m)
Olufemi Omisakin & Indrapriya Kularatne (Otago Polytechnic Auckland International Campus)

The Power of Empathy: Preparing business graduates for communicating in a professional context (20m)
Rachel Byars, Helen Geytenbeek, Rachel van Gorp, Caryn Hayes & Lamith Caldera (Otago Polytechnic)

Environmental Rhetoric vs. Reality: The Impact of Political Connections on Greenwashing in Developing Economies (20m)
Sujani Thrikawala (Waikato Institute of Technology) Nirosha Wellalage (University of South Australia)

Perceptions of Southland Businesses: Required Skills of Accounting Graduates and Accounting Project Needs (20m)
Lynley Woodward, Kay McKinnel & Robyn Valentine (Southern Institute of Technology)

Teaching & Learning (prerecorded) Multimedia (J205)

Enhancing Learner Engagement through Collaborative Writing (10m)
Sundeep Daggubati (Ara Institute of Canterbury)

Strategies for improving communication and feedback with learners in a Master of Applied Management Programme (10m)
Robyn Hill & Andy Ang (Southern Institute of Technology)

What can we do if online learning becomes a new norm? (10m)
Jane Qin (Eastern Institute of Technology), Xue Yang (Qilu University of Technology)

Critical Perspectives on Artificial Intelligence in Educational Contexts (10m)
John Mumford (Southern Institute of Technology)

Facilitation of postgraduate work-based learners: Lessons from a 'supervisor' (10m)
Jo Kirkwood (Otago Polytechnic)

Exploring Universal Design for Learning in a post-secondary vocational setting (10m)
Mia Silverman (Ara Institute of Canterbury)

NorthTec | Te Pūkenga Student Attrition Survey 2023: Initial Findings (10m)
Angie Dang & Sue Vaughan (NorthTec)

Adopting business simulations to bridge theory and practice to support learning facilitation (10m)
Edwin Rajah & Rajeev Chawla (Otago Polytechnic Auckland International Campus)

12:10-13:10

Lunch Foyer

13:10-13:50

Short talks: Communities & Institutions Church (JG20)

Chair: Scott Klenner (Otago Polytechnic)

What is happening to our local food growers in Aotearoa? (7m)
Anna Palliser (Southern Institute of Technology)

An Analysis of Cyber Security Awareness among Students and Staff of Southern Institute of technology-Te Pūkenga (7m)
Abdul Rehman, Oras Baker & Orland Basas (Southern Institute of Technology)

Unleash ChatGPT's Potential: Proven Prompts to Revolutionise Your Classroom (7m)
Tony Heptinstall (Otago Polytechnic)

The impact of New Zealand's performance-based research funding system on accounting academics (7m)
Sharon Manasseh (Waikato Institute of Technology) Mary Low (Waikato University) Richard Calderwood (Waikato University)

Re-designing and re-delivering a Virtual Exchange Programme for first year Bachelor of Environmental Management students. Lessons from practice (7m)
Jordon Traill (Southern Institute of Technology)

Short talks: Engineering & Infrastructure Performance (JG16)

Chair: Samanthi Menike (Southern Institute of Technology)

Testing Fuel at the pump (7m)
Graeme Harris (Ara Institute of Canterbury)

A comparison of weight loss and gas flow data for micro-fermentation monitoring (7m)
Jonathan Muhl (Southern Institute of Technology)

Impact of the Edendale roundabout on the safety and mobility of SH-1 (7m)
Mujaddad Afzal (Southern Institute of Technology) Hai Liu (Southern Institute of Technology) Rehan Masood (Otago Polytechnic)

Comparative spatial intelligence of indigenous architectural expressions informing Māori architecture of Aotearoa. (7m)
Adam Khan (Ara Institute of Canterbury)

Can Post-Occupancy Evaluation indicators reveal how educational services and delivery transforms the soundscape of higher educational buildings? (7m)
Dian Muñoz (Ara Institute of Canterbury)

13:50-14:50

Teaching & Learning 3 — Church (JG20)

Chair: Lesley Brook (Otago Polytechnic)

The Big Picture: Visual literacy in teaching & learning (20m)
Ana Terry (Otago Polytechnic)

A tale of two degree-apprenticeships: Embedding work integrated learning degrees in the New Zealand vocational education environment (20m)
James Mackay, Ema Tokolahi, Hana Cadzow, Rita Robinson & Helen Jeffery (Otago Polytechnic)

Communities in the Mist: Exploring the Community of Practice Model for Professional Development (20m)
Danny Fridberg, Kath Danaher & Amy Benians (Otago Polytechnic)

Business 3 — Performance (JG16)

Chair: Anna Palliser (Southern Institute of Technology)

Regenerative Tourism: Paving the Way for Sustainable and Resilient Tourism Education in New Zealand. (20m)
Helen Geytenbeek (Otago Polytechnic)

Open Topic (prerecorded) — Multimedia (J205)

Podcasting Future Post Covid (10m)
Brendan Reilly (New Zealand Broadcasting School, Ara Institute of Canterbury)

An interdisciplinary reflective learning practice in the design studio (10m)
Mazin Bahho & James Smith-Harvey (Eastern Institute of Technology)

Challenges and Opportunities of Modern Slavery Legislation for New Zealand SMEs (10m)
Terry Quilty (Manukau Institute of Technology)

How a big idea can inspire students and take flight (10m)
Mark Wilson (Nelson Marlborough Institute of Technology)

Assessing Solar Energy with a Hybrid Ray-Tracing Model: Open-Source Implementation as a Service (10m)
Naveed Rehman (Southern Institute of Technology)

New Zealand's competitiveness as an international tertiary education destination, post-pandemic (10m)
Renuka Narayan (Manukau Institute of Technology) Leonie Menzies (Auckland Institute of Study) Semisi Taumoepeau (Auckland Institute of Study)

14:50-15:20

Awards & Closing — Church (JG20)

Awards by **Sally Bodkin-Allen** & **James Savage**.

Message from **Jamie Smiler**, incoming Te Pūkenga Rangahau & Research Director.

Closing by **Raniera Dallas**.

Symposium Abstracts

Opening, Closing, and Invited Talks

Mihi Whakatau – Opening Session

Correspondence: researchoffice@sit.ac.nz

Welcome to the symposium from **Raniera Dallas** (Pou Kōtui Māori), **Megan Pōtiki** (Regional Executive Director), **Sally Bodkin-Allen** (Research Manager) & **James Savage** (Research Coordinator), followed by morning tea.

The Benefits of ORCID for Researchers

Alex W J Freemantle*

Royal Society Te Apārangi

* Correspondence: alex.freemantle@royalsociety.org.nz

This invited presentation will be delivered by the ORCID Lead for the New Zealand ORCID Consortium based at the Royal Society Te Apārangi. The presentation will outline and discuss the benefits that researchers can experience once they sign up for an ORCID ID. There will be an explanation as to how to sign up for an ORCID ID and how to use your ORCID record to effectively track and enhance your research career. You will also learn about the ORCID benefits that are unique to New Zealand and hear about the work of the New Zealand ORCID Consortium.

Awards & Closing Session

Correspondence: researchoffice@sit.ac.nz

Presentation of Awards by **Sally Bodkin-Allen** & **James Savage**.

Message from **Jamie Smiler**, incoming Te Pūkenga Rangahau & Research Director.

Closing by **Raniera Dallas**.

Creative Showcase

Creative practice presentations are a display, performance, or interactive experience of one or more creative works. Examples might include a musical performance; a static work of art (sculpture, painting, installation, fashion design, photography etc.); or an audio-visual work (game/interactive experiences, short film, animation).

As with other presentation types, all creative practice presentations were peer reviewed before acceptance. They were presented during the creative showcase on the evening of November 30 and authors also had the opportunity to give a short talk about their work.

The creative showcase also included more traditional research presentations that were closely related to degree programmes in the creative or performing arts.

Intentional Camera Movement in Unmanned Aerial Vehicle (UAV) photography

Clive Copeman*

SIT2LRN, Southern Institute of Technology | Te Pūkenga

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This research aimed to discover and develop new techniques in drone photography. 2023 marks ten years since DJI launched its first consumer drone, or Unmanned Aerial Vehicle. UAVs are now widely used in professional and amateur film and photography but while they are popular for birds-eye abstract photography, their use has mainly been confined to making representational images. Considering the ability for drones to move quickly and in many ways during a long exposure, they offer abstract photographers a powerful new tool for image making. However, their suitability for ICM (intentional camera movement) abstract photography has been little explored. What kinds of ICM image can be made with a drone and does anything set them apart from images made by a DSLR or mirrorless camera?

Existing ICM techniques were attempted on a popular consumer drone, and the drone's unique motion capabilities explored to see if it can be used to create new, drone-specific ICM images. Many flights were made, taking long-exposure images with the camera aimed in different directions, at a variety of objects and scenes, through different ranges of motion, at different speeds.

It was possible to create a variety of ICM abstract images, some analogous to DSLR or mirrorless camera images, some distinct and unique to the drone. A unique new effect in landscape photography was also discovered and the images used to create a set of distinctive photographic prints.

The study has revealed some useful new methods for abstract photographers, digital artists and drone photographers to explore their creative pathways. This presentation is accompanied by an exhibition of photographs that are the result of experiments in UAV or drone photography.

Down the Rabbit Hole: My Continued Journey of Discovery into the Land of Animation

Patrick A D Gillies*

Southern Institute of Technology | Te Pūkenga

* Correspondence: patrick.gillies@sit.ac.nz

This presentation will provide an overview of my experiences taking a pilot for my 2D animated family comedy, "The Ratbaggs", to both the Annecy International Animation Market in Annecy, France, and MIP Junior in Cannes. My presentation will include excerpts of the finished pilot itself, as well as snapshots and video-diary excerpts of my time in France. This will tie in with a commentary on my attempts to attract both New Zealand and international financing for a full TV series of "The Ratbaggs".

Augmenting Brown Noise Within a Chorus of White Noise

Caylieh Hausser-See*

Southern Institute of Technology | Te Pūkenga

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Power dynamics and 'noise colour' attributes of different frequency responses within a mainstream tertiary education system are explored in a study aimed to equip tutors with strategies to promote success and well-being among ākonga (learners) self-identifying as Māori and Pasifika.

In recent years, mental health and stress-related disorders has escalated while retention rates of Māori and Pasifika ākonga have decreased. This highlights the need for effective interventions to enhance hauora (Māori philosophy of wellbeing) and successful learning outcomes for ākonga. Of particular interest within this study is the success of Māori and Pasifika ākonga amidst an educational mainstream 'chorus' within the music and audio programmes at the SIT |Te Pūkenga.

Different rates of power within frequency bandwidths are often associated with tonal qualities, timbre and noise colour. Spectrum features likened to emotive and theoretical notions of wellbeing such as the term 'white noise' are explored. Music terminology 'augmenting' and 'chorus' are often used as compositional devices to denote the presence of longer or wider values and intervals than previously used. This study playfully evaluates these features within the Māori and Pasifika 'Te Whare Tapa Whā' and 'Fonofale' models of health with the aim of improving the teaching and learning of ākonga in the music and audio programmes within SIT | Te Pūkenga.

Mixed-method approaches are used combining quantitative analysis of course retention rates data (n=12) and qualitative insights through participant interviews (n=5) and evaluation of Māori and Pasifika models for education and health. Using both deductive and thematic coding of interview data and critical review of existing studies and models, strategies for more effective teaching and learning are proposed for use within music and audio programmes at SIT | Te Pūkenga to promote cultural competency, student satisfaction and retention.

Quadrangulating Interconnected Crafting Practices: Handcraft Art, Calligraphic Poetry, Musical and Video Compositions.

Jay Horan*

Te Pūkenga

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Excess Yang indicates how the balance between the Ying and Yang forces fluctuates from time to time or from event to event. The forces from the gravity of events may cause imbalances between the Ying and Yang, portraying inconsistencies.

The presented creative project reflects four interconnected crafting practices to portray the fluctuation of forces between the Ying and Yang:

(a) a handcrafted artwork titled 'Mosaic Ying and Yang', work no. 8, 600mm diameter, Celestial Collection;

(b) two calligraphic poems, 'Mosaic Ying' and 'Mosaic Yang';

(c) a short video composition titled '...a streaming domain, experimental project 1.4';

(d) a six-minute live musical performance by the author from the recorded track titled 'Mosaic Yang' on an acoustic string instrument, quadrangulating the crafting practices.

My fascination and growing curiosity over how harmony and energy fluctuate correspondingly with human emotion inspired me to reflect on my journey from crafting the 'Mosaic Ying and Yang' artwork. I continued to research and process the quadrangulation of these interconnected links between the handcrafted art piece, the musical and video compositions and the calligraphic poetry, and discovering deeper interpretations.

Artwork and literature link: https://jayhoran.art/mosaic-ying-and-yang

Short video link: https://tinyurl.com/a-streaming-domain

Teaching game theory through game play

Rachel Mann*

Southern Institute of Technology | Te Pūkenga

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In the ever-evolving landscape of educational technology, the incorporation of gamification has become a powerful tool for engaging students and enhancing their learning experiences. This project is centred on development of a game designed to teach game design principles to ākonga, with a particular emphasis on fostering and apply the theory of cognitive flow to game development and as a key pedagogical objective. The game is developed using the Unity game engine and is integrated for export as a SCORM (Sharable Content Object Reference Model) and xAPI (Experience API) packages, for easy deployment on learning management systems such as Blackboard and Moodle to enhance the HyFlex experience

The Hands of the Artist: Neo-Artisan/Digital Pipelines in the Screen Arts

Traci Meek-Reid* & **Gayle Clearwater**

Southern Institute of Technology | Te Pūkenga

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There is still a place for hand-crafted techniques alongside the digital in tertiary education across the motu and outside Aotearoa New Zealand. As a means of demonstrating the artisan to digital pipeline to current and prospective learners, I wish to create a structure through my teaching that recognises prior knowledge and practice of traditional artist skills by young and mature adults alike. This acknowledgement seeks to create a space where these learners might consider upskilling themselves in 21st century techniques as a means of participating in and enhancing contemporary creative arts. I do this in my teaching practice by developing and making practice-based research projects as my students engage in their own studies. My presentation at the creative arts showcase will include finished and in-progress screen arts projects (with a focus on stop motion animation films) and a short talk that explores and combines traditional and digital creative arts practices.

Not Sitting Down Quietly: The Work of Sandra Thomson

Dorothee E Pauli*

Ara Institute of Canterbury | Te Pūkenga

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As part of larger project investigating the contribution the School of Art and Design at Ara (formerly Christchurch Polytechnic) has made to art education in New Zealand, this paper will investigate the work of Sandra Thomson. Thomson is long-standing staff member at the School, but has also maintained an independent career using printmaking and drawing as her main means to engage with the art of social commentary. She delivers her messages about a broad range of historical and contemporary issues in visually intriguing, innovative and at times satirical ways. This paper will outline the trajectory of Thomson's career in the context of contemporary New Zealand art and discuss some of her key themes and creative strategies. This paper will in the first instance rely on primary research, in the form of interviews with the artists, her close colleagues and collaborators, as well as the documentation of original works of art spanning Thomson's career to date. The paper will also consider the various theoretical frameworks which have thus far informed Thomson's work.

Exploring Interconnectedness through Found Objects and Local Waste: A Cross-Cultural Investigation

James Smith-Harvey[A]*, Rumen Rachev[B], Adam Ben-Dror[C], Chris Berthelsen[C], Linda Liujia Zhang[D] & Wins Yichen Fu[D]

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[B] Auckland University of Technology

[C] University of Auckland

[D] Zhejiang Yuexiu University of Foreign Languages

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This study draws inspiration from community development approaches that emphasise the establishment of global networks to facilitate the exchange of ideas and knowledge, tailored to regional contexts, needs, and cultures. Within this framework, the present research unveils a live, improvisational telepresence art performance centred around the reutilisation of discarded materials and do-it-yourself (DIY) methodologies. By creating "portals" that bridge the locales of Waihōpai Invercargill, Southland, Tāmaki Makaurau Auckland, and Shaoxing, Zhejiang Province, China, the investigation leverages cost-effective mobile technology and the creative repurposing of waste materials. The primary aim is to explore the potential of real-time play practices and intercultural engagements in engendering a captivating sense of shared and distinctive 'place' that transcends geographical boundaries. This endeavour seeks to amplify international connections and exchanges, inherent in such interactions.

As attendees of the OPSITARA Research Symposium 2023, we extend a cordial invitation for your participation in this interactive art encounter. Collectively, we aspire to nurture the spirit of playfulness, placemaking, and waste repurposing across international borders, all in real time. The collaborative initiative unfolds within the symposium's designated lobby, fostering synergies with artists hailing from Tāmaki Makaurau Auckland and Shaoxing, China. Through the amalgamation of rudimentary mobile technology and inventive use of found materials, we endeavour to weave immersive experiences, interlocking cross-cultural narratives, knowledge dissemination, and environmental consciousness. By dynamically transforming discarded materials into art forms, each lens of cultural perspective contributes to transcending the confines of urban spaces, thereby cultivating imaginative bonds with place and space. In tandem, the study delves into the intricate interplay of divergent interpretations of play, placemaking, and the innovative repurposing of waste, mutually enriching the sustainability and holistic enjoyment of diverse locations.

Virtually Unreal: Exploring the Applications and Limitations of LED Virtual Production Walls in Emerging Virtual Production Technology

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The integration of LED virtual production walls into filmmaking's domain has redefined cinematic storytelling's narrative and visual potential. This research delves into the interplay of possibilities and constraints presented by LED walls within the field of virtual production technology. Employing a practice-based research methodology, the study embarked on a comprehensive exploration of the technology's application and its inherent limitations, aiming to shed light on its potential influence on contemporary filmmaking practices.

The research process involved the creation of a screenplay, strategically embedding live action compositing elements. Subsequent stages encompassed the casting and execution of live-action scenes, strategically filmed within meticulously ‘constructed’ sets within the Unreal Engine environment. The integration of cutting-edge camera tracking technology, in tandem with Live keying plug-ins and LED panels, created a dynamic visual landscape. Iterative cycles, guided by industry feedback, continually refined compositing outcomes, enriched the visual narrative's realism and coherence.

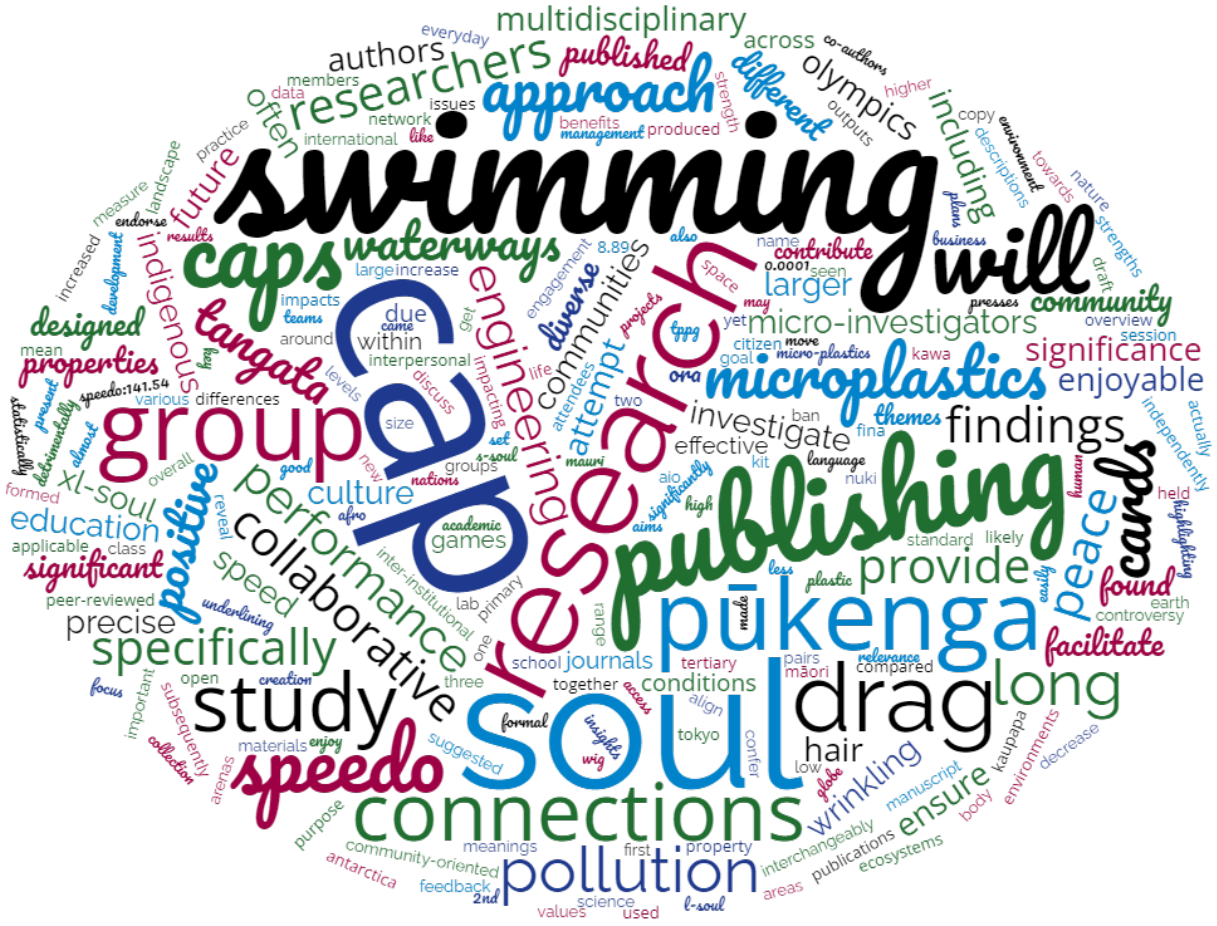
Emerging from this research is the recognition that LED virtual production walls are not a remedy for current compositing challenges. Rather, their effectiveness hinges on a relationship with traditional compositing methods and diverse filmmaking facets, including lighting techniques, camera dynamics, and environmental fidelity. The size and quality of the LED screen are crucial determinants in sculpting the creative and technical boundaries of realism.

The significance of the research is underscored by the revelation of these technology-driven limitations, which we hope to empower storytellers to craft narratives attuned to the technology's capabilities and constraints. By acknowledging the nuanced nature of LED virtual production walls, creators can strategically channel their potential while navigating the challenges they pose, ultimately fostering a more harmonious fusion of technology and storytelling.

During the creative showcase I will demonstrate to attendees how this technology was utilised through a live interactive discussion & installation.

Research Posters

Research posters were available to view throughout the symposium presented. The formal poster session took place alongside the Creative Showcase, during which presenters were available to answer questions on their research, and in some cases provide additional material or demonstrate to symposium attendees.



Micro-investigators: citizen science in Southland around microplastics

Karen Luttrell*

Southern Institute of Technology | Te Pūkenga

* Correspondence: Karen.Luttrell@sit.ac.nz

Aio Ki te Nuki

Aio ki te Rangi

Ko te kawa ora

Ko te kawa ora

Tihei mauri ora

That there be peace on earth

That there will be peace up above

And that we enjoy that peace together

He Tangata, He Tangata, He Tangata

Internationally, plastic pollution is at the forefront of concern, the impacts of microplastics pollution being made 'visible' across the globe with microplastics reaching international arenas such as Antarctica and impacts being seen in destruction of ecosystems and detrimentally impacting human health. On the 2nd of March 2022, a pivotal moment occurred when heads of UN Member nations came together to endorse negotiations towards the first international Treaty on Plastic Pollution.

The goal of the micro-investigators project is to present a simple and standardized approach to detect micro-plastics that can be easily applied by primary school, high school, and tertiary students, empowering communities through environmental education. In waterways management, Māori indigenous values and wisdom underpin knowledge sharing, raising awareness of waterways microplastics pollution on cultural and social issues in New Zealand.

Updating our research, we would like to introduce the micro-investigators kit, field and lab session protocols, and provide a summary of the kinds of micro-plastics the citizen science community has found in our local waterways; alongside plans to move toward further autonomous sampling projects that can contribute to data collection.

Property cards: serious games in Materials Engineering

Jonathan Muhl*

Southern Institute of Technology | Te Pūkenga

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A significant problem when teaching Materials Engineering is the very precise use of language that is used almost interchangeably in everyday life. Properties such as Strength, Hardness and Toughness have very different meanings in engineering, yet learners often associate hard, strong and tough as one and the same thing. In an attempt to use games to reinforce the connection between properties and their descriptions, a set of playing cards was created. This has 21 pairs of cards, one with the name of the property and the other with the description, category and any applicable notes. This presentation will outline some formative and summative applications of the cards and their suitability for use in the classroom environment. The game played with the cards will also be demonstrated. Due to limited class size no attempt at a quantitative analysis will be presented but learner experiences will be outlined. The high levels of engagement from ākonga suggest that the games may be useful in other areas of education where the precise use of language and terminology is important.

The Tokyo Olympics had no Soul: A swimming cap controversy

Peter Olsen[A]*; Lindsey Alton[A], Michael Hamlin[B] & Graeme R Harris[A]

[A] Ara Institute of Canterbury | Te Pūkenga

[B] Lincoln University

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The Soul swimming cap that is designed specifically for long hair including afro and dreadlock hair was banned by the swimming body FINA at the 2021 Tokyo Olympics. The ban was due to the possibility that the Soul cap could increase swimming performance. The ban attracted considerable media attention and backlash centred around inclusivity and the low participation of minority groups in swimming. Anecdotally, swimmers suggested a larger cap such as the Soul cap could actually decrease performance, and previous research has found wrinkled swimming caps produced higher drag. There is no research on the drag of the Soul cap, therefore the purpose of this study was to investigate the drag of Soul caps compared to a standard Speedo competition cap. A wind tunnel, set at a speed equivalent to swimming speed, was used to measure the drag on a model head with a long wig (representing a swimmer with long hair) in different swimming cap conditions (Soul swimming caps designed for long hair (small (S-Soul), large (L-Soul), extra-large (XL-Soul)) and a Speedo cap). The Speedo cap produced significantly less ($p < 0.0001$) drag compared to all Soul caps (mean ± SD - Speedo:141.54 ± 2.92 g vs. 150.53 ± 4.83 g (S-Soul,), 164.54 ± 3.24 g (L-Soul) and 172.87 ± 3.70 (XL-Soul)). Differences in drag were progressively larger with a statistically significant increase with a larger size of Soul swimming caps (8.89 g to 31.33 g, $p < 0.0001$). It is likely the differences in cap conditions were due to wrinkles, with less wrinkling occurring in Speedo and increased wrinkling in the larger Soul swimming caps. Our findings indicate it is unlikely that a Soul cap would confer a performance advantage relative to a standard Speedo cap. Future research could investigate if our results are substantiated in aquatic conditions.

Nurturing an effective and enjoyable inter-institutional research group: An autoethnography

Peter Olsen[A], Helen Marshall[A], Maria Choukri[A], Catherine Elliot[B], Heperi Harris[A], Claudia Leong[A], Nick Draper[C], Catherine Lizamore[A], Patrick Boudreau[A] & Michael Hamlin[B]

[A] Ara Institute of Canterbury | Te Pūkenga

[B] Lincoln University

[C] University of Canterbury

* Correspondence: peter.olsen@ara.ac.nz

In an academic landscape, where research culture often encourages individualism, this study aims to uncover how individual researchers' connections and relationships can contribute to the creation of a robust, effective, and enjoyable research culture. This study describes the benefits and workings of a collaborative group of researchers at three tertiary institutions. While various studies have explored factors that facilitate positive research environments, research specifically investigating the impact of interpersonal connections within multidisciplinary research teams is lacking.

Using an autoethnographic approach, this study draws on reflections and discussions among members of the research group. Specifically, we held two formal recorded focus groups to discuss the group's development. Subsequently, two co-authors identified themes independently before comparing overall themes. All members were provided with a draft copy of the manuscript to contribute, provide feedback, and verify the authenticity of the findings.

Three key themes emerged: (1) Benefits of interdisciplinary research, highlighting the strengths and collaborative nature of the multidisciplinary group; (2) Kaupapa Māori approach, reflecting the positive influence of a relationship-driven, community-oriented research paradigm; and (3) Importance of the space to connect, underlining the value of management support and the balance between formal and informal connections.

The findings reveal the transformative power of interpersonal connections within research teams, contributing to the creation of a vibrant and collaborative research culture. The study not only offers insights into effective research culture formation but also highlights the significance of diverse perspectives and genuine connections for enhancing research outputs and creating a positive academic community.

Information for Researchers: Te Pūkenga Publishing Group

Te Pūkenga Publishing Group

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The business divisions of Te Pūkenga currently publish fourteen peer-reviewed journals and a diverse range of other publications including books and conference proceedings. Te Pūkenga Publishing Group (TPPG) was formed to ensure continuity of publishing through unification, and to facilitate good practice and a connected approach across the network.

To align the publishing activities with the values of Te Pūkenga, TPPG must ensure our indigenous, professional, business and not-for-profit communities can benefit from published research, and that barriers to publishing are minimised for authors without funding. As such, all Te Pūkenga journals are published Diamond Open Access, with no charges for readers or for authors.

This stand will provide attendees with an overview of publishing opportunities across the network, how the journals and presses operate, and how to get involved. A survey will solicit your feedback on the future of publishing within Te Pūkenga.

Short Presentations

Short presentations were given in-person at OPSITARA, and were limited to five minutes plus a further two minutes for questions. The fields of Construction and Nursing were especially well-represented in this category.

project
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higher
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differences
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Impact of the Edendale roundabout on the safety and mobility of SH-1

Mujaddad Afzal[A]*, Hai Liu[A] & Rehan Masood[B]

[A] Southern Institute of Technology | Te Pūkenga; [B] Otago Polytechnic | Te Pūkenga

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This study aims to analyse how the Edendale roundabout improves the safety and mobility of SH1. Safety risks have existed in the SH1 Edendale section for decades, with a high risk of car crashes, traffic congestion, noise and vehicle emission seriously impacting local residents. The realigning project was operated until 2017, by building a roundabout in the west-north of the Edendale township.

The method applied for this study determines the risk level of the previous intersection and new roundabout though geometric checking of the Level of Service. Quantitative analysis shows significant safety and mobility improvement. The design plan met the geometric design safety criteria of NZTA, State Highway Geometric Design Manual and Austroads Guide to Road Design. Furthermore, a slight variation has been made to add further safety to the roundabout, allowing large vehicle (milk tankers) to safely pass through the roundabout.

Reimagining Bourdieu in Aotearoa New Zealand 2023

Selena A Coburn*

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My research explores academic identity, in particular our role as educators in the pastoral care of our students. I am using the conceptual framework developed by Bourdieu, with the three concepts of capital, field and habitus. By exploring the value we place on pastoral care (in the form of cultural capital), the field (being education) and the habitus (the social structures that guide us), I will reimagine the framework Bourdieu developed for the French education sector in the 1970s, to the tertiary environment of Aotearoa New Zealand in 2023. Using a sporting analogy – the game of football – and three sets of interviews with a group of educators, I will describe the value we place on the pastoral care of students, in education, and the habitus or 'rules of the game' that guide us as we move through a period of unprecedented change.

An exploration into the work life balance experience by Nurse Managers working in public (DHB hospitals) and private sector (aged care sector) in Southland, New Zealand.

Natasha M Cunningham*

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The aim of this research was to examine the work-life balance of nurses in management positions, ward charge nurses and aged care clinical nurse managers, to understand how to better equip and support nurses in key management positions. A snowball sampling approach was used to recruit participants across the Southland region working as Charge Nurse Mangers in the Southern DHB and Clinical Nurse Managers in aged care facilities. A set of semi-structured interview questions was asked of the participants; analysis was conducted using a narrative thematic approach. Themes identified from both groups were analysed for similarities and differences. Themes identified were access to ongoing education, adequate cover for taking leave, no financial training from the organisation available. This opens the possibility of the tertiary sector working in partnership with industry to create specific postgraduate pathways for nurses considering and currently employed in management positions.

Mastery in the Making: A Case for Deliberate Practice within Vocational Education

Hayley E Dodd* & Chloe Humphreys

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With strong links to reflective practice and experiential learning – both powerful tools already used in vocational education – “Deliberate Practice” is a key component of the framework for mastery introduced by Ericsson and colleagues. The framework was developed to explain how expertise is acquired, and how it differs from ordinary performance. At its core, the framework proposes a direct correlation between an individual's attained level of performance and the extent of deliberate practice undertaken. Focusing on the context of culinary education, this session will explore the potential role of deliberate practice in nurturing expertise within vocational education. The presentation will offer insights into the practical implementation of deliberate practice methodologies through an analysis of its application with first year culinary ākonga at Otago Polytechnic.

New Graduate nurses' experiences of caring for patients with pain in the acute hospital setting

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The nurse's key responsibilities in managing patient's pain in the acute hospital setting are pain assessment, medication administration and advocacy. Suboptimal pain management has been shown to increase recovery time, decrease patient well-being and increase the chance that pain can develop into chronic pain. A number of key factors can impact on the experience of new graduate Registered Nurses as newly qualified health professionals. The research question is "what are new graduate Registered Nurses' experiences of caring for patients with pain in an acute hospital setting?" This research will adopt a qualitative descriptive design with semi-structured interviews and reflexive thematic analysis. The setting for the research will be a secondary/tertiary base hospital with participants being new graduate Registered Nurses on the NETP programme. The results from this research will be disseminated via the thesis, a presentation to a local nursing educational facility and publication.

Abandoning the siloed curriculum and embracing holistic and integrated portfolios: A culinary arts story

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This session explores the transformative journey of Otago Polytechnic's Level 3 Cookery programme. In the past, the programme relied on unit standards delivered in a structured and siloed manner, causing assessment anxiety among many ākonga due to continuous evaluation. However, a promising opportunity for change arose with the unification of Te Pūkenga's Level 3 Cookery programme, inspiring us to adopt portfolios as the primary means of assessment. The outcome was a pedagogic shift towards project-based, holistic, and integrated learning. Our newly designed course structure revolves around four immersive real-world projects, naturally producing evidence of meeting learning outcomes. By promoting collaborative teamwork, this approach fosters the development of vital 21st-century skills, enhancing the learning experience for ākonga, employers, and the hospitality community. This pedagogic shift has refocused the learning away from weekly completion of unrelated individual unit standards to comprehensive skill development within a real-world practical context.

The influence of personal experience on teaching practice

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Reflecting on my teaching practice, I recognise the impact of things that have affected me personally. Neurodiversity, coupled with previous work experience as a journalist, means I will never use a black lecture slide with white text on it (I cannot see/read it myself, and don't assume others can, either), I add visual image "tags" to online resources in order to make the pages "visually scannable", essentially catering for what I know of screen-based content. Gaps in my understanding and limit to my personal experience can only be bridged by curiosity and commitment to listening to others' experiences. And so, I would like to take a few minutes to share how I process visual information; how I respond to it within my teaching practice, and hope that there will be others who will share their own experiences so that I, too, can learn from them.

Testing Fuel at the pump

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Testing fuel consumption in motor vehicles typically involves long hours of road testing and expensive technology. The objective of this research was two-fold: to develop a low-cost fuel testing solution with locally available equipment, and to develop relationships with industry stakeholders for staff and students in a Motorsport degree course. Testing involved using a DYNAPAK commercial computer-controlled Hub dyno machine, monitoring engine systems and fuel consumption using a variety of Pump petrol grades with a typical passenger vehicle (Toyota Corolla 2L). The research was undertaken with stakeholder support from NPD fuels, Hybrid Fuel Technology NZ & PAD Racing. Using blind testing (unmarked fuel containers), fuel consumption levels were measured with similar octane fuels at steady state 100km/hr. NPD100 fuel had the best consumption rate of 20.16km/L; a 1.1% and 3.4% improvement over similar fuel products. The power outputs of 91 and 95 NPD fuels were found to be comparable. Differences were due to variations in the properties of fuel and the advanced features of the Toyota engine controller. The low-cost testing system was able to effectively determine differences between pump petrol grade fuels, and future work could develop a complete computer-controlled station with higher resolution sensors and data logging.

Unleash ChatGPT's Potential: Proven Prompts to Revolutionise Your Classroom

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Discover techniques for creating tailored prompts that harness ChatGPT to increase student engagement and provide personalised instruction. This session will showcase examples of prompts employed successfully in classrooms to spur creativity and promote critical thinking.

Attendees will learn a proven multiple-step method for designing prompts, drawn from the Coursera course "Prompt Engineering for ChatGPT" and the research of Mollick & Mollick. See how purposefully engineered prompts can help unlock ChatGPT's immense potential as an AI tutor.

You will leave the session with actionable resources to create AI-driven tools that make you more productive while better supporting each student's needs. Help shape the future of AI in education by discovering prompt techniques that put educators in the driver's seat.

Comparative spatial intelligence of indigenous architectural expressions informing Māori architecture of Aotearoa

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The presentation will reflect on the idea of Cultural Intelligence and their significance of understanding life in this Universe. Research experience of the author through thirty-five years in a Southeast Asian context will lay a benchmark to understand the similar thought process that exists in the indigenous culture of Aotearoa. There are similarities in existing knowledge about the macrocosm, and this research aims to explore how these similarities can help transform spatial architecture to solve the climate crisis the planet faces today.

A five-minute presentation will inspire and ignite new thought process that encourage developing and aligning this indigenous knowledge system that can be applied in contemporary architecture in Aotearoa.

From written to visual, how to communicate the unknown- a doctoral journey

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This presentation explores the ongoing transition from traditional written mediums to visual formats within the realm of education. As technology advances, educators and learners are increasingly embracing visual mediums to enhance the teaching and learning experience. This shift is driven by the recognition that visuals can convey complex concepts more efficiently, catering to diverse learning styles and promoting engagement.

Visual mediums, including infographics, videos, animations, and interactive simulations, are becoming integral tools for educators to simplify abstract topics and foster deeper comprehension. This abstract examines the benefits and challenges of this transition, highlighting the potential for improved information retention and critical thinking skills. It also considers the necessity of ensuring accessibility and equitable learning opportunities for all students, particularly those with visual impairments.

Through case studies and pedagogical approaches, this abstract ultimately underscores the evolving landscape of education, emphasizing the symbiotic relationship between textual and visual mediums, and the need for thoughtful integration to promote effective and inclusive learning outcomes.

The impact of New Zealand's performance-based research funding system on accounting academics

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The performance-based research fund (PBRF) was established to encourage and reward excellent research in the tertiary education sector. This study examined the viewpoints of the accounting academics regarding their PBRF experiences. A survey instrument was used to collect data from accounting academics in New Zealand's eight universities. An institutional theoretical framework was adopted to analyse the findings in this study. PBRF is believed to have helped increase the status and reputation of New Zealand universities and academics. However, many academics did not agree that the PBRF should be maintained in its present form. Their concerns included restrictions in academic freedom, increased time pressures, less flexibility in task selection, and being dissatisfied with their jobs. A significant negative consequence of PBRF was innovative teaching developments that may impact on students' experiences.

Root causes of Request for Information (RFI) on commercial construction projects

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Commercial construction projects are complex and involve multiple stakeholders with huge budgets and long execution timeframes. Most correspondence between project managers, contractors, and consultants during the project represent Requests for Information (RFIs) to some extent. RFIs depend on the contract type, project size, type, and complexity. RFI management relies on the response time, and if poorly handled leads to change orders, delays, cost overruns and disputes. To date there is no comprehensive study conducted on the root causes of RFIs, and such a study would help stakeholders to manage risks and prepare mitigation strategies in advance.

A systematic literature review of peer-reviewed journal articles is in progress to identify the root causes of RFIs on commercial construction projects. Search strings on Google Scholar retrieved 230 sources. The number of studies per year from 2003-23 is reported, along with the industry in focus country-wise and the type of method used. Most common root causes could be categorised as confirmation only, document discrepancies, drawing clarification, plan discrepancies, specification discrepancies, specification clarifications and others.

Application of building information modelling in prefabricated Housebuilding

Rehan Masood[A]*, Xinyan Li[B], Samanthi Menike[B], Nick Wilson[A] & Mujaddad Afzal[B]

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Prefabricated housebuilding (PHB) refers to the manufacture of an entire building or assembly of its components in an off-site facility and assembled on-site from self-sustaining volume modules or individual panels. Building information modelling (BIM) plays an important role in PHB through optimizing details in advance for the building's entire lifecycle to ensure the accurate post-manufacturing and construction of the assembled modular building. Several software packages indicate the capability to model prefabricated buildings, however the application of BIM in PHB companies has not been studied in the New Zealand context.

Eight BIM software packages were identified supporting PHB, and their functionalities recorded. Next, interviews were conducted with a PHB company regarding the application of BIM in organizational processes. Participants reported following BIMinNZ guidelines. Digitalization and visualization were the prime objectives of using BIM. The most common BIM dimensions are 3D, 4D and 5D. The most common data exchange formats were IFC, Dwg and skp. BIM libraries needed to be generated for most projects, with varying classification strategies. Common benefits were time, cost and coordination.

First I was afraid, I was petrified – without my clunky old assessment practice by my side

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I wish to share the unexpected, most welcome consequences of embracing the opportunity to change how we look at, word and improve assessment practice. We have moved our Level 3 F&B programme into a completely new space of 100% portfolio-based evidence collection to meet the learning outcomes. The unification process allowed a new perspective and juncture where we could allow big changes to our programme delivery and make the reciprocal learning more user focussed – for the ākonga, kaimahi and Industry.

Developing a whole life costing analysis for education buildings in Southland

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A whole life costing (WLC) involves a careful evaluation of the initial cost, the maintenance and operating costs, and performance criteria analysis of the building as a whole or in parts. Based on these principles, this study analyses the current design of an education building located in Invercargill. In this research, the key aim is to identify alternative design solutions that provide value for money with improved performance for future education buildings in the tertiary education sector in Southland. The whole-life costs and performance criteria, such as budget, schedule, durability, aesthetic, sustainability etc., were evaluated for several alternative design options using the weighted pair-wise comparison method. This study recommended a pragmatic approach to conduct WLC for building components, with a view of looking at the overall performance of building components over the lifetime of the building as opposed to making decisions solely based on the initial cost.

Summative Assessment – Does it predict clinical performance or it a barrier to nursing student progression?

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To attend clinical placement, year one Bachelor of Nursing student nurses are required to achieve at 'Guided' level with selected nursing procedures and skills. A summative assessment is completed in a simulated clinical scenario by a nurse educator using the Southern Institute of Technology Clinical Progression Rubric.

Most students achieve at the required level and can proceed to clinical placement. A very small number are unsuccessful and are unable to proceed to clinical placement. A few students, who do meet the required level of progression, have been identified as needing more supportive cues than outlined in the rubric or lack dexterity with clinical equipment. They can proceed to clinical placement with additional supports.

From literature, do summative assessments predict a student's performance on clinical placement, or are they a barrier to students moving forward with their nursing education?

A comparison of weight loss and gas flow data for micro-fermentation monitoring

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Wine scientists use small scale fermentations to investigate the behaviours of yeast and grape must and the compounds they create. Traditionally micro fermentation monitoring has been done by manually recording the weight loss of samples at 12–24-hour intervals over an extended period. This has limitations including operator errors, lack of resolution during the initial fermentation period and inaccuracies due to loss of water vapour and volatile compounds. Many of the limitations of this technique could be overcome by monitoring the gas production directly. Historically this has been very difficult to achieve due to the low volumes of gas produced and the limited availability and cost of sensors. This presentation uses a data logging balance and modern lower cost semiconductor sensors to compare the change in mass over time of samples with measurements of the gas composition and volume. This will help assess the suitability the technique for future research.

Can Post-Occupancy Evaluation indicators reveal how educational services and delivery transforms the soundscape of higher educational buildings?

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Post-Occupancy Evaluation has been practiced and used to understand and gather quantitative information concerning the operational and performance aspects of buildings, but feedback from users of higher education facilities and learning environments have been measured and analysed in relation to their mechanical systems, energy efficiency, water use and consumption, waste management, among other building utilities.

This learner centred study will review qualitative and quantitative research studies based on Post-Occupancy Evaluation of tertiary learning spaces, focusing on how sound levels can impact the tertiary learning environment.

This study aims to understand how POE indicators can transform the soundscape of higher educational spaces by quantitively examining the building performance and servicing in relation to the sound sources and decibel levels generated. The study proposes the examination of the fairly new Ara Te Pūkenga, Kahukura K-block Building, located at Madras Campus Christchurch.

Time Travelling in Aotearoa: Using Unreal Engine to Visualise Pre-European Ōtākou

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Modern real-time game engines provide us with a unique opportunity to engage with the landscape, te whenua, of Aotearoa New Zealand. The aim of this research is to harness the developing capabilities of Unreal Engine 5, combined with highly accurate LIDAR data, to create scale, explorable 3D depictions of Araiteuru and Ōtākou at various points in pre-European history. This research also includes the development of a series of 3D models of NZ native and endemic plants and trees to assist in depicting the landscape before deforestation and large-scale settlement.

What is happening to our local food growers in Aotearoa?

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This qualitative study explores the opportunities, challenges and barriers that influence the availability of local food at farmers markets. The number of small-scale food growers in Aotearoa has dwindled significantly over the last 15 years and farmers markets have reported low availability of growers selling their produce. This research explores current trends of availability and some of the causes of these trends from the perspectives of representatives of farmers markets and their local food growers. Semi-structured interviews with these representatives are transcribed and analysed in this inductive, interpretative study, with results disseminated to participants and to the national conference of the Farmers Markets New Zealand (FMNZ) organisation. This presentation is based on in-progress research.

Critical Success factors for Indigenous construction companies in New Zealand

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Companies with a minimum 50% share belonging to natives of the country are called Indigenous companies. In New Zealand, indigenous companies substantially belong to Māori businesses, however there has been no research reported on the critical success factors (CSF) for indigenous companies.

Using NZ Government construction procurement guidelines, 20 CSFs were identified under eight classifications, and verified through studies conducted in the New Zealand construction industry. Data were collected through an online questionnaire sent to Māori construction companies that measured the importance of each CSF using a 5-point Likert scale.

The most important classifications, in ascending order, were (a) Identifying project key success factors and having realistic timescales under "Strategic priorities, leadership and management", (b) Risk identification and resource management under "Capability and capacity, project team integration and stakeholder engagement", (c) The risks are allocated to those best able to manage them under "Understanding the market and risk management", and (d) Business continuity planning under "Whole-life and procurement strategy". The least influential CSFs were project evaluation, tender timings, and planning applications.

An Analysis of Cyber Security Awareness among Students and Staff of SIT | Te Pūkenga

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Cybersecurity is a critical issue for all organizations, including educational institutions. This study aims to determine the cybersecurity awareness among students and staff at the SIT | Te Pūkenga Invercargill campus. A survey questionnaire will be used to assess the respondents' knowledge, attitudes, and behaviours related to cybersecurity.

Furthermore, this study also aims to evaluate the respondents' basic cybersecurity knowledge, specifically in different cybersecurity areas such as password security, phishing, and social engineering. It will also evaluate how they will respond if they ever encounter a cyber-attack, where they will report it, and what steps they will take to protect themselves in the future. The findings of this study will be used to identify the gaps in cybersecurity knowledge which will then be passed on to the concerned authority as recommendations.

What interventions exist to train nurses to communicate bad news?"- A Systematic Review

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This study aims to identify how student nurses are educated on breaking bad news to families. Nurses are often faced with situations where they need to break bad news to patients and/or their families. Such conversations are complex and can be challenging. This review was conducted to identify interventions that train nurses to deliver bad news.

A systematic review was conducted using PRISMA guidelines with a PICO search strategy. Interventions included didactic in-person training and telehealth delivered training, which were limited to rich resource settings. Future research should focus on incorporating more rigorous research designs that include control groups and utilizing external measures of outcomes. Further work is needed to develop interventions that train nurses in a range of health care settings to deliver bad news and consider the long-term effects of training beyond simple post-training memorization.

Sizzled creations & culinary care: Transforming burnt cheese rolls into hauora champions

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This project investigates the critical state of wellbeing within the culinary industry and explores the potential integration of hauora (wellbeing) practices into culinary education. The "She'll be right" mindset, common in the hospitality industry, often leads hospitality workers to overlook personal welfare amidst professional demands. The project includes a redevelopment of the Culinary Management and Leadership curriculum, aiming to introduce evolving culinary leadership facets while insinuating awareness of staff and self-wellbeing among ākonga. Recognizing the hospitality industry's historical deficiency in prioritising its workforce's welfare, the curriculum emphasises the Manaakitaka concept, embracing the commitment to nurture relationships, uphold communal wellbeing, and ensure self-care. Achieving industry transformation requires ākonga to embrace an altered perspective and become the motivation for change. By aligning education with industry demands and prioritising wellbeing, the project seeks to create positive change within both culinary education and the hospitality sector. The overarching model is applicable across diverse educational and industry contexts.

Re-designing and re-delivering a Virtual Exchange Programme for first year Bachelor of Environmental Management students. Lessons from practice

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Disentangling the inherent conflict of addressing global issues with locally bound solutions is an integral element of Environmental Education. First year degree Environmental Management students in New Zealand participated in a Virtual Exchange with first year students in a Human Geography course in Kansas, USA. At the completion of the program, an evaluation of student responses was collected from SIT | Te Pūkenga to inform program re-design. The value of virtual exchanges has been widely explored in studies of language learning, social science and health. Examples within Environmental Education remain comparatively limited despite environmental pressures being universal in scope and clear learning outcomes aligned from international networks of learning. Key differences in design and delivery of teaching and learning between partner institutes increased complexity in re-creating the programme to fit all learners.

Time to Warm Up

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The aim was to determine how many students who completed the L4 foundation programme enrolled into either the Enrolled Nursing (EN) or Bachelor of Nursing (BN) programmes in the following year; and was there a correlation between the grades achieved in one programme and the next.

The method was correlating the grades for a theory and a science paper from the foundation programme, with comparable papers in the EN and BN programmes in the following year. This data was compared with control group data matched for age and ethnicity from direct entry students.

The findings from the further data indicate percentages of students continuing into further nursing study, and confirmed that those who completed the foundation programme were able to have comparable results with those who had direct entry into the nursing programmes.

Pre-recorded Presentations

Pre-recorded presentations were uploaded before the symposium and made available online via links in the programme. They were also presented live in five dedicated sessions during the symposium. Pre-recorded presentations were limited to ten minutes.

A full playlist of all pre-recorded talks is available here.

Cyclone Gabrielle Housing Recovery through Prefabricated Construction

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This study investigates the intervention and effectiveness of prefabricated construction in Cyclone Gabrielle Housing Recovery.

Natural disasters cause destruction at a mass scale. Cyclone Gabrielle devastated the North Island with damages of more than $13.5 Billion. The flooding impacted the road network, local dwellings, infrastructure for utility services, and farms. There is an earnest need to recover and rebuild the lost properties. However, relying on traditional construction technologies is time-consuming and labour-intensive, leading to requirements for managing debris and wastage post-disaster. Prefabricated construction is proposed as a preferable solution for Cyclone Gabrielle's rebuild and reconstruction.

A systematic literature review was conducted to identify the empirical studies reporting various isolation facilities built with prefabricated building technologies. This study applied a SWOT analysis based on a literature review to determine the strengths, weaknesses, opportunities, and threats of using prefabricated construction for disaster recovery after Cyclone Gabrielle.

This study will help policymakers to understand the viability of prefabricated construction. This study will also help the prefabricated construction companies learn the capability and capacity to address the rebuild needs.

Link to presentation video.

An interdisciplinary reflective learning practice in the design studio

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Traditionally, design is a practice of creating optimum outcomes through applying strategies for the finding and solving of problems. However, new challenges of society, culture, technology, and the environment have risen, so today's design is required to be collaborative and expected to deal with complex and interdisciplinary thinking (Bryant, 2021). Hence, this study is an experiment that aims to explore how an interdisciplinary collaborative strategy for design education as well as design thinking was adopted in the design studio to develop ideas for the refurbishment of The Old Customhouse historic building in Napier, New Zealand. Today, the Old Customhouse is home to significant Hawke's Bay maritime historic articles where some impressive items and photographs are displayed. The building refurbishment is a community project involving students at EIT | Te Pūkenga and entails investigating the engagement of two groups of Second Year students in the design of a contemporary museum. The study examines the capacity of a reflective design approach through the engagement of the students in the project. It is a case study of developing design concepts for creating and evolving contemporary exhibition methods for a historic building involving interdisciplinary design concepts. The research approach is explorative making use of qualitative data analysing methods. The study argues that an interdisciplinary team created a positive and confident impression among individuals as it provided the environment to share and reflect on design issues and eventually solve problems collectively. The key findings showed that there was a realisation that an interdisciplinary team possesses wider skills and capacity that could be called upon compared to individual operators and that the team reflected positively on their experience comparing it to professional design practice where they will be expected to operate in the future.

Link to presentation video.

The strength and conflicts of the Human-Animal Bond

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This presentation presents a qualitative research study that explores the lived experiences and relationships between individuals and their animals. The research methodology employed is narrative inquiry, allowing for deeper understanding of the participants' stories and the meanings attached to their relationships. Although narrative inquiry is gaining popularity in the human medical field, its application in animal science-related fields is still limited.

The study involved interviewing 30 participants, primarily of NZ European ethnicity, using a semi structured interview format. They were selected from participants that completed an earlier survey and selected an interest in being interviewed. Interviews were recorded and transcribed. Each transcript was read, and key pieces of text (sentences) were highlighted by researchers. Themes were identified and highlighted text was grouped together. In some cases, subthemes were created. This is an example of inductive constant comparison analysis and is considered grounded theory research. Cultural diversity is acknowledged as a limitation and further work is proposed to address this. Additionally, the sample lacked representation from individuals with commercial farming backgrounds which again presents an opportunity for further research.

The findings of the study consistently revealed a strong and meaningful connection between participants and their animals, contributing significantly to their overall well-being. This aligns with previous research indicating the positive impact of the human-animal bond on health and well-being. The study also highlights the need to recognise the interconnection between the welfare of humans and animals, particularly in situations such as homelessness, domestic violence, and the COVID-19 pandemic.

Conflicts within the human-animal bond were also identified, even in the presence of a strong human-animal bond. These conflicts included environmental concerns, individual circumstances, emotional decision-making processes, changing circumstances during guardianship, and unacceptable behaviours exhibited by animals.

This study contributes to the understanding of the human-animal bond and its implications for both human and animal welfare and emphasises the importance of providing support and access to services for individuals facing conflicts within the human-animal bond.

Link to presentation video.

Enhancing Learner Engagement through Collaborative Writing

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This paper presents key findings from literature, focused on the question of how collaborative writing improves learner engagement. The study explores collaborative writing as a strategy to enhance reading and writing skills and bridge the gap between learners' preferred learning styles and teaching practices. The paper discusses the importance of learner engagement in higher education and its correlation with teaching effectiveness, and adopts the "spiral of inquiry" framework to identify areas for improvement and make evidence-based changes to teaching and learning activities.

The literature review reveals that collaborative writing tasks facilitate knowledge construction, interpersonal skills development, and synthesis of information from various sources. Collaborative writing has been successfully implemented in educational institutions to enhance learner engagement. The use of web-based tools like wikis, blogs, and Google Docs has enabled collaborative writing to be viewed as a collaborative endeavour rather than an individual task. The review also discusses the challenges associated with collaborative writing, such as conflicts, communication issues, and the need for clear task division and knowledge sharing processes.

The paper emphasizes the importance of topic selection, face-to-face interactions, and access to technological tools for successful collaborative writing tasks. It highlights the benefits of collaborative writing for engineering and technology students, including improved critical thinking, communication, language, and teamwork skills. The review concludes that wikis provide an effective platform for collaborative writing, enabling synchronous and asynchronous communication, information sharing, and knowledge construction.

Based on the literature review, an implementation plan is proposed, outlining the steps involved in collaborative writing using Moodle wikis. The plan focuses on face-to-face engagement, oral and written chats with peers, online discussions, relevant wiki sections, collaborative writing components, and objectives of peer interactions.

In summary, this literature review highlights the positive impact of collaborative writing on learner engagement and suggests the use of wikis as an effective tool for implementing collaborative writing tasks. The findings provide insights for educators and institutions seeking to enhance learner engagement and improve reading and writing skills through collaborative writing activities.

Link to presentation video.

Food and nutrition perceptions and practice and sustainability in urban Vietnam: Insights from a school survey in Ha Noi

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This presentation examines food and nutrition perceptions and practices of school staff, students and their parents using data from a survey in 13 intermediate schools, conducted in Hanoi, Vietnam in 2021, and discusses implications for future policies and interventions for food sustainability at the school level. It aims to fill in the gap in knowledge of food and nutrition perceptions and practices of school communities and influencing factors and how they link to sustainability in urban Vietnam. Briefly, perceptions and practices are mainly consumption-based and thus, influenced by market trends and health-related knowledge. School communities view food as a source of nutrition and as taste and fashion with a variety of genres for each group. The selection of food to be consumed and how to consume it by the school community is tied to food catering services which, in turn, rely on current urban food trends which are increasingly westernised and marketized at the expense of the environment and the traditional food chains. This calls for changes in policies and school initiatives to raise awareness and engage their staff, students, and parents in activities to promote more sustainability in food and nutrition.

Link to presentation video.

NorthTec | Te Pūkenga Student Attrition Survey 2023: Initial Findings

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This research aims to gain an in-depth understanding of factors that contribute to student attrition in NorthTec. It uses a mixed-method design combining qualitative and quantitative methods. In the initial phase, it collected data from institutional records and an online questionnaire with 114 respondents. This phase focuses on people who withdrew or cancelled their study with NorthTec between 2020 to 2023. Quantitative data will be analysed using a statistical software and qualitative data will be analysed using thematic analysis which helps to identify existing themes. This presentation will examine these initial findings.

Link to presentation video.

Comparison of iron content in kōkihi (New Zealand native spinach) and English spinach (*Spinacia oleracea*) by flame atomic absorption spectroscopy

Barbara A Dolamore* & **Brooklynne Foreman**

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Kōkihi (*Tetragonia tetragonioides*) is native to New Zealand, Australia and Eastern Asia and is found on active sand dunes, aiding sand stability. It has a trailing growth habit, forming a thick carpet. Kōkihi was traditionally consumed by Māori and people still forage for it. It is unrelated to English spinach but provides an equivalent source of vitamins and minerals, containing between 0.8-2.5 mg of iron per 100 g fresh weight of leaves.

Recently, the international science community became interested in kōkihi since it grows well in saline soils, more common now due to rising sea levels. To ensure continued food security scientists are identifying crops that withstand these conditions. Kōkihi has an added benefit of removing salt from the soil and accumulating it in the leaves.

The aim of this study was to compare iron content in kōkihi growing wild on Southshore sand dunes, Christchurch, with homegrown and commercially sourced spinach. Five plants from each of the following were analysed for total iron; homegrown spinach; commercial spinach and wild kōkihi (harvested in January and again in July 2023). Leaves were dried at 50^{o}C for 48 hours and 0.5 g samples were digested in 1:3 HNO_3:HCl for 4 hours at 95^{o}C and then made up to 50 mL with dH_2O. A Shimadzu AA-700 was used to measure standards and samples.

Results were expressed as mg Fe/100 g fresh weight. Kōkihi (January and July harvest) contained 2.2 ± 0.13 and 0.8 ± 0.02, respectively. Home-grown and commercial spinach was 1.1 ± 0.09 and 1.6 ± 0.07, respectively.

This range of leaf iron content is consistent with literature values and likely reflects growing conditions. Further work on kōkihi is planned with student involvement in 2024. Calcium, vitamin E and A content will be measured as well as determining the effect of soil iron levels on leaf iron.

Link to presentation video.

Rethinking performance and sustainability of timber wall framing practices

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The improvement of thermal performance and waste minimisation are just two of the major issues facing sustainable practice in domestic construction. If we wish to have any genuine impact on these issues, we need to search for ways to advance best practices in construction and make them more widely used. This design-led study shows that adopting best practice may not always equate to higher costs.

The goal of the research is to engage designers and builders in conversation so that they can explore opportunities where innovation can occur. Students studying carpentry and architectural design possess the potential to alter construction practices, due to their lack of familiarity with certain approaches. This enables them to bring fresh perspectives to the industry and incorporate new learning as a standard process.

According to BRANZ research, one of the major issues affecting thermal performance is thermal bridging through timber framing, and a study of 47 new homes revealed that these had an average 34% net timber to wall ratio. It makes sense that lessening the amount of timber framing will lessen thermal bridging and probably lower construction costs.

This study examines structural modifications in typical wall framing systems and standards that are currently untapped due to a variety of factors, such as stubborn adherence to well-established practices and bias in fundamental construction standards towards common practice.

In a recent design assignment for students that focused on sustainable practice, participants were challenged to decrease thermal bridging on a small house they had designed using known modifications to conventional construction methods. They were required to create a wall-framing plan and determine the net timber to wall ratio for two south-facing walls. The resulting framing ratio was under 20% in each case.

Link to presentation video.

Developing Sustainable Airless Tyre Technology for Enhanced Performance and Durability

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This study focuses on creating an airless tyre technology that can be adopted in various industries to improve the durability and effectiveness of tyres while being environmentally friendly and economically feasible. Common approaches to strengthening tyres involve using solid rubber or foam filling. However, these methods have limitations when it comes to long-term viability.

The proposed airless tyre technology cleverly uses space to create compression in the tyre's sidewall, similar to traditional pneumatic tyres. The main challenge of this project is to design a tyre that finds the right balance of compression: enough to prevent collapse during compression events, but not so much that it becomes as rigid as solid rubber tyres.

Furthermore, thoroughly examining the pneumatic tyre-wheel combination reveals areas that need improvement. These identified problems are carefully addressed during the project phase of refining the product. This research aims to develop an innovative airless tyre technology that enhances longevity and performance and contributes to a more sustainable approach than existing tyre solutions.

Link to presentation video.

Employees on social media: A multi-spokesperson model of CSR communication

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Social media has transformed the CSR communication arena in terms of a shift of information control from corporations to stakeholders. As legitimacy is created through the positive judgements of stakeholders, corporations must plan how to meet increasing stakeholder demands for information, and this includes choosing appropriate spokespeople. This study examines the transition from a traditional single spokesperson model to multiple spokesperson approach on social media, in response to growing issues of legitimacy and demands for CSR communication raised by stakeholders. Using an interpretive phenomenological methodology, the experiences, and insights from twenty-seven CSR professionals working in both private and public sector companies responsible for the planning, implementation, and communication of corporate CSR initiatives in India were collected. Guided by an initial research question, 'How have Indian corporations responded to stakeholder demands for CSR on social media?', this study investigates how a multiple spokespeople approach is helping corporations navigate social media, and critically examines the viability of such a model for effective CSR communication. The research findings reveal that employees have been given the role of legitimacy negotiators, an influential position that bridges organisational and stakeholder domains. As such, corporations in India now use their employees as CSR spokespeople on social media because stakeholders perceive them to be trustworthy. Consequently, company policies that prohibit employee activity on social media are being revised and employees encouraged to engage in meaningful discussions with stakeholders on social media. This use of conversational human voices of the employees has positively influenced the stakeholders and has enhanced corporations' overall legitimacy.

Link to presentation video.

Strategies for improving communication and feedback with learners in a Master of Applied Management Programme

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In recent years, Student Satisfaction Surveys for Level 8/9 Master of Applied Management Papers have been commendable, however, adverse commentary includes timeliness and specificity of feedback, lack of clear introduction to the Paper, lack of an effective discussion forum for research students, and a paucity of real-time engagement with a facilitator. The aim of this project was to identify strategies for improved communication and feedback between facilitators and supervisors and their learners in the Programme. Specifically, we will describe practical challenges or difficulties facilitators and supervisors face during the supervision period with learners.

This research adopted an interpretivist, exploratory methodology using a mixed-methods approach. A questionnaire completed by 12 participants (faculty) gathered demographic data and canvassed details of facilitation and supervision, nature and timing of contact with learners in papers, type of communication and feedback strategies used, and approaches to dealing with a range of examples of learner interaction. A group of four supervisors was purposively selected for one-hour interviews. Data analysis was inductive and thematic.

Survey results indicate an average of 50% (6) facilitators/supervisors have actively contributed to online discussion boards. Online synchronous communication includes Microsoft Teams, Zoom, and Blackboard Collaborate. Over 83% (10) of the supervisors administered more than one platform in online synchronous communication. Further in-depth analysis and findings will be written up as a Case Study.

Addressing these issues will support the development of communication and feedback skills in facilitators and supervisors, and provide improved benefits for the learners. The outcomes of this research will be generalisable to many other papers and programmes.

Keywords: supervision, communication, feedback, qualitative design

Link to presentation video.

Implications of Geographical Indication Integration in Supply Chains: A Case Study of the Cashmere Industry Operating in the Global South

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Geographical Indication (GI) is a form of intellectual property protection that identifies a product as originating from a specific geographic area and possessing characteristics or reputation that are essentially attributable to that location. When integrated into luxury apparel supply chains, GI requirements are susceptible to challenges such as product labelling. The objective of this research was to investigate the labelling challenges prevalent in cashmere supply chains operating in Kashmir, India. A case study was conducted using qualitative methodological approaches and data were collected using semi-structured interviews and observations. Primary findings indicate that there are distinct cashmere value chains functioning simultaneously in India: a traditional chain, a modern chain and a Geographical Indication-based chain resulting in the lack of recognition of distinct product labelling options. This ongoing research is expected to integrate GI considerations into cashmere supply chains promoting adherence to standards leading to appropriate labelling in the luxury apparel products.

Link to presentation video.

How does fostering psychological safety support engagement and improve educational outcomes for level 5 ākonga?

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Contemporary research has emphasised the intricate relationship between psychological safety, interpersonal risk and ākonga engagement. Kaiako are critical to establish a safe environment conducive to open expression. A scoping review of the literature and action research in a level five cohort examined the multifaceted factors that contribute to or inhibit psychological safety and engagement. Kaiako emerge as having a pivotal role in establishing trust, facilitating open dialogue, and minimising the psychological threat of ākonga perceived vulnerabilities within a social context. Findings signify the value of ākonga-centred, Kaiako-led strategies supporting ākonga engagement by cultivating an environment of psychological safety. Fostering ākonga-Kaiako connection supports ākonga growth and mitigates perceived interpersonal risk; Kaiako can facilitate and nurture an inclusive and supportive learning environment; enhance ākonga engagement, improve overall educational outcomes and ākonga retention in the Level 5 Learning environment.

Key words: Ākonga, Psychological Safety, Interpersonal Risk, Vulnerability, Connection.

Link to presentation video.

Facilitation of postgraduate work-based learners: Lessons from a 'supervisor'

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Being a 'supervisor' in professional practice programmes where learners are engaged in a wide range of areas of study, supervisors must adapt from the traditional apprenticeship model to a different approach. At Otago Polytechnic, our Professional Practice Postgraduate learners are in work, are adult learners and highly experienced in their field of practice and many are distance learners.

Our philosophy is that it is the learner who is the expert in their field and the facilitator and academic mentor are there for their expertise in areas such as literature reviews, methodologies, insider research, ethical issues and so forth. Therefore, the focus of the 'supervision' team is not on being and subject matter expert and to transmit knowledge, but is based on a model which changes one's role from a bearer of knowledge to a facilitator of learning.

The facilitation relationship is one that is built and sustained, involving reciprocity between the teacher and the learner. Thus, there is an ongoing dialogue and ako relationship between the learner and their team. This supervision approach may differ from what we may have been 'trained' to do.

In the presentation I will reflect on, and share some lessons in my 20-year journey from 'sage on the stage to guide on the side', including:

- Trust that the learner is the expert in their work.
- Be willing to learn alongside the learner.
- Accept that learners are practitioners may be new to academic writing, methodologies / methods, literature reviews, referencing.
- Refer learners to the available support within our organisation.
- Team 'supervision' (facilitator and academic mentor).
- Courses assessed at three stages by multiple assessors (including industry expert).
- Encourage learners to have professional mentors.
- Peer review processes.
- Communities of practice – for learners and kaimahi.

Link to presentation video.

Evolving Family Preferences: A Study of Airbnb Evaluations in New Zealand (2018-2023)

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This research aims to identify the specific factors influencing families' evaluation of Airbnb in New Zealand. Airbnb lodgings provide a wide range of accommodation options to meet travellers' interests and budgets. They offer a house-like experience, with hosts providing local insights and guests having access to essential home facilities like a full kitchen and a washing machine. Airbnb reports a rise in the popularity of pet-friendly listings (22%), wireless internet (13%), kitchens (9%), and air conditioning (8%) among families during the pandemic, as those confined to their homes for weeks sought spacious lodgings with pools and playgrounds, commonly located in rural regions distant from city centres.

Cleanliness, location, price, facilities, and a family-like relationship with the host have been mentioned by several studies as important factors influencing guests' satisfaction with Airbnb accommodations. However, most of these studies were conducted in the pre-COVID-19 pandemic era. Numerous studies also revealed that this pandemic has changed human lifestyles and preferences in many ways. Therefore, it may have also affected Airbnb guests' evaluation of their accommodation and experience. This research examines Airbnb reviews from 2018 to 2023 to understand better if and how guests' evaluation of their experience has changed. We analysed textual review data by applying natural language processing techniques, VADER sentiment analysis and conducted thematic analysis to obtain insights into guests' reviews about their experiences.

This research highlights the post-pandemic shift in family preferences for Airbnb accommodations and discovered that after the COVID-19 pandemic, visitors left more reviews indicating higher engagement with Airbnb listings. Hence, the outcomes of this study may help hosts adjust their offerings to boost guests' satisfaction and encourage repeat bookings. Airbnb can refine its recommendation algorithms based on these insights, ensuring the hospitality sector remains relevant in a changed world. This study also contributes to the current body of knowledge of the guest-host relationship in Airbnb in a changing environment.

Link to presentation video.

Mapping Quantity Surveyor Graduate profile against NZIQS Competency Standards

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The Quantity Surveyor (QS) profession is in high demand, and companies are reliant on both local and immigrant workforce with a wide range of skill sets. A professional QS needs to demonstrate certain standard competencies for skills, knowledge and performance, and plays a vital role in the success of construction projects. The competencies of a QS are classified as mandatory, core and optional, and further classified as strategic analytics, technical, tactical, managerial, and analytical operational skills. In this study, six core elements from the New Zealand Institute of Quantity Surveyors' competency standards were identified and ten capabilities of the graduate profile, developed by the institute, were retrieved. There is a significant difference in the level of importance of the competency areas compared to their exhibition by quantity surveyors.

The authors reviewed the competencies and capabilities to develop a matrix to show the effectiveness of the current Otago Polytechnic Quantity Surveying Graduate Profile Outcome (GPO) to meet the industry competency standard. There is a significant difference in the importance of the competency areas compared to their exhibition by quantity surveyors, suggesting a gap between industry expectations and graduate QS competencies and a need to better align vocational education systems with industry needs.

Link to presentation video.

Application of Circular economy principles by Prefabricated housebuilding companies

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Circular economy (CE) aims to maximize total resource efficiency from design to demolition, ideally replacing the linear economy and its 'end-of-life' concept with restoration and regeneration. CE aims to eliminate waste through the design of materials, products and systems that can be repaired and reused. In the context of Prefabricated building companies CE is to re-use entire components of an existing building or small pieces of said building so that they can be reused on another project. However, CE in prefabricated construction is rarely adopted as well as it could be as such the construction industry has a server impact on the environment and as a result, people. New Zealand's building industry has become more and more expensive to build and the world is more focused on helping the environment. People are looking toward prefabricated building companies as their streamlined methods of fabricating building components lead to much less waste than traditional building methods of design and building on-site.

This study follows the qualitative approach to evaluate to what extent the PHB companies follow circular economy principles. Initially, six strategies reported in the literature were used to determine the application of CE principles. Only two companies were considered, one using panelized and other modular building technology.

Both companies are involved in high offsite construction operations with the least on-site engagement and were established for more than four years and were involved primarily in residential construction but different technology by material (timber and steel). Both indicated adoption of CE is relatively high in comparison to competitors. Companies are relatively high in application for strategies such as reduction of construction waste and applying lean philosophy, and systems to be better utilizing the re-cycle construction materials. However, the least applied strategies are the reuse of replacement parts; design towards adaptability; design towards disassembly and system tracking.

This study reported the current state of CE adoption by PHB companies in New Zealand. The findings help the companies to review their business strategy towards sustainability.

Link to presentation video.

Addressing Gender Pay Equity in the Future of Work

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Change is life's only constant, and as the world continuously changes, so does the business landscape. Today, businesses are pressured to embrace transformations to remain competitive. These changes are referred to as the Future of Work (FOW), which focuses on how work, the workplace, and work processes adapt to societal and economic challenges, multi-generational workforce, disruptive technologies, and the push for a sustainable future that embraces Diversity, Equity, and Inclusion (DEI). However, even with the FOW, certain challenges remain, such as gender pay equity. Although studies have been made to address gender pay inequities, it remains to be a critical concern because 1) it is the right of every human to be treated fairly; 2) it generally affects economic status, sense of self-worth, and the role of women in society, and 3) issues of inequity in the workplace can lead to issues of employee attraction, engagement, and retention.

This research will answer the question, "How does the emergence of the FOW paradigm influence gender pay equity issues in New Zealand's contemporary workforce?". The study utilises mixed-method research combing primary and secondary data. The secondary data is a masked employee dataset sourced from a New Zealand organisation specialising in strategic remuneration consulting. Primary data is from semi-structured interviews with HR professionals subject to thematic analysis. The findings based on data analysis are compared and analysed to understand how organisations can redefine pay structures and policies and address gender pay gap issues. This study is important because it provides insights into factors influencing gender pay gaps as impacted by the diverse workforce, changing work arrangements, innovative technologies, and calls for DEI measures. The findings of this investigation may help organisations to have more informed and data-driven measures to better address issues of gender pay inequities.

Link to presentation video.

Addressing climate change: Insights from New Zealand's insurance industry and comparative perspectives

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Climate change is a global concern that is causing more extreme weather events. This is creating challenges for the insurance industry, which is responsible for managing and reducing risks. In New Zealand, the insurance industry faces financial dangers due to the recent uptick in natural disasters. As these risks become more evident, insurers will likely take steps to reduce their exposure to climate-related hazards.

This research examines how the New Zealand insurance industry has responded to these impacts by assessing their adoption of programmes to mitigate climate-related risks. It also seeks to identify challenges and opportunities and to investigate how climate change may affect the business operations of New Zealand insurance companies, particularly managing their risk strategies and adapting their business models.

This research uses secondary data from sustainability reporting sites to determine how New Zealand insurance companies measure up against international standards. According to annual reports, the industry understands and is adapting to emerging risks, including climate change-related ones. Insurance companies engage in strategies like energy-efficiency programs, sustainable building design practices, responsible driving habits, carbon-emissions trading initiatives, and investments in emerging technologies.

To strengthen the credibility of findings, semi-structured interviews with insurance experts, employees, agents and policyholders are being conducted to provide the insurance companies' current actions, changes in business decisions, new opportunities and future strategies regarding climate change. Interview data collection is ongoing. Content analysis will be used to analyse both sets of data, with validity of findings ensured through accurate redefinition and re-conceptualisation of codes and themes.

The paper provides insights into the existing approaches of New Zealand insurance companies and points out opportunities for further improving climate resilience within the sector. It examines how the response of New Zealand insurers impacts broader sustainability efforts and adaptation strategies. The study will provide recommendations for all stakeholders to improve their prompt response and manage evolving challenges associated with climate change.

Link to presentation video.

An analysis of embodied carbon in student accommodation buildings in Southland

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The amount of carbon embodied in a building comes from its use of materials including extraction, manufacturing, transport, construction, and disposal. With the increasing need to reduce the extent of embodied carbon in building construction, the industry is looking into ways of using building materials that reduce the content of the embodied carbon. To achieve lower levels of embodied carbon, it is necessary to calculate embodied carbon during the design phase. The key aim of this study is to assess the embodied carbon content of the materials used in the structure of a student accommodation building in Southland, to use this information to design comparable future buildings.

In this case study, the quantities of concrete, rebar, pre-cast panels and roof frame are calculated using drawings and specifications. The embodied carbon factor was calculated according to life cycle modules for raw material supply, transport, manufacturing, and waste disposal under the 'product' category, transportation under the 'construction process' category, and transport, waste processing, and disposal under the 'end of life' category. To calculate the building's overall embodied carbon, carbon from site activities is included but sequestered carbon is excluded.

The estimated overall embodied carbon for this building structure is 337.10 kg CO_2-e/m^2. It is recommended to calculate the embodied carbon of several structural design options and select the one with the lowest overall embodied carbon footprint. This study recommends a pragmatic approach to measure the embodied carbon in the design, facilitating choosing building materials for the foundations, main structure, floor slabs, foundations and roof structure that will provide the lowest embodied carbon for future student accommodation buildings in Southland. This method can be used to evaluate the overall performance of building components over their lifetime, rather than simply relying on their initial cost and performance. Building designs with similar uses could be significantly impacted by studies of embodied carbon on past projects if the findings are effectively applied to new designs.

Keywords: Student accommodation, Embodied carbon, Building Structures, Southland

Link to presentation video.

Improving Prefabrication Supply Chain to Alleviate the Housing Shortage

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The New Zealand construction industry continues with its long-term struggle to create enough affordable housing at the rate needed to address the housing shortage. Waves of policymakers attempt to devise plans to increase supply but have failed to understand the actual supply chain capabilities of the construction industry. However, there is still a shortfall of housing stock because of not opting for prefabricated construction.

This study investigates the current fabric of the prefabrication supply chain in New Zealand and if improvements to the supply chain could potentially increase housing output to meet national demand. A literature review was conducted to understand prefabricated construction and technologies, including advantages, disadvantages and improvement strategies. Later, semi-structured interviews were conducted with New Zealand industry practitioners having experience in prefabricated construction.

Key benefits reported are time and resource savings; reduced onsite staffing, plant and equipment; and waste management. Key barriers are lack of standardization, defective materials, number of suppliers and transportation limitations. Improvement strategies include “government-based incentive manufacturing” and “competitiveness among prefab suppliers” for quality and cost.

This study provides stakeholders’ perspectives involved in the execution of the projects and is helpful to consider the findings for developing programmes and policies.

Link to presentation video.

Critical Perspectives on Artificial Intelligence in Educational Contexts

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This research explores the importance of Critical Thinking (CT) in considering recent advances in Artificial Intelligence (AI), some of the ways in which AI can affect relationships among teachers and students, and modes in which AI might operate in educational settings. Recent developments in AI, especially with the popular Chat Generative Pre-Trained Transformer (Chat GPT), provides an opportunity for teachers and students to develop an awareness of the benefits and the risks of using AI technology in education. Critical Thinking can help teachers and students to not accept or reject anything without careful evaluation. Qualitative data from secondary research of a scoping literature review in the field of educational AI was explored for key themes and significant issues affecting teaching practices. A focus on literature from 2022 onwards was motivated by the emerging evidence, and rapid development of Chat GPT. Benefits of Chat GPT use include its self-improvement with training prompts and personalised responses. Risks of using Chat GPT include bias in the training data and the capacity to make something plausible, even if untrue. Provisional findings from the AI literature reveals a broad range of perspectives on the subject, ranging from intense enthusiasm to grasp an essential resource, to apprehension about the changes demanded of teachers and educational providers to keep up with the pace of change. However, the need for AI use to be pedagogically sound has widespread support among the diverse perspectives about Chat GPT. Key paradigms of educational use include AI directed with student as recipient, student as a collaborator with AI, and student as a leader supported by the power of AI. This emerging technology has significant implications for academics including teaching practices, academic integrity and assessment security. Navigating and engaging with the large amount of AI educational research and debates will be an ongoing challenge for educators

Link to presentation video.

Engagement of New Zealand Allied Veterinary Professionals with Continuing Professional Development – a meta-analysis

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Allied Veterinary Professionals (AVPs) include the roles of veterinary nurses, veterinary technicians, and large animal veterinary technicians. Continuing professional development (CPD) has an important role to play in the career of an AVP, both to enable registration, and maintain industry currency. Little is currently known about the factors that contribute to the level of engagement with CPD by AVPs, and to begin to understand this, two surveys were carried out in New Zealand to identify CPD barriers, levels of engagement, areas of interest in CPD, and trends in these parameters. An initial survey in late 2017 was completed by 215 AVPs, and a follow-up survey in early 2023 was completed by different cohort of 167 AVPs.

The 2017 survey identified that personal interest in a topic was the main motivation for respondents, with a small number reporting financial gain in the form of a pay increase. More than half the respondents planned to increase CPD engagement in the following 12 months, however the most likely barriers to this were cost and location. Early analysis of 2023 data suggests that personal interest is still the key motivator, however the main barrier to CPD in 2023 was more likely to be a lack of options available compared with geographical barriers of CPD events in 2017. Topic interest areas showed some variation from 2017 to 2023, with an increase in large animal/equine nursing, dermatology, fluid therapy, and the area of clinic management/wellness/interpersonal skills.

Perhaps one of the most notable shifts since 2017 was payment for CPD. In 2017, 59% of employers paid for all CPD events respondents attended – this value dropped to 21% for 2023 respondents. In 2017, 22% of employers paid for no CPD events, while this number increased in 2023 to 41%. This change may reflect economic challenges faced by clinics and requires additional investigation. Data analysis is continuing to identify further developments in the engagement of AVPs with CPD.

Link to presentation video.

A case study of New Zealand's recovery as an international tertiary education destination, post-pandemic

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International education plays an important role in New Zealand's socio-economic landscape. Prior to Covid-19, the sector contributed over 5 billion dollars to the NZ economy and was the fifth largest export earner, supporting 45,000 jobs. The decrease in international student numbers significantly impacted the economy. For the country's international education sector to flourish again, it is crucial to have a strategic plan to support its growth and understand its current appeal as an international education destination. Therefore, the main aim of the paper is to determine New Zealand's recovery as an international tertiary education destination, post-pandemic. The objectives of the study are, firstly, to analyse New Zealand's approach to the recovery of the international education sector and compare it to the country's neighbouring competitor, Australia's, international education strategies. Secondly, the study will explore how current international tertiary students perceive New Zealand as an international education destination in relation to the objectives and actions of the New Zealand International Education Strategy 2022-2030. The methodology is mixed methods, employing qualitative and quantitative research. A literature review of international education and recovery, post-pandemic, and a comparative analysis of the official international education strategies of Australia and New Zealand will be conducted. The qualitative study will guide the development of the measuring instrument for the empirical study. The sample will include international students from a selected Private Training Education Institution (PTE) and a selected Institute of Technology/Polytechnic (ITP). Lastly, conclusions will be drawn, and recommendations made.

Keywords: international tertiary education, strategic recovery, student perceptions, New Zealand.

Link to presentation video.

Data collection during a pandemic

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The COVID-19 pandemic years of 2020 and 2021 posed many restrictions and challenges for people globally. Nationwide lockdowns, travel bans, social restrictions, reduced mobility and the virus outbreak led to much uncertainty. organisations responded rapidly to changes needed to operate safely, many organisations closed temporarily during the nationwide lockdowns or closed completely due to loss of revenue over the pandemic months.

This presentation covers the experiences and challenges of gathering data during the pandemic to understand how the local dairies in New Zealand managed during the pandemic years by capturing their experiences, challenges and lessons learnt from research participants. It focuses on how the pandemic impacted the planning, the identification and recruitment of participants, and the data gathering phases.

A qualitative approach using a purposive sampling method was used to identify the intended participants and gather primary data through interviews. An active log was maintained to record the experiences and impact of the pandemic, and any changes needed with supporting reflections. A literature review was carried out to see if the impact and struggles of other researchers around the world was comparable.

The literature review revealed that there were similarities and differences in the challenges faced by other researchers during the pandemic based on the nature of the study. Maintaining research continuity through lockdowns, uncertainties in funding, the changing rules of engagement between Alert Levels, unexpected delays and difficulties in recruiting participants under restricted conditions were notable challenges. Contingency planning and flexibility were influential factors in recruiting participants and completing the data collection phase successfully.

Link to presentation video.

Engaging with Te ao Māori as a Marketer: Resources for Marketing Students

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The aim of this study was to develop a framework that marketing students could utilise when considering incorporating elements of te ao Māori into an organisation's promotional strategy and tactics. Increasingly in Aotearoa / New Zealand organisations for a range of reasons are utilising te-reo kupu, Māori imagery and referring to Māori cultural values in their promotions. As such the authors felt it important that marketing students have an overview of some important te ao Māori concepts and a framework for considering how an organisation should engage with te ao Māori. The authors' teaching resources and engagement framework was based on a review of literature and their own experiences of teaching and engagement with te ao Māori. Literature reviewed covered te ao Māori concepts, Maslow's Hierarchy of Needs, The Total Product Concept, the Consumer Decision Making Process, and engaging with te ao Māori. Reflective practice or he whakaaroaro was used to identify key learnings for marketing students, how marketing theory could incorporate te ao Māori and a conceptual framework for engaging with te ao Māori. The development of teaching resources and an engagement framework are important to ensure that marketing students engage with te ao Māori in a way that is mana enhancing for all stakeholders.

Link to presentation video.

The inclusion and exclusion experiences of kaiako with disabilities in early childhood education in Aotearoa New Zealand

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Research on the inclusion and exclusion experiences of kaiako/teachers with disabilities both nationally and internationally is limited, and especially so for the early childhood education (ECE) profession. A small amount of research internationally highlights that, despite policies supporting the rights and contribution of kaiako with disabilities, in practice they face considerable barriers in their work. It is therefore important that the initial teacher education (ITE) and ECE sector gain more understanding around supporting disabled kaiako rights, wellbeing and belonging by giving voice both to the positive and negative experiences of kaiako. Our overall aim in this research project is to advance kōrero (conversation) about the opportunities and challenges associated with applying equity legislation and policy in practice for disabled kaiako training and working in ECE.

We conducted this research in mid-2023 to investigate the barriers to and facilitators of inclusion for disabled early childhood student kaiako and kaiako in Aotearoa New Zealand. We invited disabled student kaiako and kaiako training and/or working in ECE to share their positive and negative experiences by completing an open-ended questionnaire delivered online via Survey Monkey. We consider the story-telling approach an important one because stories that capture kaiako views, feelings, perspectives and accounts can help us to address barriers in ITE and ECE. In this presentation, we will share insights gained into inclusive and exclusive cultures, policies and practices in ITE and ECE. We also consider recommendations for the ITE and ECE sector about what needs to be done to ensure an equitable and inclusive teaching sector that reflects the diversity of our communities.

Link to presentation video.

The interactions of leverage and firm performance: The effects of agency costs

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Leverage refers to borrowing funds or taking debt to increase the potential return on investment. Using leverage can increase profits but also magnify losses, making it a high-risk investment strategy. This research aims to investigate the impact of leverage on the performance of large and small publicly listed companies in New Zealand. It further posits that a firm's agency costs moderate the relationship between leverage and firm performance. The study sample includes quarterly data from New Zealand firms from 2010 to 2021. To test the hypotheses, the study uses univariate and multivariate methods, such as correlation and panel regression. The empirical results show that leverage has a significant positive impact on the performance of small firms but a negative impact on their market value. In large firms, the opposite trend occurs, with firms having a higher market value when they have a higher level of debt in their capital structure. Additionally, the findings show that agency costs considerably impact the relationship between leverage and firm performance. The performance of firms is significantly reduced when agency costs are introduced as a moderating variable, regardless of their size. These results support the theory that debt reduces agency costs by reducing the cash flow available for manager discretionary expenditures. In addition, the results provide useful insights for managers of large and small New Zealand firms to improve their performance by effectively utilizing debt.

Keywords: Agency problems, agency costs, leverage, corporate performance

Link to presentation video.

What can we do if online learning becomes a new norm?

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Eastern Institute of Technology | Te Pūkenga (EIT) has a longstanding partnership with Qilu University of Technology (QLUT) in China, where wine-related courses were delivered via intensive on-campus sessions led by EIT teachers since 2017. The QLUT Wine Sensory course mirrors the EIT curriculum, emphasizing how wine is tasted both practically and physiologically, coupled with a balanced mix of theory and practical sessions. With the easing of the zero-COVID strategy by the Chinese government, we transitioned to on-campus delivery at QLUT in 2023 after 3 years of remote online teaching. In mid-February, Cyclone Gabrielle struck the North Island, resulting in substantial damages to the EIT Taradale campus. Consequently, the course delivery was interrupted for three weeks and then online delivery resumed.

This project analyses students' academic performance and feedback in a wine sensory course taught in 2022 and 2023 during challenging learning environments (COVID-19 and Cyclone Gabrielle). Spanning four cohorts, across two years and two institutions, one in China and the other in Hawke's Bay, encompassing both "normal" and challenging learning conditions, the grades of 211 students' online tests and practical tasting exams were analyzed, course feedback from 84 students was collected and a mixed of quantitative and thematic analyses were performed.

As students navigating online learning under challenging circumstances, students from two institutions were facing similar yet different learning scenarios, influenced by diverse cultural and linguistic backgrounds that shape individual learning styles. Students from China achieved a higher average grade in online tests for both years, while students from both institutes benefit from having face-to-face classes when it comes to practical tasting exams. When asked "How could this course be improved", the EIT 2022 cohort (under "normal" course delivery) sought "more wine tastings" when this cohort achieved the highest average grade in the practical tasting exam among the four cohorts, while QLUT 2022 cohort and EIT 2023 cohort (both under challenging learning conditions) sought "more interactions", highlighting the significance of morale-boosting initiatives and peer support in challenging times.

Link to presentation video.

Challenges and Opportunities of Modern Slavery Legislation for New Zealand SMEs

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This ongoing research investigates the challenges and opportunities that modern slavery legislation poses to Small and Medium Enterprises (SMEs) in New Zealand. The study employs a mixed-methods approach.

New Zealand's SMEs engaged in global supply chains are facing unique challenges due to the introduction of modern slavery legislation in countries they rely on. These laws mandate the assessment and management of slavery risks within supply chains and operations, aligning with global anti-slavery initiatives. Concurrently, New Zealand is in the process of implementing its own Modern Slavery Act, impacting exporters and importers.

Preliminary research employed case studies and literature to inform further research design. Further quantitative analysis will quantify the risks using a stratified sample of SME. Stratified populations based on global slavery index and a country-specific matrix. Qualitative data from surveys will analyse perception, capacity and self-evaluation of response capability of SME. Additionally, the research aims to identify opportunities and necessary tools.

Preliminary findings indicate that New Zealand SMEs operating in global supply chains may encounter difficulties in providing the required reporting data and ensuring compliance with modern slavery legislation. The impending implementation of similar legislation in New Zealand underscores the significance of this research. It is anticipated that New Zealand entities will require substantial training and education to maintain competitiveness.

This research provides insight into the competitive and cost-related risks faced by New Zealand SMEs in global supply chains. It offers critical information for SMEs and stakeholders, aiding their understanding of the potential impact of modern slavery legislation on business operations, cost structures, compliance requirements, and market access. The findings will contribute to informed decision-making and effective strategies for engaging in global supply chains.

Link to presentation video.

Adopting business simulations to bridge theory and practice to support learning facilitation.

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This purpose of this study is to present a narrative of how in-class simulation activities supports authentic and experiential learning for learners in business education in higher education The online simulation activity revolves around setting up a coffee shop and operating the coffee shop business successfully. The online simulation activity is sourced and licensed from the HBR learning platform. On enrolment, each learner is grouped into a small simulation team. The team then goes on to play the simulation activity by making business decisions to start and run a coffee shop. The online simulation has 3 gamification levels starting from a basic level to an advanced level. The teams work through each level of the simulation for approximately 90 minutes. To ensure effective learning the simulation activity is aligned with the learning objectives for the learning session for the week. The simulation activity was undertaken for a small class of 15 learners for the Business Environment course in the undergraduate business programme. We asked learners to provide anonymous voluntary feedback to gather learner perceptions on how the simulation activity supported their learning. From the qualitative reflective learner data, our exploratory findings show the learners' perceptions of adopting business simulations enabled them to develop both hard and soft capabilities. The learners reported that that the activity of running the coffee shop in the simulation activity offered a "real life" applied context to link the Business Environment conceptual learning to practice. Learners reported the simulation activity created an engaging and involved context for learning as well as adding an element of fun and enjoyment. This exploratory study offers directions on how to apply simulations strategies support experiential learning and strengthen authentic learning practices in higher education. Incorporating simulation activities opens one other avenue to support development of hard and soft capabilities enabling graduates for work readiness for employment opportunities.

Link to presentation video.

Assessing Solar Energy with a Hybrid Ray-Tracing Model: Open-Source Implementation as a Service

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Traditionally, solar ray-tracing programs used for energy collection evaluation have been closed-source and platform-dependent, making integration with other software and modern technologies challenging. This research addresses these limitations by developing a novel hybrid ray-tracing-based mathematical model to assess solar energy in geometric layouts. To enhance accessibility and usability, the study presents a "Software as a Service" (SaaS) architecture, accessible through Representational State Transfer Application Programming Interfaces (REST APIs), implemented in an open-source environment under a Creative Commons license. The model's accuracy is validated by comparing results with semi-analytical manual solutions for layouts with and without obstacles and reflectors. Additionally, an application is demonstrated for optimizing the tilt angle of a booster mounted on the top of a façade-integrated solar receiver. The proposed service, client program, and examples are freely available for download, encouraging widespread adoption and further research in the field. Also, in the future, Level 7 and postgraduate engineering students can utilize this model in their final projects to conduct solar potential analyses for a variety of case studies.

Link to presentation video.

Podcasting Future Post Covid

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Podcasting has been expanding rapidly as a popular cultural phenomenon, connecting listeners to audio content created by professionals, radio stations, and amateur hobbyists. Encouraged by this growth, entrepreneurs and legacy media companies with commercial interests in broadcasting have rapidly expanded their interests in podcasting, bringing professional standards and the logics of capital with them. The increased visibility of podcasting in the past 10 years is due in no small measure to the market power of Apple's Podcasts directory, as well as inclusion to Google and Spotify's offerings. However, the post Covid world has seen a decline in new podcasts. Are we now witnessing the peak of the curve? This research will involve analysis of the numbers of podcasts, their popularity through downloads and the growth of the long tail.

Link to presentation video.

Exploring Universal Design for Learning in a post-secondary vocational setting

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The purpose of this presentation is to introduce educators in a post-secondary vocational setting to the concept of Universal Design for Learning (UDL) and how it can be applied in practice. Based on research into educator perspectives, barriers and limitations to implementation in a postsecondary setting, and how effective UDL is in providing for all ākonga, the aim is to provide an overview of how a unified UDL approach to course design and delivery can benefit our ākonga. The presentation will include an overview of the UDL framework and its key principles and provide a range of specific practical examples of teaching and learning activities, possible resources, and approaches to assessment that can be used in a post-secondary setting. It is hoped that this presentation and the practical examples provided will serve as a starting point for individual educators and faculties who wish to develop their understanding of UDL in the context of post-secondary education and explore the idea of creating universal learning experiences for their ākonga.

Link to presentation video.

Enhancing Internal Financial Management in New Zealand Charities: Bridging Knowledge and Skill Gaps for Sustainable Community Impact

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Charitable organizations, comprising a significant portion of community outreach, aim to foster an inclusive and supportive environment. About 97% of NZ charities fall under Tier 3 or 4, serving the general public as small public benefit entities. Hence, the reporting of financial and non-financial information is crucial to provide public accountability by preventing charity misuse. This paper aims to explore the financial management processes of Tier 3 and 4 charities, seeking to uncover any knowledge and skill gaps among staff and volunteers. The objective is to identify the impact of these gaps and suggest strategies for addressing them. To achieve the study's objective, qualitative research will be conducted, to offer a deep insight into the financial management procedures of Tier 3 and 4 charities. The data collection method includes face-to-face interviews with 7 charities located in Hamilton, Waikato, using snowball sampling to ensure their comfort during the interviews. Thematic analysis is employed to analyse the data, allowing the rich context of each charity's experiences to be reflected in the results. This approach facilitates a comprehensive understanding of knowledge and skill gaps in charities and offers insights into potential solutions. The findings of this research contribute to the existing body of knowledge by shedding light on the various issues faced by NZ charities regarding their internal financial management processes. The study also proposes actionable recommendations and strategies that can be adopted to bridge these gaps, including training programs, technology adoption, and collaboration with financial experts. Ultimately, this research aims not only to enrich academic comprehension but also to offer practical guidance for policymakers, funders, and support entities dedicated to boosting the financial capabilities of charitable organisations. By equipping these entities with refined internal financial management practices, the overarching aspiration of fostering community growth and fostering positive societal change can be realized.

Link to presentation video.

An exploration of the push and pull factors for New Zealand registered nurses who move from clinical practice roles to nursing education.

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To become a registered nurse requires a graduate to successfully complete a bachelor's degree. Throughout this process, nursing educators assess, tutor and guide undergraduates to complete their degrees. With an increased demand for graduate registered nurses, the retention of a nursing education workforce is critical.

The purpose of this literature review was to identify existing literature exploring the motivation for registered nurses in clinical practice to move into nursing education. Five electronic databases were searched- CINHAL, ProQuest, Science Direct, PubMed and nzresearch.org.nz. Seven research articles were selected for review after applying the inclusion criteria.

Registered nurses who moved from clinical practice to nursing education identified several benefits and barriers to their decision. The increased autonomy and the opportunity to give back to nursing and invest in future nurses can be appealing to some. Academic achievement motivated other registered nurses while dissatisfaction with the clinical practice environment pushed others towards the change in role.

The pressure for departments of nursing to accept more ākonga has placed an increased need for nursing educators to educate larger and more frequent intakes of ākonga nursing cohorts. An effective nursing educator workforce is a key aspect of the successful educating of ākonga cohorts. Understanding what motivated a registered nurse to move from the clinical practice environment to education will enable a sustainable pathway of recruitment and retention of appropriate nurse educators in the tertiary environment.

Link to presentation video.

How a big idea can inspire students and take flight

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To better contextualise the teaching of business principles to Nelson ākonga, the researcher presented the idea of a small airline that uses Nelson as a “micro-hub” to provide convenient connections between North Island regional centres and South Island regional centres. The idea was used to create practical activities across multiple levels, from simple budgets in first year accounting courses, comprehensive financial plans for third year financial management ākonga, and detailed logistical and feasibility analyses for postgraduate ākonga. The research objective was to evaluate the benefits of providing ākonga with business scenarios set in their home region rather than places with which they were unfamiliar. A qualitative methodology of semi-structured interviews of several ākonga was used. Responses were resoundingly positive and some postgraduate ākonga have initiated consultation with the Nelson Regional Development Agency to pursue the idea further.

Link to presentation video.

Skill requirements for Low-Prefabricated Timber Building Technologies

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Prefabricated construction has the potential to address lead time, affordability and sustainability issues. However, the adoption of prefabricated construction is still low in most countries including New Zealand. Several technologies are used in prefabricated construction, categorized according to pre-assembly and subassembly onsite or offsite. Low-prefabricated building technologies (LPBT) are component manufacture and subassembly, such as stick built-to walls or trusses framing, and are the most common technologies used in the house-building sector. LPBTs allow high flexibility with pure customisation or tailored customisation, but restricts the use of materials like steel which is less modifiable than timber. However, most construction companies using timber-based LPBTs face challenges with a workforce unfamiliar with the sector, requiring major human resource development.

The present research conducted semi-structured interviews with industry practitioners on their perceptions of skills needs and shortages in prefabricated timber frame applications in New Zealand. Participants affiliated with diversified construction profiles as carpenters, architects, quantity surveyors, designers and project managers, having 3 years of experience on average with at least diploma level qualification.

Nine critical skills were reported, with “understanding information on plans” and “software skills” the top two. Most participants rely on the working environment for acquiring critical skills, and mentioned that workers in a factory environment rely on self-learning for acquiring critical skills followed by formal education. Issues related to skills shortage are classified by designing and planning; estimation/detailing; delivery and assembling. For achieving adequate personal skills, the key constraints are “insufficient company training”, “lack of governmental support” and “lack of formal education”. All participants highlighted that there is no set plan to improve the skills of the construction workforce. Strategies were proposed to improve skills and classified under individual, government, schools and organizations and employers.

This study establishes the skills requirements that need to be addressed for the workforce onsite and offsite using timber-based LPBTs. This study helps education providers, employers and government bodies to develop a strategic framework to improve skills.

Link to presentation video.

Exploring Factors Influencing the Success and Failure of Rural Micro-enterprises in Choiseul Province, Solomon Islands

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In both developed and developing countries, SMEs are the driving forces in job creation and revenue growth. This means that the SME sector is a significant contributor to developing a country's socio-economic status. This research explores current and former local business owners' experience regarding the challenges and opportunities that affect their rural micro-businesses' success or failure in Northeast Choiseul Province, Solomon Islands. A case study approach using semi-structured interviews was employed to generate an in-depth, multi-faceted understanding of factors affecting rural businesses in their real-life situation. Data analysis followed a thematic analysis using coding techniques to generate themes. The research findings indicated that the main reasons for rural business owners in Northeast Choiseul to operate their businesses is to support their family's wellbeing, rural peoples' livelihoods, and to support their children's education. The study also found that factors such as lack of working capital, kaon (debt) system, and the influence of local culture contribute to rural businesses' failure. Contrastingly, the study showed that factors such as past working experience, customer relationship, marketing (location), and social business network contribute to the success of rural businesses. The interpretation drawn here is that operating a micro-business is one of the primary sources of income for the people of Choiseul, and that there is a need to support the growth of such small-scale businesses. The research therefore recommends that relevant authorities need to assist rural business owners to improve their business performance and longevity.

Link to presentation video.

BIM-enabled collaborative automated quantity take-off of buildings for better efficiency and effectiveness - A Learner's perspective

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The construction industry is known for delays, cost overruns, poor quality and a high number of accidents. Building information modelling (BIM) helps in the digitalization of information which improves process integration and creates a collaborative environment to achieve value towards projects. Construction management and quantity surveying students learn how to do quantity take-off from 2D drawings in their first year, then receive training with automated quantity take-off using BIM in their final year. This shift from manual to automated quantity take-off has inherent challenges which impact learning.

In this study, a content analysis was performed on fifteen third-year learners' reports to assess their reflection on automated take-off for collaborative value management. Most learners compared automated take-off positively with manual work, citing aspects such as instant quantities, elements integration, realistic features, dynamic point of view, interactive representation, quick pricing, alteration provision, data sharing, buildability, and low human cost. Learners regarded this approach as subject to client awareness, construction company capability, selection of level of development, technology integration and compatibility. Most learners were currently working in industry.

Link to presentation video.

Research Presentations

Research presentations at OPSITARA 2023 were traditional fifteen-minute in-person research talks that were followed by five minutes for questions from the audience. Teaching & Learning, Business, and Health & Wellbeing were popular topics this year.

study
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teaching
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content
approach
practice
communication
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interviews
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Critical Analysis of Invercargill Road Network in Case of Natural hazards

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A significant natural disaster can cause extensive damage to transportation networks, resulting in substantial costs for road governing authorities, access issues for emergency services, and disruptions for road users and the public. Actual or potential effects of natural hazards on people, communities and businesses, property and infrastructure always exist.

Understanding the damage done by natural hazards to road networks is necessary to analyse vital access routes, lifeline utilities and essential services in Invercargill City. To determine the viability of a road network in Invercargill and map the most critical roads of Invercargill in times of natural hazards, a criticality score-based framework is explored which uses traffic volume, road function, lifeline utilities and essential services as input parameters. Implementing the framework on Invercargill city reveals that Stead Street is the vital route with a 3.2075 overall criticality score. Similarly, Tweed Street, Dee Street and Elles Road have an overall criticality score of $>2.33 \leq 3.17$, which is a significant level in the criticality score. Higher criticality scores represent a higher significance of the road, in terms of economic and social parameters, during the natural hazard.

A Strengths approach to child welfare In Aotearoa New Zealand: collaboration is key.

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The child welfare system in Aotearoa New Zealand continues to be questioned regarding its effectiveness in truly meeting the needs of children in our country. The Non-Government Organisation (NGO) sector has increasingly been tasked with more responsibility in managing child welfare within families at a community level and providing therapeutic support, to improve welfare outcomes for children and families. The traditionally deficit-based nature of child welfare work can challenge the often therapeutic, strengths-based nature of NGO social work.

This research explored how NGO social workers conceptualise the application of the Strengths perspective within child welfare casework, and how they navigate the challenging dynamics of child welfare case work, in order to support positive outcomes for children and their families. Based on Semi structured interviews, thematic analysis was used in an interpretive approach to analyse the narratives of 12 NGO social workers, identifying key themes and trends, resulting in 10 recommendations for practice.

The value of NGO input and its necessity in addressing child welfare concerns, was echoed by participants. The findings illustrated a Strengths approach with families to improve child welfare, is most effective when NGO social workers and Oranga Tamariki support families in collaboration. This includes valuing the input of NGO social work assessments on capacity and risk, along with NGO social workers having in-depth knowledge of the statutory child welfare system. Ultimately this would result in more accurate assessments and responsive interventions. The significance of the entangled relationship with Oranga Tamariki was a key consideration, indicating a need for development regarding best utilising the NGO/client relationship, cultural safety of social workers and NGO knowledge of statutory processes.

This study will benefit social service and wellbeing organisations in the NGO and Statutory arenas, as well as individual social workers looking to navigate a Strengths based approach to child welfare case work.

Meeting the challenge of AI and assessment security

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In the context of constantly evolving AI capabilities, course assessments throughout education have become vulnerable to ChatGPT and other natural language processing tools. In spite of some obvious flaws such as inaccuracy and hallucination, the quality of AI generated content has surprised and even bewildered education providers around the world. As large language models continue to evolve, the risks of students passing their assessments by submitting AI-generated material will only continue to increase. Instead of relying on AI detectors, therefore, more effective and viable strategies will be needed to ensure the security and validity of our qualifications.

The aim of this project is to identify and develop strategies of task design, task management and task assessment against the illegitimate use of generative chatbots in assessed student work. A pragmatic research design based on actionable knowledge and experiential enquiry was adopted. Through formal risk assessment procedures in semi-structured interviews, 16 lecturers evaluated and analysed their assessment tools. While risk ratings were validated by colleagues, the resulting discussions (as well as reviews of relevant documentation and selective AI-testing) enabled the identification of features that characterise stronger / more vulnerable assessments. These were summarised and reformulated as risk-prevention strategies, then matched against generally recommended task-types for AI-proofed assessment (i.e. authentic, open-ended, reflective, collaborative, creative).

A total of 22 strategies were identified and grouped according to these categories: specificity, practicality, collaboration, process, information flow. They range from the simple (higher weightings for application than for generic/theoretical content) to the complex (interconnected tasks or successive assignments where student work is synthesised into a coherent whole). Of particular interest was the flow of emergent information in collective activity.

The data thus collected and analysed can be used for the development of safer, more viable assessment models.

Learning for all: Designing for Learning in our Work-based contexts

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The Universal Design for Learning (UDL) framework provides a promising pathway for designing for learning that is accessible, inclusive, and equitable for all. Emerging in the American schooling system in the 1980's, UDL continues to be strongly promoted by disability groups, thus demonstrating its ongoing relevance as a teaching and learning tool. However, although considerable research supports the use of UDL in the compulsory education sector, little is known about how the UDL framework could translate into our Aotearoa New Zealand tertiary and vocational education context. Aligning with three associated brain networks, the guiding principles of UDL are to provide multiple means of 1) representation, 2) action and expression, and 3) engagement. Theoretically, designing for learning using the three UDL principles caters for diverse learners who may have strengths in some, but not other, brain networks. We asked ourselves, how might UDL lead to meaningful, actionable, and engaging learning for ākonga? Utilising a qualitative storying approach, the presenters will share a series of vignettes, to show how UDL principles have been applied in their professional practice. These 'tales from the coalface' also demonstrate how UDL provides a valuable framework for identifying solutions to the many challenges that learners experience in engaging in, actioning, and making meaning through their learning, with and without additional resources and supports. Going forward, we plan to further explore how UDL can be applied in our own professional practice and invite other tertiary educators to join us in a Community of Practice to do the same.

The Psychological Experiences of Indoor and Outdoor Rock Climbers

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In response to the growing popularity of indoor climbing and the evolving dynamics between indoor and outdoor climbing practices in Aotearoa New Zealand, this study sought to address the question of how climbers perceive and engage with these distinct contexts. Specifically, this study aimed to explore their motivations and perceptions in indoor and nature-based climbing environments.

Employing a qualitative crossover design, in situ interviews were conducted with experienced rock climbers who engaged in both indoor and nature-based climbing activities. Participants were selected based on their advanced climbing experience in both contexts. Reflexive thematic analysis was employed to uncover emerging themes related to motivations, perceptions, and optimal experiences.

The findings illuminate the complex interplay between indoor and outdoor climbing experiences. Indoor climbing emerges as a controlled and convenient environment valued for safety, social interactions, technical focus, and fitness enhancements. On the other hand, outdoor climbing is cherished for its authentic and holistic nature, offering a sense of exploration, engagement with natural surroundings, and challenges posed by aesthetically pleasing routes. The study also underscores the role of flow experiences in both contexts, influenced by factors like movement variety and autonomy.

This study contributes to a deeper understanding of climbers' experiences and preferences across different climbing environments. The research emphasizes the intricate relationship between psychological dimensions and physical contexts, providing insights into implications for well-being, skill development, and the overall climbing experience. By exploring the psychological aspects of indoor and outdoor rock climbing, this study enriches our comprehension of the multifaceted nature of adventure and recreational activities.

Alternative modalities of postgraduate research assessment

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How might alternative modalities of assessment provide greater flexibility for learners without compromising the rigour and consistency of the assessment process? Postgraduate research degrees are traditionally assessed on a written thesis, which may disadvantage Māori and Pasifika learners with strong oral cultures, and learners with disabilities. Furthermore, Otago Polytechnic's interdisciplinary research degrees, the Master of Professional Practice (MPP) and Doctor of Professional Practice (DPP), employ a range of research questions and methodologies which may not be able to be adequately presented in an academic thesis.

Ethics approval was obtained to investigate the issues and risks that might be involved in a range of modalities of delivery and assessment of research, to find and offer solutions wherever possible, while simultaneously identifying and mitigating associated risks for the institution, for assessors and for the learners themselves.

In phase one, we interviewed identified stakeholders who had relevant experience with postgraduate programmes in a range of disciplines, and/or with respect to particular tertiary learner groups. Using inductive analysis, emergent themes were identified from the audio-recorded interview data. The research team then applied these themes to the learner journey to develop a process to guide the consideration of alternative modalities of assessment.

Phase two refined the draft process using the Delphi technique. All 49 stakeholders, whether or not they participated in phase one, were invited to answer survey questions to give feedback on the draft process. Consensus was achieved in one round, with four survey responses providing substantive feedback.

The final workflow process has been provided to the programme leads for consideration and implementation. This is expected to provide greater flexibility for learners to utilise modalities of assessment other than a thesis, while managing the risks successfully for all involved. The workflow has scope for wider application.

Creating a sense of community and wellbeing through events

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In recent years, there has been a growing recognition of the importance of student wellbeing, belonging, and sense of community in tertiary education settings. Events play a crucial role in shaping the student experience, providing opportunities for social interaction, engagement, and personal development. This research study aimed to explore how students perceived events, and understand the impact they have on their overall wellbeing while studying at a tertiary institution, especially after a hiatus of on-campus events.

The study adopted a mixed methods approach to capture the experiences of Dunedin based students at Otago Polytechnic | Te Pūkenga within the context of events, as well as six event organisers that organised events that included tertiary students as attendees. Through an online survey and semi-structured interviews, data was collected to gain insights into the thoughts, emotions, and perceptions of students regarding events and their influence on a sense of belonging and community, linking to key literature themes of event purpose, event experience and wellbeing. An anonymous ākonga survey returned 184 responses. The overall purpose of events can be recognised as places where people come together ensuring strengthened social outcomes.

The findings provided valuable insights into how events contribute to the creation of a supportive and inclusive environment, fostering positive social connections among tertiary students. The research highlighted the experiences gained from attending events and the intrinsic value, as well as providing a sense of wellbeing. Additionally, the study aimed to identify any challenges or barriers that students may encounter in relation to events, potentially leading to feelings of exclusion or disengagement.

The outcomes of this research will help to inform the importance of events in enhancing student wellbeing and creating a sense of belonging. By understanding the student perspective, tertiary institutions can develop evidence-based strategies and interventions to improve the design and delivery of events, fostering a more positive and inclusive campus culture. Ultimately, the research findings will contribute to the broader conversation on student engagement and overall wellbeing.

AI in vocational education: Interim findings from a study integrating AI into learning activities across six disciplines

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Recent developments of Generative Artificial intelligence (Gen AI) allow for natural language interaction. Its advent has challenged the teaching, learning and assessment practices of all education sectors. Vocational education and training also must connect with the industries they serve, as workplace adoption of Gen AI accelerates across many occupations. The formal and higher education sectors have had an emphasis on assuring the integrity of assessment processes due to ākonga utilisation of Gen AI to complete summative assessments. In contrast, this project emphasises the purposeful incorporation of Gen AI to prepare ākonga for the critical thinking aspects of evaluation, application, and utilisation of Gen AI to support work/job tasks.

In this presentation, an interim report on the integration of Gen AI into a series of learning activities across six disciplines (business, construction management, computing technology (ICT), graphic design, hospitality, and nursing) is summarised. The overall objectives of the project are to introduce and raise AI literacies (including ethical and cultural sovereignty issues) of ākonga and kaiako; bring aspects of Gen AI that support ako across learning activities; explore, evaluate, and match a range of Gen AI tools/platforms to the enhancement of learning outcomes; and increase the critical thinking skills required to interact/interrelate and use Gen AI as it evolves. The project uses Sharples (2023) roles of Gen AI as a framework to inform how Gen AI may be usefully deployed to support social constructivist learning. Each of the discipline areas in the project, applies one or more of these Gen AI roles to the development and implementation of learning activities. Gen AI tools/platforms that match the learning intentions of learning activities are evaluated as to their fit for purpose and further possibilities.

A Workplace Health and Wellness Case Study

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A mixed case study was undertaken to capture workplace health and wellness initiatives. The study utilised a framework based on the eight Pillars of health and wellness (physical, nutritional, intellectual, spiritual, emotional, social, environmental, and financial) as a means of understanding workplace health and wellness. The framework was next used to capture the workplace initiatives of five different New Zealand organisations and consider the degree they accorded with the model. Originally seen as a multi-site case study, where leaders from five organisations participated in open-ended interviews, they study evolved into a narrative approach within each case study to align the voices, the literature, and the themes. Because this approach appeared too deductive, an inductive element was introduced via thematic analysis and a series of synergistic initiatives emerged. These health and wellness initiatives enhance and communicate the desired organisational culture. The study provides a set of guidelines and recommendations on how to construct, implement and evaluate a compelling workplace health and wellness programme.

Exploring the impact of remote work on the psychological wellbeing of software professionals in New Zealand

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This study investigates the psychological well-being of remotely working software professionals in New Zealand. While prior studies have covered diverse aspects of remote working, including how remote working affects job satisfaction, employee performance and employee engagement, the psychological dimension of remote working is under investigated. In New Zealand, most remotely working employees belong to the IT industry, which includes a wide range of technology-related services such as software development, cyber security, and network infrastructure. However, a subcomponent of the IT sector, software professionals such as quality assurance engineers, software engineers, scrum masters and their psychological well-being have yet to be extensively explored, although, in New Zealand, most remotely working employees belong to the IT industry. Therefore, further investigation is required because psychological well-being is significantly connected with employee productivity, performance, and overall wellness. The study's objective is to examine software professionals' perception of remote working and how it impacts their psychological well-being. The research utilises quantitative and qualitative methodologies, employing surveys and semi-structured interviews to collect data. Purposive sampling is used to choose participants for the study. This study sets a foundation for a deeper understanding of diverse factors, such as how participants' perceptions, experiences, and motivating factors in choosing remote working influence the nature of the psychological well-being of remotely working software professionals. Consequently, it will assist organisations and employees in identifying areas that need improvements and designing solutions to enhance remote working settings. Also, future academic research related to remote working and psychological well-being can benefit from the results and the limitations outlined in the study.

Communities in the Mist: Exploring the Community of Practice Model for Professional Development

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This research project was designed to evaluate the effectiveness, value and sustainability of Communities of Practice (CoPs) at Otago Polytechnic | Te Pūkenga. As members of Te Ama Ako, the Learning & Teaching Development team, we have asked how we can improve as an organisation through our support of CoPs. In Phases 1 and 2, we mapped and scoped CoPs at OP, and explored the perceived impact, benefits and value of these CoPs to academic staff at OP, such as a CoP of 'EdTech champs' to support staff using educational technologies.

In Phase 3, together with staff members from across the institution, we supported a new Neurodiversity CoP (ND CoP), which grew out of a desire to better support staff and ākonga around neurodiversity. We took a mixed-methods approach to evaluate the effectiveness of the CoP model as a professional development tool, and asked if there has been an impact, if any, on the confidence of OP's kaiako in teaching and learning in neurodiverse environments.

We found that experienced teachers have shown a significant increase in their confidence teaching in neurodiverse environments. However, we have not found a similar effect among newer teachers. This finding confirms earlier findings in phase 1 of the research, suggesting that CoP as a means of self-directed professional development is most effective for experienced teachers rather than new ones.

Acknowledgement:

The Neurodiversity CoP (ND CoP), established in late 2021 following OP's inaugural neurodiversity symposium, is not the subject of this research, which would require further work involving representation from ND individuals to help the researchers understand and interpret their findings. We acknowledge the tremendous mahi of the ND CoP which has been instrumental in raising awareness of neurodiversity, by organising online hui every 2-3 months, focused on teaching, learning and neurodiversity, and neurodiversity symposia.

Regenerative Tourism: Paving the Way for Sustainable and Resilient Tourism Education in New Zealand.

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New Zealand's tourism industry has endured the devastating impact of the Covid-19 pandemic, which brought international travel to a standstill. The repercussions were felt deeply, with numerous tourism businesses forced to downsize or even close their doors. Furthermore, the allure of a career in tourism has diminished among students, fuelled by the misconception that it lacks viable prospects. Amidst these challenges, the government's decision to unify the vocational education sector has opened doors for innovation and growth. This research project presents an invaluable opportunity to develop a sustainable tourism programme, the NZ Diploma in Tourism and Travel, that considers economic, environmental, and social factors with an emphasis on regenerative practices.

The research aimed to identify how Otago Polytechnic | Te Pūkenga can provide a sustainable and effective tourism programme that adapts to the demands of a profoundly transformed environment. Interviews and focus groups with industry professionals and tourism graduates were conducted to discern the industry's preferences for teaching methods and the desired content for graduates. Seven participants were interviewed, representing small to medium tourism businesses in the Otago and Central Otago regions. Additionally, a focus group comprising six local tourism operators from various sectors and a group interview with three graduates who completed the NZ Diploma in Tourism and Travel (level 5) at Otago Polytechnic were held in 2022.

Findings highlighted the tourism industry's transition into a dramatically altered landscape, emphasising the urgent need for a regenerative approach. Regenerative tourism is a philosophy that strives to both minimise the negative impacts of tourism and actively contribute to the restoration and improvement of the places visited. Creating a values-based environment with a reduced environmental footprint necessitates a collaborative and collective effort across all sectors.

By embracing regenerative tourism, New Zealand's tourism sector can serve as a model of sustainability, resilience, and responsible practices in the post-pandemic world. This opens doors for innovative tourism education focused on regenerative principles, nurturing a new generation of professionals dedicated to ethical and sustainable tourism.

They did not know how to journey with me: Injury experiences in Women's rugby

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New Zealand women's rugby union participation has increased substantively over the past decade; growth that is seven times faster than the men's game. However, injuries are significant and negative consequences of a high-risk sport such as rugby, with estimates that 83% of women players will be injured in a 3-month period. Despite intensive research attention to injury, personal responses, support of, and the rehabilitation experiences of female rugby players have received minimal attention. This research sought to describe the experiences of injured New Zealand female rugby union players.

Using non-probability sampling, potential participants from four New Zealand premier women's rugby squads were invited via emailed link to complete an online survey concerning their injury experiences. Demographically the fifty respondents (23.5 ± 5.2 yrs), represented a range of ethnicities, and were highly experienced with 68% having played for more than 5 years.

An average of 2.07 ± 1.01 time loss injuries were reported with most having endured two to four injuries (60%), and 10% reporting five or more injuries. Rugby players with more than ten years of experience unsurprisingly had accumulated the highest number of injuries (2.74), although those with fewer than five playing years (2.19) had experienced slightly more injuries than those playing for 5-10 years.

When asked about their emotional responses to injury, respondents reported decreased individual confidence (76%), apprehension regarding recovery (74%) and reinjury risk (72%), and lowered motivation (62%). Some described well-structured and supportive environments where injuries were taken seriously. Others were frustrated by delayed diagnoses and care, where players were left to fend for themselves without psycho-social of financial support.

In summary, a sample of elite women rugby players had struggled emotionally with injury and injury management. Care and support of injured players appeared inconsistent.

The Power of Empathy: Preparing business graduates for communicating in a professional context

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The aim of the study was to explore the significance of professional business behaviour and communication in workplaces and how educators may best support future graduates entering the workforce. A key area was to explore the significance of empathy in shaping communication dynamics among colleagues and peers within professional settings.

Employing a Delphi methodology, a panel of ten experts were engaged in a series of iterative rounds of data collection and analysis, to determine the role of communication and empathy in influencing communication patterns. The study identified empathy as a pivotal factor that promotes understanding, reduces misunderstandings, creates a safe environment, and builds stronger relationships in professional contexts.

The Delphi study involved expert opinions through carefully designed questions distributed in three rounds. The consenting participants were selected based on their different levels of leadership positions ranging from recruitment, accounting, human resources, and strategic management. Through analysis of the responses obtained, a consensus was reached on the key role of empathy in professional communication.

The findings of this study revealed that empathy plays a critical role in facilitating effective communication among colleagues and peers. Participants highlighted that empathetic communication enables individuals to understand and connect with one another on a deeper level. By actively listening and demonstrating understanding, empathetic communicators create an environment where diverse perspectives are valued and respected.

However, empathy can significantly contribute to reducing misunderstandings. Empathetic individuals are more likely to consider the perspectives and emotions of others, leading to clearer and more accurate communication. This, in turn, fosters collaboration, problem-solving, and decision-making within professional teams. Creating a safe environment encourages open and honest communication, leading to increased trust and cooperation among colleagues.

Ultimately, the study concludes that empathy is a crucial component of effective communication in professional settings. As educators, we are obligated to foster specific empathy training within our business curriculum, and are incorporating it into the culture of the school with team building activities and explicit focus within communication and leadership papers.

Actions to Address the Epidemic of Youth-Vaping Among Intermediate and High School Students in Aotearoa, New Zealand.

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Youth vaping is an epidemic in Aotearoa, with an overrepresentation of Māori rangatahi (youth). Preliminary data shows that they are 2.5 times more likely to vape daily than their non-Māori peers. Vaping is associated with a number of health risks, including brain development, respiratory illnesses, cardiovascular and mental health problems. However, there are no in-depth studies in Aotearoa that have identified student's motivation to vape and what knowledge they have about the associated harms. There also does not appear to be appropriate resources available for schools to implement meaningful educational interventions.

This study aims to understand why intermediate and high school students vape, and identify gaps in their knowledge around the health-harms of vaping. The project also proposes to develop culturally and age-appropriate education tools that aim to prevent and reduce youth vaping in Hawke's Bay and wider regions.

This research uses a qualitative approach, including focus-groups and one-on-one interviews with intermediate and high school students, and student-facing staff. Indigenous and ethnic research methods, such as sharing circles, will also be used to understand decision-making around vaping among Māori and Pacific students.

Anticipated outcomes include novel insights into the determinants of youth vaping and an evaluation of existing educational materials, thus pinpointing areas for improvement. The findings will be used to develop new, culturally and age-appropriate education tools to help prevent/reduce youth vaping in Hawke's Bay and Aotearoa.

This study has the potential to substantially contribute to the battle against youth vaping in Aotearoa. The findings will be used to develop targeted interventions that cater to specific requirements of students, including Māori and Pacific. The study will also help to raise awareness of the health harms of vaping and equip schools with the necessary resources to help prevent/reduce youth vaping.

Keywords: Aotearoa, education-tool, epidemic, rangatahi, Māori, Pacific, youth-vaping, vaping-intervention, New Zealand.

The impact of two COVID-19 lockdowns on New Zealand tertiary education students studying at a regional Polytechnic

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The COVID-19 pandemic had a substantial impact on the tertiary education system, such as when students were required to be locked down and remain at home for all purposes including study. This is the first New Zealand study to compare the experience of lockdown after two lockdowns in 2020 and 2021, respectively. The principal researcher, using a snowball sampling technique, visited and emailed classes at a regional Polytechnic (UCOL | Te Pūkenga). Data was collected using the Survey Monkey online platform and identical paper surveys (n = 68). An informed consent section, with details on voluntary participation, confidentiality etc. was completed before the survey could proceed. Participants were surveyed on their accommodation, work, placement experience as well as their experience of online learning, studying from home, their emotional state and what helped improve the experience of lockdown. Participants were asked to contrast their experience of lockdown in 2021 with the first lockdown in 2020. Almost 31% stated it was about the same and 42.65 stated it was better or much better in 2021. Participants were asked to rate their overall experience of lockdown and were divided into three approximate groups; those who found it mainly negative, an in between group and those who found it mainly positive. The mainly negative group when compared to the mainly positive group were associated with greater accommodation challenges, work stress, home study challenges, negative emotional states and lower uptake of protective behaviours. Various recommendations are made to plan for and improve the experience of students studying under lockdown conditions for a future pandemic.

A tale of two degree-apprenticeships: Embedding work integrated learning degrees in the New Zealand vocational education environment

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While a recent addition to the current model of degree education in New Zealand, Higher or Degree apprenticeships have been part of the tertiary education landscape in the United Kingdom (UK) for almost a decade now. This has allowed time for systems and frameworks for developing and embedding degree apprenticeships to be put in place at both institution and government level. One such framework has been proposed by Bradley, Newhouse, and Mirza (2019), who identify five key strands that must be addressed to ensure implementing degree apprenticeships successfully: School and community liaison; Marketing and employer relationship development; Collaborative programme development; Developing institutional readiness; and Ongoing evaluation.

Government and vocational education institutions in New Zealand have been less prepared for the growth of work-based learning at degree level. In setting up the first degree apprenticeships in the country, we have had to draw on the experience of UK based institutions. This paper uses feedback sourced from industry, students, academic and administrative staff members as well as external reviewers to compare the development and institutionalisation of two New Zealand degree-apprenticeships, one in Engineering and the other in Occupational Therapy. In the evaluation of our own success (or lack thereof), we have drawn on the five strands outlined by Bradley et al.

Our findings show differences between the two degree apprenticeships in their approaches to community and employer engagement, with the Occupational Therapy degree development having a strong community reliance, while the Engineering degree development focused more on industry input. This has influenced our approach to market development. While the process used in setting up the Occupational Therapy Degree apprenticeship drew on the experience of the engineering one, common to both degrees has been the lack of both institutional and governmental readiness to adopt this model of learning at degree level, despite extensive management support within the institution and government. This issue, discussed further in the paper, is seen as critical to the future growth of degree apprenticeships in Aotearoa / New Zealand.

Are we prepared for assessing AI content?

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The surge of artificial intelligence tools for writing assistance is causing disruption to the learning of students for both simple and complex concepts. Students may rely on these tools to retrieve answers without putting in effort. Questions in assessments that require theoretical answers are more subject to the use of artificial intelligence tools, however the use of artificial intelligence tools varies by discipline and programme.

This study investigates the effectiveness of using artificial intelligence content in assessments of construction courses, using a qualitative research approach and content analysis. Three third-year courses were selected for which AI cases were high, focusing on essay-based assessments requiring long text answers. One task was selected which was frequently subject to AI content. ChatGPT 3.5 was used to retrieve the answers with simple assessment instructions to intense prompt-based instructions. The content was reviewed for relevancy by the respective lecturers. The AI content was checked for human-like intervention. The simple instruction version was also compared with the intense prompt version for similarity.

Preliminary results from a sample of 33 students suggest there is a negative correlation of -0.06 between similarity and AI content percentages. Variation in AI content percentage indicates the use of different questions for the same assessment. There is a significant difference between answers against simple instructions and prompt-based instructions from ChatGPT 3.5. In one case prompt-based instructions are not helpful to enhance the relevancy. There is significant similarity in the content despite using prompt-based instructions. However, prompt-based instructions helped in making the answer more human-like. More findings will be shared in the presentation.

This study revealed how AI tools could be used by students to answer theoretical-based questions. There is a need to enhance the comprehensibility and requirements clarity for instructions. Nevertheless, students need to demonstrate their capability to do their own research. AI tools are helpful to some extent but could not help in retrieving content from peer-reviewed sources.

The additional fee for infrastructure design services beyond the initially agreed scope of work

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Infrastructure services consultancies should deploy a large number of professionals to deliver all-in-one consultancy services for high-end projects. The scope of services and the fee structure are agreed upon in advance prior to start delivering services. A project with such a complex scope often results in the team delivering more than they have agreed to deliver, for several reasons. The key aim of this study is to examine the reasons for overworking and devise a strategy for claiming fees for additional work under the consultancy agreement, which will cover additional costs incurred by the infrastructure design consultant.

The case study examined one infrastructure design consultant's work in a coastal zone development project in terms of various services delivered, by professionals, within the scope of work and outside the scope of works. A comparison was made between the scope of works agreed and those actually performed. Detailed records were maintained for every employer's instruction to deliver additional pieces of work, along with the corresponding hours worked by every professional. Each employer's hours were multiplied by the charge out rate. A final fee claim is properly based on the consultancy terms agreed upon when signing the consultancy agreement.

Several more additional work packages were added to the scope of construction works, resulting in the delivery of more consultancy and supervision work than the agreed upon scope of work, and additional tender reviews, administration, support, and reporting were also required for these additional work packages. The study recommends how larger-level multi-service delivery consultants can manage revenue and work, in a highly complex and volatile market. This research aims to establish guidelines for how consultants should manage their workload, as well as understanding the relation between the scope of services and the utilization of their professionals' time, and to know that additional services can be charged if proper records are maintained at the start of the project.

Keywords: Consultancy Service delivery, Scope of Services, Professional Fees, Infrastructure Design Consultancy

Customer Satisfaction Enhancement Using AI-based Feedback Systems

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Convenience is crucial in the supermarket industry, and it is proliferating around the world. This extremely competitive industry depends on meeting targeted sales and profits, primarily based on the loyalty and satisfaction of customers. Consequently, identifying and comprehending customer satisfaction is important, and the deployment of effective mechanisms to understand expectations is a challenge. Artificial Intelligence (AI) is a growing area, and the objective of this research is to design a customer feedback service channel using an AI-based system. This research investigated and identified the current customer service feedback channels that are widely used in popular supermarket chains in New Zealand, and how far do these channels satisfy customers. A descriptive study approach was used to collect data based on qualitative and quantitative research methods. A two-stage sampling technique was employed to select participants, and quantitative data was collected using a self-administrated questionnaire. The qualitative data was collected through face-to-face interviews. Descriptive statistical analysis techniques such as central tendencies, proportions and correlation analysis were applied for quantitative data analysis. The information collected using the interviews was used to triangulate and verify the conclusions arrived through the descriptive analysis. Finding from this research include, among others: Customer Feedback Suggestion Channels (CFSCs) help provide information; easily accessible; but did not reduce waiting time; Customer Feedback Channels individualised attention to customers; and CFSCs to develop modern technologies to improve customer service. The research findings can be used to understand and recommend how supermarkets can employ AI for receiving, processing, and acting on customer feedback.

Skirting the issue: barriers to discussing the links between animal abuse and family violence in veterinary practice

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Family violence is a significant public health issue in New Zealand (NZ) which requires a collective commitment to address. Links between family violence and animal abuse are widely accepted and cases of family violence can present in the veterinary clinic as an abused animal. Veterinary professionals are well-placed to recognise the abuse of animals and respond to victims by offering support and referral to specialist agencies. To do this, they need the knowledge and confidence to discuss the links to family violence with clients. Currently, NZ veterinary professionals receive little to no education regarding links between animal abuse and family violence.

The aim of this study overall was to raise awareness of the links between animal abuse and family violence in the veterinary profession in Aotearoa. The study comprised two phases. Phase one (reported here) was an anonymous online survey of NZ veterinary professionals. The survey collected quantitative and qualitative information regarding knowledge and confidence in practice aspects of managing cases of animal abuse where links to family violence may apply. When a lack of confidence was indicated, participants were asked to comment on barriers to discussing family violence.

Qualitative data were thematically analysed, and four themes were identified as barriers to broaching the subject of family violence with clients in veterinary practice. ‘Lack of knowledge’ was identified as a significant barrier. ‘Professional boundaries” and legal concerns also caused concern. The third theme was “uncertainty”, with the participants worried about the consequences of making assumptions about cases of potential abuse. There was ‘fear of harm’ with veterinary professionals wary of causing further harm for victims, and fearful of the potential for violence towards themselves and their colleagues in the clinic.

The results informed the second phase of the study: the development and trial of a workshop for veterinary professionals to raise the issue of links between animal abuse and family violence and promote a helpful response. The trial was successful, and the workshop is currently rolling out across the motu.

The Impact of The Floor© Boardgame on the Clinical Decision-Making Skill and Prioritisation Knowledge of Nursing Students

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Globally, nurses make clinical decisions that affect the health of their clients. Clinical decision making is one of the fundamental skills that must be developed during baccalaureate nursing education. There is clearly a need to explore innovative teaching pedagogies to increase practice readiness of new graduate nurses. Thus, this paper aimed to determine the impact of gamification, specifically the boardgame The Floor© on the clinical decision-making skills and prioritisation knowledge of 60 third year nursing students in a tertiary institution in New Zealand. Using a post-test only control group design, recruited participants were assigned to either a control group or an experimental group where the experimental group will be exposed to the boardgame. The instrument included the following: Demographic information of the participants and the Clinical Decision Making in Nursing Scale (CDMNS) and 15-item multi-choice questionnaire ascertaining knowledge level on prioritisation. Data collection took place from February 2022 to August 2023. The results will highlight the impact of being exposed to the game on the perception of the nursing students in their clinical decision making and their ability to prioritise patients based on degree of urgency.

Developing Micro-credential content for teaching Māori Sustainable values using Building Information Modeling (BIM), Immersive Learning Theories and Culturally Sensitive Pedagogies

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The rapid integration of Virtual Reality (VR) technology in Architecture has primarily focused on BIM collaboration and design visualization. However, there remains unexplored potential within Architecture education. This research project aims to create immersive learning experiences by integrating Māori Sustainable practices and BIM technologies for students.

The project commences with an exploration of BIM's significance as an information exchange platform and a method for creating digital twins of buildings. Prominent buildings in New Zealand, developed in collaboration with Ngāi Tahu and local hapu Ngāi Tūāhuriri, serve as exemplars for teaching both BIM technologies and Māori Sustainable values.

The proposed methodology encompasses multiple phases, starting with planning and literature review on instructional design and content development. A pilot content will be created using an existing K-Block BIM model, incorporating Māori Sustainable Values data, and evaluating student engagement, learning outcomes, and retention. Data integration from the Christchurch City Council and other sources will facilitate the development of immersive learning content utilizing selected BIM models. A framework for best practices and technology integration in designing Micro Credentials (Immersive Learning Content) will be established. The final phase involves integrating the developed content into Ara's BIM program, incorporating course teaching plans and assessment criteria.

This project promises students a deeper understanding of Māori Sustainable values and cultural heritage while enhancing their BIM skills. The research outcomes will be disseminated through articles and conference presentations, contributing to the broader field of immersive learning and culturally sensitive pedagogies. By exploring new avenues of VR integration in architectural education, this study strives to enrich the learning experience and promote cultural awareness within the architectural community.

The Big Picture: Visual literacy in teaching & learning

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While identified as key 21st century skill, tertiary education is still lagging in terms of integrating visual literacy into academic culture and policy. According to the Association of College and Research Libraries (ACRL) framework (2011), visual literacy is the ability interpret, produce, and evaluate visual content. Applied in learning and teaching these skills enable a competent practitioner to:

• Select and/or create relevant graphics that support learning processes.

• Design robust and relevant visually led learning activities and assessments.

• Select and incorporate visual thinking tools and methods to support learning processes.

• Apply visual design principles to clearly communicate learning content and enhance engagement.

• Critically engage in the cultural and ethical issues in the use and sharing of visual media.

The aim of this research is to investigate kaiako knowledge of visual literacy as it applies to learning and ākonga capability building. As part of an ongoing research enquiry a national survey has been developed to collect quantitative and qualitative data to provide a current understanding and use of visual literacies in tertiary teaching practices across Te Pūkenga. The survey includes quantitative questions using numerically rated items, and qualitative strategies using open ended questions. Demographic data will assist in contextualising the responses, this also includes ethnicity and iwi and hapū affiliations.

The outcome of this study will help to identify where there are differences and/or gaps for kaiako in terms of professional learning needs, including cultural differences in learning and teaching techniques and strengths. The study will also inform and support a multimodal approach to learning and assessment. The overall goal is to help improve kaiako visual literacy, which will benefit learners, particularly priority learners who are often recognised as having strengths in visual-spatial skills. In this 15-minute presentation, the researcher will share the results of the survey and open the floor to discussion.

Environmental Rhetoric vs. Reality: The Impact of Political Connections on Greenwashing in Developing Economies

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Growing global pressure on firms to exhibit environmental responsibility has sparked significant interest. Regulatory pressure and stakeholder initiatives now thrive on building a greener economy and focus primarily on public companies even though private firms also impose substantial externalities on the environment. Moreover, firms with political ties may have greater government monitoring and compliance pressures. As a result, politically connected firms compelled to adopt environmental protection standards and reduce their environmental pollution in exchange for government support. However, analysing the impact of political connections on environmental performance is not straightforward as the political connections of firm owners may act as a double-edged sword for environmental matters. Therefore, it is imperative to investigate how government officials influence the environmental performance of private firms when they are also part of the firm. This study is a novel empirical inquiry into this matter, utilising the World Bank's 2019/2020 Enterprise Surveys data from 24 developing nations in Central Asia and Eastern Europe. Utilising the probit model and implementing extensive controls to mitigate potential endogeneity, our research uncovers a significant trend: privately-owned firms with political connections tend to exaggerate their environmental disclosure while displaying reduced commitment to implementation which mirrors the concept of greenwashing. This tendency is particularly pronounced in larger enterprises and is contingent upon the institutional quality of the respective countries. Notably, a more stringent regulatory environment corresponds to a decline in greenwashing tendencies within politically connected firms. Considering these findings, regulatory bodies should closely monitor politically connected firms to counteract the protective influence of political connections on environmentally harmful activities. Enhanced oversight and heightened scrutiny by regulatory authorities offer potential for reducing corporate greenwashing. Additionally, regulators should bolster the capacities of law enforcement agencies to mitigate the detrimental impact of informal systems, such as political connections, on corporate social responsibility.

Key words: Environmental disclosures, environmental performance, greenwashing, political connections, Central Asia and Eastern Europe

Lecturing for Neurodiversity: A Guide to Inclusive Teaching

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This presentation addresses some of the research from my Masters (MProPrac), where I interviewed 13 participants, learners, lecturers and support staff. Neurodiverse (ND) learners face a variety of challenges in the classroom. I will talk about how tertiary educators can create inclusive and supportive learning experiences that address these challenges and utilise and enhance the capabilities ND learners bring to their learning journey by using flexible methods, providing support, and collaborating.

My presentation will cover what lecturers can do:

- Awareness and understanding: be aware of ND learners' challenges and how these can manifest in the learning environment.
- Flexibility and adaptability: in their teaching methods to accommodate the different learning styles of ND learners.
- Support and resources: to help ND learners succeed in their studies.
- Collaboration between Lecturers, ND learners, and support staff to ensure ND learners succeed best.
- The presentation will address several practical strategies that lecturers can use to facilitate the success of neurodiverse learners. These include:
- Awareness and Understanding: Conduct awareness workshops and share experiences.
- Flexibility and Adaptability: Use various teaching methods and alternative assessments, give extra time and clear course structures.
- Support and Resources: Establish a support centre mentorship program create a resource hub and partnerships with external resources.
- Collaboration: Foster a culture of collaboration, create online platforms, and encourage communication.
- Feedback and Evaluation: Gather feedback from neurodiverse learners, assess support strategies, and celebrate successes.
- The presentation will conclude by addressing the challenges faced by ND learners and providing them with the necessary support lecturers can help them to succeed in their studies.

The significance of this presentation is that it provides practical guidance for lecturers on creating learning experiences that include ND learners.

The Culinary Koha Project: a Ringa Hora and Te Pūkenga collaborative project to rethink hospitality education.

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In March 2022, team members from Ringa Hora and Te Pūkenga came together to undertake a research project to explore the development of a new culinary qualification incorporating the new skill standards. The teams' kaupapa was to engage with the industry, seek their insights, and design a new qualification structure that embraced the diverse nature of the hospitality sector while also meeting the needs of ākonga. The project involved eighteen one-hour interviews conducted across the motu with individuals and teams from the hospitality industry. These interviews revealed that while the current technical-focused culinary qualification framework had some merits, its technical focus and Eurocentric lens did not meet the needs of many SMEs or the contemporary nature of Aotearoa, New Zealand cuisine. Most importantly, the insights gained from these interviews identified three distinct and pivotal areas that encapsulated the valued culinary skills and knowledge within the hospitality sector. These skill areas were:

- Technical skills (specialist culinary skills and knowledge)
- Systems/design thinking (sustainable and efficient ways of operating within hospitality workplaces)
- Interactions with people and place (professional skills that develop positive and effective team cultures and foster sustainable interactions with the environment)

From the insights derived from the industry sessions, a new level 3-7 qualification structure premised on the new skills standards, titled the kaupapa framework, was developed. This framework takes a holistic approach to professional practise, acknowledging that technical competency is only one facet of a professional’s skill set. This session presents an overview of the culinary kaupapa framework and examples of draft skill standards, and it will be of value to educators interested in holistic pedagogy.

Perceptions of Southland Businesses: Required Skills of Accounting Graduates and Accounting Project Needs

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The aim of the research is to determine current accounting practices, unmet needs, and the potential value that a student accounting project could deliver to Southland organisations. More specifically, to uncover valuable insights, which can be used to develop and deliver the ACCY7104 (Professional Accounting Project) paper for the newly unified Te Pūkenga Bachelor of Accounting.

Findings will ensure that the way the paper is offered and the connections between ākonga and the organisations have positive outcomes for both parties. The researchers believe that the only way to meet the needs of local organisations is by finding out directly from them what skills are important for future accountants, and how accounting projects and work experience placements could assist with developing these skills.

This research is an exploratory case study of participants who are the managers of Southland accountancy firms and Southland organisations with their own finance departments. The data collection method is an online questionnaire using a mix of Likert scale and open-ended questions.

It is expected that results will be consistent with the literature review regarding the importance of both technical competencies and soft skills. Gaps may be highlighted with respect to local industry needs and current graduate skills. Information will be gained regarding local organisations' commitment to, and availability of, accounting projects and work placements.

Participating organisations rely on tertiary providers to fill their vacancies with trainees and graduates. The findings of the research will be used to better understand the needs of these organisations, and how accounting projects and work placement opportunities can strengthen the relationship between tertiary providers and organisations. In turn, it is also expected to improve ākonga outcomes by connecting learners directly with organisations, and ensuring tertiary providers are developing the required skills.

Research Community of Practice Meetings

Research Communities of Practice across Te Pūkenga are networks that aim to build capacity, support, and opportunities for those engaged in research in a particular field.

The RCoP sessions at the symposium are intended to facilitate discussion and collaboration. Anyone interested in the field is encouraged to attend and contribute their perspectives. RCoP co-chairs or other nominated members will lead the meetings, moderating discussions between attendees.

As RCoPs are led collectively by their members, organisers and attendees are free to set the session style and direction. However, discussions typically cover some or all of the following areas:

1) **Introduction**: Briefly introduce the co-chairs / panel / organisers of the meeting and any current activities/projects of the RCoP.
2) **Research Aims and Focus**: Discuss the scope of the RCoP, and establish the current focus and objectives of the group.
3) **Membership**: How to ensure those working in the field across Te Pūkenga are aware of the RCoP and have opportunities to join and contribute.
4) **Development**: Activities the group might be interested in pursuing, for example developing a database of expertise, organising a Meet and Greet, conducting a 'horizon scan' for the field, or creating an action plan.
5) **Research Groups and Centres**: What clusters of research expertise already exist in ITPs across the network? What new clusters could be formed as Te Pūkenga unifies?
6) **Collaboration & Funding**: Are there current or future opportunities for collaborative research projects and/or joint funding applications that can be identified?

We also recommend that one attendee takes notes on attendance and on the discussion, for the benefit of those RCoP members not able to attend.

RCoP Meeting: Health & Wellbeing

Sally Baddock[A], Anita Jagroop-Dearing[B], Phil J Handcock[A]*

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The Health and Wellbeing Community of Practice offers a forum for interested staff to connect with like-minded researchers across Te Pūkenga. Everyone is welcome to attend. This meeting will focus on sharing research interests and insights, and finding potential collaborators. As a 'seed' for this session you are asked to consider a response to the following:

"Health and wellbeing research focuses too much on demonstrating efficacy and making a case for importance but neglects the pragmatism of how these findings translate into sustainable, accessible and flexible implementation".

RCoP Meeting: Business

Neeru Choudhary[A]*, Pii-Tuulia Nikula[B] & Indrapriya Kularatne[C]

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The Applied Business Research Community of Practice Series provides a platform for staff to network with other researchers across Te Pūkenga.

This meeting will focus on ongoing research across the sector, sharing research insights, and finding collaborators. We aim to promote the exchange of ideas between School of Business researchers across Te Pūkenga and help identify new collaborations and directions for research development.

Everyone is welcome!

RCoP Meeting: Construction & Infrastructure

Rehan Masood*, Priyanka Raina[B], Samanthi Menike[C], Sadegh Aliakbarlou[D], Milad Bistouni[E], Mazharuddin Syed Ahmed[F], Adam AJ Khan[F], David Finnie[A], Rizwan Ali[G], Nayani Landage[A], Omer Altaf[A], Imelda Piri[A], James Flanders[A] & Nick Wilson[A]

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This meeting will focus on research for 'construction and infrastructure' under construction management and quantity surveying programmes. This new group will explore the research opportunities for staff and students. The outcome of the meeting is not limited to critical research topics, avenues for collaboration, expert portfolios, possible funding sources, and industry engagement. An invitation email will be sent to staff involved in research and supervision that are employed at subsidiaries offering diploma, undergraduate and graduate diploma qualifications. In-person and online participation options will be considered. The outcome of the meeting will be shared with the heads of programmes and the National Ako Network Director.

RCoP Meeting: Scholarship of Teaching and Learning

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Established in 2022, the Scholarship of Teaching and Learning Research Community of Practice aims to build connections between kaimahi across Te Pūkenga. The group facilitates sharing best practice and research findings, and finding collaborators for pedagogical research. This meeting aims to further develop the group, identify new opportunities for collaboration, and discuss current issues in teaching and learning research. All are welcome.

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