BOOK OF ABSTRACTS

2021 ITP RESEARCH SYMPOSIUM
Resilience Aumangea
25th - 26th November

Open Polytechnic KURATINI TUWHERA · Whitireia NEW ZEALAND · WelTec Te Whare Wānanga o te Awakairangi

CO-HOSTED BY THE OPEN POLYTECHNIC OF NEW ZEALAND, WHITIREIA NEW ZEALAND & WELTEC

NATIONAL ITP RESEARCH SYMPOSIUM 2021

CONTENTS

DAY 1 AM (10:15AM-12:20PM) THURSDAY 25th NOVEMBER

DAY 1 PM (1PM-4:05PM) THURSDAY 25th NOVEMBER

CONTENTS

DAY 2 AM (10:15AM-12:20PM) FRIDAY 26th NOVEMBER

DAY 2 PM (1PM-3:05PM) FRIDAY 26th NOVEMBER

Same, same but different: An exploration of the lived experience of poverty in a rural district in Taranaki.

L.N. Pitt (Open Polytechnic)

This study was a qualitative inquiry exploring the experiences of people who live in poverty within a rural district in Taranaki.

Research question/Aims/Objective: The research questions of the overall study were:
•What is the experience of poverty like for those who live in rural communities?
•How do they cope with financial hardship and what impact does it have on their daily lives?
•What are the implications for social workers working in rural communities of poverty and how can they work with the rural poor in empowering and socially just ways?

Methodology: A qualitative inquiry with a standpoint feminist epistemology was used in this study. Twenty-eight people living in Stratford District who self-identified as being poor were interviewed (demographics will be in the presentation) with a semi-structured approach. Key informants in the community were also interviewed and a field work journal written as a process of critical reflection. The data analysis process incorporated both deduction, for the literature and theoretical positions underpinning the research (Critical theory and Feminism), and induction, drawing from the participants' lived experiences. Applied thematic analysis using NVivo structured the data analysis which resulted in 87 codes which were then clustered into four themes with twenty-three sub-themes.

Results: The four themes identified were 'making ends meet', 'relationships', 'rural issues' and 'oppression and violence'. Resilience was demonstrated in the way the participants coped with poverty. They used a range of approaches to deal with poverty, to make ends meet and maintain relationships. For participants in this research, poverty and living in a rural location intersected to affect their wellbeing and limit their opportunities. Poverty led to a sense of entrapment and powerlessness. Some participants talked about intimate partner violence within their family/whānau systems and patriarchal social structures impacted their lives. Participants had internalised oppression and experienced shame and stigma related to poverty, particularly in relation to their contact with WINZ. Structural violence was identified from the stories shared by participants and intersectionality was important in making sense of participants' experiences.

Conclusions/Implications: Poverty for rural participants in this study reflected findings of research in urban locations in Aotearoa New Zealand however there were significant differences in relation to transport, access and availability of services, isolation and the impact of hegemonic masculinity on the lives of participants. Geography, and in particular the notion of place, was important in how poverty impacted daily life for the study participants. For social work practitioners and social work educators there is a need for understanding poverty and the way in which poverty and living in rural areas intersect. There is also a need for further research about rural poverty, particularly from a Kaupapa Māori perspective.

This presentation will look specifically at the data in the theme, rural issues.

Navigating tensions in the secular workplace by Christians in the social services: Findings from a recent Aotearoa New Zealand study.

R. Talo & J. Domdom (WelTec)

As part of the 2020 general election, two referenda raised interesting ethical dilemmas concerning workplace practice in the social services sector and values held by practitioners who ascribed to the Christian faith. These sparked an inquiry concerning workplace and faith tensions in that although they are well noted in the literature there has been limited research carried out in Aotearoa New Zealand.

The research study presented here sought to canvass how Christian practitioners at the 'coalface' of work in the social services navigated ethical tensions within their workplace. Our qualitative study focused on in depth one-on-one interviews with 16 participants who identified as practicing Christians and were employed in a secular organisation that provided social services.

In our paper we present our findings from this research which can inform the research concerning faith, spirituality and religion in secular formal places of employment.

Covid-19 impact: International postgraduate health science and postgraduate nursing student stressed, but resilient.

A. J. Jagroop-Dearing, O. van Dum, C. Freeman & S. Shahid (EIT)

New Zealand was considered a shining example to the rest of the world in the way the Covid-19 outbreak was managed with nationwide lockdown systems, and closure of borders. However, the Covid-19 (Alert Level 4) lockdown that did occur had significant effects on New Zealanders and other populations in the country at that time.

This study focuses on, international postgraduate health science and nursing students at Eastern Institute of Technology (EIT). Students recently arrived had to New Zealand, separated from their families, and experiencing 'culture shock'. They were sent home to observe social distancing and adapt to online study. Identifying key challenges and cooping mechanisms offers insights for supporting international students at EIT and elsewhere.

Aim: To assess the impact of Covid-19 lockdown on international students enrolled in the Postgraduate Health Science and Postgraduate Nursing programmes at EIT. Methods: Participants completed a survey to ascertain their feelings, challenges, and coping techniques over this Covid-19 lockdown period. Perceived Stress Scale (PSS) was utilised.

Results: Forty-three students completed the survey, 88% female and 12% male. Countries of origin included Philippines, Sri Lanka, Nepal and Brazil. There was 91% of participants who left families in their home countries and 67% who worked in essential healthcare. PSS demonstrated how unpredictable, uncontrollable and overloaded students found their lives.

Scores range from 0-40, with higher values representing higher levels of perceived stress. The mean PSS score of 21.7 (7.1) was observed. There was 100% of participants who successfully passed their postgraduate programme of study.

Discussion: The mean PSS score in the present study, indicates a higher than optimal stress level when compared to other university students around the world over Covid-19 outbreak. Most stress was related being without families and work pressures as students were essential workers at hospitals, aged care facilities, and pharmacies. Students tried to balance postgraduate study with high-pressure jobs. Financial concerns, fear for family's health, feelings of hopelessness and uncertainty about studying online also contributed to stress. Despite challenging situations, students portrayed effective coping techniques like connecting with family abroad via social media. Students felt particularly supported by EIT in academic study, financial support and mental wellbeing.

The most significant outcome was succeeding in courses they undertook, with all students passing their postgraduate diplomas or masters programmes, demonstrating great resilience. Conclusion: Despite the seemingly negative experiences, with the right support from their education provider, families and friends, international postgraduate students demonstrated admirable resilience and adaptability during the Covid-19 lockdown. Thus, although they seemed stressed they demonstrated resilience.

Exploring the impact of promoting mental health, addictions, and intellectual disability nursing as a career to undergraduate nurses in their last year of study.

K. Owen & A. Rodigues (Whitireia)

Student willingness in, and interest in, working with mental health specialist roles is impacted by stigma and discrimination against people who experience mental distress and addictions. In addition, students have voiced their perceptions of specialist mental health nursing as a less favourable career choice and described experiences of care by nurses for people who experience mental distress and addictions as less important than general nursing (Happell et al, 2019; Owen, 2021). Opportunities to positively interact with people with lived experience of mental distress and exposure to positive stories of working with people with experience of mental distress have consistently been shown to lead to change in attitudes and an increased interest in mental health nursing (Happell et al, 2013; Happell et al, 2019; Hunter, 2015). In March 2021, the Bachelor of Nursing (BN) Programme hosted a hui/forum to facilitate positive interactions and make connection between year 3 undergraduate student nurses and industry partners, that included Whitireia graduates working in the mental health and addictions sector, the Service User Academic, and the postgraduate New Entry for Specialist practice in mental health teaching team and DHB partners. The initiative was supported by the Community of Practice for Mental Health and Addictions within the School of Health and Social Services.

The aim of the research was to evaluate the impact of promoting mental health, addictions, and intellectual disability as career to undergraduate nurses in their last year of study and examine how the promotion of information by Registered Nurses working in diverse clinical settings impacts on beginning nurses' decisions about to careers in mental health, addictions, and intellectual disability nursing.

All students who participated in the hui were invited to complete an online survey. The students were asked for feedback on the format of the hui and about how the hui influenced their choice of MHAIDS for their Preparation for Registration (PFR) Clinical Learning Experience and their decision regarding applying for Nurse Entry to Specialty Practice (mental health) (NESP) after graduation.

This presentation will focus the key themes that emerged from the data analysis relating to the both the process of the hui and the the impact of promoting mental health, addictions, and intellectual disability nursing as career to undergraduate nurses in their last year of study.

Early analysis of evaluative data suggests a positive impact of the initiative regarding altering negative stereotypes of nursing roles within MHAIDS and increasing the number of students who may consider specialising in these areas post-graduation. This opportunity provides students with the information and the confidence needed to make Mental Health, Addiction, and Intellectual Disability (MHAIDS) Nursing as a positive career choice upon completion of their nursing qualification.

A challenge – Simulation with large student cohorts: A solution – Pause, Consider, and Decide.

J. Rhodes (SIT)

Background
A continuing challenge for learning and teaching using simulation is working with large cohorts of students and maintaining the interest and engagement of the students who are observing the simulation as the audience. The development and implementation of Pause, Consider and Decide: Audience Led Simulation is based on 'choose your own adventure books', also known as 'pick a path' books. The audience decide the clinical interventions using the game-based platform Kahoot during the simulation at specific pause, consider and decide moments.

Objective
The objective of this study was to develop, implement, review, and evaluate Pause, Consider and Decide: Audience Led Simulation through a cyclical process.

Methodology and Methods
This research was guided by action research involving a series of continuous improvement phases. Data gathered from educators and students included observations and questionnaires, resulting in continuing reflective processes and improvements to Pause, Consider, and Decide, Audience Led Simulation.

Results
The positive results of this research offer a simulation method that is specifically designed for large cohorts of students, enabling increased engagement and promotion of active inclusion. The use of Pause, Consider and Decide: Audience Led Simulation promotes a shared responsibility for the interventions and outcomes for simulated patients. The flexibility of this simulation method is its usability with many different simulation modalities.

Conclusion
Pause, Consider and Decide is an approach that enables observers and participants active involvement in simulation-based teaching. This presentation offers you an opportunity to participate in a Pause, Consider and Decide: Audience Led Simulation, enabling you to consider using this in your education practice.

An unexpected journey: Exploring Chinese tertiary graduates' post study transitional experiences and migratory outcomes in New Zealand.

D. Xu (Whitireia & WelTec)

International students' post-academic movement in the host country is an under-researched area. This study investigates Chinese students' pre-arrival expectations and their transitional experience from students to permanent residents in New Zealand. Drawing on the data from eighteen semi-structured interviews, the study finds Chinese students' expectations have shifted and evolved during the process of seeking employment and adapting to the workplace culture in the host country. For those who have secured employment through different effective strategies and tactics, they have successfully adapted to the workplace culture. Some have attained the New Zealand residency through the study to work and work to residency pathways. However, there is a discrepancy in their expectations and experience manifest in visa constraints and exploitation by conational employers. Unmet expectations pushed some to return to China. These results provide some insights into the study of international students' post-study transitional experiences and challenges.

Keywords: Chinese tertiary graduates, expectations, post-study transition, acculturation, employment seeking, exploitation

Supporting learners' resilience through development of critical thinking skills- special challenges with the internalisation of higher education.

R. Richards & A. Kovalenko (Toi Ohomai)

In rapidly changing times, and in this complex COVID-19 era, our graduates' resilience may be reliant on their ability to be critical thinkers and reflective practitioners. Indeed, there are expectations that all higher education graduates have well developed critical thinking skills, and the graduate profile outcomes of many ITP Masters programmes include the ability to critically evaluate personal practice; critique challenges and issues within specialist fields and develop solutions to solve problems; critically evaluate existing research and work as reflective practitioners. These aspirations align with what employers might expect of tertiary graduates, such as the ability to make well-justified decisions (Anderson & Reid, 2013), as critical thinking (CT) is one of the main skills expected of Higher education graduates (Liu et al., 2014). This is why some authors consider these CT challenges as a problem to be resolved (Shaheen, 2016).

Yet, CT it is not an innate, but a learnt skill (Cottrell, 2017). When New Zealand children first start school, they are encouraged to value "innovation, inquiry, and curiosity, by thinking critically, creatively, and reflectively" (Ministry of Education, 2017, p. 10) and, although it is not overtly addressed, each learning domain includes focus on thinking critically. The ability to think critically and solve problems is the cornerstone of New Zealand's pride in "number-8 wire" innovation. In contrast, students from some South East Asian countries have limited exposure to CT in its Western form (Egege & Kutieleh, 2004). Nevertheless, in New Zealand ITPs, domestic and international students are expected to engage in critical discussions and demonstrate CT in assignments. As a result, many international students may underperform and experience stress and anxiety (Wu et al., 2015).

This presentation invites a critical reflection on the place of CT in tertiary education, the challenges associated with fostering CT among international students and the roles tertiary teachers might enact to facilitate CT development, through formative and summative assessment, teaching strategies, effective feedback, and critical discussions between students. It will briefly discuss concepts and theories associated with CT and draw upon specific examples from postgraduate studies, to illustrate challenges and possible solutions. Educators will be invited to reflect on and discuss issues associated with the development of adult learners' CT skills, and in particular those experienced by international students in New Zealand.

Te waka eke noa: Rising in the same tide: An evaluation of the impact of facilitated learning hubs on improved educational equity for learners in Te Tai Tokerau Northland.

T. Brian (North Tec)

Northland Polytechnic [NorthTec] is a tertiary education provider in Te Tai Tokerau Northland, with approximately 6,000 enrolled learners, and multiple campuses across a geographic area of 13,800 kilometres. In Te Tai Tokerau, the local economy is fragile with low GDP per capita, and higher rates of unemployment. Participation in tertiary education is seen as key to improving this situation. At NorthTec, 40% of learners are Māori, while approximately 60% are over 25 years of age, and may have been away from formal education for some time. Many already have extensive family and employment responsibilities, and often live in isolated, rural, or semi-rural communities. In 2015, a survey of 1,269 learners showed that the majority faced significant challenges to successfully completing their study. These included transport, finance, health, social roles, and relationships, and affected not only their access to study, but also their learning once they were enrolled.

In 2020, as a response to government policy imperatives and, in an attempt to address some of the existing barriers to educational access and participation, the nursing pathway at NorthTec piloted a new flexible delivery model. This consisted of largely self-directed online learning activities, supported by facilitated learning hubs. The pilot focused primarily on learners in the New Zealand Certificate in Career and Study Preparation [NZCSCP] programme at levels 3 and 4, studying in NorthTec Kerikeri and Kaitaia campuses. The hubs are seen as a means of providing regional learners with improved access to programmes and resources, within flexible and inclusive environments, and in a way that meets a range of diverse learning needs. They are located in dedicated physical spaces which, although originally traditional classrooms, have been redesigned to provide more learner focused environments. Features include flexible seating and workspaces, areas for eating and food preparation, portable audio-visual equipment, 24-hour secure access, and free access to Wi-Fi connections and laptops. Facilitators are available at allocated times, to support learning and provide pastoral care as required.

The purpose of this research was to evaluate the extent to which the learning hubs improved educational equity for NZCSCP learners. It focused specifically on the equity related issues of learner participation, effective use of technology, and the facilitation of inclusive learning environments.

The results showed that, although the learning hubs are a means of supporting educational equity and learner achievement within the Te Tai Tokerau, their continued success requires a planned and deliberate approach to programme delivery, and a continued rethinking of the use of technology alongside equity-based learning and teaching paradigms.

The role of non-verbal communication in asynchronous online talk channels.

J.Z.X. Koh & T. Hulbert (Open Polytechnic)

With the increased adoption of online learning, even more so due to the COVID-19 pandemic, online asynchronous discussions have become a mainstay of many online learning platforms. As teachers struggle to communicate and connect with students due to the forced transition online, we can better appreciate the differences between traditional nonverbal communication in a face-to-face environment and that of online nonverbal communication.

As digital literacy underpins the whole online learning experience and due to the fact that non-verbal communication (NVC) cues such as body language and paralanguage are not visibly present in asynchronous text-based online learning, this paper would like to present the relationship (if any) between electronic Nonverbal Communication (eNVC) and teaching/social presences and digital literacy, as well as its role on student motivation and engagement.

A correlational study was conducted using surveys to gather data from 88 Open Polytechnic Level 5 Business Area students. The data was analysed using a Pearson's correlation analysis. The study has found that there is a correlation between eNVC and the social/teaching presence and digital literacy in the asynchronous online discussions, with eNVC related to the teaching and social presences, but not to digital literacy. The relationship between eNVC and teaching presence is also stronger than that of the social presences. As for overall impact on motivation and engagement, eNVC from teaching presence has the most significant impact on motivation and engagement. However, that is not to say that the social presences of their peers and digital literacy had no impact on the students. If broken down by age bands, the impact of social presence on engagement tends to increase with age and the impact of digital literacy on engagement and engagement tends to be higher in the 20-29 year old age bands. This will help inform how teachers can 'teach' online and even influence how AI teachers could better respond to students.

Unpacking the term engagement and its application in the tertiary sector.

A. Ali (WelTec)

Terms such as engagement, participation, involvement, consultation, and the likes are frequently and alternately used in literature as well as the education and public sector organisations. What those terms really mean, are they different or the same, and how those terms can be applied in the tertiary education sector need some informed clarification.

The objective of this presentation is to share some answers from the public sector as International Association for Public Engagement and to discuss their applications in the tertiary sector. Particularly, this presentation will talk about the forms of engagement that can be applied for the programme development and improvement, as well as for the design of the course outlines, assignments, and class sessions. With the information sharing and discussion, it is expected that the presentation participants will be able to better know about those terms and apply them in a more meaningful way that can help improve the overall learner journey.

Lockdown- Can you escape: Transferring classroom educational escape rooms to virtual platforms.

J.I. Rhodes (SIT)

Background: Preparing students for chaotic and unpredictable health-care environments is arguably challenging. There is a need to create innovative and engaging teaching strategies that promote learning through teamwork, collaboration, and critical thinking. A NZ school of nursing introduced on-campus escape rooms as an educational tool in its undergraduate nursing programmes during 2018/2019. Students solved puzzles and completed activities collaboratively in groups, to 'escape' from a classroom before a set time limit was reached. Overall, the students found participating in these to be an effective learning experience due to the requirement for teamwork, collaboration and thinking critically while under time pressure along with being memorable, challenging, frustrating, and learning about self under pressure (Rhodes, 2020).

As a result, on-campus escape rooms were timetabled for 2020. However, with the rapid transfer to on-line learning secondary to the New Zealand government enforced lockdown due to Covid-19, it was necessary to redesign and transfer the educational escape rooms to an on-line format.

Aim: The aim of this study was to capture the perspectives of third-year undergraduate nursing students after participating in an on-line educational escape room created using Google Docs during the NZ Government enforced lockdown in 2020.

Methods: This mixed method study was guided by survey research methodology and captured data in three parts.

Part One: As students 'escaped' they were asked to submit a screen shot confirming their escape. Two qualitative questions asked: (1)   One thing they learnt and (2) One word to describe their experience.

Part Two: Students answered three quantitative questions that used a four-point Likert scale in relation to: (1) Thinking critically while under time pressure, (2) Collaboration, and (3) Contribution to learning.

Part Three: Students were asked an open-ended question to share their opinions regarding their experience.

The results were analysed in three parts, including, learning experience, Likert questions. The open-ended question responses were analysed used Braun and Clarke's (2006) thematic analysis tool.

Results: Overall, the students found the on-line escape room to be impacting, engaging, frustrating, and challenging while enabling them to think critically under pressure with fellow students virtually. Largely the students expressed that the on-line experience had provided a positive contribution to their learning.

Conclusion: The availability of the results from this study will guide future developments of escape rooms in on-line formats. Having the option of classroom and on-line educational escape room formats potentially will contribute to learning material for students as curricula evolves and increased accessibility to learning prospers. The successful transfer of educational escape rooms from classroom to on-line offers an opportunity to collaborate and share resourcing.

How Kiwi SMBs rose to the Covid challenge.

C. Curtin (WIT)

The COVID-19 pandemic presented New Zealand businesses with a scenario never before experienced. For some businesses the challenge was to ride out the period of shut down with the hope that there were sufficient cash reserves to cover fixed costs, and be ready to bounce back when life returned to normal; whatever that new normal might look like. For others, it was not enough to simply hunker down and ride out the storm of uncertainty; sitting precariously on the edge of viability, they had to re-think their fundamental business operations or market offering, or both.

Fast forward to 2021, and we now have narratives informing us of how numerous businesses responded in multifarious ways to the challenges that emerged both during and post lockdown. We are also in possession of several quarters of statistical data reporting on GDP, unemployment decline, and growth. With some of the surfacing data surprisingly favourable, it is suggestive that some of these diverse and varied responses may have contributed to the better than expected shape of the New Zealand economy. Astonishingly, GDP rebounded in September 2020 with a 14.0% increase. This unexpected quarterly growth in GDP is the strongest on record and shows that New Zealand had returned to pre COVID-19 levels of activity. (Statistics New Zealand, 2020)

The COVID-19 crisis has pushed businesses to the inflection point, a point where change must be in made in order to survive and possibly, maybe, maintain growth. For some, the change was as simple as adding online ordering and dispatch to their operations. For others, it required extending their customer reach or, more significantly, re-engineering their market offerings. For another group it required a re-thinking of purpose to include a community-conscious response. Which response served as the most successful is another area for investigation. What we can say is that each of these approaches tells us that for many New Zealand businesses, there was never an option of doing nothing.

This information presentation will build on these stories and others detailing the responses to the consequences of COVID that have proven successful for SMBs. It will include reference to what this may mean for teaching business and management in a vocational educational setting.

(this is a summary of an article I wrote and was published by NZ Management – https://nzbusiness.co.nz/article/how-kiwi-smbs-rose-covid-challenge) Full article with references is attached.)

Professional development in agedcare nursing: A case study.

B. Hannigan (NMIT)

The Covid-19 pandemic has created novel challenges for aged care nursing in terms of care for residents in terms of changes to processes and procedure within settings, management to control potential exposure to the virus, and greater restrictions on gatherings that include professional learning opportunities for nursing staff. This research focuses on professional development for nursing staff in Aged Care settings from the perspective of professional leaders in the Nelson Tasman region, gathering their experiences to explore this topic. The research question used to focus the study was: What are professional leaders' experiences of professional development management in aged health care services in Nelson? The subsequent sub-questions being: what challenges do professional leaders experience? And, what are the opportunities professional leaders see for more effective provision of professional learning? This study uses an inductive strategy to explore these questions, adopting a constructivist approach as the basis of the research philosophy.

Semi structured interviews with 6 aged care professional managers were conducted in April 2021. Convenience sampling was used to select the 6 participating organisations, of the 12 invitations sent only six agreed to participate. All organisations were medium sized aged care services in the Nelson Tasman region. Semi-structured interviews were selected because of their capacity to collect rich experiential data from the participants and the built in opportunity to explore answers with supplementary questions. Inductive thematic analysis was used to organise and interpret the data to construct findings that provide insight into the experiences of the participating professional leaders.

A key finding of this research was that performance management processes were used by all participants to identify and focus professional learning needs. Though there was variation in how effective professional leaders found that approach, all highlighted the importance of goal focused professional development. Shortage of time, resources, and lack of availability of targeted professional learning programmes were found to be significant barriers to the effective provision of professional learning and development programmes for nurses. Access to online learning platforms and having more time to carefully manage professional learning were two opportunities for development identified by professional leaders. This paper contributes to the literature on leadership and management in aged care settings by highlighting the experiences of a group of professional leaders in a small New Zealand city during the Covid 19 pandemic.

A systematic review of perspective taking within social exchange relationships.

G. Tuazon (Open Polytechnic)

This literature review aims to provide an extensive look at perspective–taking within the context of leader–member exchange theory. Utilizing a systematic review methodology, perspective–taking is discussed in relation to its conceptualization and measurement. This is followed by an overview of three core research themes within perspective–taking literature: (a) emotional reconfiguration, (b) cognitive reconstitution, and (c) social and organisational familiarization.

The first theme (emotional reconfiguration) addresses the emotional dimensions of perspective-taking while cognitive reconstitution points to perspective-taking as possessing heuristic and problem-solving components.

The last theme, social and organisational familiarization, refers to the role of communication on perspective-taking within the sphere of complex social systems.

These research themes are linked with arguments derived from Conservation of Resources and LMX theory to advance a framework of how perspective–taking may affect social exchange relationships and consequent team performance.

Me Too & Sexual Harassment: How are human resource teams in Aotearoa New Zealand public tertiary education sector responding?

M.E. Hawkins (Toi Ohomai)

#MeToo was a call to victims of sexual harassment to share their personal stories of victimisation, and millions of people worldwide responded. Sexual harassment is a form of harm that has been proven to be to detrimental to people's health, well-being and careers (Houle et al., 2011; Sojo et al., 2016; McLaughlin et al., 2017). This study explored how Human Resource (HR) professionals in the public tertiary education sector of Aotearoa New Zealand responded to this increased awareness of sexual harassment. HR has the unique responsibility of ensuring all employees and students work and study in a harassment free environment, yet the #MeToo response highlighted how challenging this undertaking actually is. The two key research questions in this study were 'Have human resources professionals, in the public tertiary education sector of Aotearoa New Zealand, seen #MeToo as a call to action?' and 'What do human resources professionals, in the public tertiary education sector of Aotearoa New Zealand, currently do to prevent sexual harassment?

The research methodology was a descriptive case study. Case study research is recommended when you are trying to answer 'why' or 'how' questions, regarding a current phenomenon or a contemporary set of events that the researcher has little control over (Yin, 2018). The #MeToo movement is a recent phenomenon that at the time of the research had only existed for three years. This research used a single case design, with multiple units of analysis that are embedded in the case (Yin, 2018). The case is the '#MeToo phenomenon', and the multiple units of analysis are 'human resources professionals working within the context of the public tertiary education sector in Aotearoa New Zealand'. The need to explore and understand this phenomenon (#MeToo) with real people in real organisations makes the use of a case study an ideal approach (Meyers, 2020).

Managing employee-based brand equity and firm performance in the hospitality industry: The role of employers' symbolic brand image and work environment.

Z.L.Wisker (WelTec & Whitireia), C-P Tan (EIT), O Abidi (Australian College of Kuwait) L.N.Tran (Pacific International Hotel Management School)

The hospitality industry is often pigeonholed as a low-waged and low-skill industry. Hence, it is not surprising that the employee retention rate for the industry is relatively low compared to other industries worldwide. The industry relies heavily on young employees, and young employees see a career in the hospitality industry as short-term, fuelled by the perception that the industry does not offer many career prospects. This study aims to understand the relationship between employer symbolic brand image and work environment on employee-based brand equity and organisation performance. Employer symbolic brand image is contributed by its competence and warmth towards the employees. Employee-based brand equity domains include employee's brand endorsement, consistent behaviour and retention. Drawing upon Equity and Field theories, this study hypothesises that employer symbolic brand image has positive effect on employee-based brand equity and organisation performance. It further hypothesises that work environment moderates the relationship between dependent and independent variables. The study has two sampling frames, senior managers to provide firm performance perception and cross-sectional employees to provide symbolic brand image, workplace environment and employee-based brand equity data. Ultimately, the study received usable 58 responses from the senior managers for sampling 1 and 221 from the employees for sampling 2. Data for the proposed model was analysed using SPSS– Macro PROCESS Model 58 (Hayes, 2018). The study has observed how an employer's symbolic brand positively affects employee-based brand equity and organisation performance. However, the effect of a moderating variable, work environment, is insignificant. The finding suggests that employer symbolic brand image is essential to influence employees' positive behaviour, retention rate, and overall performance.

Keywords: Employer symbolic brand image, employee-based brand equity, work environment, organisation performance, employee retention.

The career progression of migrant women into leadership positions in New Zealand.

Priyanka (EIT)

This paper examines migrant women's experiences of career progression into leadership roles in New Zealand. Hitherto, there is limited literature on understanding the challenges and barriers facing this group. Whilst many New Zealand businesses have policies and practices focusing on women, less has been done regarding migrant background. There are still notable gender disparities in leadership positions, and few migrant women are achieving leadership roles. To better understand why migrant women hold few managerial/ leadership positions in New Zealand, it is important to explore how gender, ethnicity, and immigrant background intersect and influence career progression. The research also explores the support migrant women perceive as useful in assisting them in their career progression.

In this study, intersectionality theory was used as a framework to examine the barriers migrant women from the Indian sub-continent face and the support they receive in attaining leadership positions in New Zealand. Primary data was collected using qualitative semi-structured interviews. In this study, a total of 10 migrant women from the Indian sub-continent, who currently hold managerial or leadership positions in New Zealand, were interviewed for an average of 40 minutes. QSR NVivo software was used to analyse and code the collected data, and themes were developed to understand participants' experiences. The findings show that most of the migrant women perceived disadvantage in terms of ethnic stereotyping. Moreover, migrant women's previous experience in their own country also played a role in determining the barriers in New Zealand. Most of the women participants originated from countries where gender plays a vital role in career progression, whereas in New Zealand, they did not experience the same level of male domination.

As a result, most of them did not feel gender was the main barrier to their career advancement, instead pointing to ethnicity as a key factor. The findings suggest that migrant women from the Indian sub-continent face several barriers, but the themes are around ethnicity. Themes around prior New Zealand experience, racism, visa and communication were most common. Strategies recommended by the migrant women from the Indian sub-continent included learning how to advocate for oneself as well as establishing relationships with mentors. The findings show that migrant women have received some support from their organisations. However, there is still a long way to go regarding employment policies and practices that support migrant women's career advancement, such as personal development plans, training workshops, flexible timings, and support networks & mentors. This study's findings will benefit policymakers to introduce new strategies to address these barriers. Furthermore, the research will contribute to literature as limited research is available on migrant women's career progression in New Zealand.

Mana motuhake, mana wahinetransforming the energy industry.

H. McCallum-Haire (Ngā wai ā te tūi Māori & Indigenous Research Centre, Unitec Institute of Technology)

With ever-increasing political pressure for Aotearoa to reach its carbon-neutrality commitment by 2050, the shift away from coal and gas to clean renewable energy, becomes more prominent. It is almost like a global arms race where the currency is zero carbon emissions. Mainstream western society is starting to embrace and appreciate an indigenous ethos which is about protecting our natural resources and living in synergy with our natural world. There are even new funding opportunities being announced that support innovation and propagation of renewable energy projects that are specifically for Māori and papakāinga.

Energy sovereignty is an opportunity to revitalise our indigenous community. It can reinforce and grow our āhi kā on our rural marae, where the paepae is sparse or is only plentiful during times of great sorrow, important hui or the rare occasion of celebration. If instituted appropriately, renewable energy projects can enhance and maintain our traditions, bring employment and offer pathways into sectors like electricity, engineering and water that are currently devoid of Māori as an employer (Te whare ohaoha, 2020).

These are industries that have a deficit of Māori capability, particularly wāhine Māori, which presents a unique opportunity for our people to collectively own energy assets, and gain access to high median income. By looking to our natural world, and symbiotically aligning some of the most cutting-edge technologies, whānau and hapū will have a plethora of options that could enable us to go completely off-grid. Imagine a marae, and a papakāinga that are completely powered by pūngao kōmaru (solar energy), pūngao hau (wind energy) or hiko-ā-awa (hydroelectricity).

The MBIE funded vision mātauranga placement project, 'Hihiko o Mangarautawhiri: Power sovereignty for a prosperous whānau and hapū', with Ngā Wai ā Te Tūī, has inspired this wahine to forge an alternative pathway for whānau to generate their own energy, and make their own decisions around how and when they use it. By learning kaupapa Māori research methodologies of purākau and Te Pā harakeke, mātauranga Māori is crucial to the re-design of an energy industry that will minimise harm to Te Taiao and will allow rangatahi to innovate technologies that are inspired by Papatūānuku.

This placement which ends in December 2021, has led to the pursuit of a masters and an international 'Women in Climate and Energy Fellowship'. 'Mā te hau matao o Tongariro ka makariri te tinana, mā te makariri te tinana, ka wiri te kiri, mā te wiri o te kiri ka piri te tangata, mā te piri o te tangata ka ora te iwi'. This whakatauki reflects the deep-rooted traditional cultural practices that guide the philosophical intentions of this kaupapa. It speaks of a united hapū representing agreement and a sense of purpose that will deliver positive outcomes. I extend the term 'hapū' to wāhine, who continue to guide, energise and grow whakaaro that places whānau at the heart of this energy revolution.

Māra Kai Project.

N. Wawatai (EIT) & R. Haerewa (HBCFCT)

The Māra Kai Project brings to life the traditional practices of maramataka and planting and harvesting kai to create opportunities for increased physical activity and cultural connection within our communities. There are many positive health outcomes associated with gardening, connecting with nature and connecting to knowledge systems which enhance our sense of belonging and feelings of identity.

The Māra Kai project was originally a sport performance programme, however on recognising there was no cultural component, and to better meet the needs of the school, the project was transformed to focus on health and wellbeing with Māori cultural knowledge at the forefront. It is currently being piloted with 30 tamariki aged 10, 11 and 12 years old from Wairoa College. They come from a number of different communities such as Wairoa, Nuhaka, Frasertown and Mahia, with the majority of the tamariki being Māori.

The project aims to enhance the following;

- Whakawhanaugatanga – tamariki and whānau working together
- Kaitiakitanga – tamariki understanding the importance of looking after the whenua (land)
- Manaakitanga – tamariki looking after each other, their whānau and wider community through supporting each other
- Mātauranga Māori- using traditional knowledge to inform behaviour and practice
- Self sufficency- skills to grow and access kai for their whānau
- Identity- nurturing tamariki to be proud of who they are

One of the challenges during the planning phase was how to evaluate the effectiveness of the project, as a traditional survey-type approach did not appropriately identify or reflect the values of the project. Therefore in mid-2021, a collaborative design process was initiated to explore culturally appropriate evaluative measures. After a series of wānanga the following factors were used to guide the design of the evaluative tool:

- Kotahitanga – working alongside the tamariki, including them in the evaluative process, rather than conducting evaluation 'on' them
- Whakamana – valuing the ideas, opinions and experiences of the tamariki
- Rangatiratanga – using our own tools, systems and ways of thinking to inform our practice

The approach was an inclusive approach which involved the participants defining what elements of the project meant to them in a wānanga style process.These elements then became indicators to measure the success of the project. The roll-out of the initial wānanga was successful and also provided valuable information to inform programme design.

This information presentation will provide an overview of the Māra Kai pilot project as well as the process of creating a culturally appropriate evaluation tool to measure the effectiveness of the project.

Te Akā Pūkaea: Modern Māori learning environment.

J. Lee-Morgan, R. Aperehama, J. Mane (Nga wai a te Tui, Unitec)

This kaupapa Maori project investigates the ways in a two Māori medium pathways (bil-lingual and immersion) work together in a newly build Flexible Learning Space (FLS) to progress te reo Māori and the aspirations of whanau. This two-year project is interested in how this 'space' is understood, and utilised by the teachers, students and whanau, between the two pathways, as well as in the wider English-medium primary school context. Funded by Teaching and Learning Research Initiative (TLRI), this purakau research project takes a strengths-based approach, and is based on the experiences of Te Aka Pukaea, Newton Central School.

Given the lack of research in this area, and the need to contribute to the two broad drivers of Māori language learning and MMLEs, this kaupapa Māori study is primarily concerned with understanding and contributing to the theories and pedagogies that have developed in Te Aka Pukaea to support Māori-medium pathways (this is new knowledge). We are less concerned with the measurement of language acquisition per se, but rather with the ways in which MMLEs are able to respond and fulfil the aspirations of Māori learners and their whānau.

In brief, Te Aka Pukaea, opened in 2018, is the new FLS that accommodates both the reo rumaki unit, Te Uru Karaka (established in 1997), and the bi-lingual unit, Te Awahou (established in 2005), at Newton Central School in central Auckland. Te Aka Pukaea is indicative of the growing interest and acceptance of te reo Māori in wider society. Te Aka Pukaea brings together two philosophical Māori medium teaching approaches in a FLS, and represents a new pathway for Māori-medium education in English-medium schools. Newton Central School recognises the unique opportunity to create a new pedagogy that honors and reflects Te Tiriti o Waitangi, mana whenua, ngā mātāwaka, and the diverse community of Newton Central.

While this project is still in year one, this presentation will include initial findings based on our literature review, and initial hui with our participants, our kura advisors and research advisors. This project will both capture the specificities of a pūrākau case-study in context, as well as provide success indicators that will be relevant to other modern learning education settings with who are looking to be more culturally-responsive to Māori. Furthermore, this work will contribute to the call from Stewart and Benade (2020) to 'spatial biculturalism' as we theorise space from a kaupapa Māori lens (from the inside out). Hence, the project is called 'Ko te Akā Pūkaea kia ita, ko te Akā Pūkaea kia eke!'.

Te Akā Pūkaea kia ita, ko te Te Akā Pūkaea kia eke.

J. Gallagher (Unitec)

This kaupapa Māori project investigates the ways that two Māori-medium pathways work together in a newly built Flexible Learning Space (FLS) to progress Te Reo Māori and the aspirations of whānau.

This study explores the notion of the Māori Modern Learning Environment (MMLE), and explores how this 'space' is understood and utilised by Maori teachers, students and whanau of the two Māori-medium pathways, and within the wider English-medium primary school context.

This pūrākau (case-study style project) takes a strengths-based approach, and is based on the experiences, pedagogies and the potential of Te Akā Pūkaea, Newton Central School.Given the lack of research in this area, and the need to contribute to the two broad drivers that contextualise this project (Māori language learning and MLEs), this kaupapa Māori study is primarily concerned with understanding and contributing to the theories and pedagogies that have developed in this MMLE to support Māori-medium pathways (this is new knowledge). We are less concerned with the measurement of language acquisition per se, but rather with the ways in which MMLEs are able to respond and fulfil the aspirations of Māori learners and their whānau.

While Māori language policy and planning issues are important in any language learning endeavour and will be a part of the research, they are not the key foci here. Rather, the three key objectives (identified in the next section) clarify the scope of this research. This project will both capture the specificities of the pūrākau case-study in context, as well as provide success indicators that will be relevant to other schools with MLEs who are looking to be more culturally-responsive to Māori. Such an approach does not aim to provide research generalisability as such, but seeks to portray and acknowledge the particularities of the case, conscious too of the expressions of tino rangatiratanga by whānau.

The intention is that the pūrākau will provide a case-study or exemplar for others to engage and determine the best approach for themselves in their specific context and circumstances. Furthermore, this work will contribute to the call from Stewart and Benade (2020) to 'spatial biculturalism' as we theorise space from a kaupapa Māori lens (from the inside out). Hence, the project is called 'A Māori Modern Learning Environment: Ko te Akā Pūkaea kia ita, ko te Akā Pūkaea kia eke!'.

Marae Ora, Kāinga Ora: A marae led approach to intergenerational sustainability.

J. Lee-Morgan, N. Eruera, K. Penetito & P. Newton (Ngā Wai a Te Tūi, Unitec)

Marae-led community development and wellbeing is at the heart of this research project known as Marae Ora, Kāinga Ora (MOKO). A three-year research project MOKO investigates the potential of five marae to strengthen their provision of kāinga in the contemporary urban context of South Auckland. Using a Kaupapa Māori approach to Community-Based Participatory Research (CBPR), this project explores the ancient Indigenous innovation of marae and kāinga to understand and co-create new culturally based initiatives to activate community development and wellbeing beyond the existing focus of marae-led housing interventions.

While marae are highly valued by Māori communities as being critical to cultural sustainability and are recognised by government agencies as important community providers, there is a dearth of research about how contemporary urban marae operate and about how they can work with, and for communities. This research aims to examine the potential of marae in future development of sustainable marae-led kāinga initiatives in and with their communities. These insights influencing opportunities to partner with external agencies and services to achieve greater outcomes and collaborative advantages for whānau and community wellbeing, alongside marae. MOKO is focused on the intergenerational sustainability of the knowledge systems and replenishment of resources inherent within marae, our natural environment and kāinga ora.

Enabling marae, communities and stakeholders to be an active part of developing the solutions and co-production of new knowledge and dissemination activities is critical for this kaupapa Maori research project to have maximum impact. Community participation is a prerequisite to understanding and enhancing community wellbeing and kāinga. In the MOKO project, the Marae Research Coordinators (nominated by the marae themselves) are pivotal members of the MOKO research team, and have become a strength and feature of the project.

When COVID-19 hit Aotearoa New Zealand forcing a national lockdown in February 2020, the MOKO research was already half way through the environmental scanning phase of the five marae and their surrounding communities of South Auckland. Through the engagement and visibility of the Marae Research Coordinators that enabled the MOKO project to capture the first-hand response and approaches to the needs of their whānau and local communities during lockdown.

This presentation will share insights to the resilience of the five marae throughout the adversity of COVID, showcasing the diversity of support provided to whānau in meeting the needs of their distinct communities. Further demonstrating the adaptability of marae and some of the sustainable solutions in enhancing the wellbeing of marae and kāinga.

Fuzzy random characterization of pore structure in frozen sandstone: Applying improved niche genetic algorithm.

J. Ge (WIT)

As a key objective in frozen geotechnical engineering, frozen rock, and soil masses are random, porous, and heterogeneous, featured by remarkable composition complexity, structural diversity, and extreme anisotropy. There is a multitude of experimental approaches in detecting pore structures of rocks and soils. Amongst them, low-field nuclear magnetic resonance (NMR) testing is a non-damaging and repeatable technology, known for its high effectiveness and reliability. Low-field NMR testing is based on the mechanism of nuclear magnetic resonance, and the NMR relaxation spectrum is acquired by measuring and inverting the relaxation signal. Its application relies on both NMR testing and algorithms applied to interpret testing data such as relaxation time and pore size measurement, and nowadays the latter seemingly raise more research interests for scientists and engineers from relevant sectors.

This study set forth explicating fuzzy and random properties that existed in low-field NMR T2 spectrum interpretation and pore structure observation. An innovative conversion method connecting the T2 spectrum to pore size distribution was generated, and a related conversion coefficient was introduced. Based on niche principle and fuzzy random method, an improved niche genetic algorithm (NGA) was proposed. Afterward, the fuzzy random inversion of the conversion coefficient was undertaken using improved NGA. It was in turn applied to couple T2 spectrum and pore size measurements in accordance with the mercury injection results from a set of pore aperture tests. Compared with the least square fitting method, this study provided a relatively accurate means of characterizing complicated pore structures in frozen rock and soil masses. In addition, the new model effectively overcame shortcomings of the traditional algorithms, such as low effectiveness, slow convergence, and weak controllability. Instead, it provided an effective strategy for parameter inversion in low-field NMR testing. Thereafter, based on the laboratory T2 test for frozen sandstone specimens, it was evident that the new model provided a better characterization of the pore structure. The result demonstrated that the conversion coefficient obtained through the improved algorithm indirectly considered the effect of surface relaxation duo to various pore scales existed, effectively reduced the contribution of coupling diffusion, and the pore characteristics achieved were more applicable and reliable in engineering practices than previous methods.

Earthquake shaking table.

C.R. Smart & G. Franco (WelTec)

Objectives: There were two objectives underlying the project. These included to design and build a table 1 metre square that can oscillate at earthquake frequencies, and to use the table to study mechanical vibrations at earthquake frequencies.

Methodology: Each student from MG7023 Vibration and seismic design for mechanical plant was asked to collaborate in building the shaking table and then use it to study a topic he nominated. One of the students was also enrolled in MG7101 Engineering development project where he studied a scaling rule by which a full-size structure could be scaled down to fit on the 1 metre square table so that it would exhibit the same modes and frequencies of shaking as the full-size structure. He built two portal frames connected with girts and purlins. This 7023/7101 student tested his frames on the table. Following suggestions from the first author, he discovered that the stiffness of the frames had to be reduced and the density increased to make the model exhibit the same frequencies as the full-size structure. A second student assembled a pair of 3-axis accelerometers and computer software which could simultaneously display accelerations of the table and test structure. Another student used his cell phone to record the decay of free vibrations and placed another cell phone in stopwatch mode in the video record. He used this data to calculate the damping coefficient for the table. A fourth student made base isolators of the Triple Pendulum™ type on a 3D printer. These devices had been seen defending a milk-drying plant, where only horizontal motions appeared to be isolated. With suitable mass loading he demonstrated a useful attenuation of the violence of the shaking. A final student used instrument isolators of the coiled wire cable Aeroflex™ type to demonstrate the protection of fragile electronic equipment against shock and vibration. This system worked in three dimensions (N-S, E-W, up-down) and attenuated the input motion. All students took acceleration records and put them into a commercial Fast Fourier Transform spreadsheet to extract the natural frequencies comprising the complex vibratory motion.

Results and conclusion: The table has been built and operated in free vibration and manually-excited forced vibration modes. Its value as a teaching tool has been demonstrated, evidenced by students from MG6038 *Strength of materials* 2 choosing to use it. One is studying the stepping piers of the South Rangitikei Railway Viaduct and the other staircase in a WelTec building. The scaling rule is being investigated further. The required increase density is easily achieved with blocks of lead but reducing the stiffness while retaining the prototypical appearance is more difficult.

Tutor Cameron Smart has experience in building and operating full-size earthquake test equipment, and Gelasio Franco is experienced in electronics and computer applications. WelTec technical and trades staff assisted in the project.

Building information modelling (BIM) research in New Zealand academia to promote the adoption of building information modelling in the New Zealand construction industry.

M.A. Rahman (Unitec)

28

Over the past decade, Building Information Modeling (BIM) has been a key interest to academia and the construction industry all over the world. There are many publications in different countries' academia to understand the benefits, challenges and to support the adoption of BIM in the local construction industry. Similarly, BIM has attained enormous attention in the New Zealand construction industry over the last 10 years. However, academic research to promote and support the New Zealand construction industry is still emerging.

This paper aims to identify and investigate the researches on BIM in New Zealand academia to understand the impact on the New Zealand construction industry BIM adoption. To do so, this research is going to conduct an extensive literature review to identify and analyze the researches conducted in New Zealand academia to promote BIM in the New Zealand construction industry.

This research is going to provide deep insights into BIM research in new Zealand academia and it could be considered baseline information for the academia and government to have effective strategies towards future BIM research.

Quick tips for using NVIVO to analyse text responses from an online survey tool: Microsoft forms.

P. S. Bidwell (Open Polytechnic)

Online survey forms are frequently used to gather quantitative data, using primarily closed-answer questions. Their use for exploratory qualitative research with the use of more open questions to encourage longer responses is an emerging area, but one that is likely to grow significantly. This presentation aims to show its potential. Mixed-methods research involves interpreting both quantitative and qualitative data and is often derived from a single study. This approach allows researchers to not only learn how many respondents hold a particular position but also to explore their reasons. The presentation will briefly consider whether an online survey tool is an appropriate choice to gather qualitative data and whether it meets the requirements of mixed-methods research.

The presentation will continue by demonstrating how text-based survey responses can be analysed qualitatively. The online survey tool Microsoft Forms is used to generate data, which is then imported and coded using a tool such as NVivo, a software programme used for both qualitative and mixed-methods research. The presentation will look at the best strategies to import Excel .xlsx files as well as tips for data analysis.

This presentation is suitable for current users of NVivo as well as those considering qualitative research and seeking viable online tools. Part I of this presentation is a comparison of two online tools: Microsoft Forms and SurveyMonkey for qualitative analysis.

Braun, V., Clarke, V., Boulton, E., Davey, L. & McEvoy, C. (2020). The online survey as a qualitative research tool, International Journal of Social Research Methodology, DOI: 10.1080/13645579.2020.1805550

Hand pump wells for water resilience after a disaster event.

I. B. Werellagama (WelTec) & G. De Costa (Open Polytechnic).

Objective of this study is enhancing civil defense water resilience in some areas of Wellington city, after a disaster event. The main water provider Wellington Water says: "Wellington's water supply network is vulnerable. After a significant earthquake many parts of our region may be without water for more than 100 days. Everyone has a role to play in being prepared." They recommend storing 20 litres/person/day, to use until emergency supplies are restored.

Data were obtained from GWRC, water utility (Wellington Water) and discussions with water industry officials in Wellington area.

While other zones in Wellington may have some sort of water supply restored, area South of airport (Miramar) may be without a water supply for up to one month.

This paper queries whether using hand pump wells is a supplementary method of water supply. The first settlers in Wellington used wells. What happened to those wells? Examining the archives of the Wellington council, these old wells can be identified. Some of these wells can be restored to their former glory, as historical landmarks.

Other option suggested is using hand-pump wells. They don't need external power, which is useful in a disaster situation. Among possible (lever operated) hand pump well designs, this research suggests using the model "India Mark II", world's most popular hand pump, used by millions. Designs are available. Being of Indian origin they can be procured at a low cost. If NZ (or Wellington councils) do not want to use Indian technology, same design can be improved and manufactured here, using more expensive parts including parts made of stainless steel.

Hand pump wells can be installed (e.g., in Miramar area), in public parks, within walking distance from homes. People can practice hand-pumping water when they visit the park. The water can flow to flower beds and grass swales, irrigating them. If water supply is disrupted after a disaster event, people can pump the water, sterilise it and use for drinking. Sterilising can be done on solar cookers, raising the temperature up to 65 ° C. A good international water resilience example is city of Yokohama in Japan, where people in every street practice pumping water (once a month) using hand pumps, from pre-built water storage reservoirs. Having practiced in normal days, the public can look after their water supply during a disaster.

Miramar area has few streams (now piped), ideal for locating wells. Regarding Water quality, well water can be easily treated to suit drinking water quality. At present, Wellington city uses 65 ML/day from Waterloo wells alone. This water quality very good. It is just supplied after chlorination.

To conclude, this paper quotes Wellington civil defense water supply situation (no water for more than one month in some zones) and proposes to install and use hand-pump wells (preferably India Mark II design) for drinking water supply. Hand pump location, operation and water quality aspects were discussed.

Research with a marginalised (hard to reach) population: Lessons from a study about poverty in a rural community

L.N. Pitt (Open Polytechnic)

The study was a qualitative inquiry using semi-structured interviewing with people who live in poverty within Stratford district in Taranaki.

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

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

Methodology: A qualitative inquiry underpinned by critical theory and feminism explored lived experience of poverty in a rural community. Twenty-eight people living in Stratford District who self-identified as being poor were interviewed utilizing a semi-structured approach. Key informants in the community were also interviewed and a field work journal written as a process of critical reflection. Photos were used in the presentation of the research to evoke in the reader a sense of place. Photos did not relate directly to participants but were of significant landmarks and landscapes. Applied thematic analysis using NVivo resulted in 87 codes which were then clustered into four themes with twenty-three sub-themes.

Results: The poster explores the way participants were engaged in the study, interviewed and responded to post interview. Participants in the research were marginalised due to their economic position and so every care was taken to protect their needs.

Intermediaries were used to contact participants which was an 'at arms length approach'. While this was useful it did not result in a large enough sample and so a snowball method was adopted. There were two other key aspects to engagement which proved useful, one was the use of incentives and the other was word of mouth reputation.

Power dynamics between researcher and participants was considered carefully and attended to, including consideration of clothing, the language used and the use of self-disclosure.

Conclusions/Implications: When researching marginalised populations extra care is needed, particularly consideration of power dynamics. Participants in this study appreciated the research incentive and it was a way they contributed to their households. Snowballing was a useful approach to recruitment as it resulted in higher trust from participants towards me as a researcher. As the study was underpinned by feminism and critical theory I was interested in raising awareness of the political nature of poverty and talked with participants about this. While this was intentional in terms of the theoretical process of the research it also made participants aware I was not judging them for their plight. A feminist approach for working with marginalised people was successful in terms of engaging with a marginalised community and the approach used with participants is relevant for social work practice, particularly the importance of compassion, intersectionality and consciousness raising.

Cross-Disciplinary communities of practice as a research guide mechanism

P. Crombie, C.J. Fraser, J.A. Honeyfield, C. de Monchy (Toi Ohomai)

As we progress toward a single, centralised institution, Te Pūkenga, the merging of our 16 polytechnics will impact every academic and administrative function as we currently know them, particularly with regard to the integration of teaching and support services teams. Retaining and combining good practice elements from each legacy organisation will ensure we emerge as one strong entity.

This poster outlines a recent research project in which we looked at how one institution's Research Office developed a Community of Practice (CoP) in order to provide a formal and transparent pathway to support the research proposal submission process. This CoP ensures applicants are supported through each stage of their research journey by providing a balanced membership of reviewers, a simple submission process, prompt and valuable feedback, the opportunity to mentor emerging researchers, or to be mentored.

With its inception in 2018, the remit of the CoP was around exploring ways to combine good practice elements of the two institutions/polytechnics which merged two years prior. It offered the opportunity to disrupt what was "business-as-usual", extract the procedures that were working and forge ahead to develop an environment which nurtures research, reduces the previous layers of form-completing and impersonal feedback and fosters a positive research environment for those required to engage.

Research involved informal conversations with CoP members and research applicants, the authors' observations and an extensive literature review. Conclusions drawn were that despite numerous challenges requiring ongoing, agile and sometimes pre-emptive response strategies, the Research Community of Practice has grown in strength, responsibility and value, delivering a higher than previously seen calibre of both staff and graduate student applications. This poster will identify the influences of the changing organisational culture and the resilience of those who strived to create a positive outcome in spite of a number of challenges.

Roles for implementation of a stable vocational structure in planned NZ ROVE context

J. Harrison (Otago Polytechnic)

This poster provides a view of the way in which a stable vocational structure described in an associated information presentation, by the same author, might be applied in the planned NZ ROVE context as is described in August 2021.

In particular, it illustrates the roles of existing ROVE parties in vocational provision and how the acquisition of knowledge, skills and their assessment may be undertaken in a customised learner journey. This involves integrated practice and progression through standard industry roles involving learner selected specialisation and review processes that are combined to produce a competent and capable practitioner at the point of qualification certification.

The poster forms a corollary to the presentation indicated above.

The crafting of Te Hihimā: A biculture metaphor for nursing education

S. Lyford (Toi Ohomai)

Change is constant for the nursing profession, in the world of health, and in societal expectations. Nursing education providers, too, must continuously revisit curricula to ensure our graduates are well-prepared for the workplace and their role in supporting communities' health and wellbeing. A significant aspect to this is assisting our learners to understand and embrace their responsibilities under Te Tiriti o Waitangi and to develop their own, authentic, bicultural framework for practice. One initiative our team has found highly effective has been the overarching metaphor Te Hihimā, a unique bi-cultural model of nursing education philosophy. The metaphor of a traditional Māori cloak or korowai has been used as a representation for a variety of health and educational frameworks in recent history in Aotearoa (e.g. the Ministry of Health's guideline for working with Māori and Whānau, He Korowai Oranga). Korowai Hihimā (cloaks woven from flax) are traditionally unadorned and plain but for the undyed hukahuka (tassels). In appearance hihimā are simplistic and humble, but require mastery to weave. They provide protection, shelter, warmth and waterproofing, and when worn, the natural fibres reflect the sunlight: hihimā literally means "rays of light".

This poster (and accompanying paper) will explain the journey of collaboration and cultural consultation as our nursing team developed conceptualised and crafted the Te Hihimā model. An account is provided of what various elements symbolise: the fibres, the weaving, the warp and weft threads, design sections and inner and outer parts. While the essence of this culturally significant garment respects traditional knowledge, we teach our students that the metaphorical weaving of their own individual Hihimā is representative of a personal development of knowledge, skills and attitudes as the student integrates theory with practice, and melds the art and science implicit within the profession of nursing. In today's rapidly evolving health environment nurses need to be resilient and to practice confidently and competently. Addressing equity and social justice, where the nurse employs practice methodologies that are politically informed, is an important professional role.

The Te Hihimā philosophical framework offers a visual reinforcement of bicultural understanding our nurses of the future can carry with them, beyond the classroom, and out into the world.

A longitudinal study resilience and wellbeing of staff from five institutions across Te Pūkenga network during the Covid-19 lockdown and subsequent lifting of restrictions.

P. McKelvie Sebileau (EIT), S. Baddock (Otago Polytechnic), E. Iosua (University of Otago), L. Smith (WelTec), L. Wu (Unitec), P. Anderson (WIT), S. Miller (Otago Polytechnic), G. Leonard (Otago Polytechnic), C. Haggerty (Whitireia), K. T Maihāroa (Otago Polytechnic), S. Brownie (WIT) & D. Leach (EIT)

The strict COVID-19 nationwide lockdown that began in March 2020 meant that staff from tertiary education institutions had to immediately adapt and move their teaching and professional activities online as well as maintaining social contact remotely. Our study prospectively explored the impact of the lockdown and restrictions on working life and personal wellbeing for staff at five Institutes of Technology and Polytechnics (ITPs) across the Te Pūkenga national network. Participants were invited to complete an online survey at five time points, corresponding to different alert levels and decreasing social restrictions, responding to questions about activities engaged in to maintain mental and physical wellbeing, as well as offering qualitative comment on the impact of the changes.

We will present the findings from 2250 responses collected from 1588 individuals over the five time points detailing: the types of activities that people engaged in to maintain mental and physical wellbeing and how this changed over time; the level of attention tertiary education institution staff gave to their wellbeing; their efforts for innovation and creativity during the lockdown periods; wellbeing over time as measured by the WHO5; and the Perceived Social Support Scale and how this changed over successive lockdowns.

These results will be complemented by qualitative comment on how staff from Te Pūkenga subsidiaries utilised innovative and creative ways to maintain wellbeing despite the requirements for considerable adjustments to their daily working and personal life. Preliminary results indicate that while efforts to adjust to daily life dropped off over time, so did attention to wellbeing and engagement in activities to maintain wellbeing (e.g. Walking, yoga, spiritual practices), which correlates with a decreased wellbeing over time.

This study has helped understand the longer term impact of social restrictions imposed during lockdown and subsequent alert levels on work and personal life of staff at tertiary education institutions. The findings will enable institutions to plan future responses to support staff in times of crisis. Learnings from this study have the potential to improve the work environment for staff, capture innovations and support their continuance, and improve staff wellbeing which ultimately will lead to enhancing the learner experience.

Affiliations: 1Eastern Institute of Technology, 2Otago Polytechnic, 3University of Otago, 4Whitireia/WelTec, 5Unitec Institute of Technology, 6Waikato Institute of Technology
Contact / Co-Presenters: PMcKelvie-Sebileau@eit.ac.nz; sally.baddock@op.ac.nz

How does participation in simulation-based interprofessional education (IPE) impact on ākonga (students') self-confidence and competence in interprofessional communication?

M. Gregan, S.J. le Page, B. Westenra, A. Price, R. Collet & L. Smith (Whitireia & WelTec)

Background

Interprofessional education (IPE) related to Health and Social Sciences is when two or more disciplines collaborate to maximise the potential for patient health outcomes. IPE also serve to lower health care costs and benefits the overall patient care 1. Currently, the Whitireia Community Polytechnic School of Health and Social Science does not offer IPE. It is posited that this results in a lack of confidence and competence for ākonga in their communication skills with the multi-disciplinary team (MDT).

Aims

The pilot study aims to explore if self-confidence and competence in ākonga was improved following an MDT simulation activity. The pilot study also examined the positives and negatives in relation to ākonga participation in an IPE activity. The research question was "how does participation in simulation-based IPE activity impact on students' self-confidence and competence in interprofessional communication? "

Methods

A mixed method research design was selected, comprising of a quantitative survey using a Likert scale3. The participants completed the same survey both pre and post simulation. We conducted two qualitative focus groups post simulation with one social work, two paramedicine, and two nursing ākonga per group. The second group only had one paramedic due to a lack of volunteers. Thematic analysis of the focus group data was undertaken based on Braun and Clarke's 2 six-step model; however, the quantitative data has yet to be analysed.

Initial results

Analysis of the qualitative data indicated ākonga satisfaction with the simulation activity; with benefits of self-awareness and a greater appreciation of the roles of the MDT. Ākonga reported having to handover the patient in a MDT setting as" scary," and appreciated the opportunity to practice this skill. They also suggest that IPE should occur earlier in their studies. Ākonga from all professions used the term" holistic health" and ākonga indicated that the paramedics used different terminology – which could be confusing. Ākonga advocated for their own professions and felt they communicated well with the patient (a mannequin). However, they indicated that the social worker and nurses' roles were lighter than the paramedic role in the IPE simulation activity. Ākonga gave suggestions for other scenarios, including mental health and aged care options.

Conclusion

Initial results indicate that ākonga suggest that IPE be implemented in the Health and Social Science papers that are offered at Whitireia Community Polytechnic. They wished to have this experience introduced earlier in their studies and commended the opportunities to learn with and from, each other.

The effects of a brief lifestyle intervention on health behaviour and weight loss maintenance in airline pilots during Covid-19.

D. Wilson (Toi Ohomai)

The aim of this study was to determine whether a 17-week three-component lifestyle intervention is effective in achieving and maintaining health behavior change and reducing bodyweight and blood pressure in overweight and obese airline pilots. A controlled experimental study was conducted amongst 72 airline pilots over a 12-month period following the onset of COVID-19.

The intervention group (n = 35) received a personalized sleep, dietary and physical activity program and the control group (n = 37) received no intervention. Outcome measures for sleep, fruit and vegetable intake, physical activity, and subjective health and objective measures bodyweight, blood pressure, and resting pulse were measured at timepoints; baseline, 4 months (post intervention), and 12 months follow up after intervention.

At 12 months, there was a significant Time x Group interaction for all objective health measures. The intervention group lost weight, decreased mean arterial blood pressure and resting pulse, whereas the control group significantly gained weight. Significant main effects for Time x Group were found for all subjective health measures at 4 months and 12 months.

The intervention group significantly improved in sleep duration, Pittsburgh Sleep Quality Index (PSQI) score, moderate-to-vigorous physical activity, fruit and vegetable intake, Short-Form-12v2 physical score, and Short-Form-12v2 mental score at 12 months.

The control group showed significant negative change for sleep duration, PSQI score, and Short-Form-12v2 mental score at 12 months. Results provide preliminary evidence that a healthy sleep, nutrition and physical activity intervention elicit improvements in subjective and objective health measures in pilots and may support quality of life during an unprecedented global pandemic.

We are all in this together: An exploration of the Covid-19 experience of first year nursing students at UCOL Mānāwatū Campus.

F. A Davenport (UCOL)

The overarching aim of this study: to explore how the students' experience of level four lockdown impacted upon their life, their pathway to successful learning and their future career in nursing.
The Research Question: As a first year nursing student, how the COVID-19 Level 4 lockdown impact you?

Methodology:
Data collection.
Student recruitment and data collection was managed by the UCOL Administration Team. The study information and consent form was sent to 50 students via Survey Monkey, December 2020-April 2021. 12 students consented to take part and completed the survey.

Data Analysis commenced in July 2021. We used thematic analysis. The survey data was analysed jointly. The data has been coded and themes identified.

Summary of Results:
At one level there were basic and fundamental needs during lockdown. The following were described as necessary to survive. These included the need for safety, both at home and in the financial sense, for connections and access to people and reliable internet. Daily routine and adequate quiet space to study were also viewed as important.

On the next level, in order to thrive, specific resources were required. Participants talked about "recognizing what I need and having what I need." This included clear, concise and prompt communication, time and contact with lecturers. There was recognition of the importance of on-line classes being recorded so that students could go back to these as suited them.
At more advanced levels were the development of internal resources as part of an on-line work ethic and becoming independent. Achievement at these levels led to the student's ability to strive. Here the student developed strengths in self-motivation, organization, the ability to find opportunities (adapt) and to seek help as required. The pre-requisites were being capable, prepared, focused and organized.

Principal Conclusion:
Students recognized and described how they grew and developed as they moved through fundamental needs to the higher order needs, from surviving to striving through COVID 19 level four lockdown. The results were that students developed an on-line work ethic and independence that were attributes that they would take on into their nursing career.

Relevance to nursing/education: in an unexpected situation where students are required to move suddenly from classroom to on-line learning they are able to adapt. Initially they rely on external resources and support in order to meet survival needs. As they grow and develop independence the students draw on strengths from within in order to self-manage. It is important that these strengths are nurtured by nurse leaders and educators. The strengths in self-management will be crucial resources in the toolbox for both thriving and striving in future nursing practice.

Teaching quality improvement in Nursing education: Changing thinking, changing practice.

J. A. Honeyfield (Toi Ohomai)

In 2017, a number of medical researchers published a challenge in the New Zealand Medical Journal, to improve Quality Improvement (QI) preparation and assessments in health professional education (Robb et al., 2017).

Our Bachelor of Nursing teaching team was delivering a recently re-developed partnership-based Quality Improvement (QI) paper, and so it seemed timely to investigate its efficacy and outcomes in the light of this professional critique. Researchers reviewed QI assessment projects completed by BN students (n=93), conducted focus groups to gauge their experiences and interviewed clinical managers and senior practice staff. By 2019, we were able to report broad outcomes related to increased confidence in students applying and using QI concepts and implementing practice change (Honeyfield et al., 2020). Given the large amount of data collected, we have continued to analyse contributions, using a detailed content analysis (Krippendorff, 1989), and this time, taking a learning and teaching perspective to uncover the shift in student thinking.

This presentation explains QI projects focused on patient outcomes (care improvement such as diabetes management, wound care, nutrition, falls risk assessment, patient monitoring) or standards and compliance improvement (infection prevention and control measures, management of equipment/resources, policy and procedures development), with a stronger monitoring, audit and compliance focus. Seven student QI projects addressed enhancing Te Ao Māori (Māori world view) including language activities through music and exercise, bilingual labelling, and culturally safe care for Māori residents. Key findings discussed will include challenges for QI engagement related to time, professional development needs, policy and practice improvements, and the need for updating practice procedures and resourcing. This research reinforces the importance of education–practice partnerships in effective QI education for preparing graduates to transition to new roles in the workplace.

A culture of innovation: Which factors shape how Kaiako use curriculum innovation?

J. M. Alderson, M. Narayan, F.L. McAlevey & S. Williams (Open Polytechnic)

This research is underway and will be completed by early 2022. The research aim is to explore how early childhood education kaiako use curriculum innovation. Key elements include the role of Kaiako relationships, self-belief, and contextual factors and how these factors shape curriculum innovation. This research seeks an understanding of how kaiako interactions with other kaiako, ākonga and whānau have affected their practice in relation to innovation.

The research data are being generated through two phases using a combined qualitative and quantitative methodology. In Phase One an online survey using mostly quantitative questions was sent to 2700 ECE settings. Phase Two involves a qualitative Multiple Case Study of 10 ECE centres with a geographical spread covering numerous North and South Island locations.

When teachers take innovation risks, they embrace change and show resilience. Early data findings suggest teachers' understandings of innovation are subjective based on their experiences with teaching teams and work environments. When teachers feel supported by their colleagues and centre leaders, they are more likely to engage in innovative and transformative practice. In contrast, contextual factors such as a lack of time, inadequate resources and a lack of professional development can limit opportunities for innovation. Early findings suggest that teachers' inspiration can drive innovation and create positive outcomes for children.

A sociocultural analysis of this research will continue to draw on Rogoff's three foci of analysis to interpret kaiako curriculum innovation on a personal level, an interpersonal level, and a contextual level. This research will offer numerous potential benefits both to ākonga, teaching teams and to kaiako beyond. Its primary benefit will be to enrich the knowledge and practices of those who teach within the sector and inspire more innovation in future practice. We recognise the need to be flexible and open to new ways of delivering education and we are interested in discovering how innovative teaching practices come into being. We would like our research on kaiako use of curriculum innovation to spark new thinking, new practices and new collaborations across Aotearoa educational sectors.

The functions of NZQA moderation of internal assessment: Perceptions of academic leaders.

A.H. Williams (Whitireia & WelTec), M.B. Johnston (Te Herenga Waka-Victoria University of Wellington), R. Averill (Te Herenga Waka- Victoria University of Wellington)

Education organisations in New Zealand that assess against nationally-registered standards must participate in national moderation (e.g., that conducted by the New Zealand Qualifications Authority, NZQA) to quality assure their assessment decisions. It is recognised internationally that moderation can serve improvement, accountability, and quality control purposes regarding the integrity of assessment practice and judgement and, thereby, public confidence in the qualifications.

Policy enactment in organisations has multiple influences, and policy enactment may differ from policy intent. People involved in policy work are one source of influence, as they interpret and translate policies for implementation in their organisations. However, little research has been done into the perspectives of those involved in moderation policy work within NZ organisations. This study set out to fill this gap.

In a pragmatic mixed-methods study, 215 academic leaders with responsibility for moderation in education organisations in New Zealand completed a bespoke online survey on their perceptions of moderation policy work in their organisations. The sample comprised 13 participants from Institutes of Technology and Polytechnics (ITPs), 128 from registered Private Training Enterprises (PTEs), and 74 from state and state-integrated secondary schools (21% of the overall target population). Data were collected during May–July 2014. Using exploratory factor analyses and deductive and semi-deductive qualitative analyses, we explored their understandings of the functions of NZQA moderation. We examined differences in views according to organisation type and correlations between different dimensions of leaders' understandings.

Academic leaders were found to consider the functions of NZQA moderation to be to check internal assessment quality, improve internal assessment quality, provide professional learning opportunities, for organisational quality assurance, and to maintain public confidence.

Across the three organisation types, academic leaders were found to hold largely similar views about NZQA moderation functions. However, compared with those from ITPs and Schools, PTE leaders considered NZQA moderation to place greater emphasis on organisational quality assurance, and to have broader improvement functions.

The study data were collected in 2014; however, to date, the NZQA moderation approach appears largely unchanged. Nor has more recent research been undertaken into these aspects in New Zealand, so the results of this study provide valuable insights not otherwise available. Thus, these findings could inform the policy work of education organisations and assist them to optimise the use made of opportunities afforded by moderation. The findings could also be useful for NZQA, to inform moderation communications messaging and improve cohesion between policy –intent and – enactment. Such uses could enhance the resilience of NZQA's moderation system, and by extension, the resilience of the education and qualification system that NZQA moderation supports. Despite the current educational reforms occurring in NZ, such uses remain relevant for education organisations and NZQA, irrespective of any changes that may be made to NZQA moderation policy.

Developing a project-based learning approach in a Bachelor of Sport and Exercise Science

L-A. Taylor, N. Wawatai, P. Lander (EIT)

Providing real world experiences is essential to develop interpersonal, technical and organizational skills for students to transition from study to be effective members of the workplace (Laur, 2013 & Ministry of Education 2019). Recently, Eastern Institute of Technology (EIT) Sport and Exercise tutors undertook to develop a new degree which would connect to our community, inspire our students and prepare them for our industry using project-based learning. This year, is the first year we will have offered all three levels of this project-based experience.

The degree aims to equip students with skills and knowledge required to work effectively with individuals, groups and communities, and to effect positive change to realise sport, recreation and exercise outcomes through the application of health and wellness knowledge. In line with contemporary industry requirements, the vision is that graduates will be work-ready and productive from day one. Being equipped to cope with uncertainty and disruption by thinking and acting independently, critically and creatively, this leads to the development of resilience within our students. Stakeholder engagement is scaffolded over the three years of the degree with small-scale defined projects at year one including exercise training individuals and groups and coaching and leading in local primary and intermediate schools. Students conduct stakeholder survey/s with individuals and within the school environment to create programs responding to the stakeholder needs using their theoretical knowledge gained from specific courses.

This progresses in year two through understanding research methodologies, conducting needs analyses with stakeholders using evaluative methodologies, developing programmes based on evidence-based research, and critiquing the effectiveness of these programmes. Learners also take on two slightly larger projects in year two – a health project within a Hawkes Bay organization, and sport performance project completed in groups.

The third year culminates in two larger projects, the first; Whakapakari, guides students to work with an organization to create an industry project, providing a legacy within an area of sport and exercise. Alongside this is Te Pou Hākinakina, our largest sport and exercise science project, in which the student works with an individual or team (stakeholder/s) and investigate a needs analysis across the areas of physiology, kinesiology, nutrition, psychology, and sociology. Working in collaboration with expert specialists and their stakeholder/s, the student then develops and delivers an intervention over a six-week period monitoring their progress, ending in an evaluation of the effectiveness of the project, a conference-style poster, and a self-reflection of their learning journey.

Through project-based learning, EIT students develop group management strategies and skills, establish individual and group communication abilities, build relationships to support the project delivery, expanding their practical skills. The ability to evaluate and reflect on actions and outcomes provides opportunities to further develop their practices. Significant practical skill development outside of the classroom occurs and an introduction to real-world situations puts students on the path to being industry-ready upon graduation (Laur, 2013 & Bell, 2010).

This presentation will explore the learnings from a student, staff and community perspective using this project-based learning approach to degree design and delivery.

Converting research to outputs in one week: The efficacy of writing retreats.

C.J. Fraser, M. Marsh, H.R. Hamerton & D. Picken (Toi Ohomai)

Academic teaching staff are beset by a host of demands and responsibilities in these challenging times – for many, the onus of demonstrating that they are 'research-active' and producing scholarly publications can come close to becoming the final straw. Sometimes resilience needs a bit of help!

This presentation will outline one possible solution that Toi Ohomai has found highly effective. Since the 2016 inauguration of Toi Ohomai, Research Office staff have been convening an annual, off-campus, week-long writers' retreat for staff. We have also recently added a second event specifically for Māori researchers. Objectives include: developing academic writing capability; achieving publications/research outputs; progressing theses/dissertations and mentoring new researchers.

Feedback from participants is generally enthusiastic; and anecdotally there appears to be a high rate of conversion of writing to publication. Further, the literature suggests that writing retreats offer additional benefits: coaching relationships, cross-disciplinary connections and collaborations, and a new/renewed engagement with research culture. Our research team decided that a more formal evaluation of retreat participant outcomes would be timely, and potentially allow us to promote this initiative to Te Pūkenga.

Using a mixed-method design, we reviewed survey feedback from the seven retreats held between 2017-2021 and verified research outputs registered with our institute's research management system. We then developed and piloted interview questions, and met with 12 past retreat attendees.

This presentation shares our emerging findings, including enablers and barriers to attendance and productivity, and suggested work-arounds. We believe that this approach to assisting staff to progress their publishing careers is easily transferable across other subsidiaries, and look forward to sharing some of our learnings with colleagues, managers, and the teaching and learning teams who support them.

The basis of a stable vocational qualification structure in the 21st Century.

J. Harrison (Otago Polytechnic)

This information paper describes how a stable vocational qualification structure in the 21st century can provide a lifelong framework of developmental pathways for a range of careers that are subject to increasingly rapid innovation and technical changes. The author has identified two main components that provide the basis of such stability from prior national qualification work in both the UK and New Zealand together with a significant developmental process framework identified in his recently completed PhD study.

Both of these components underpin the stability of generic employment roles that are familiar in generic disciplines in science, engineering, business, the arts and many other fields. One describes the practice whilst the other describes the process of developing and enhancing the practice. Such a structure is already implicit in many professional membership and vocational practice criteria but is disguised in contextual language and forms.

The use of such a system for a modern national qualification framework provides a sustainable, resilient and adaptive system for individuals, employers, education and training providers moving forward. An associated poster display has also been provided elsewhere.

An iteration of learning contributing to the integration of coaching in early childhood intervention in Aotearoa New Zealand.

H. Mataiti (Otago Polytechnic)

Professional and ethical standards require early childhood intervention (ECI) professionals to keep up to date with current evidence and to implement practices outlined in professional guidelines (for example, EIAANZ, 2019). However, adoption of any new practice can be challenging. For example, over the past decade, there has been an expectation that ECI professionals in Aotearoa New Zealand will use coaching as a way of working with families and other members of the ECI team (Ministry of Education, 2011), yet implementation of the practice has been limited.

This paper addresses this limited uptake of a practice and arises from a larger qualitative descriptive doctoral project that explored the integration of ECI coaching in the Aotearoa New Zealand. Semi structured interviews were carried out with 15 ECI professionals, and interview transcripts analysed thematically. An unanticipated finding showed how professional learning in routines-based early intervention and routines-based interviewing (McWilliam, 2010) contributed positively to ECI professionals' understandings about coaching and its application in practice. The professionals perceived connections between the two practices that were neither expected nor promoted and these increased their learning. These findings align with those of Timperley et al. (2007) who suggest different iterations of professional learning involving "thinking of alternatives" can support the uptake of new practices (p. xxvii).

Findings suggest there may be risk in relinquishing a practice which may support the uptake of another, if professionals closely associate the two. At a policy level, findings indicate a need for alignment between overall philosophy, practice, and service delivery approaches. There is also a need to develop guidelines which ensure programmes of learning in new practices are ongoing, and supported by appropriately skilled personnel.

Resilience in action: ITP early childhood student teacher experiences of hauora and wellbeing during their study.

M-L. Broadley, P. Bishop, A. Gibbons, C. Powell. K. Gould, R. Yu, R. Hopkins, J. Matapo, Y. Heta-Lensen, J. O'Hara Gregan (Open Polytechnic)

A student Teacher's Promise

<u>Student teacher to the child</u>

I promise you, I'll care for you
I promise I will listen,
I promise I will do my best,
Your journey fuels my mission

<u>Student teacher to self</u>

I promise you, I'll care for you but
I am struggling to listen.
When I promise I will do my best,
the pressure leaves me wishing.

My journey fuels a hope for change,
of balance and connection.
I promise to rise each day
resisting markers of regression.
The elusive fragments of burnout,
all the stressors and disconnection.
I promise I will give my best
My wellbeing may come second.

"Tomorrow will be better"
The promise of the profession.

– Jacoba Matapo

Research on tertiary student's wellbeing stresses the holistic understanding of students' experience. These experiences include the many relationships, practices, identities and cultures students engage with as students and through their specific programme of study (Riva et al., 2020). For each student, experiences of resilience occur within this complex system.

In our project Senses of hauora and wellbeing in early childhood initial teacher education we are concerned with better understanding the student teacher experiences of hauora and wellbeing. This study brings together researchers from Healthy Families Waitakere, Auckland University of Technology, Unitec Ltd, The University of Auckland, and Open Polytechnic of NZ Ltd, with a collective commitment to treasure and nurture student teachers now and in the future.

This presentation reports on phase one data from the research project. Phase one involved an online anonymous survey of early childhood student teachers, shared with initial teacher education providers around the nation, and on social media sites. Participants were asked to share their experiences of hauora and wellbeing whilst studying, including aspects of support, and of challenges. Initial findings, for discussion during this presentation, highlight the significant diversity in, and complexity of, student teacher experiences and perceptions.

Our discussion focusses on student teacher resilience and how ITPs understand and support a culture of collective resilience. We engage in unanswered questions in relation to the multifactual nature of resilience, the practice of coregulation as an early childhood community of learners and the ambiguity of the promise for the profession. We conclude with some implications for meeting the goals of the early learning action plan (Ministry of Education, 2019).

Insights into international students' and tertiary educators' experiences of student-centred education: Promoting adaptive resilience.

R. Richards (Toi Ohomai)

Over a relatively short time, New Zealand's ITP sector experienced rapid growth in international tertiary student populations. Indeed, prior to this COVID era, international education was New Zealand's fifth biggest export industry and second biggest service sector. These rapid changes have called for flexibility and adaptive resilience as ITPs and educators weather the storms of change in internationalisation of education. Unchanged is the New Zealand Education Strategy's (2018-2030) commitment to provide world class, responsive and student-centred education. As such educators are expected to develop learning-focused relationships that facilitate students' active participation in their learning processes. However, what counts as effective tertiary education may be in sharp contrast with international students' previous experiences and value sets. Not only may students experience stress in adjusting to New Zealand's educational systems, but teachers experience stress in trying to facilitate students' engagement. Understanding the ways in which students and educators experienced this phenomenon has been seen as essential for the sustainability of the internationalisation of education, and indeed the health, well-being and adaptive resilience of those studying and working in tertiary institutes.

In response to these issues, and during a recent time of large international intakes, research was undertaken to provide authentic insights into the challenges faced by on-campus international students (ISs) and their teachers. Based on narrative approaches and semi-structured interviews, qualitative research was undertaken over one-year with 12 international graduate and postgraduate students, and 10 teachers of international students. The researchers consciously framed their research approaches through bicultural lens as they used Māori values to guide their interactions with participants and the valuing of participants' stories of experience (kōrero). With a focus on student-centred education and active-learning, this presentation explores these kōrero, in terms of challenges and satisfactions expressed by international students, students' academic adjustment challenges as reported by lecturers, and lecturers' advice to those teaching international students.

Findings indicated that ISs had initial difficulties understanding what was expected of them in student-centred learning, and understanding NZ accents, which impacted confidence to talk with locals or lecturers. Personal factors also impacted ISs such as a sense of loss of dignity due to a low social status roles, especially in their employment; isolation and loneliness; finding jobs, and balancing work and studies. Lecturers experienced issues in terms of students' inability or unwillingness to participate in group-work and discussions. Assessments procedures were problematic when ISs were unfamiliar with assignment-based assessments and marking, had poor English writing skills and the authenticity of work was questionable. Lecturers suggested ways to support ISs' adjustments by building their self-confidence, having clear expectations, encouraging meaningful student interactions, having flexible teaching strategies, encouraging students to teach other students, setting relevant, interesting and early assessments that receive constructive feedback, and being respectful towards all students.

Together these insights will help to clarify the roles and responsibilities of tertiary educators and students in terms of fostering effective andragogical practices and culturally supportive environments for international students and their teachers. Having clearer insights into the nature of challenges and perspectives on student-centred learning may help to promote resilience for tertiary educations as we adapt our teaching approaches to meet the changing delivery requirements in this COVID19 era.

Reflections on Master's examinations.

K. Felden (NZ School of Acupuncture and Traditional Chinese Medicine)

In this presentation, reflections on examining master's research are discussed. More than 20 years of working with postgraduate students, supervisors, and examiners from different discipline areas contribute to these reflections.

Many institutions train supervisors with workshops, and/or as secondary supervisors using an informal apprenticeship model. In examining master's research across these tertiary education sectors, a complex array of issues has emerged that appear to be unrelated to the topic, but rather related to supervision style and reinforcement of skills learned in research methods and research proposal papers. As supervisory styles vary with individual academics, there appear to be some immutable factors. These factors include the ability of the supervisor to guide a master's student to complete a research project within the time limit, guide a student through the ethics requirements, provide directions for the structure of the research artifact, presentation style, referencing, and originality.

Some factors vary with an individual student's skill level. These factors include knowledge of the specific research method used, ability to conduct a literature review, ability to word the main research question correctly, scoping the research project appropriately, selecting and justifying the data gathering method, employing appropriate data analysis methods, ability to critique the results gained, and the ability to maintain flow through the final research artifact.

A master's student's final mark is not just a reflection on the student's skill level. The final mark is also a reflection on how well the student has been guided through the research process. While examiners bring a range of skills and marking abilities to the examination process, marking rubrics provided by institutions are there to guide the examiner through the process.

Issues that have arisen in most cases appear to be related to the research process, much more than to the research topic area. In some cases, knowledge of what students learn in prior research papers has not been presented in the final research artifact for examination. As an examiner, I always wonder if this is because the student has not retained this knowledge or is this because individual supervisors have not reinforced important elements of the research process. I also wonder about the worldview of the supervisor. If a supervisor is firmly entrenched in a post–positivist worldview, then attention to the research process receives less attention than the research topic. If the worldviews of student and supervisor are not aligned, this may lead to an unfortunate final grade.

Suggested solutions to make a more resilient examination process may depend on both feedback and feedforward loops that provide connections between taught research papers and supervisors, as well as feedback from examiners to institutions about issues that appear in the final research artifact to be examined.

Applying complexity approach to gamification training in the banking industry.

M. R.M. Sereno & A. Ang (SIT)

Background:
In recent years, the banking industry have to endure stiff competition by maintaining a high standard of professionalism among their workforces. Gamification has emerged as a solution to increase employee motivation and engagement in the banking industry. However, many companies view it with fear, due to the lack of scientific proof of its results and standardisation. This study seeks to discover gamified training outcomes in the banking sector, comparing with traditional training outcomes by applying complexity theory. Xi and Hamari (2019) found that gamification increases motivation through intrinsic need satisfaction: competence, relatedness, and autonomy.

Method:
 This study applies asymmetric analysis to advance theory in gamification training. The case-based asymmetric configurational approach builds on a non-linear and tenet of contrarian cases, which provide an in-depth investigation in a global empirical survey of banking employees (n = 388) in the Covid-19 era. The complexity theory in combination with configurational analysis (i.e., recipes) offers useful insights for explaining nuances in the causes and outcomes of condition (e.g., high versus low membership scores).

Findings:
The findings revealed that employees who have undergone gamified training report higher job satisfaction compared to traditional banking training. Although no significant difference was evidenced in the levels of engagement, competence and relatedness between gamified and non-gamified training, the characteristics (motivation and demographic) of employees are the determinant of the type of gamification

Implication:
This work contributes to the field of research on gamification, for companies in the banking industry and those that can benefit from gamified training, such as training and service companies.

Business & Accounting impact of Covid-19 and lessons learned in the professional work placement module

D.I. Silva (WIT)

The Professional Work Placement module is a compulsory part of Wintec's Centre for Business and Enterprise's (CBE) suite of Graduate Diploma offerings . Worth 15 credits, this semester-long module requires our tauira to complete a minimum 100 hours in work placement, with the rest of their learning made up by face-to-face classes and self-directed hours.

At the end of 2020, majority of the learners enrolled in CBE's GD programmes were international immigration-pathway students, largely from India. During the current year (2021), however, due to the impact of COVID-19 and change in the New Zealand Government's immigration policy settings, the composition of CBE's GD cohort has changed markedly and rapidly. This has created multiple pain-points in the teaching, learning and assessment spaces in the Work Placement module, which in turn has led to some experimentation.

This presentation focuses on: describing the cohort changes which have occurred in the GDs at CBE since 2019; detailing the adaptations made in the Work Placement module in 2021 to better align teaching and learning with this new cohort; as well as sharing the key lessons learned. Hopefully this presentation will help spark meaningful conversations across the Te Pukenga network and, thereby, help foster a community of sharing and best practice which better serves our tauira, kaiako and values and responds to our stakeholders..

An integrative approach to achieving work- life balance through developing baseline happiness.

I Peiris (Open Polytechnic), R. Ulluwishewa (Sri Jayawardenpura University) R. Joshi (Open Polytechnic)

Work-Life Balance (WLB) has received increasing attention from the management and employee representatives, government and the popular media due to its strategic importance in meeting stakeholder needs and sustaining competitive advantage (Wang & Barney, 2006).

WLB from an employee perspective is the maintenance of a balance between responsibilities at work and at home (De Cieri, Holmes, Abbott, & Pettit, 2005). However, maintaining a balance between personal well-being, work performance and well-being of others is perceived as something difficult to achieve, and ultimately affects the subjective wellbeing (happiness) of a person. Some people need to work long hours to earn enough money, while others may have to put in long hours as they have an enormous workload. Some may love their work and work long hours by themselves, while others feel that they need to work long hours to demonstrate their commitment to their work (Chandra, 2012). As such, when the demands of work hamper the personal well-being, work interferes with family life and vice versa (Crouter, 1984; Du, Derks, & Bakker, 2018).

The primary focus of the existing WLB literature is to show 'what happens' to WLB when subjective and objective variables are at play. This paper intends to theorise 'why' individuals behave in a certain way and how they could effectively manage WLB along with work-family demands and achieve sustained happiness. We assert that by using the theorisation of psychological distance in Construal Level Theory (CLT), hedonic adaptation theory and the Buddhist philosophy, it is possible to get a deeper understanding as to how temporal, emotional and behavioural demands are constructed and the effect of cognition in shaping our perceived situational awareness. We present a theoretical conceptualisation that, in order to achieve sustained WLB and happiness, one must have the desire to achieve WLB as a part of their life goal, they must understand the true nature of life events (i.e. they are impermanent). The baseline happiness is always present in us, it has no connection to material possessions. If the body is not in pain and the mind is not perturbed by positive or negative emotions, the neutral state of the mind brings the highest level of happiness one can achieve at the mundane level.

We posit that the answer to managing WLB lies in knowing two key things: situational awareness and baseline level of happiness. However, scholars have not yet explored the link between WLB, perceived situational awareness and subjective wellbeing. This paper intends to bridge this gap by offering a conceptual framework to explore this link.

Work from home and resilience among working parents during Covid-19.

S.S. Jain & N. Choudhary (Open Polytechnic)

Introduction:

To combat COVID-19, New Zealand government implemented a four-tiered Alert Level system in March 2020. New Zealand first moved to alert level 4 on March 25, 2020 (Unite against Covid-19, New Zealand, 2021). At this level, people were asked to stay at home within their bubble, workplaces were closed and people were encouraged to work from home (WFH) if possible. As a result, WFH was adopted on a large scale for the first time in response to a pandemic emergency. This study is focussed on understanding the WFH experiences of working parents and examining the aspects of resilience in the study sample during Covid-19 induced lockdown in New Zealand during March–April 2020.

Objectives of the Study:

1. To explore working parents' perceptions of the impact of WFH during the COVID-19 crisis on their:
  • Relationships with employer or colleagues, –
  • Work life balance,
  • Job performance,
  • Health and well-being, and

2. To what extent has COVID-19 crisis impacted working parents' personal views and intentions to carry on WFH in future?

Methodology:

Ten in-depth semi-structured interviews were undertaken with working parents drawn from sectors such as Banking, Education, and Professional services in Wellington region and analysed using a thematic analysis approach. Participants were selected using criterion/purposive sampling and snowball technique. Qualitative studies are well suited to explore the experience, meaning and perspective from the study of individuals/groups own viewpoint (Hammerberg et al, 2016). The interviews were recorded, transcribed and confirmed with participants before use. Data was analysed using NVivo software for qualitative analysis supplemented with manual analysis and resulted in emergence of key themes.

Results:

Connections and collaborations fostered through virtual tools The majority of participants' stated that virtual tools enabled them to connect and collaborate with colleagues from various branches. Other expressed the steep learning curve associated with using technology on this scale. Challenges of work-life balance amidst valuing working from home Work-life imbalance was reported by most respondents and working with children during lockdown WFH adversely affected performance and productivity. Many respondents though valued the benefits of less travel time, more time with family and flexibility in scheduling work hours. Appreciating and opting for flexibility of work from home Participants' acknowledged that pandemic induced WFH proved the capability of organizations to conduct work from home effectively. WFH provides flexibility to manage work and family, is gaining greater acceptance and being desired as an option. Hybrid working was reported largely as a preference to work in future. Interplay of factors nurturing resilience during a crisis situation Based on participants' responses, Fig. 1 presents six main factors that contributed to working parents' resilience in juggling work and family during the crisis.

Work from home and resilience among working parents during Covid-19.

S.S. Jain & N. Choudhary (Open Polytechnic)

Pg 2/2

Fig. 1: Working parents resilience through pandemic

Conclusion:

The findings of this study help to gain an insight into the perceptions of working parents while managing work and family life amid the pandemic. It confirms that WFH was WORKING PARENTS RESILIENCE THROUGH PANDEMIC EMPATHY AT WORKPLACE Supportive manager/team /colleagues WORK SET UP Right technology, sitting arrangements, place HEALTH Exercise/medit ation/yoga SOCIAL CONNECTIONS Nice neighbourhood /social media FLEXIBILITY Scheduling work hours to balance family and work TECHNOLOGY Virtual tools to connect with colleagues and supervisor effective in enabling business continuity facilitated by virtual tools. However, high level stress due to concerns from pandemic and work-family conflict was reported which had a negative impact on performance and productivity. The key implication for organisations is to be mindful of the unique needs and challenges that working parents face when doing WFH, and to nurture a culture of empathy while providing the right work set-up, including the use of virtual tools to connect and collaborate for WFH effectiveness. Organisations can learn from pandemic situation and should implement interventions that encourage resilience particularly for employees who have dependents at home because hybrid model, combining face-to-face and virtual practice is the new normal. In conclusion, WFH brings flexibility in managing work and family, however, more research is needed to determine how to overcome challenges such as decreased productivity, high level stress while working from home in the context of working parents.

Drivers of susceptibility to fraudulent behaviour with Hawke's Bay secondary schools: A model.

L. MacKenzie (EIT)

In New Zealand there are no mandated financial internal control policies or procedures for the New Zealand secondary school sector.

Therefore financial internal control practices within the New Zealand secondary education sector are at variance with the expectations of, and actual, practices within both the corporate sector and Government reporting entities (ie 'best practice'). This places secondary schools in the position of being highly susceptible to internal fraudulent financial behaviour.

This research study examines the efficacy of financial internal control procedures in several Hawke's Bay secondary schools to determine if the controls are sufficient to effectively safeguard the schools' financial resources and assets.

The research method is the comparative case method, with case studies designed to be embedded within the larger study of Financial Internal Controls within Hawke's Bay Secondary Schools. Extensive interviews were conducted with secondary school Principals and their respective school Bursars within the Hawke's Bay region, and documentary analysis undertaken. The selection of schools is purposive.

The research findings clearly indicate that appropriate financial internal control policies and procedures are lacking in Hawke's Bay secondary schools, and that there is an acceptance of behaviours that are risky, meaning the schools' financial assets and resources are not sufficiently safeguarded.

These findings have led to the development of a robust model: Model of Drivers of Susceptibility to Fraudulent Behaviours within Schools. The model illustrates how deflective behaviours, and inconsistencies between the Principal and Bursar in level and content of knowledge, lead to an outcome for risk. The end result is either implicit or explicit acceptance of risk by the Principal, and a vulnerability to fraudulent behaviour. It is this model which is presented and discussed.

School students' creative work of freedom of expression: Lessons for educators.

C. Bloomfield (Open Polytechnic)

New Zealand secondary school students enjoy a legal right to freedom of expression under the Bill of Rights Act 1990.

From time to time the tension between this right and certain aspects of school life attracts attention, usually when disputes about expectations of uniformity in students' dress and appearance erupt beyond the school gate. However, perhaps more problematic are occasions of censorship and even punishment of students' creative work in schools.

On one occasion a year 10 student's oblique reference to sexual arousal in a creative writing exercise resulted in a five-day stand-down, the maximum sanction available to the Principal whose decision was subsequently affirmed by the Board of Trustees. The student's essay was entirely in keeping with the set theme 'how does your body betray you?'. On another occasion, the media reported on topic restrictions imposed by a secondary school in a creative writing class: abortion and suicide were deemed unsuitable themes.

These incidents highlight the importance of considering students' rights to freedom of expression, particularly when undertaking creative work in fulfilment of a school's curriculum programme. What exactly are students' rights? Are there proper limits on the right to free expression? What powers do schools have to censor and punish student expression? How can schools balance students' rights with other competing yet worthy objectives?

New Zealand schools are not alone in having to negotiate these issues, which have arisen in other jurisdictions and been considered by courts, educators, academics, and rights advocates. This presentation traverses the issues, identifies the challenges for school leaders, draws lessons from experiences here and overseas, and outlines a rights-aware approach to students' creative expression in schools.

When are the locusts arriving?! Exploring resilience amidst chaotic events in the vocational education sector.

A. Bradley (Toi Ohomai)

The purpose of this study was to explore employee responses to multi-dimensional organisational change and disruptive events, in order to identify strategies for building individual and team resilience. In recent years, a recognition of the importance of organisational resilience in a dynamic, uncertain and competitive external environment has resulted in a number of studies such as Liu (2019), Masten (2002), and Shin, et al, (2012).

The experiences of employees in the vocational tertiary education sector provide a unique opportunity to examine responses to dramatic events and simultaneous organisational changes. Ten academic staff in three different organisations across Aotearoa New Zealand participated in semi-structured interviews about their experiences of organisational change amidst disruption caused by earthquakes, a terrorist attack and a global pandemic.

Results indicate that the availability of individual resources, coupled with cohesive team dynamics and trusting leader-follower relationships, were key factors influencing individual and team resilience.

Keywords: Resilience, Employee Wellbeing, Change Management, Team Cohesion

Evaluating the robustness of global diversified ETF-based investment portfolios.

A. Valle (Wintec)

Investing has been recognized as a way to generate wealth. Investors are particularly interested in chasing the short-term top performing asset while they, in fact, should concern with the robustness of their investment portfolios.

This article explores the importance of formulating and following an investment strategy with a portfolio that preserves your capital while seeks to provide relevant returns considering the actual exposition to risks. Investing strategies and asset allocation are topics analysed by both industry and academia. In the article, we evaluate three global diversified portfolios build with ETFs (exchange-traded funds) from the New Zealand Stock Exchange (NZX). Analysis of the last 5-years performance using historical data showed that the single Total World ETF has outperformed two other similar portfolios: an equal-weighted and a cap-weighted.

The attraction & retention of skilled employees in the digital industries in Hawke's Bay.

J. Narula (EIT)

This study examines skill development, skill retention and skill attraction in the digital sector in a regional community in New Zealand: Hawke's Bay. The digital sector in Hawke's Bay is characterised by a growing number of smaller firms that appear to be principally (but not exclusively) support services, rather than being focused on digital innovation and entrepreneurship.

The study examines three areas relating to digital skill; firstly, what motivates skilled people to stay in a regional community when the opportunity exists to move to a location with potentially better career projects; secondly, what motivates skilled people who leave a regional community to return; and thirdly, what motivates skilled people to move to a regional community. In the wider context, the study discusses the potential impact of these factors on the local labour pool.

Ko te Haruru o Rūamoko- the impact of the 22nd Feb 2011 earthquake on teaching and learning 10 years later.

C.K. Tukua (Ara Institute of Canterbury)

Māori Pedagogies are paramount to teaching and learning for the Indigenous peoples of Aotearoa. These were used during the recovery phase of the Feb 22nd Earthquake. This presentation will cover how these pedagogies were used and the impact these had on Māori kaiako and ākonga. The research was undertaken through interviewing Māori kaiako re-telling their stories 10years later.

The main conclusion was that Māori pedagogies provided strategies and skills to cope with the changing circumstances in a time of crises. A strength of this was that Mana whenua was established and from this safe and trusting environment Māori pedagogies were adapted to the situation and the ākonga flourished in their learning.

The research shows that under traumatic events Māori Pedagogies are very effective and create a whanau environment that supports the ākonga and allows learning on many levels. The pedagogies discussed in the interviews were whanaungatanga, manaakitanga, kotahitanga, aroha, whakapono and the concepts of Ako, Tuakana/Teina and Te Whare Tapawhā.

I mahi ngatahi tātou katoa, ahakoa ko wai.

Wāhi Maori: Spaces of aumenga/resilience in nurse education.

T.H. Narbey (Toi Ohomai)

The urgent task of improving Māori health outcomes cannot be tackled without addressing the need to increase the number and proportion of Māori in the health workforce, in particular nurses. Māori are significantly under-represented in the nursing workforce. According to the Māori Health Trends Report produced by the Ministry of Health to inform the Wai 2575 Health Services and Outcomes Kaupapa Inquiry (Wai 2575), Māori comprise approximately 7 per cent of nurses in Aotearoa. To address this, it is vital that more Māori are trained as health practitioners. About 75 per cent of all registered nurse graduates come from the ITP sector each year.Ensuring the success of Māori nursing students is, therefore, a key challenge for Te Pūkenga subsidiaries given their important contribution to nurse education.

This presentation reports findings of research that investigated perceptions of graduate Māori nurses about success factors. The principles of kaupapa Māori research and qualitative inquiry were used to navigate the lived experiences of the participants, and gain an accurate account of their stories.

A focus group method was chosen as it aligned with the concept of whānau. Members of the focus group, all wāhine Māori, were aged between 22 and 50. All were mothers studying full-time with the goal of becoming a registered nurse. They had belonged to a 'whānau group' while they studied together for three years.

Following the increasingly recognised method of pūrākau (stories), experiences were written in narrative form that safeguarded and preserved the mana (authority, power, control) and authenticity of the participants' lived experiences.

The research confirmed some of what was already known about factors that support and inhibit learning for Māori learners. In particular, it affirmed the importance of mātauranga Māori in the Bachelor of Nursing degree and the need for wāhi Māori, that is, spaces in which Māori learners learn as Māori. In these spaces, mātauranga Māori is validated and Māori nursing students develop resilience and determination to succeed with their mana intact. When the legitimacy of these spaces is acknowledged and valued, the learning journey for Māori learners becomes more meaningful and engaging. Wāhi Māori put the learner at the centre.

Te Pūkenga, Aotearoa's only tertiary education provider that delivers all types of Nursing Council-accredited programmes, is mandated in its Charter to reflect Māori-Crown partnerships to give effect to Te Tiriti o Waitangi through its teaching. The research provides valuable insights for Te Pūkenga as they work to reshape nurse education to ensure it is more learner-centric and reflects Māori-Crown partnerships. By drawing on the insights from this study, nursing education in Te Pūkenga can respond to the needs of and improve outcomes for Māori learners, whānau, hapū and iwi, and employers in the health care sector.

Marae ki te Kainga - The Resilience of Marae in the Transitional Housing Space

R. Tenana, W. Paul & I. Farnham (Unitec)

In Aotearoa New Zealand (NZ), housing is a basic human right. Nevertheless, the numbers of people experiencing homelessness have increased exponentially in the last ten years. Out of the 35 wealthiest countries in the OECD, NZ has the highest rates of homelessness.The NZ definition of homelessness includes rough sleeping, living in garages, tents, caravans, emergency accommodation, cars, and 'couch surfing'.

While many of those experiencing homelessness in Aotearoa are of Māori descent, most of the organisations delivering services to address the housing crisis operate from mainstream structures and processes. Despite having the best intentions, many of these services do not adequately address the cultural needs of homeless and vulnerable whānau Māori.

This paper seeks to present the post occupancy experiences of whānau who have navigated through the Manaaki Tangata e Rua (MTeR) a transitional housing programme located at Te Puea Memorial Marae (TPMM). When whānau have been rehomed back into a community, the MTeR team continue to support whānau in their new homes until rangatiratanga and whānau agency has been fully restored. The housing retention rate of whānau post their time at Te Puea is high.

The MTeR programme is run by Marae whānau, some of their members are also experienced social workers. The tikanga of TPMM support whānau back to a place of safety, healing, and wholeness. Whakawhanaungatanga, manaakitanga, āhurutanga, tika, pono, and aroha are foundational values used to restore whānau rangatiratanga. The Marae whānau demonstrate these values, and over time, these cultural reminders and teachings begin to change the outlook of each whānau. While housing problems are addressed, guidance and healing are built through high trust relationships whānau establish with the TPMM people.

Through this process, the reclamation of culture becomes emancipatory, and sustainability of whānau oranga is actualised. The MTeR programme is one of the most successful transitional housing services to rehome whānau back into urban communities. The critical point of difference is not only the approach being kaupapa Māori, but that the work is located within the strongest cultural bastions that is marae. A kaupapa Māori methodology underpins this research, qualitative data is analysed through a Māori lens sharing the perspectives and experiences of resilient whānau in long term housing after experiencing homelessness. While homelessness is the main issue identified when assessing each whānau, other complex and interwoven factors impact on overall whānau wellbeing.

The MTeR service at Te Puea Memorial Marae affirms that a marae-based approach to address the national housing crisis is culturally affirming for whānau Māori and should continue to be part of NZ housing solutions.

Whakatupua te rito: Improving the experiences of postgraduate tauira Māori within vocational education.

C. Mitchell (Unitec)

As Richardson et al. (2018) point out, Māori students generally do not attain the same levels of tertiary success as Pākehā New Zealanders across all levels of higher education including postgraduate study. Ministry of Education (2017) figures show that despite similar levels of participation, the achievement of Māori system-wide is not equivalent to that of non-Māori, highlighting persistent educational inequities within Aotearoa New Zealand. As the Ministry of Education (2017) acknowledges "a significant proportion of Māori are not seeing the benefits of education at all levels – in early learning, schooling and tertiary education" (p. 19).

In recent times researchers have turned their attention to Māori within tertiary education and there is now a growing body of literature which explores the experiences of Māori learners within the higher education landscape. Chauvel and Rean (2012) in their assessment of this scholarship maintain, however, that the prevailing focus of the literature is on school to university transitions with a particular focus on the university environment. As they suggest "there is little information available in recent literature about the contribution of TEOs (tertiary education organisations) to the advancement of Māori research and knowledge as well as approaches that have worked well to successfully engage learners at higher levels of study" (p. 71-72).

The research we share in this presentation is intended to respond to this gap in the knowledge and we present the preliminary results of a kaupapa Māori study intended to provide greater understanding of the experiences of postgraduate tauira Māori students within the vocational educational sector. From our small-scale study we will focus on identifying the challenges faced by these students and explore critical success factors. We will also seek to share insights from academic staff who work with tauira Māori undertaking thesis work to identify how pedagogical approaches can be strengthened in this area.

In combination, we aim to share insights from which to improve the postgraduate learning experiences of tauira Māori and, in doing so, identify ways in which we can enhance the resilience of these students within the vocational education context. As such we believe our findings have the potential to contribute to the development of across institution postgraduate provision for Māori students in Te Pūkenga going forward.

The path of Ifoga.

A. Poasa (Taeaomanino Trust) & J. Domdom (WelTec)

With an increasing awareness on the socio-economic issues faced by the Pacific communities in New Zealand, there is a growing attention given to provision of solutions to issues. While there are historical problems that persist such as poor health outcomes, underachievement in education, poor housing conditions, alcohol and drugs misuse and the consequent mental health issues that have direct negative impact on families and communities, there is an increasing evidence on various initiatives, many of which come from the communities themselves, that address these social issues for Pacific peoples. Evidence from this research adds to the body of knowledge that focuses on culturally responsive interventions for alcohol and drugs misuse specifically amongst Samoan and Pacific communities in New Zealand.

The aim of this study was to explore conceptual considerations and practical application of the principles, the practice and the processes of the Samoan practice of ifoga on recovery intervention from alcohol and drugs misuse amongst the Samoan and Pacific communities. The ifoga is described as an an act of public apology and display of remorse for a serious offense. Rendered by the offenders' family to the victim and their family, the ifoga is aimed at restoring harmonious relationships between families, thus avoiding further escalation of violence within the community. The offenders' family, placing themselves at the disposal of the victim's family to accept or reject their ifoga, position themselves in a vulnerable state to avert further rift caused by the offense.

Qualitative case study research design, underpinned by constructivism, was used in this study, allowing for the necessity of a subjective meaning construction that focuses on pluralism and determination of multiple viewpoints. Under study is the ifoga, its principles, its practice and processes which are critically analysed against the increasing alcohol and drugs misuse within the Samoan and Pacific communities. Evidence was gathered from publicly available data sources which include relevant literature, a film, a written interpretation of an art work and two video clips on ifoga. Using critical, textual and thematic analyses revealed the concepts of aiga, faith or religious beliefs, culture, and on occasions of grievous offences a formal apology, as the emergent themes from the findings which formed as the constructed meaning from this praxis research.

From these key concepts, a Samoan recovery framework, Lole o le Ola, has been developed. The culturally responsive framework is a potential tool or approach to recovery intervention from alcohol and drugs misuse based on the ifoga principles of aiga, faith and religious belief, culture, and where applicable formal or public apology.

PolyActive Pacific community based initiative.

L-A. Taylor, N. Wawatai, A. Fomai & V. Malaitai (EIT)

Healthy, vibrant Pacific communities are characterised by family and culture as well as spiritual, physical mental and other domains (Pulotu-Endemann, 2001), While New Zealand has begun to invest in culturally specific strategies, for example Ala Mo'ui: Pathways to Pacific Health and Wellbeing 2014–2018 and Ola Manuia: Pacific Health and Wellbeing Action Plan 2020–2025, community facing programmes are required to provide a Pacific specific approach to community desires and needs.

PolyActive is a community-based initiative delivered in Flaxmere, Hastings with the purpose of building a thriving, resilient and healthy Pacific community in Hawkes Bay. Alongside this PolyActive is raising awareness, sharing education and championing health and wellness as a partnership with the people – "Fa'ataua tagata uma" (Reach the one. Save the one). The values of PolyActive are fa'atuatua (faith), aiga (family), aganu'u (culture), 'au'auna atu (service), fa'amamanaina (empower). These form the foundation of the creation of each activity within the program.

PolyActive began in April 2021 as a response to a community desire for free exercise classes in Flaxmere. A galuega tautua fa'atasi (collaboration) begun between Ausage Fomai, Viliamu and Sharon Malatai and Cilla Tuala-fata to create a unique Pacific approach, Pasefika mō Pasefika (by Pacific for Pacific). The program uses exercise as a vehicle of engaging the Pacific community. In the short time that PolyActive has been in the Flaxmere community the growth has been tremendous with an increase in participation of over 300%. Currently there are 14 activities offered during the week of up to 45 plus Pacific people, taking place in community facilities or at the local church. Participation involves the wider aiga with infants at activities and ages ranging upwards of 65 year plus.

PolyActive is engaging in a collaborative research approach with Eastern Institute of Technology (EIT) to determine the effectiveness of "Fa'ataua tagata uma" (Reach the one. Save the one). An intervention such as PolyActive has the potential to influence health and well-being in the community, therefore measuring the health outcomes, from a Pacific lens, will be the focus of the initial research. This presentation will provide an insight into the Pacific approach taken by PolyActive.

Writing the story: Rewriting facilitation.

G. R. Ker (Otago Polytechnic)

For too long teachers have paid lip service to facilitation of learning as an effective pedagogy, continuing with the didactic teaching models that have characterised formal education for decades.

If we are to really empower learners through an experiential learning approach (in work or on campus) then we must take a fresh look at facilitation. It is not just a training technique but an extraordinarily powerful process for developing the reflective capabilities of learners and enabling them to draw out all the learning they have experienced – whether they realised it or not.

In this presentation Glenys Ker will examine a research-based model for facilitation that is practised at Capable NZ (Otago Polytechnic) and which consistently transforms lives. The model, applied in the Independent Learning Pathway approach to degree acquisition, underscores the critical role of the facilitator in ensuring a powerful learning experience and is underpinned by four elements at the centre of the facilitation process: "fit", relationship, skills knowledge and attitudes, learners first. These elements are reported by learners and facilitators alike as key aspects contributing to successful completion of the learning process.

This model facilitates equity for second chance learners and develops social capital so that individuals can achieve work and life outcomes, regardless of their circumstances. Personal and professional learning are woven together into a holistic account of the learner's reflections on their experiences, making explicit new skills and knowledge including theories and tools of practice.The model is particularly powerful for Maori and Pacific learners, enabling their models of practice and world views to surface and to be counted and valued.

The model is based on Glenys' doctoral research, undertaken through Middlesex University's Centre for Work based Learning. The research captured the experiences of learners and facilitators alike, whose stories were remarkably congruent, thereby providing a sound empirical basis for the facilitation model.

Effective facilitation sees the learner and facilitator travelling together and in this presentation, Glenys will explore the key elements of a successful journey towards achievement. Like every craft, effective facilitation involves a range of skills and the mastery of tools, all with a focus on the learner's development of skills for lifelong learning.

In particular, the model of facilitation develops high level reflective capabilities in the learners, leading to heightened self-awareness and self-knowledge, and a strengthening of professional identity. These outcomes lie at the centre of adaptability and resilience which is increasingly required in the modern world.

Glenys Ker has 16 years of experience facilitating transformative learning experiences at Capable NZ, Otago Polytechnic. Her model of facilitation practice underpins all facilitation in CNZ and offers valuable insights into what makes for successful facilitation. Glenys has co-authored a book with Heather Carpenter, Facilitating Independent Learning in Tertiary Education – New Pathways to Achievement.

Ker, G. R. (2017) 'Degrees by independent learning: A case study of practice at Otago Polytechnic, Dunedin, New Zealand', DProfPrac (Adult Learning). Middlesex University, London.

Supporting neurosensitive postsecondary learners.

K.M. Cater (Whitireia & WelTec)

People differ in their levels of sensitivity to internal, external, social and emotional stimuli and generally fit into three sensitivity groups of low, medium and high on the sensitivity spectrum as measured by the Highly Sensitive Person Scale. Differences in sensitivity are due to a complex interplay between genetic, physiological and behavioral/psychological components.

The historical deficit notion of sensitivity is being challenged empirically, and the recent framework of Vantage Sensitivity holds that highly sensitive people benefit disproportionately from positive experiences than less sensitive people and are better able to successfully utilise interventions. Further, high sensitivity is associated with deep cognitive functioning, creativity, memory and metacognition.

This study (n=365) explored the associations between levels of sensitivity as measured by the short form Highly Sensitive Person Scale and success-promoting attitudes and strategies as measured by the Perceived Success in Study Survey for postsecondary students. Correlational, descriptive, independent T-tests and ANOVA statistics were used to analyse the data.

The results found that high sensitivity is positively associated with increased success-promoting attitudes and strategies. A follow-up study conducted 13 semi-structured interviews and data were analysed using inductive thematic analyses. Sixteen codes and three themes were identified. This PhD research is the first study investigating the impact of environmental sensitivity on learning for postsecondary students and highlights interesting educational implications for students at either end of the sensitivity spectrum.

Parenting in diasporic spaces: A mother's lens.

L. Stowers-Kasiano (Taeaomanino Trust), J. Domdom & Talon (WelTec)

Culture is often referred to as being a crucial factor in parenting and childrearing practices. Globalisation and migration have had a significant impact on parenting practices as people begin to move around and away from their original countries of origin with consequential changes in their culture. While Samoans have migrated to Aotearoa New Zealand since early 1900's, it was in the 1950's that saw greater numbers in Samoan people emigrating from Samoa. This study sought to understand the impact of migration on parenting and childrearing for mothers of Samoan heritage who were born in Aotearoa New Zealand. Specifically, the study was aimed at understanding the lived experiences of New Zealand born Samoan mothers on childrearing of children from birth to five years of age.

While there is extensive literature on parenting and childrearing both globally and nationally, current literature in Aotearoa New Zealand concerning Samoan child rearing generally highlights practices from the narratives of first-generation Samoans who migrated to Aotearoa New Zealand. There are fewer studies specific to second and third generation Samoan mothers born in Aotearoa New Zealand. This study explores that gap and looks at the diverse intergenerational shifts in parenting and childrearing within a diasporic space. Diaspora refers to the dispersal of people who have migrate away from their original homeland.

In this exploratory qualitative study, the method of Talanoa was used to support a Pacific approach with four New Zealand born mothers who identified as Samoan and were between the ages of 21-30 years whose child/ren were between the ages of zero to five years. From the talanoaga (conversation) and critical analysis of the participants' narratives through use of Interpretative phenomenological analysis, three key findings were identified– connectedness to Samoan culture, transition and adapting to the motherhood role and parental growth.

The study's findings support a narrative for those in diasporic spaces that knowledge and understanding of childrearing experiences is diverse across generations. The second and third generation of any diasporic community often faces new cultural contexts challenging generational shifts and may have to negotiate between several cultural spaces and demands. This study closely explored the nature and effects of inter-generational shifts on Samoan culture, parenting and childrearing practices within the context of Aotearoa New Zealand. Intergenerational transmission of cultural values and customs is an important consideration for future research on parent-child dyadic relationships. Discussion around the changes in the settings which supports the dyadic relationship such as aiga and church. Additionally, the impact these shifts have on language and religious adherence maintenance. Further research was identified to consider the influence of cultural knowledge for those in diasporic spaces. Maintenance or sustaining Indigenous knowledge within a diasporic space, shifts of time and context as well as impacts of inter-generational transmission between parent-child relationships requires further exploration.

Ritual and the visceral: Liveness in lived-streamed theatre.

P. Van Beek (Whitireia)

The sudden pivot of live theatre to live-streaming due to the social distancing measures created by Covid-19 pandemic has generated an explosion of research in the field of mediated theatre. Live-streaming opens up possibilities for accessibility and experimentation, but at the same time involves many challenges to maintain the collective experience of audiences and actors sharing space and time together.

Objective: Following a practice-based research and case study approach, this research aims to investigate how the visceral, not visual, aspects of live performance can be presented to remote audiences to enhance the live-ness of the work. And how remote audiences can still participate in the collective rituals that surround the attendance of a performance work.

Method:

A short performance work Everything in extremity exploring concepts of 'connective experience' the 'digital breath' and 'digital heartbeat' will be performed and live-streamed from Te Auaha: NZ Institute of Creativity in Wellington, in September 2021. Valuable findings around digital theatre spectatorship will be raised through surveys and interviews. Audience members on site at Te Auaha and remote audiences online will complete questionnaires to obtain information on their unique experience of receiving the work. A thematic analysis of the data will compare themes from the two different audiences. Everything in extremity is a key output of a larger research project 'Expanded performance: blending stage and screen in a performance of a theatrical text' which is supported by the Whitireia and Weltec Research & Innovation fund.

This research will create an expanded performance work and may provide data that demonstrates expanded ways to evolve theatre for a live-stream format. In these challenging time for the performing arts industry, artists and arts organisations may find ways to explore new theatre forms and gain more insights on how to honour the rituals of theatre in a age of digital connectivity.

Building community resilience: Artworks contribution to connectedness.

L. Brook (Otago Polytechnic)

Connecting with an artwork contributes to the viewers' engagement and experience, but what other connections does art help us make? This empirical study involved 1:1 interviews with 25 participants who had recently seen an exhibition of contemporary artworks. The exhibition theme was the effect of human activities on the environment, and the lead curator hoped to increase community resilience to climate change through increased connectedness. This study aimed to evaluate whether and how the exhibition succeeded in meeting this objective. Vermeulen and Maas' five-step process for cultural organisations to measure their social impact and their progress towards achieving their goals/mission (Vermeulen & Maas, 2021) was applied to measure the social impact of this exhibition.

Given a set of 54 photographs of the artworks as exhibited, participants were asked whether one or more of them gave them a sense of connectedness with other people, gave them a sense a connectedness with the environment, and contributed to connectedness between their thoughts and feelings. Interviews were transcribed and participants were given the opportunity to check transcripts. Answers to these three questions were analysed inductively.

For 92% of participants, one or more of the artworks contributed to a sense of connectedness with others. Analysis of their answers identified six different ways in which these connections arose, for example appealing to shared feelings or experiences. The same proportion of participants were also able to identify at least one artwork that gave them a sense of connectedness with the environment. Seven different reasons explained their selections, which included recognition of a familiar place. Many participants also reported that one or more of the artworks helped them to connect their thoughts with their feelings. Some participants also mentioned connections at an earlier stage of interview.

The interviews with participants indicate that the exhibition fulfilled the curatorial vision and goals. However, measurement of social impact does not only ask about what has been achieved for reporting purposes; it can also seek to improve understanding of "what works in order to contribute to social issues, what is most effective in solving these social issues, how these processes work" (emphasis in the original) and what can be learned (Vermeulen & Maas, 2021, p. 4). This study can inform artistic and curatorial practice by contributing to our understanding of how artworks engage people and contribute to social outcomes.

References:
Vermeulen, M., & Maas, K. (2021). Building Legitimacy and Learning Lessons: A Framework for Cultural Organizations to Manage and Measure the Social Impact of Their Activities. The Journal of Arts Management, Law, and Society, 51(2), 97–112. https://doi.org/10.1080/10632921.2020.1851839

Examining self-efficacy and performance outcomes relating to contemporary commercial music (CCM) singers.

S.A. Cairns-James (Whitireia)

Introduction: The purpose of this pilot study was to expand on previous research undertaken, which examined the impact of a training programme based on sports psychology when engaging a cohort of contemporary singing students. In the earlier study, a framework design employing recognized sport methodology: Goal, setting, performance, self-efficacy, motivation, assessment, and deliberate practice (GPSMAD) allowed for a broad look at the topic.

This study will examine self-efficacy in a more in-depth investigation of Albert Bandura's (1977, 1997) Performance Self-Efficacy Scale and compares the results with performance outcomes. Those invited to participate were part of a three-year degree Contemporary Rock music programme. For this study, all levels were inclusive. Participants completed a questionnaire designed by Michael Zelenak (2011) Music Performance Self-Efficacy Scale (MPSES). The questionnaire has four parts: Part 1 – Mastery experiences; Part 2 – Vicarious Experiences; Part 3 Verbal/Social Persuasion; Part 4 Physiological state. Participants filled in the same questionnaire on two occasions during the academic year. This paper presents the findings from the first data collection.

Results: The participants were eleven undergraduate students (one male, ten female) ranging from 18–31 years of age. Data from the first MPSES collection showed a high correlation between mastery experience and mid-year performance grade. Data in this case identified Mastery experience had the strongest correlation with performance grade (r=0.81, p<0.001) followed by a trend towards Vicarious experiences (r=0.59, p=0.07). However, Verbal/Social persuasion and Physiological states showed no significant correlation in relation to MPSES.

Conclusion: This result supports the findings of Zelenak (2011). Data from the MPSES demonstrated good fit with Bandura's proposed self–efficacy model). The strength of the relationships between the sources and composite construct were consistent with theory and findings from other studies. Mastery experience was strongest, followed by Verbal/Social persuasion, Physiological state, and Vicarious experience

For Staff at the Eastern Institute of Technology, is Ōtātara a Geography of Significance or a Placeless Geography?

E.Passey (EIT)

This Master's research, explores the experience of place for a group staff based at EIT in Taradale, Napier. Employees can see the Ōtātara Pā Reserve from several vantage points on campus, often visiting because of its immediate proximity. The cultural significance of this land for Māori over some centuries prior to Pākehā settlement, is still being uncovered. Through a series of interviews, the historical significance of this place is joined with the experiences of staff in being in this space. A range of meanings including belonging, attachment and sense of location were described by participants, showing the development over time of threads of connection for themselves, family, community and also staff members.

Ideas in the literature of place were considered including attachment to meaningful locations and landscape. Of particular interest was bringing this more general literature into focus for a New Zealand place, which has substantial Māori history connections including for participants of both Māori and Pākehā backgrounds. Several methodological issues were discussed within a series of interviews including cultural appropriateness and representation. The researchers transition from an English cultural upbringing, to developing and extending indigenous landscape knowledge, illustrates the changing recognition and involvement in an increasingly bi-cultural New Zealand, and demonstrates the implications of this in understanding place attachment.

Findings were organised in three main chapters. The first, recounted historical material about Ōtātara, Māori and Pākehā times, exploring ideas of place and belonging. It also provided a natural anchor for the second and third chapters, which reported the findings of staff enjoying being within, and feeling the presence of that history. Several themes emerged and were summarised as embodied landscape experiences, and the intriguing dimensions of social relationships and place.
Place is important across the social sciences as it is for other disciplines. It evokes on the one hand aspirations and ideals of an aesthetic and spiritual nature but at the same time, reminds human beings of their literal and biological being in time and space. This study has contributed to this wider narrative by looking at one example and in one national bi-cultural setting.

The historical connections and physical closeness between EIT and Ōtātara, mean that the Institution and the landscape are inextricably linked. People are equally bonded to this place through culture and lived experiences. Often unconscious or incidental associations are handed down through the generations, within the organisation and throughout the wider community.

How we now occupy this place in a modern world, how we share the (hi)stories and become authors of new ones, will have a profound influence on the ways that EIT staff continue to connect and develop feelings of belonging. Related to this, an idea about an institutional-wide hīkoi around the boundaries of the campus and Ōtātara is offered. Our responsibility as educators is to signal to future generations that this is a landscape of significance ensuring that Ōtātara continues to be acknowledged as a taonga for EIT employees, and that it is nurtured in the same way as it nurtures us.

Industry-oriented teaching strategy of maritime mathematics.

Z.T. Qi (MIT)

Standards of Training, Certification and Watchkeeping (STCW) was adopted in 1978 by conference at the International Maritime Organization (IMO) in London, and entered into force in 1984. The Convention was significantly amended in 1995. Whilst the STCW requires the trainees to be assessed and deemed competent in maritime mathematics, a NZQA Level 3 course with 15 credits is to assess for competency in maritime mathematics in the following six topics:Algebra, Mensuration, Graphs, Calculus, Geometry, Trigonometry. The program specific regulations allow open entry for domestic students. This means that the students start their maritime mathematics class at varying levels of proficiency. However, all learning outcomes in six maritime mathematics topics must be achieved for a student to be deemed competent.

The goal of this study is to identify the gaps caused by the open entry policy, to fill in this gap by create suitable educational metrologies in teaching practice.

This study is based on observation of interaction of teaching and learning with results in course final exam, to identify the weakness of the current teaching contents to build an Industry-oriented teaching strategy.

An Industry-oriented teaching strategy of Maritime Maths is discussed to develop a solution for the problems raised in the course final exam. Following data analysis, new pre-course session is developed for teaching improvement.

In conclusion, this study has led to the production of a new Industry-oriented teaching strategy, with recommendations to the course development, is that a pre-course session should be offered to the group of students who are lack of maths foundation. A formative test at the time of student enrolment, should be able to identify this group of students.

KEYWORDS
Maritime Mathematics; Industry-oriented teaching strategy; Standards of Training, Certification and Watchkeeping.

Textiles in a craft continuum: Exploring vernacular modalities in making as sustainable design practice.

J. Donovan (Toi Ohomai)

The presentation for this symposium explores resilience and self-reliance within textile making in a vernacular design process as part of a doctoral research project.

The practice-led doctoral research explores the characteristics of 'slow' textiles made as a subjective response to materials gathered within the researcher's locale. Fibre, worn out garments/textiles, scraps of valued cloth, and discarded domestic handcraft, are collected for their connotations, imbued narratives or visible signs of touch. This focuses the research on a temporal process and a phenomenology of place, linking the textiles to traces of previous experiences, unknown crafters and signs of previous lives. Locale is positioned as an activating agent, providing unplanned materials, which are juxtaposed to generate an idiosyncratic textile vernacular.

Aotearoa New Zealand is steeped in traditions of vernacular crafting, 'making do' and a resourceful creative domestic (McCleod, 2005). I remember a time as a child in the 1970's when making things developed into social spaces for connection and enjoyment. Whether it was fixing a car or knitting, people often treated 'crafting' work as relaxation. Precious fabrics, fibre, buttons, or scraps of needlework were collected and saved for re-use. I recall frequent occasions when women visited friends to do handwork and socialise. Sitting among these circles of friends and relatives as a child, I was included and taught crafting skills. It was a source of creativity, participation and pleasure.

This research springs from these personal memories of vernacular modes of practice. A bricolage design methodology is chosen to explore deliberate/conscious and subliminal/accidental decisions, in an open-ended investigation. Felt and stitch are employed as methods to layer and collage communicating elements.

Through the collaging properties of felt and stitch the textile outcomes communicate the signs of use across time, suggesting a longer material continuum. The felted/stitched textiles are created through self-determined creative production, evoking a more cyclic, resilient and connective economy of making and use.

Eye

K.Breukel (NMIT)

Te Ramaroa is a biannual light festival in Nelson providing local and international artists a platform to exhibit light-related installation type works (https://teramaroa.nz/). In 2021, 36 installations were experienced by approximately 50,000 attendees. All installations emphasis the creative use of light as a medium. Eye was one of the central installations of Te Ramaroa.

Eye is a playful exploration of family traits and biological inheritance. It focuses on the sequential views of the eyes of a couple and their three children, linking family traits apparent to the more observant observer. The eye changes from the father's blue eyes to the mother's brown eyes and then moves on to the three children's eyes that display different combinations of new and familiar traits due to the genes passed down to them. The differences and similarities between the projected eyes are there to be observed by the viewer while the projected eyes stare back. The changing shapes of these eyes, the eyelids, the lashes, the colour of the irises set the framework for a shift in mood when eyes closes and a new one subsequently opens. Thus, alongside this investigation into family traits, Eye also plays with the emotions that we read in them and how this affects how we feel in response.

During Te Ramaroa Eye was projected in large-scale format onto a building. This presentation suggests a potentially massive human who manages to gaze out into the street while their face and body remain hidden from view. Emotions of the eyes range from calm to jittery, and others have a curious feeling about them. Each of these eyes has its own moods, and therefore projects a different effect on the viewer. Since the eyes blend into one another seamlessly--literally in the blink of an eye--some viewers might not notice the eye has changed. Especially when passing the installation quickly, two passers-by might have an entirely different experience from the same installation, with one having been watched by and observed a child's wandering eye and another a parent's blank stare.

We noticed children scream in both delight and horror at the eye during Te Ramaroa. Some considered the eye 'creepy' while their friend's thoughts it was 'cool' or 'beautiful'. It is indeed all in the eye of the beholder.

Eye, an installation created by Klaasz Breukel, was shown in the Nelson CBD during Te Ramaroa festival, formally known as Light Nelson.

Standing up to discourses: Developing the strength of resilience.

D. M. Williamson-Garner (Open Polytechnic)

Worldwide, teen pregnancy and mothering are typically viewed as a social 'problem'. Similarly, within contemporary Aotearoa New Zealand, teen or young mothering is shrouded within varying social, political, and historical discourses, the dominant of which tend to construct young mothers in a negative light. One social response in Aotearoa New Zealand, aims to support a more positive outcome for young mothers. This is the Teen Parent Unit. Considered a 'school within a school', the Teen Parent Unit provides education for teenage students who are either pregnant or are parenting. One of these Teen Parent Units is the context in which this research project, on the lived experience of young mothers, is conducted. The objective of this study was to examine the perceptions of the transitions, or journeys through to motherhood of six pregnant and parenting young women who were attending a Teen Parent Unit in Aotearoa New Zealand and if that journey, had influenced their identities.

Ethics approval from the University of Canterbury was granted to conduct a qualitative study. This presentation highlights the journeys of six young women as they make the transition to motherhood. Their stories were interpreted using a social constructionist theoretical framework to demonstrate how becoming a mother is a journey of transformation. In-depth interviews or "conversations with a purpose" (Jarrett, 1992, p. 177) with a sequential organising framework and dialogue groups were the main method of data collection. A thematic approach to data analysis was used along with some analytic properties of grounded theory. The emergent approach (Taylor et al., 2016) or on-going analysis of data through simultaneous review of data, identification of emerging themes, followed by coding was used.

The analysis of the findings highlighted that throughout their journeys of becoming mothers, the participants were characterised within discourses of stigma, and that this characterisation has had an impact on their identities as mothers. Within the first key theme, there are subcategories related to having a sense of agency, self-efficacy and displaying resilience. The young mothers, through their stories, articulated ways in which they displayed resilience, which was a way they demonstrated how they stood up to negative discourses. The principal conclusion was that by challenging the negative discourses and investing in positive discourses the young mothers in my study were able to construct what is referred to as "good maternal selves" (McDermott & Graham, 2005, p. 71). One such positive discourse was resilience.

References
Jarrett, R. (1992). A family case study: An examination of the underclass debate. In J.F. Gilgun, K. J. Daly, & G. Handel (Eds.), Qualitative methods in family research (pp. 172-197). SAGE.
McDermott, E., & Graham, H. (2005). Resilient young mothering: Social inequalities, late modernity and the 'problem' of 'teenage' motherhood. Journal of Youth Studies, 8(1), 59-79. https://doi.org/10.1080/136762605000637
Taylor, S. J., Bogdan, R., & DeVault, M. L. (2016). Introduction to qualitative research methods: A guidebook and resource (4th ed.). Wiley.

Navigating the competing demands in vocational education.

L. Pool (Whitireia)

This presentation draws on aspects of my doctoral research that begins with my own practice and over 25 years of experience in vocational education as a nurse educator. Changing health care and nursing workforce demands have resulted in a complex nurse educator role. Critical readings of the literature identify the nurse educator role as someone who is expected to be an expert practitioner, a skilled educator, and involved in research knowledge generation or translation. For the educator, there is a disjuncture working between the worlds of practice and education.

My research draws on concepts from Bourdieu's (1977) theory of practice work together with Smith's (1996) emphasis on discourse, social relations and power. This presentation examines the structures in the field of vocational education that produce a form of social control or power linked to capital and habitus. Illuminating these relationships brings awareness of their existence, enabling action against structures that dominate or marginalise the work of the vocational educator. The importance of teacher agency, social and cultural capital are discussed as actions that can build resilience and an authentic voice towards positive social change in tertiary education.

Bourdieu, P. (1977). Outline of a theory of practice (R. Nice, Trans.). Cambridge University Press. https://doi.org/10.1017/CBO9780511812507
Smith, D. E. (1996). The relations of ruling: A feminist inquiry. Studies in Cultures, Organizations and Societies, 2(2), 171–190. https://doi.org/10.1080/10245289608523475

A first New Zealand study looked at the role of lutetium-177-PSMAI & T in the progression of metastatic castrate-resistant prostate cancer.

M. Vyas (Unitec)

Prostate cancer that has spread beyond the prostate gland and is resistant to castration is a deadly disease that poses a threat to men's health. The current standard of care for metastatic prostate cancer is hormonal manipulation. However, metastatic castration-resistant prostate cancer (mCRPC) remains a significant treatment and management challenge. Recently, the use of lutetium-177 (Lu177) labelled ligands against PSMA was found to be compelling and resulted in an increase in overall patient survival.

We recruited men aged 18 years and older who had been diagnosed with mCRPC and were progressing on chemotherapy or hormone therapy for this single-arm, single-center, non-randomized, and non-blinded study. Patients were included based on a positive Ga-68-PSMA PET-CT scan, as well as their blood count and renal function. The eligible patient received up to four cycles of intravenous Lu177-PSMA-I&T treatment spaced six weeks apart. The primary endpoint, which included PET-CT imaging after two cycles of treatment, was a decrease in PSA. At the end of each treatment cycle, the FACT-P and BPI questionnaires were used to assess quality of life.

Between August 24, 2018 and August 8, 2019, 18 patients received an average of 6.8 Gbq of radioactivity. Ten (55.55 percent) of the 18 patients had a 50% or greater decrease in PSA. There were no treatment-related deaths reported, and the most common side effect was grade-1 dry mouth (>90 percent), while 1(18) reported grade-1 nausea and 2(18) reported grade-1 fatigues. There was a clinically significant improvement in the severity of pain and QoL. Thirteen (72.22%) patients saw a 10-point or greater improvement in their global QoL score.

Our initial experience in New Zealand with Lu177-PSMA-I&T indicated a high rate of positive responses, fewer adverse events, improvement in pain, and an overall improvement in global quality of life score in men with metastatic colorectal cancer who had progressed following standard treatment.

Blended learning for acupuncture and traditional Chinese medicine.

K. Fielden. (NZ School of Acupuncture and Chinese Medicine)

This two-part research-in-progress project consists of a systematic literature review that has gathered knowledge about blended learning for acupuncture and Traditional Chinese Medicine (TCM). The world is experiencing unprecedented times for education with the global pandemic. New ways of learning, even for practical skills like acupuncture and Traditional Chinese Medicine need to be developed and implemented if skilled TCM practitioners are to enter this field of practice. Because TCM and acupuncture have many hours of clinical practice within the undergraduate degree, a completely online delivery mode is unsuitable. However, the theoretical components of the degree can be presented online. The second part of this study explores how blended learning is perceived and what influences the decision of students to enrol in blended learning programs in TCM.

The information will contribute to how TCM schools can improve their performance in educating TCM practitioners of the future, especially in the current uncertain times.
The first research question for this study is:What are the factors that contribute to the successful implementation of blended learning for acupuncture and Traditional Chinese Medicine?

The second research question is:
What are students' perceptions of the delivery of blended learning for acupuncture and Traditional Chinese Medicine?

In the first part of the study that addresses the first research question, a systematic literature review uses the PRISMA method of finding, excluding, including, and classifying peer-reviewed research articles ("PRISMA: Transparent reporting of systematic reviews and meta-analyses," 2021). These articles were found from the following databases: PubMed, Ebsco, Proquest, and Google Scholar. An end-result of 57 papers have been included and are currently being analysed thematically. Peer-reviewed articles from 2016 – 2021, written in English, were considered. Results will be presented using descriptive statistics and thematic analysis.

In the second part of the study that addresses the second research question, an in-class survey has been collected from all students at the school. This decision was made because the school has only one degree and at present, there are 79 students at the school enrolled from the first year to the fourth year in the undergraduate degree.

The survey has been divided into four sections: demographic data, student preferences for learning mode, learning habits and surroundings, and communication preferences. Data is currently being entered into an Excel spreadsheet and will be analysed with descriptive statistics once data gathering is complete.

Preliminary results suggest that these students display a high level of resilience in coping with uncertain delivery methods and are willing to use whatever mode of delivery is available. Many students use multiple platforms, multiple devices, and multiple ways of learning.

Trailing and refining the moderation, identification, and evaluation matrix.

A.H. Williams, L. Smith & C. Allot-McPhee (Whitireia & WelTec)

Education organisations in Aotearoa must use moderation to safeguard internal summative assessment integrity. Moderation can focus on any stage of the assessment process, as threats to integrity occur throughout: in the assessment instrument, procedure, or judgements. Moderation considers whether assessments are fair, consistent, and assess what they are meant to. It can serve multiple purposes: ensuring (checking, and, if necessary, correcting) and assuring the quality of assessment, improving and developing (assessment and other aspects), and providing evidence (e.g., for monitoring).

Various activities are used for moderation, including critique of assessment instructions, pre- marking calibration exercises, and check-marking of assessed work. The timing of these activities impacts on the functions for which they effectively serve: Used early enough in the assessment process, moderation can inform current practice, thereby ensuring that judgements made are sound. When conducted at the end of the process, it can instead ascertain whether the grades awarded were appropriate. Factors such as the assessment method, purpose(s) for which moderation is conducted, and assessor expertise, influence which moderation activities (and their timing), are appropriate and effective.

Strategic and purposeful use of a range of moderation activities should enable the credibility and legitimacy of grades awarded to be ensured. To this end, a tool to assist those in education organisations to examine and evaluate their moderation approaches would have use. The prototype in the present study was developed in the absence of such a tool and originated from a project in which the range of moderation–type activities used across our institutions were identified.

The prototype recognises the contextual and situated nature of moderation. Designed to facilitate the identification of activities that contribute to moderation, the prototype aligns each activity with the stage(s) of assessment addressed. It prompts consideration of the timing of each activity (against the assessment process) and any associated documentation, thereby facilitating evaluation of the manageability and likely effectiveness for fulfilling the purposes of moderation. Engaging in this reflective process may support moderation system resilience within an organisation by providing insights that can be used to inform planning and improve effectiveness and manageability of moderation.

The present study sought to pilot and refine the prototype Moderation: Identification and Evaluation Matrix. It was trialled in two workshops at Whitireia and WelTec, in which staff groups used the matrix to assist them to identify and evaluate current moderation practices within their programmes. At the end of each workshop, evaluative perception data were collected from individual participants (66 in total) via hardcopy survey, and annotated matrices were collected from groups (29 in total). Data analyses have yet to be undertaken. This presentation will report on the findings.

Attracting & retaining diverse kaiko in early childhood education.

A.K. Tate, V. Griffiths, E. Hall, D. Hartley, F. Hohaia-Rollinson, J. Malcolm & K. Purdue (Open Polytechnic)

Recent policy initiatives in the Early Childhood Education (ECE) sector in Aotearoa New Zealand acknowledge that all children should have equitable access to an early learning workforce of well-qualified kaiako that mirrors the diverse nature of our society. As yet, Aotearoa New Zealand's ECE teacher workforce does not appropriately reflect this diversity (Education Workforce Strategy Governance Group, 2019; Ministry of Education 2019). Recruiting and retaining kaiako who represent Aotearoa New Zealand's increasingly diverse society is therefore important (Macfarlane & Macfarlane, 2020; Mara, 2019). A diverse teacher workforce helps ensure ECE in this country appropriately responds to and supports the diverse identities, genders, languages, cultures and backgrounds of those they serve (Ministry of Education, 2017; Teaching Council, 2019). This presentation reports on a study that aimed to find out more about diverse kaiako inclusion and exclusion experiences of working in early learning services. The study will contribute to an understanding of the barriers to and facilitators of equity in the workplace and raise awareness about key factors that help attract and retain diverse kaiako. It can also help us in initial teacher education (ITE) to better prepare student teachers for the complexities of teaching.

Using qualitative approach (Mukherji & Albon, 2018), data was collected using an anonymous online survey via Survey Monkey sent to early childhood settings in March, 2021. Kaiako were asked to share their stories of diversity, equity, inclusion and discrimination in ECE and to tell us about the perceived barriers to, and facilitators of, attracting and retaining a diverse range of teachers in ECE. We identified emerging themes through iterative reading of and reflection on the responses. We used coding to organise the data into identified key themes and ideas. Codings reflected the questions and discourses guiding the project as well as the emergent important issues for kaiako.

Important themes have emerged regarding facilitators and barriers to attracting and retaining a diverse early childhood workforce. Leadership styles, workplace cultures and employment and working conditions featured as key barriers and facilitators to workplace equity and inclusion. Perceived barriers also included ECE sector issues of pay, professionalism, policy frameworks, and resourcing that make the sector unattractive or unavailable to diverse people in Aotearoa society.

Overall, the findings suggest that it is important for employers, kaiako, policy makers and ITE providers to take notice of what equity in the workplace means and looks like in policy and practice in order to attract and retain diverse early childhood kaiako. Ongoing advocacy is needed to progress equity and rights for diverse kaiako in ECE. In particular, this research strengthens the case for more government funding in ECE, especially in relation to scholarships and pay parity.

Are we ready for a blended learning and teaching experience in a post Covid world?

S. Swarnappa (WelTec)

Covid-19 affected the world in multiple ways, one such being education. Worldwide figures points to an estimated 1.8 billion learners affected by educational institution lockdowns (Maslen , 2020). This research primarily focusses on how the New-Normal caused by Covid-19 impacted tertiary learners. The New-Normal has extended beyond until today. (Marinoni, Land, & Jenson, 2020) states newer and proactive strategies are essential to build a resilient education system that will ensure uncompromised development of skills required for the future workforce despite alternations to learning methods. Online learning has pervaded tertiary education compelling academics to disagree existing assumptions partially or fully in contemporary teaching and learning. Blended (or) mixedmode learning has been suggested and implemented world-wide and within New Zealand. The objective of this research is to gain understanding of the learner's experiences and investigate newer and improvised teaching and learning methods for the future education. (Garrison & Kanuka, 2004) states that blended learning is the thoughtful integration of classroom face-to-face learning experiences with online learning experiences. Tertiary learning and teaching in New Zealand have started to embrace various methods and innovations and many of these uses technology through blended learning. Though innovative learning through technology is gaining momentum in the growing IT inclusive world, it is essential to answer the question - How ready are we, to implement such a learning in our tertiary space? Among the many challenges in this space, it is essential to know whether users are ready enough to accept blended learning as their lifestyle, ensuring participant commitment given the characteristics of the learner (Hoffman, 2014). On the other hand, blended learning can broaden opportunities available for learning, support course management and enhance the richness and interactivity of resources (A blended approach to Learning – blended learning, 2021). (Garrison & Kanuka, 2004) notes that transformation only stems from the ability of online learners to be both together and apart – and be connected to a community of learners anytime and everywhere, without being time, place or situation bound.

In this paper, we summarise learner experiences and expectations based on learner characteristics and background with a motivation to investigate the effectiveness of blended learning environment for the future. Analysis of the results is based on research completed using a quantitative survey in the form of a structural questionnaire. The survey covered topics ranging from learning support, learning experience, overall satisfaction, and learning preference. The participant sample included learners studying in levels 5-7 in the School of Information Technology at Wellington Institute of Technology (WelTec) who experienced the New-Normal Online learning and afterwards. Further, we are currently investigating newer or improvised learning and teaching methods for the future to enhance both effectiveness and efficiency of meaningful learning experiences. We propose models and tools to support blended learning and suggest ways to plan for future.

Using a repertory grid to review compliance reports on literacy provision in vocational training in the tertiary sector in Aotearoa.

W. Greyling (WIT)

Literacy and numeracy provision for vocational training has been a strategic priority in several iterations of the New Zealand Tertiary Education Strategy over the past decade or longer. The main aim of this paper is to present the findings of a grid-based review process (Caputi, Bell and Hennesy, 2012; Fransella, Bell and Bannister, 2004) directed at literacy and numeracy (LN) practices captured in so-called compliance reports produced at an institute of technology in Aotearoa over a four-year period (2017-2020). The focus of convenience of the grid was formulated as: Reviewing LN-embedding practices at a tertiary institute in Aotearoa from a business strategy perspective. Based on the 10 most recent institutional compliance reports and a selection of six schools of business strategy, I identified twelve elements for constructs elicitation. Applying the difference method, I formulated twelve bipolar constructs for the review. These constructs, once entered into a 7-point rating scale, were used to rate each element. Using the Statistical Package for the Social Sciences (Version 27) (IBM/SPSS, 2020), I performed a principal components analysis (PCA). Five components, explaining 81.25% of the variance in the grid ratings, were identified. These components highlight the underlying structure and connectedness of constructs. I show that the configurations of constructs for each component serve as prompts for exploring potentially unsymbolised and hidden meanings.

Adapting to figure out how to teach English to speakers of other languages in tertiary learning and teaching contexts.

J. A. Bytheway (NMIT)

This doctoral research explored how teachers who started teaching ESOL in tertiary education without teaching or applied linguistics qualifications or teaching experience figured out how to teach (Bytheway, 2021).

From constructivism, pragmatism and symbolic interactionism philosophical positions, grounded theory (Glaser & Strauss, 1967) used cyclic, flexible research processes to a point of saturation (Bytheway, 2018). Seven participants shared their perspectives during interviews and literature was included as data. Constant comparative analysis identified properties, concepts, categories, a basic social process, and a substantive grounded theory.

The resulting grounded theory explained how teachers used informal learning processes to change their practice, including a cyclic process of Adapting. Adapting included Monitoring Responses, Determining Wants and Needs, and Experimenting. Monitoring Responses intertwined Observing Behavior, Getting Feedback, and Looking for Issues. Determining Wants and Needs connected Realizing Wants and Evaluating Progress. Experimenting embraced Changing Teaching and Experiencing Teaching.

Adapting was caused by participants responding to complex contexts to resolve the tension between current practice and desired practice. Their Adapting process was a form of Teaching as Inquiry, whereby teachers collect evidence, identify problems, investigate problems, find solutions, track progress, and show improvements (Sinnema & Aitken, 2011). Teaching as Inquiry can be considered a form of reflective practice (Schön, 1983), or action research (Pine, 2008), or practitioner inquiry that facilitates lifelong learning (Cochran-Smith & Lytle, 1999). Teaching as Inquiry requires teachers to be open-minded, challenge beliefs, accept evidence, consider contexts and outcomes, be persistent, and focus on the future to improve teaching and learning (Sinnema & Aitken, 2011).

Inquiry-based project learning in early childhood: An examination of approaches and impacts for children's learning in Aotearoa New Zealand.

S.A. Probine (MIT), J.M.Alderson (OpenPolytechnic), R. Burke (Toi Ohomai), F.L. McAlevey (Open Polytechnic), K. Whitley (Toi Ohomai), S. Werry. (Toi Ohomai), M-L. Broadley (Open Polytechnic) & J. Perry (MIT)

Recently, interest in inquiry-based learning[IBL] has gained traction as more educators in the early childhood sector recognise its potential to foster children's curiosity and engagement in their learning. This presentation will report on a nationwide study exploring the experiences of early childhood centres in Aotearoa who are engaging in inquiry-based project learning. The study aims to learn more about how teachers and children engage in this work and how this impacts children's learning.

The study is positioned in an interpretivist qualitative paradigm and is informed by sociocultural and bioecological theories. A narrative inquiry approach has informed the study design. Narrative inquiry is relevant to this study due to its potential to support understanding of how "the social, cultural, familial, linguistic, and institutional narratives within which individuals' experiences were, and are, constituted, shaped, expressed and enacted" (Clandinin, 2014, p. 18). This presentation will report on the initial findings derived from phase one, a national qualitative questionnaire. The questionnaire was sent to 2134 early childhood centres with 63 responses to date. Phase two will include classroom observations and a focus group interview with purposively-selected early childhood education teaching teams. The research project will span over a three-year period.

The early analysis of phase one data revealed a complex web of factors influencing and impacting teachers' pedagogical beliefs and approaches. The pedagogical ideas of Reggio Emilia and the Project Approach were identified as key influences on pedagogy, in addition to a range of other influences. Teachers stated that IBL opportunities strengthened developing relationships with families, community, and tuakana-teina relationships for children and teachers. A beneficial aspect of this approach was the visibility of children's voices and their confidence in leading their own reflective thinking, problem solving, and collaborative skills.

The data included a desire for teachers resisting pedagogical change to move beyond their previous pedagogical ideas and lack of confidence, to embrace an inquiry-based approach. Other factors highlighted some of the limitations and realities of a teacher inquiry-based approach – for example, a lack of time, resources, and PD opportunities, all of which hindered inquiry-based progress. These limitations highlighted teachers' resilience as some optimistic pedagogies were reported to make a difference to such challenges. These included teachers who were confident to take a step back so that children could step forward to lead projects at times. For some teachers this was difficult to practise, perhaps construed by others as them not meeting children's learning and developmental needs. Teachers' ability to articulate the learning which occurred as a part of an inquiry-based process was identified both as a strength and a challenge.

Understanding what hinders or helps the implementation of IBL will build stronger early childhood education connections. Initial phase one findings have revealed that an inquiry-based approach can strengthen relationships among children, teachers, families and communities.

Clandinin, D. J. (2014). *Engaging in narrative inquiry.* Left Coast Press.

ESG Practices: The new normal of modern finance.

S.K. Puri (WelTec)

As the world emerges from COVID-19, corporations and governments have realised the need to focus on sustainable and climate-related activities around the globe. The ESG (environmental, social and governance) factors such as reporting, policy disclosures, climate changes, pollution, gender disparity and child labour have gained significant interest, and companies are now aware that if the negative impacts of these are ignored, a decline in investment returns may follow. Investors are no longer concerned solely with financial metrics, but also want to invest in companies that integrate ESG factors into their business model and strive to build a green economy. It can be rightly said that ESG has emerged as the new normal of modern finance.

My research paper focuses on how the integration of ESG factors into financial reporting reduces risks and leads to long term value creation for both companies and investors in New Zealand. The first part of the study will analyse reporting and disclosure practices of companies in terms of three pillars of ESG (environmental, social and governance) and their impact on profitability. Further, I intend to measure the extent of exposure of companies to ESG risks and the efficiency with which firms manage those risks. Finally, I plan to investigate whether companies following ESG standards have been more resilient during COVID-19.

The main sources of data for my study would include annual reports, sustainability reports, information disclosed to New Zealand Stock Exchange, information available on the company's website, and any other authentic publicly available information related to companies. As part of the project, I intend to develop a model and construct scores for firms based on the disclosures they have made in the three components of ESG and factors such as compliance, governance practices, the relationship with their stakeholders, environmental policies, good corporate citizenship, and employee morale. Some of the variables for financial valuation would include Tobin's Q, Book value of total assets, Return on assets and leverage. Ultimately, the goal of the study is to give companies insights into how developing sustainable practices can help them achieve long-term value creation and build resilience.

Key words: ESG ,modern finance,COVID-19

Voluntary carbon certification and New Zealand firms.

P-T. Nikula (EIT)

This paper examines New Zealand firms' experiences with voluntary carbon certification. Concerns over climate change have stimulated organisations to measure and reduce their carbon footprint. A number of voluntary schemes has emerged, allowing firms to certify their decarbonisation efforts (Birchall et al., 2015; Birkenberg & Birner, 2018; Bolwig & Gibbon, 2009; Rauland, 2013). Carbon certification, similarly to other environmental certifications/labels, can be used to validate and substantiate claims of good practices, communicating a firm's 'virtuous behavior' to customers and other stakeholders as well as positioning them vis-à-vis competition (Birchall et al., 2015; Gehman & Grimes, 2017; Rauland, 2013). However, the actual environmental benefits of such schemes have been questioned. In the context of carbon certification, this would include the actual effectiveness and questionable accounting or offsetting practices (Birchall et al., 2015; Birkenberg & Birner, 2018; Dhanda & Hartman, 2011; Jones & Levy, 2007; Spiekermann, 2014).

This paper explores New Zealand firms' experiences with voluntary carbon certification and the extent to which participation in such a scheme has resulted in reduced emissions. The findings are based on qualitative interviews and document analysis of certification documentation. Thirteen New Zealand firms participated in the study. Interviews were analysed using qualitative content analysis and the carbon certification documents were used to calculate the extent to which the participating firms had been successful in their decarbonisisation efforts.

The findings indicate that a carbon neutrality certification cannot be automatically considered as evidence of any individual firm's success in reducing their gross emissions or improving their emission intensity in any specific year. Previous research supports this conclusion (Birchall et al., 2015). However, due to the challenges related to the growth-emission nexus and many (in particular SME) firms' limited control over their value chain, carbon offsets, even if problematic, may have to be accepted as an integral part of decarbonisation efforts in the short term. From this perspective, the decarbonisation efforts were successful. In terms of firm experiences, most participants agreed that the support provided by the certifier had been important due to limited organisational capability. Most participants also emphasised the credibility associated with an external certification and its positive contribution to overall brand image. Additional costs (time and money) were highlighted as drawbacks of the certification scheme. Carbon certification schemes can raise issue salience among the business community and reduce barriers to action by providing support and guidance. However, due to the limited uptake and impact, other measures and incentives are required to achieve the climate goals set under the Paris accord.

Student work experience pilot programme informs teaching practice and the development of learning environments.

B. Alton & S.L. Prebble (Toi Ohomai)

The tourism and hospitality industry has had to rapidly adapt over the last two years. This has meant that we, as tutors, have had to also continually adapt and respond in order to ensure we continue to deliver a learning programme that creates graduates of merit, that are resilient in forging a career pathway. To better prepare our students, we therefore connected with industry operators to learn what it is they currently require in a graduate.

The research was conducted in the latter half of 2020. The Interviews were completed with tourism and hospitality operators who have a long association with our institution and students, to determine the basis on which they select and recruit new staff. Questions probed industry's expectations of skills and attributes required for graduate employees and focused on just what these graduates should be able to offer.

Overwhelming feedback from our stakeholders in the research indicated that to meet industry requirements and to develop resilient students, we must combine work experience and practical skills within academic learning. By working in partnership with industry there are opportunities to develop the learning environment and experiences students have.

We responded by creating a mentoring pilot programme that focused on creating workplace opportunities, to build both skills and industry connections. This was supported by stakeholders engaged in the research and the wider tourism and hospitality community. They collaborated with us to provide opportunities within their businesses for these students to gain valuable work experiences and mentoring.

This presentation will share with you the findings from the mentoring pilot programme and the feedback from students and industry engaged in the placements. We want to share with you learnings that we will use to inform our teaching practice, and create a learning environment that support the changes in the industry and promote the development of skills required to build graduates of merit.

We will also discuss how this research can support collaborations across Te Pukenga ITP subsidiaries to enable tertiary courses throughout New Zealand to stay connected with their industry community to create in class experiences better for students and valuable for employers by remaining relevant and consistent in an ever-changing environment.

Resilience of local dairies in New Zealand.

P. Natanasabapathy (Open Polytechnic)

2020 was a challenging year due to the COVID-19 global pandemic. The impact was felt financially and economically around the world. While the four alert levels in New Zealand posed varying degrees of restrictions, the local dairies, as essential service providers were allowed to remain open during the pandemic.

The local dairy business model was already under strain before the pandemic due to competition from larger stores and online businesses, and from being a target for petty crimes and from other misbehaviours (Murray, 2019). With the added restrictions due to the pandemic, it is not clear how the local dairies managed their business during the pandemic in 2020 as the published information about their performance in that year is minimal. Their business continuity signifies their resilience amidst the challenges faced.

The objective of this study is to better understand the impact of the pandemic in 2020 on local diaries, as essential service providers in New Zealand. How did they overcome challenges to remain sustainable during lockdown? What lessons did they learn and/or what recommendations do they have for the future?

Given the restrictions on mobility during the pandemic, a purposive sample of dairies within close proximity to the researcher's location in Lower Hutt will be taken using Whitepages Online and Google Maps to conduct audio-recorded interviews. The location of the interview will be negotiated by offering the flexibitliy of having the interview onsite during business hours or online outside business hours. An initial visit will be made to introduce the study and to seek the participant's consent for an interview and upon receiving consent, the second visit for an onsite interview or an online interview will be arranged. The interview recordings will be transcribed and analysed through thematic coding.

The presentation will cover the work in progress, with further details about the study, the literature review and the methodology for the forthcoming data collection.

Leadership in Agile software development: A systematic literature review.

D. Strode (WelTec), S. Modi (Unviersity of Hertfordshire)

Effective leadership is deemed essential for successful projects and teams. However, leadership in agile software development projects and teams is a challenge in practice, and the research literature provides no general agreement on what constitutes effective leadership in this environment. To address this issue and give the agile community a comprehensive overview of the research on agile leadership we report the results of a systematic literature review (SLR). The SLR identified 33 studies in the Scopus database published from 2000-2019 that contribute to agile leadership knowledge. The results indicate that whilst some studies apply leadership theories to explore and explain the role of agile leadership other studies propose alternative approaches to leadership within agile software teams and projects. The results suggest that agile leadership research needs further attention and that more empirical studies are needed to better understand agile leadership in general and in the various agile information systems development environments.

Industry placement project: Fostering whanaungatanga to build resilience.

K.R. Rangiahua (Toi Ohomai)

Toi Ohomai's Industry Project is considered the capstone course of the Bachelor of Applied Management degree. It rounds off the learning experience for students by allowing them to apply their newfound knowledge in a realistic setting through a placement similar to an internship within industry for ten weeks.

On a quest to promote whanaungatanga and build resilience with our students, I set out on a learning journey to evaluate and focus on developing a programme that embraces purposeful relationships that enhance student wellbeing and achievement. In the previous delivery of this paper, I have observed the decline in student success rate due to the disconnect between student and organisation and wanted to address this.

This research evaluates how building relationships can set students up for success in their chosen career pathway by engaging students with the local business community. This allows them to contribute and work towards worthwhile goals; providing opportunities for students to contribute to others provides meaning beyond themselves. This increases the student's sense of wellbeing, which impacts positively on the student achievement.

This presentation will discuss how a holistic approach to industry placement built on the concept of whanaungatanga promotes student resilience and contributes to improved outcomes.

I will share my learning journey and the actions taken to promote and foster whanaungatanga to enable our students to achieve their academic, socially and emotionally. Using the narrative of eight students' experiences of an industry placement as a case study, I will explore the impact of whanaungatanga on students' resilience. Drawing from students' reflections, feedback from industry participants, and their practical approaches to completing the project, I will identify the keys that enabled them to fulfill the assessment criteria successfully. I will share the findings from this cohort, highlighting strategies for widening participation through strengthening relationships and facilitating successful industry placements.

He tātai whetu ki te rangi, he rangitahike to kāinga: Rangatahi pathways to safe, secure and affordable homes.

M. Ratana (Ngā wai a te Tui, Unitec)

Maia Ratana, Jacqueline Paul, Pania Newton, Hanna–Marie Monga Rangahau Māori research stream Tāmaki Makaurau (Auckland) is the largest city in Aotearoa where approximately 25 percent of the total population of Māori currently reside (TPK, 2018). Rangatahi (young Māori) under the age of 25 make up at least half of this population, which is significant in the context of future housing trends as the rates of rangatahi homelessness rise and Māori homeownership declines (Auckland Council, 2018). An undersupply of housing, high cost of living and rising house prices in Tāmaki Makaurau means access to housing for many is seen as unachievable and unaffordable. All of which is informed by the major impacts of colonisation and intergenerational inequities.

The first tranche of this research (funded through the BBHTC) focused on rangatahi Māori perceptions of housing and papakāinga. This project continues to investigate the realities facing rangatahi Māori in Tāmaki Makaurau and in particular, aims to identify pathways to ensuring safe, secure and affordable homes for rangatahi Māori. The research is being undertaken using kaupapa Māori theory and will include an examination of literature, housing policy and planning, statistics, historical trends and housing case studies. It is evident that home ownership is being pushed further out of reach for rangatahi and with the growing cost of private rentals, Māori now make up half of those on the social housing register. With housing becoming less and less affordable, tangata whenua have essentially become tenants in their own land. It is therefore critical that rangatahi be supported to be innovative in their housing aspirations to not only ensure rangatahi have safe and secure housing but also choices about the way we live, and want to live.

Foundational to this research is our 'by rangatahi for rangatahi' approach. Our research team is made up of rangatahi who are experiencing first hand New Zealand's housing challenges rangatahi Māori are facing and are passionate about key housing issues and potential opportunities. Therefore, we are undertaking this study in the hope that it will identify disparities and opportunities for kaupapa Māori based innovations that aim to address housing inequities and offer solutions that enhance the economic, social and cultural resilience of rangatahi Māori for the future.

Do we really matter? The mental health impacts of the Covid-19 pandemic: Voices of Pasifika students in a tertiary setting.

M. Wong, L. Naera, F. Peleto, D. Sanga., & K. Williams (MIT)

This presentation draws from a funded research project at Manukau Institute of Technology (MIT) and the presenters' professional experiences exploring the mental well-being of tertiary students. The presentation posits that the COVID-19 pandemic created mental health issues that challenge education all over the world. Students already experience various life stresses on top of the stress of studies, such as difficulties adjusting to tertiary study, loneliness and academic anxiety. The COVID-19 pandemic created challenges for tertiary students and triggered depression, stress, and anxiety for tertiary students who did not adequately address them. Such mental distress negatively affects student learning, involvement, retention and academic success. Many students at MIT are Pasifika; many of them are experiencing life in ways never encountered by students from other cultural backgrounds.

Their experience brings implications regarding the Pasifika students' vulnerability which are impacted by circumstances and commitments outside of study beyond their control that unhelpfully impacted their mental health and wellbeing.

The four aims of this project include 1) to explore the Pasifika students' experience of the COVID-19 pandemic while they are undertaking a degree programme at MIT, 2) to explore the contributing factors of the impacts of the COVID-19 pandemic, 3) to examine the ways of identification of these impacts and 4) to explore the support system for these Pasifika students.

This project is qualitative research, and the data were collected using an inquiry approach with individual interviews and Talanoa to gather participants' voices. The participants include Pasifika students currently undertaking a degree programme in one of these campuses at MIT – Otara, Manukau and Tech Park, and academic and support staff.

This presentation illustrates the preliminary findings that Pasifika students need to understand that their mental health issues Are not determinants to regard them as problematic students nor barriers to complete their qualifications. These students also know that support is available to help them develop a plan and strategies for building resilience. As tertiary providers, we need to support our students as much as we can. We need to create a safe space for Pasifika students to learn and address their mental well-being.

This presentation also aims to raise awareness of the need to provide academic support and pastoral care integrating with culturally safe practice.

"So it's not necessarily about exclusion": Category use in the accomplishment of transgender exclusionary talk in a National Radio interview.

E Henderson (Open Polytechnic)

Taking a discursive psychological approach to studying the accomplishment of discrimination in everyday, naturally-occurring talk-in-interaction, I have analysed a short interview with Ani O'Brien by Radio New Zealand presenter Kim Hill on 15th November 2019. At the time of the interview, Ani was the spokesperson for the transgender-exclusionary women's group Speak Up For Women. The focus of the interview became Ani's stance towards transgender women's status as women. I have used conversation analysis and membership categorisation analysis, to explicate the moment-to-moment interactional moves made by both Ani and Kim in order to explore how Ani's trans-exclusionary stance is accomplished and made recogniseable.

Conversation analysis is an approach to studying naturally occurring social interaction that aims to describe the actions being accomplished by each interactant's turn at talking (i.e., what they are doing with their talk) by analysing the details of what, when, and how something was said. Membership categorisation analysis is a related approach to conversation analysis that looks at how categories and descriptions of people, places, and things function as resources for the accomplishment of action in discourse as well as being the result of actions' accomplishment. Together, conversation analysis and membership categorisation analysis are tools for understanding the moment-to-moment achievement of social interaction from a first-person perspective, as the participants display their understanding of it.

My analysis shows that, despite not specifying explicitly her position that trans women are not real women until the very end of the interview, Ani makes her position known through a couple of different ways of describing people, leaving people to draw inferences about the criteria for membership in the category "woman". Rather than making overtly discriminatory claims, she relies on the common-sense reasoning around social categories to make the correct (from her position) inferences available to Kim and the listening audience. To do this, she relies on the local construction of distinctions between "women who were born women" and "males who identify as women" to implicitly attribute ontological primacy to biological sex as the factor that determines both membership in Speak Up For Women and in the categories of woman and man while also implying transgender woman are perpetuators of patriarchal violence against cisgender women.

This analysis demonstrates some of the ways that trans-exclusionary discrimination operates in naturally occurring social interaction. This discrimination does not necessarily (nor primarily) form a coherent system of beliefs about gender, but is instead produced in the service of, and embedded within, other actions in interaction.

Immigration, friend or foe: The discursive construction of migrants in New Zealand media.

N. Salahshour (Open Polytechnic)

Relative to its size, New Zealand is one of the highest migrants-receiving countries in the world and has been referred to by the Organization for Economic Co-operation and Development as an "immigration society" (Keeley 2009). Discursive studies on the representation of immigrants in the context of New Zealand are relatively few. They have either adopted a content analysis to offer useful (although rather limited) insights into migrant representation or they have examined the representation of one specific diaspora, rather than immigrants in general.

This study investigates the discursive constructions of migrants in the period 2007 to 2008 in New Zealand's most-read national newspaper, The New Zealand Herald. This period was chosen to investigate the impact of the Global Economic Recession (GER) on the representation of migrants in print media. This period has been chosen as it has been hypothesized that immigrants are often scapegoated during times of economic hardship (Brimelow 1995).

Using Critical Discourse Analysis's DHA approach (Wodak and Reisigl, 2016) as its main framework, this presentation provides a detailed step-by-step analysis of the newspaper articles which contained the key words migrant/s, immigrant/s, and Asians. It unpacks the series of referential and predicational strategies, as well as the topical themes, to understand what type of roles and actions migrants are frequently associated with as well as the membership and groups they are assigned to.
After compiling a corpus, and to avoid cherry picking the data, the study developed an elaborate five-tier data-sampling technique to examine the dominant discourses. The down-sampling technique included systematic steps such as using line graph sampling, topic sampling, proportional sampling and relevance sampling.

The study concludes that metaphorical, professional anthroponyms and collective strategies were the most common referential strategies, while in terms of predicational strategies, migrants were discursively constructed as being a 'double-edged sword', at times benefitting the country and at other times merely being a nuisance.

Keywords: Media analysis, critical discourse studies, discourse-historical approach, New Zealand.

Resilience in daily routines for children with autism.

T. Afrin (Unitec)

Resilience for children with special needs are often discussed in terms of the concerning families rather than the children themselves. This study in progress is aimed to analyse sections of daily routines for children with autism and to find subsequent examples of their resilience. Under an qualitative research framework, the data are driven from literature review and a case study. The literature review are based on journal articles and theses available in two databases, EBESCO and NZ Research within the time-frame of 2000-2021. Integrative review process is applied to navigate answers aligned with research question.

For the case study, the data are anecdotal records experienced by the author of a child from birth to 6 years of age. The daily routine is divided into regular activities during the periods of morning, afternoon and night, both at home and in early childhood setting. The study may lead to an extended version to include other cases using social media network. The current finding shows a number of areas are investigated that include meal-time, toileting, play and transition. These findings, along with the case study, shed lights on the common ground of resilience in different parts of routines for a child with Autism, while also acknowledging differences that prevail. The discussion also utilised Te Whāriki strands to represent the findings to scaffold the thinking and mahi of the early childhood teachers.

Unfettered resilience of school archivists in maintaining value of records to support the New Zealand school history curriculum.

E. Boamah (Open Poly)

pg 1/2

The purpose of this study is two-fold. The first is to explore the key challenges school archivists face in performing their role and secondly, to highlight the unfettered resilience of New Zealand school archivists to effectively maintain the value of school records and relevant school heritage materials despite the many challenges they face. The overarching aim is to highlight the important role of school archives to support the effective delivery of the recently developed history curriculum. This presentation is part of a bigger research project that collects the perspectives of school archivists and community archivists on the key challenges they are facing and how their roles can support the effective delivery of the history curriculum in schools.

The study employs an interpretive qualitative research approach to engage with 10 school archivists and 15 community archivists through semi-structured interviews to obtain an in-depth understanding of the challenges they face and their resilience to plough through those challenges to maintain the value of records and achieve effectiveness.

One of the key industry areas of interest to New Zealand ITPs is Information Management. The information management industry comprises Galleries, Libraries, Archives, Museums, and Records Management (GLAMR). Within the GLAMR sector, the archivist's role is one of the hardest. Yet, it is one of the least recognized by key stakeholders and inadequately resourced (Chawner, 2015; Corbett 2014). The challenges and lack of recognition archivists are facing in New Zealand, affects all types of archives. But the most hit are school archivists. Schools produce rich historical records, such as yearbooks, school photographs, letters, school magazines, newspapers, sports, drama, and other cultural paraphernalia, etc. These archival records are different from the schools' officials records such as students' information, results, and enrolment records etc. The school archives not only document the history of the school, but also reflect the history of the community in which the school is located, the region, and the nation. Learning about these records can benefit students in many ways and can have a direct connection to their lives (Tilley, 2008).

But school archivists do not receive the needed recognition and aren't well supported to effectively maintain these records. Even researchers seem to forget them because literature discussing the state of archives in New Zealand talks about all types of archives but fail to mention school archives (Sanderson, 2014). Initial engagement with the school archivists' community reveals that school principals fail to grant school archivists full-time positions for the school archivist role. Most school archivists are old student volunteers with a passion for their alma mater, who are given 2-3 days a work to manage the archives. Most of them are not supported to attend workshops and conferences because the school's budget does not include them. Even though they have an important role to play to achieve effective delivery of the history curriculum, school archivists were not consulted in the planning of the school history curriculum and how they can support its delivery. Notwithstanding these challenges, most of the school archivists show great resilience in maintaining the value of school records. Most of them use their own resources to attend workshops and training programmes to develop themselves and they appear poised to support the delivery of the history curriculum. The study is is guided by the following questions:

Unfettered resilience of school archivists in maintaining value of records to support the New Zealand school history curriculum.

E. Boamah (Open Poly)

pg 2/2

·What are the key challenges faced by New Zealand School Archivist in the performance of their roles?
·How do New Zealand archivist show resilience in the face of the challenges to achieve effectiveness in their role?
·In what ways can New Zealand archivist maintain value of records to support the New Zealand school history curriculum?

This study encourages school archivists on the work they are doing and initiates a conversation that will bring all New Zealand school archivists together and inspire a collaboration between them and their stakeholders to address issues of common interest to them and their various schools.

Going deeper: Generating qualitative survey responses using an online tool: A comparison of Microsoft Forms and SurveyMonkey.

P. S. Bidwell (Open Polytechnic)

There are a growing number of freely available online survey tools, including Microsoft Forms, Survey Monkey and Google Forms. This presentation will examine two popular tools for use in qualitative research: Survey Monkey and Microsoft Forms. SurveyMonkey offers a limited free version while Microsoft Forms is freely available to Microsoft users.

Online survey forms are frequently used to gather quantitative data, using primarily closed-answer questions. Their use for exploratory qualitative research with more open questions that encourage longer responses is an emerging area, but one that is likely to grow significantly. This approach allows researchers to not only learn how many respondents hold a particular position but also to explore their reasons.

Options in both tools for short answers and paragraphs will be examined, as well as strategies to ensure anonymity (and how this can be used to encourage honesty). The presentation will also look at branching to show how participants can be sifted to allow a more detailed focus on key targets, as well as splitting questions to gather more detailed responses. It will examine the built in analytics of both tools and will consider the strengths and weaknesses, including the value of an appealing interface to encourage responses.

Mixed-methods research involves interpreting both quantitative and qualitative data and is often derived from a single study. The presentation will conclude by briefly considering whether an online survey tool is an appropriate choice to gather qualitative data and whether it meets the requirements of mixed-methods research.

This presentation is suitable for those considering qualitative research and seeking appropriate tools, as well as current qualitative researchers using more traditional approaches such as interviews and focus groups to see if online tools could become another possibility.

Braun, V., Clarke, V., Boulton, E., Davey, L. & McEvoy, C. (2020). The online survey as a qualitative research tool, International Journal of Social Research Methodology, DOI: 10.1080/13645579.2020.1805550

Using data science techniques to create and maintain a globally diversified ETF-based investment portfolio

A.Valle (Wintec)

Investing has been recognised as one way to generate wealth. Investors are particularly interested in chasing short-term top performance while they, in fact, should be concerned with selecting proper financial assets of different asset classes and allocate them to optimize long-term returns. This article explores the use of data science tools and techniques for creating and maintaining (via rebalancing) an investment portfolio that is statistically capable to provide the expect returns while being consistent to the investor profile.

In the article, we quantitatively analysed some of the exchange traded funds (ETFs) from the New Zealand Exchange (NZX) aiming of determining their historical performance and how it can predict future returns. After, we created a portfolio with the selected ETFs as well as an investing approach that would meet the expected performance while maintaing the risks relatively low. Back testing, machine learning, simulation and other data sciences techniques were used to analyse historical and forecasted performance of the portfolio and the potential outcomes of the associate investing strategy.

Making the invisible visible: Teacher reflections of a microplastic pollution citizen programme.

C. Gonnelli & C. Liang (SIT)

Microplastic – plastic particles smaller than 5 millimetres – is a major threat to wildlife, ecosystems, and human health with no viable technological solution. Research on microplastic, especially in the marine environment, has grown exponentially over the past few years. Yet, there is still limited public awareness of the problem, which hinders the possibility for behavioural change that is necessary to curb microplastic emissions. Furthermore, there is still limited quantitative research on the presence of microplastic in the freshwater environment, despite rivers being a transport pathway for microplastic into the oceans. To address these gaps, we have created a citizen science programme called Micro-Investigators that utilises a simplified protocol to collect microplastic from waterways. We have been working with Enviroschools to involve students to participate in this mahi.

By investigating the presence of microplastic in local fresh waterways this environmental action-based programme seeks to 'make the invisible visible', demystify science, and raise young people's awareness of the problem. Between 2020 and 2021, seven Southland primary schools were involved in the programme. At the end of the year-programme questionnaires were distributed to all teachers involved to assess alignment of Micro-Investigators with schools' learning objectives/curricula, and whether students that took part in Micro-Investigators were more likely to continue their science studies and to discuss what they learned with others. Those who expressed their willingness to take part in further research were also interviewed to provide follow up information.

Descriptive statistics were utilised to offer a summary of the responses. All participants agreed that taking part in the Micro-Investigator programme prompted students to share their experience with friends and family and stimulated further learning and in-class discussion. For instance, one of the classes became a "school action group" and had organized a microplastic assembly to make lunchboxes free from single-use plastic. The teachers also confirmed that the programme was in line with their local curriculum and that students were excited by the study at the rivers. Yet, the teachers did not notice a clear link between participation in the Micro-Investigator programme and a demystification of 'science' as a subject. They also did not find that students that took part in the programme were more likely to continue their science studies compared to those who did not. Further research is necessary to understand whether this is due to the short nature of the session, compared to the overall curricula or whether there are areas of the programme that could be modified to increase its impact.

An exploratory data analysis approach to investigate the collateral impact of Covid-19 on the New Zealand trades.

R. Ram (EIT), D. Ranatunga, D. (Napier City Council) & Noor, H.S. (EIT)

Many countries face the outbreak of the Covid-19 pandemic, which has brought severe social, political, economic, and financial impacts on various sectors of the economy. As a result, New Zealand is also expected to face a significant drop in global export and increased travel restrictions affecting tourism and education. This paper employs the exploratory data analysis (EDA) model to analyse the available data on trade between 2019 and 2020. The model was used to study the impact of Covid-19 on NZ export and import values from trading countries. In addition, the study also assessed the deviation of values of each commodity during the above period. The main findings revealed that there was only a minor impact on exports. However, the imports from China were affected negatively, which led to a trade surplus in favour of New Zealand. This study will help develop trade recovery strategies for the current situation and significantly support the decision-making process for any similar scenario.

keywords: data analytics, covid-19, pandemic, international trade, import and export, exploratory analysis.

a) Objectives/scope of the study: The main aim of the current study is to investigate the impacts of Covid-19 on New Zealand trade with its largest trading partners China and the USA, regarding the export of items (dairy, forestry, fruit, meat, and seafood), and imports of items (machinery and consumer electronic goods) by focusing on the following questions.
Q1: Was there a significant impact of Covid-19 on NZ trade during 2019 & 2020, and which commodity was particularly affected?
Q2: Does foreign currency exchange rates (US$) impact the trade activities during Covid-19 in NZ?
Q3: Was there a significant deviation in export/import values between countries during 2019-20?

b) Methodology: This paper employs the exploratory data analysis (EDA) model to analyse the available data on trade in New Zealand between 2019 and 2020. Trade-related data was collected from the StatsNZ website for 2019-2020 and analysed to determine the extent to which COVID impacted NZ Trade. In addition, business analytical tools such as Microsoft Power BI has been used to provide more insights into the selected data and brought out great visualisation.

c) Conclusions & Recommendations: This analysis revealed that the exchange rate between NZ$ and US$ significantly correlates with trade value (export & imports). So, for example, the stronger NZ$ leads to higher imports from overseas, while a weaker NZ$ favours higher exports to international markets.

Moreover, Covid-19 has adversely impacted the foresty and seafood commodities in terms of their exports. The Covid19 situation is continuing; hence government needs to get information from this analysis and build recovery strategies to support these industries and build future strategies to minimise such impact in future similar events.

Ko au te taiao, ko te taiao ko au: I am nature, nature is me.

N. Waran & E. Passey (EIT)

Te Aho O Māui (EIT) is committed to providing quality learning experiences to facilitate sustainable decision making and understanding of how our actions affect the environment. We established a unique, collaborative project, embedding nature literacy within the Hawke's Bay region's educational culture. The initial focus was to support EIT's Bachelor of Teaching (Primary and Early Childhood Education) students and practicing teachers to use nature as the context for learning, and to embed te ao Māori into the curriculum. Initial funding was provided by the Air NZ Environment Trust and additional funding and support has been granted by the local Pan Pac Environmental Trust as well through our collaborative partnerships including; local iwi (Ngāti Pārau), Department of Conservation, Predator Free Hawke's Bay, the Hawke's Bay Regional Council and numerous organisations such as local schools and community groups. This has enabled us to develop the Ōtātara Outdoor Learning Centre (ŌOLC), at EITs Taradale campus and to support nature literacy professional development for teachers in local schools.

The ŌOLC is located on the campus, adjacent to the Ōtātara Pā Historic Reserve, which once formed part of one of the largest Māori settlements in New Zealand. The Centre is enriched not only by its cultural significance and ecological value but through providing a network of walkways connecting the built with the natural landscape which consists of historic gardens and structures, a natural gully planted with native species by EIT students and local schools, a 'debating' tree, and inspiring 'mind spaces' such as the terraced bee gardens, an open air teaching and performance shelter and a refurbished log cabin that acts as a model sustainable building to inspire responsible environmental behaviour in the community. To support this initiative, we have established a Sustainability and Environment Team, including two environmental education outreach facilitators, who promote and deliver learning in nature and sustainability initiatives, supporting the use of the ŌOLC to benefit communities in the region. The team has initiated the development of communities of practice to share best practice across the curriculum nationally, as well as working with national environmental educators to co-develop new educational resources and approaches.

Work that has been achieved so far to enhance nature literacy skills and confidence includes: embedding nature literacy and sustainability values within EIT's primary and early childhood education programmes; providing professional development for schools across the curriculum from early childhood through to postgraduate study; establishing regional communities of practices for facilitating the co-design of education resources with teachers for teachers; creating campus-wide nature spaces; and initiating sustainable approaches to change 'business as usual' at EIT.

The development and evaluation of a one welfare educational suite for use in Hawke's Bay Early Learning Centres.

L. Awawdeh (EIT)

One Welfare is the concept that the mental, physical and social welfare of animals and humans and the sustainability of the environment depend and influence each other. This concept aligns well with Tikanga Māori, recognising that human wellbeing, animal welfare, and the environment are interconnected. The adoption of the One Welfare concept by the ELC will effectively address the connections between science and policy for positive human, animal and environmental outcomes. The One Welfare approach highlights that in addition to the required legal, ethical, and risk assessments by the ELC, animal health and welfare issues should also be considered before introducing any pets into the learning environment. The improved wellbeing and welfare of the pets, children, and staff should be the ELC main priorities.

The positive association between children caring for animals and learning about empathy, relationships, and the environment has been reported in many studies. ELC commonly incorporate animals as valuable resources in supporting and enriching children's learning experiences. In Aotearoa, New Zealand, there is no compulsory training for ELC staff to ensure that the animals in their care live a good quality of life. Such training would also help provide the best learning opportunities for children and minimise any health and safety risks for children and animals alike. The current research proposal aims to develop and evaluate a One Welfare educational suite as an intervention in Hawke's Bay ELC to enhance human–animal interactions.

Stability matters

M. Vyas (Unitec)

In the Nuclear Medicine department, labelling radiopharmaceuticals and testing the quality of the labelled product before injecting it into patients is standard procedure in the department's in-house hot lab. Each labelled product has a varied shelf life, which determines how long a product can maintain in-vitro stability before it needs to be discarded. In the case of Lutetium-177 (Lu177), it is proving to be revolutionary in the treatment of several advanced-stage tumours, such as metastatic castration-resistant prostate cancer (mCRPC) and Neuroendocrine Tumours (NET).

In our centre, all synthesise of Lu-177 with a peptide Prostate-specific membrane antigen Image and therapy (PSMA I&T) were performed utilising an Eckert & Ziegler Eurotope's Modular-Lab Pharm Tracer® automated synthesis system for the treatment of metastatic castration-resistant prostate cancer. Additionally, sterile GMP-certified no-carrier-added Lu177 from Australia's Nuclear Science and Technology Organisation was used in the experiment (ANSTO). Following each synthesis, the final product quality was evaluated by HPLC and ITLC-SG at three different time points: 0 hours, 24 hours, and 48 hours. In addition, 35 batches of post-synthesis were completed between February-2020 to October-2020. As a result, the average radiochemical purity of ITLC-SG was greater than 99 per cent (99.70.±05 per cent), while the average radiochemical purity of HPLC was greater than 98 per cent (98.60±.05 per cent).

Current findings demonstrate that automated synthesis of Lu177-PSMA I&T with the help of Eckert & Ziegler Eurotope's Modular-Lab Pharm Tracer® can remain stable for an extended period of time, allowing it to be supplied from one location to another, which is suitable for logistical purposes and can be a help to save patients from having to travel from one location to another.

Keywords: High-performance liquid chromatography (HPLC), Instant thin-layer chromatography (ITLC), Lutetium-177 (Lu177), Prostate-specific membrane antigen Image and therapy (PSMA I&T)

Collaboration and reflection as tools for resilience/aumangea

R.A. Nelson (Otago Polytechnic)

If teaching and growing Resilience/Aumangea are the desired graduate outcomes, the question exists how best to achieve these. While the current global pandemic may have focused our attention on the issue because of sudden and dramatic shifts in professional and personal circumstances, it could be argued this only brought into a brighter light something that has always been an inherent part of learning and teaching. Our challenges as educators – vocational or otherwise – is not to do something new, but how to use what we already know more effectively to empower learners to discover what Resilience/Aumangea means in their own terms, through a Project-Based Learning Scenario.

The objectives of this study are to:
• Investigate the design of a collaborative project across a complete qualification as a way of developing learner resilience through increased teamwork and soft skills experience.
• determine how autoethnographic and collaborative reflection can be combined as part of a collaborative project to increase learner self-efficacy and, therefore, Resilience/Aumangea.

This study utilises a mixture of literature review, autoethnographic reflection, and primary research (in progress) with teaching practitioners and industry decision-makers to examine what Resilience/Aumengea means, how it is practiced, and how it can be incorporated as part of a collaborative learning experience. Relevant themes are drawn from the literature, which are then assessed against the author's significant practitioner experience with Project-Based Learning (PBL) in the New Zealand tertiary education environment through autoethnographic reflection. Autoethnography gives recognition and life to real experiences that might otherwise not be able to inform the development of future practice. Comparing such reflections with relevant literature themes helps bring an objectivity to how such reflections are able to influence future learning practice design. Primary research with practitioners and decision-makers is currently pending approval, and results will be incorporated into the study as they are generated.

The preliminary principal conclusion, albeit it based on only two of the three parts of the planned research to date, indicate that there is untapped potential for PBL which includes both autoethnographic and collaborative reflection do offer potential for learners to develop and increase levels of Resilience/Aumangea.

Blended nursing practice with microcredentials and learner capabilities.

A. M. Paterson (Otago Polytechnic).

Introduction

During this presentation I will be sharing how we have integrated Learner Capabilities (transferable skills) and EduBits (micro credentials) into our Year 3 Bachelor of Nursing community project where their focus is to become Community Development Practitioners. The students have been working towards other learner capabilities (transferable skills) during the past two years of their study and are using these to help with future employment, as well as towards their nursing registration.

What is a Community Development Practitioner?

A member of a community project whether in a paid or un-paid role. Core community development values guide and underpin their practice including commitment and dedication to partner together with respect of different ideas and cultures; being patient and mindful of responsive communication while maintaining ethical practice with the aim to improve health status through change, empowerment and education.

Integrating Assessment – Learner Capabilities – EduBits

We have developed a mega-credential package where the students complete their community project in small groups as part of their assessment for their 700-level course as part of their Bachelor of Nursing. Through this work they are automatically awarded EduBits for Learner Capabilities and also the UNESCO Sustainable Development Goal/s that they were focusing on. For our learners it is showing them that not only does their project make a difference in the health sphere, but it is also setting them up for success in whatever career they decide to work in as these are transferable skills.

The students use a problem-solving cycle and focus on the particular capabilities of:

Thinking Critically – Kia hōhonu kā whakairo

Practices Ethically – Kia matatika kā mahi

Participates in Behaviour Change – Kia panoni whanoka

Performs Community Service – Kia hāpai i te hāpori

Solves Problems – Kia whakatika i kā raruraru

G.R.I.P.S. (Gerondontology and instruments for perennial scholarship).

K.M Villamin & M. Page (Whitireia)

Introduction

Ageing does not adversely impact on an older adult's ability to appreciate the pleasures of life, continued learning experiences, and be able to enjoy whatever opportunities the world offers. Stereotypes of older adults frame learning as difficult during the so-called 'third age'; however, many older adults still crave intellectual and social stimulation. Educational nondigital games, such as chess and dominoes, play a significant part in the cognitive health and wellbeing of the older adult. They provide a sense of belonging, uniqueness, and academic challenge. Despite some of the physical and cognitive challenges in older age, older adults are generally resilient and use games to further their biopsychosocial development.

Methodology:

This presentation will centre on the results of a systematic literature review focusing on the impact of educational nondigital games in the holistic learning and continued development of the older adult who engages in them. Articles from several databases, namely Proquest Academic, Google Scholar, and Embase, were reviewed for this research. Central themes were then identified, extracted, and analysed from these articles.

Data and Analysis:

The reviewed articles showed that educational nondigital games have exerted a remarkable influence in the biological, cognitive-psychological, and sociological spheres of an older adult's way of life. Educational nondigital games have become one of the cornerstones in the process of educating older adults. The process of educating older adults is termed 'gerontagogy'.

Discussion:

The construct of 'gerontagogy' emphasises the fact that older adults are still capable and willing to acquire knowledge and skills even at later stages of their lives. This validates the advocacy of many countries, including Aotearoa New Zealand, in promoting 'lifelong learning'. Older adults are contributing members to the community, and are assuming more and more roles in today's society than in past decades. These roles may include caregivers for their grandchildren as well as spouses, university students, volunteering in the community, and providing valuable wisdom in social groups and organisations. Many older adults are also willing to upskill to current technology, for example, using modern modes of communication, and even recreation, in their digital formats. This exemplifies the sustained flexibility of an older adult to still broaden their horizons, and pave the way for further holistic development, even in their 'golden years'.

Conclusion:

In the face of technological advances, educational nondigital gaming for the older adult population remains a tool for biopsychosocial development and connectedness to people and the world.

Some silver linings of Covid-19 in the hospitality and tourism industry: A small discursive study of six young women.

N. Bowker & E. McLeod-Edwards (OpenPolytechnic)

This research has been approved by the Open Polytechnic Human Ethics Committee. It aimed to qualitatively explore, through a discursive psychological lens, the COVID-19 lockdown experiences of six young women within the hospitality and tourism industry from diverse geographical locations. Six participants were recruited from Canada, the United Kingdom, and New Zealand using convenience sampling via the second author's networks in hospitality and tourism. These networks comprised those who have or are working in customer facing roles within restaurants and/or cafes and outdoor tourism ventures, such as canyoning and kayaking. Each participant was sent an emailed invitation for participation in a 30 minute semi-structured interview. Participants were either currently working in hospitality and/or tourism, or had been and were now unable to do so because of COVID-19 lockdown. All participants were aged 20-30 years. Five interviews were conducted and recorded on Skype. A further interview was conducted face-to-face and recorded on an iPhone XR using the Voice Memos application.

Interviews were transcribed and then analysed using discourse analysis. This involved unpacking how these six women were constructing their experience of COVID-19 lockdowns. Analysis focused on the function and construction of the language used, with extracts illustrating each pattern of talk. The methodological framework underpinning the analysis is social constructionism, which is different from empiricism, positivism and quantification. In contrast, social constructionism acknowledges that knowledge and understanding occurs within a particular social, historical and cultural context, where language is a fundamental tool in constructing our knowledge and experience. Part of the analysis involved identifying how participants talked about positive experiences, with one of the interview questions focusing on the positive aspects of their experience. This question often led to constructions that juxtaposed the positives with the negatives.

This talk is presented here as a repertoire called 'adversity creates serendipity'. Central to this repertoire is the idea that the adverse conditions of COVID-19 lockdown also created highly positive experiences. Such experiences were never expected. Embedded within this broad repertoire were three discursive resources: 'luck', 'having the time' and 'appreciating things'. 'Luck' is a resource used to explain and justify a positive outcome in the face of harrowing circumstances. In each case luck is what creates a significant change in direction towards something positive and away from something negative. 'Having the time' was used in varying ways in participants' talk. It involves the opportunity of being afforded the time to do things that one would not have had otherwise. These things include new and old things. 'Appreciating things' was a tool to show how the COVID-19 lockdown experience created something positive. It was also used in a slightly different yet interconnected way: as validating the psychological management of the challenges brought about through COVID-19 lockdown. Through the operation of the 'adversity creates serendipity' repertoire, participants were able to successfully manage the psychological challenges of COVID-19 lockdown, and gain strength and resilience amidst harrowing global circumstances.

Thriving in the face of change, challenge and stress - building resilience in teenage children.

E.L. Otis (EIT)

Resilience is the ability to bounce back, and move forward, from periods of change and adversity, stress and trauma, loss and disappointment, and perhaps most importantly, the strain and intensity of simply doing the "day-to-day" in today's world. Research and health data show that today's youth are among those most at risk from a lack of resilience and in many cases critically need better tools and skills for dealing with social (actual and virtual), school, developmental, and family challenges more effectively.

A school-based Resilience Training Programme for youth, "Let's Make Me Resilient", sponsored by Health Hawke's Bay (the regional PHO), was integrated into the curriculum of seven secondary schools, over 18 months, to 880+ students. The (ongoing) programme is aimed to support youth in developing skills that would allow participants to increase their functional resilience through the instruction and practice of; 1) three specific problem focused cognitive strategies that focus on "Thinking the Way Resilient People Think"; 2) three applied stress management techniques for "Dealing with Situations that You Can't Change"; 3) five specific interactive communication skills for "Making Difficult Conversations Easier".

The four module, in-class interactive programme, focuses specifically on introducing, and teaching, participants a set of, "what to do" behavioural skills that will, in fact, give them actual experience in thinking, acting, and inter-acting resiliently. Contributing theoretical areas include, Sport and Performance Psychology, Behavioural Psychology, Change Theory, and Cognitive Behavioural Theory.

The study found that the introduction of the resilience programme assisted youths in working out strategies and behaviours for coping with a range challenging situations and feelings. The research design using an anonymous survey consisting of resilience measure questions from the State Trait Assessment of Resilience Scale (STARS) and (Child and Youth Resilience Measure) CYRM-12 questionnaires, along with resilience knowledge recall questions was administered to participating students prior to the commencement, and after completion, of the programme, along with teacher evaluations of the program. Demographic data was also collected from participating schools at the commencement of the programme. Conference presentation content will be an overview of program principles and methodology, discussion regarding analysis of initial data findings, and thoughts on going forward.

How tertiary students managed their learning during the Covid-19 lockdown periods: Findings from the Learner Management System (Moodle).

H. C. Kim (WinTec) & J. Khanna (WIT)

Background

As the waves of COVID-19 sweep New Zealand (NZ) communities, the NZ tertiary institutions were opting to shift to online teaching and learning. Moodle is the most widely used Learning Management System (LMS) in the world that can be effectively used to create an efficient distance learning process for students, assist educators in creating online resources, convey information, grade assignments, and deliver online activities during these times. Both educators and students have access to Moodle, which creates an online environment of ongoing communication, social interaction, and cognitive skills of students. In addition, Moodle platform is capable to deliver student collaboration which is an integral part of distance learning sessions in conjunction with to use of video conferencing tools such as Zoom.

Purpose

The main purpose of this study is to analyse the number of student' access logs in Moodle to identify the various student activities during the COVID-19 lockdownsfrom February 2020 to September 2021.

Methodology

The current version of Moodle (3.9) includes various plugins that correspond to students' specific activity logs such as assignments, lessons, pages, quiz, URLs, folders and files. This study examined 87,194 Moodle activity logs from 191 students from February 2020 to September 2021 including two nationwide lockdowns in NZ, through nine courses at the Waikato Institute of Technology. The log data for this study was taken from first and second-year students following NZ diploma (Level 6) and BEng Tech (Level 7) within the area of engineering.

Findings

We explored differences in students' learning behaviours and interactions during the COVID-19 pandemic by analysing the Moodle log data. Moodle log data was extracted from three different timeframes from February to June 2020 (1st COVID-19 Lockdown period), July 2020 to June 2021 (Nolockdown Period) and July to September 2021 (2nd COVID-19 Lockdown period) for the courses on Moodle. As expected, a significant increase in online activity was observed during the two lockdown periods, 2020 Semester one and 2021 Semester two. During the first lockdown in 2020 Semester one, a substantial increase in Moodle participation was observed, the frequency of using Moodle was 125.5 logs per month per student, compared to the normal semesters in 2020 S2 and 2021 S1 without COVID lockdown, 76 logs per month per student. A similar pattern has been found during the second lockdown in Semester two, 2021 where a higher frequency of Moodle activities with 134.7 per month per student accesses was made. In addition, this study found a variance of logs throughout the semester, particularly during the first lockdown period. From the beginning of the semester to the lockdown, students accessed the course moodle on average of 99 logs per month per student. During the lockdown period, students Moodle access was steeply increased by 258.7 logs per month per student, and their Moodle activities have further extended after the lockdown until the end of the semester with 134.7 logs per month per student. Although online learning through Moodle was an integral part of the study, the results of Moodle log data indicated that online learning environments are increasingly used by students during the COVID-19 pandemic.

Strategies to enhance international student's academic engagement in the institutes of technology and polytechnic (ITP) sector in New Zealand.

T. Moses & P. Yamjal (WelTec)

The purpose of this paper is to identify strategies to enhance international student's academic engagement in the ITP sector in New Zealand. The paradigm shift in learning from behaviourist to constructivist approach has changed the focus of learning from traditional to interactive learning in both classroom and online teaching environments. Student's academic engagement is a key to successful interactive learning and hence has received greater attention both from researchers and practitioners. Engaging students is found to enhance both student learning and their ability to learn.

Due to the internationalisation of education in the 21st century, there has been a significant increase in the number of students pursuing international education in countries across the world. Most of the students arriving in New Zealand choose to study either graduate or postgraduate or master's degree programmes offered by the universities and the ITPs in the country. These international students are unique as a group as they come from diverse educational, social and cultural backgrounds, which has been identified to hinder their academic engagement. It is also recognised that the educators lack an understanding of the approaches to engage the international students.

While international student's academic engagement has been studied quite extensively in different country contexts and educational settings, limited research has been done in the context of the ITP sector in New Zealand. This study fills the gap as it identifies relevant international student engagement strategies for the unique tertiary education environment. An understanding of the strategies adopted by similar countries to overcome the challenges of engaging international students will help develop successful practices to engage students in the ITPs in New Zealand.

The three-dimensional conceptualisation of academic engagement that was proposed by Fredericks, Blumenfeld and Paris (2004) was used as the foundation for this study. Accordingly, academic engagement was proposed as a multifaceted construct that is defined by the behavioural, cognitive and emotional dimensions. This model has been widely used in academic literature to understand student engagement in various tertiary educational settings and country contexts.

A systematic review of the relevant studies that focussed on the three dimensions of engagement would guide the authors to identify, evaluate and recommend practical strategies to engage international students. All relevant peer reviewed research studies since 2011 that are accessible through EBSCOhost and ProQuest are included in this research. The systematic review process as proposed by Xiao and Watson (2017) was adapted in this study. Through a preliminary analysis of the results the authors have identified designing a collaborative learning environment, planning efficient blended learning strategies and effective student-faculty interactions as crucial to engage international students.

International student disengagement is recognised as a growing problem in tertiary education. Meeting the needs of diverse learners is a challenge and hence requires a strategic plan of action. The recommended strategies will prepare the educators to face the challenges in engaging the international students and be resilient in both the classroom and online learning environments. Knowledge of the engagement practices will help cope with uncertainties in the learning environment and will improve commitment and motivation among the educators. This study is of significance as the international student numbers in New Zealand are expected to bounce back post-Covid wherein the educational setting will be potentially different from pre-covid settings.

Using student market segmentation in making n making decisions about how to deliver courses.

A. Kovalenko (Toi Ohomai)

Understanding the needs and expectations of prospective students is essential for developing more appealing study options. When applying, students are asked to provide their demographic details (e.g. age and occupation). This information can be used for segmenting student market, but such segmentation does not explain what is behind the choice of a certain study programme. Lewison and Hawes (2007) developed a framework for categorising prospective students based on their motivations and benefits sought. As the authors suggest, many learners are career-oriented, others seek self-actualisation through education, while some people can study simply because they enjoy learning experiences. There can be also people who do not know exactly why they study. As for the benefits sought, some students want a high-quality education and are willing to pay premium tuition fees, while others are looking for the fair quality-to-price offers. There are also people who do not mind a marginally acceptable quality as long as they do not pay much for it.

Using motivations and benefits for student market segmentation can be beneficial for making decisions regarding course delivery methods. Among the most commonly used methods are face-to-face, hybrid (i.e. blended) and online deliveries (Swanson & Swanson, 2019). All of these methods can be used for daytime, evening and weekend classes. Although the pandemic made online delivery very popular, it is important to remember that students defer in terms of their preferences. For example, those who strive the for higher quality of education can be hardly satisfied with the fully-online delivery since employers and the public in general attribute lower value to online in comparison to face-to-face education (Protopsaltis & Baum, 2019). Bearing in mind these differences in student expectations can be very important in the post-COVID world when normal delivery methods become possible.

This information presentation will be focused on the discussion of how prospective students with different perception of education benefits and motivations can be positioned in terms of their preferences for the course delivery method. A matrix reflecting these dimensions can be used as a framework for identifying the most feasible course deliveries which, in turn, can help to develop more effective promotional messages for attracting prospective students. The matrix can be also beneficial for designing the Te Pūkenga course delivery strategy for a diverse range of learners across different regions

Work integrated learning and ITP resilience in the context of RoVe.

O. van Dulm, D. Skelton, & M. Dipper

This paper reports on an EIT project on the continuum of work integrated learning (WIL) across the Institute. WIL was defined in the broadest sense as any kind of learning directly related to work, ranging from simulations to practicums, from traineeships to internships.

Data were gathered in three phases, the first by a survey of 364 courses across 33 programmes, focusing on (i) type of WIL; (ii) type of assessment associated with WIL; and (iii) perceived authenticity of WIL. The second phase comprised interviews with programme coordinators (PCs) of eight of these programmes, focusing on (i) strengths, weaknesses and areas of good practice; and (ii) priorities in developing and maintaining WIL components. The third phase comprised a survey among current students, graduates and industry partners of three of the programmes in order to explore their impressions of (i) the value and authenticity of the various types of WIL and associated assessments; and (ii) the crucial features of a successful WIL relationship between student, industry and provider.

The initial survey data revealed a wide variety of WIL types, both within and across programmes. There was also a wide variety of assessment types associated with each WIL type. The vast majority of WIL components were regarded as authentic.

The PC interview data revealed a range of aspects deemed valuable for students, such as clarity on expectations, purpose, roles and responsibilities, and workplace rules and reporting lines. PCs also reported on aspects deemed valuable for industry partners, such as time to develop and maintain relationships, and regular visits and feedback sessions. Finally, PCs noted aspects affecting staff, such as time required to establish, run and assess WIL components.

The data gathered from current students, graduates and industry partners revealed high ratings of authenticity across WIL types and related assessment types. Students and graduates indicated their WIL prepared them for the workplace and helped them getting and performing their jobs. Industry partners indicated a preference for hiring graduates with WIL experience. The most important attributes of WIL for industry partners were understanding the purpose of WIL, having students who meet expectations, and all parties having a clear understanding of roles and responsibilities. The most important attribute of WIL for students and graduates was understanding the rules of the workplace.

This paper underlines the importance of ITPs like EIT harnessing the full potential of WIL for the benefit of both students and industry, optimising graduates' work readiness. Key in this endeavour is the ITP's responsibility to ensure an appropriate range of WIL types are supported, as (i) each has its own academic merits, and (ii) we cater to students with a variety of needs in terms of academic and pastoral support. ITPs' expertise and contribution in this space should neither be underestimated nor lost in the context of RoVE

Using grounded theory research to explore unknown directions within complex learning and teaching contexts.

J.A. Bytheway (NMIT)

Grounded theory is significantly different to many other established research methodologies. Grounded theory is an interpretive research methodology that avoids preconceptions; a research process that simultaneously collects and analyzes data; and a substantive theory that emerges from and is grounded in empirical data (Charmaz, 2006; Flick, 2018). Beginning in the 1960s, Glaser and Strauss (1967) developed grounded theory as a reaction against grand logico-deductive theories, which can be speculative and irrelevant to the people involved (Denscombe, 2007). Grounded theory starts with research participants identifying their main concern, and then grounded theorists explore how participants resolve their main concern. Grounded theorists do not create predefined hypotheses, select theoretical frameworks, or apply preconceived lenses. They strive to remain theoretically sensitive and free from bias. They use literature as data after a substantive area of enquiry has emerged. They use theoretical sampling to flexibly follow emerging paths of enquiry. They do not follow linear processes, and instead use cyclic processes of data collection and constant comparative analysis to flexibly go where the enquiry leads. Grounded theory is recognised as authoritative empirical research that goes beyond descriptive and thematic analysis to explain social processes with substantive theories grounded in complex real-world contexts. Several variants of grounded theory have been established and researchers need to be able to justify their use of, for example, Classic (Glaser, 1998), Straussian (Corbin & Strauss, 2008), or Constructivist (Charmaz, 2006) grounded theory. Grounded theory is a suitable choice of methodology to explore unexplained phenomenon with respect for participants' perspectives and experiences and integrity within complex real-world contexts. During this session, participants can share their experiences using grounded theory, celebrate their successes, ask questions, and identify solutions for their challenges with other researchers who are interested in this method of enquiry.

Virtual practicum: A Covid 19 story.

S.A. Probine & J.Perry (MIT)

Practicum in initial teacher education (ITE) programmes plays a critical role in providing a balance between theory and practice for beginning teachers. The 2020 Covid19 lockdown disrupted this and provoked the pre-service early childhood education team at Manukau Institute of Technology to radically rethink how to approach practicum. To ensure safety as early childhood settings cautiously began to re-open, the traditional 'in-centre' observation of practice was replaced by weekly 'virtual' meetings between the visiting lecturer and student, and an online triadic which included the associate teacher. To support these conversations, a reflective framework was developed to guide students to think about and articulate their understanding of the assessment criteria and how they demonstrate this in practice.

At the conclusion of this period, the research team were interested in understanding the impact of this radical change and to discover if there were lessons to be learned that could inform how practicum could be structured and approached in the future. The study employed a social constructionist approach following a constructivist grounded methodology. This methodology enabled the researchers to follow the data that became available rather than approach with predetermined ideas and theories (Charmaz, 2017). The perspectives of students, visiting lecturers and associate teachers were sought via an online survey. Of the 81 students surveyed, 61 responded. Thematic analysis of their responses revealed that students had experienced deep learning, developed personal confidence and took ownership of their learning. These findings demonstrate that despite the challenging circumstances presented to them, students were empowered take ownership of their learning and to articulate how they met the assessment criteria. They experienced an environment of empowerment which served to shift previous power imbalances that can exist within the triadic relationship.

This research has informed a reconceptualised model of practicum which has been developed as part of the redevelopment of the Bachelor of Education (Early childhood teaching) programme at MIT. This new model repositions the student at the centre of practicum and puts in place tools and structures that enable them to lead their practicum journey. This presentation poses possibilities for what practicum and a reconceptualised relationship between visiting lecturer, associate teacher and students could look like in the 'new normal'.

Monitor Plus (M+): A computer vision and machine learning system to
monitor students' participation, interaction, and concentrating in the learning process.

M.G. Abbas Malik (Universal College of Learning)

Recent advances in Computer Vision and Machine Learning help to recognise faces, gestures and sentiments with high accuracy and speed in class environment using lowcost hardware. Due to COVID-19, we need to move classes online using e-learning tools. In such environment, we need to monitor the attention levels of students as well as effectiveness of the learning process. Automated learning analytics is becoming pivotal in designing an Intelligent Learning Management (ILM) system. In this study, a monitoring system, Monitor Plus (M+), is described to monitor the participation, interaction, and engagement of students in the learning process. This monitoring can also be used as an indicator on how interactive, engaging, and effective lessons are. This will give a feedback to teachers on the effectiveness of their lessons and will help them to improve their lessons for a better future of our students. M+ is a crucial component in the development of an Intelligent Learning Management (ILM) system to facilitate various learning modes like online, in-class or blended. Computer Vision, Machine Learning, webcam and/or readily available camera, and Python are used to develop M+.

Monitor Plus (M+) contains different components: Video Stream manager, Face Detection system, Facial Recognition system and Monitoring system. We will briefly describe these complements here.

Video Stream manager: It is responsible to manage the video input stream(s). The video input stream could be sourced from multiple cameras. But due to simplicity, we are currently only handling single camera for the video stream. This component will process the video input and send it to face detection system for further processing.

Face Detection System: It takes the video input and detects all possible faces in the video with a confidence level of more than 70%. This component is developed in Python using OpenCV and machine learning libraries. This component separates all the faces from the video and generate a list of faces, detected in the video. This list of faces is then sent to Facial Recognition system to identify the faces, if possible.

Facial Recognition System: It is responsible to identify the people present in the videos and utilises Deep Learning and Machine Learning for facial recognition. It takes a list of faces as an input and recognise each face based on the pre-trained facial recognition system. It assigns identification to each face, if possible.

Monitoring System: Now, we have identified the participants of a learning session. This component will monitor each participant and its activities during the session. It will continuously monitor each student for its attentiveness, engagement, and participation.

M+ is crucial for the bigger ILM system to develop more effective, efficient, and engaging learning strategies. In future, we will describe ILM system in more detail and utilise more intelligent analytics for the monitoring system to make it more effective and efficient.

hDAS in the design of a 3D multiuser virtual environment (MUVE) for training standard maritime communication for ship's bridge personnel.

T. Cochrane (NMIT)

In a 3D multi-user virtual environment (MUVE), a ship's bridge simulation was designed for a ship's Master (captain) to train ship's bridge personnel standard maritime communication. In an intervention in the training of personnel, the designed simulation was used in place of on-board training. The design process of that intervention was the subject of systematic educational design based–research that was seeded with educational theoretic frames: legitimate peripheral participation (LPP) as introduced by Lave & Wenger (1991) and technological pedagogical content knowledge (TPACK) described by Mishra & Koehler (2006). That lead to the discovery of hybrid Design-based research Agile Software development (hDAS).

This paper reports on the process through which theory seeding was achieved and how theory was observed and recorded in a computer laboratory classroom–based intervention in training ship's bridge standard maritime communication. Theoretic frames were used to guide solicitation of requirements in the design of the intervention. Participant activities and communication were analysed to determine the effect on the process of using LPP and TPACK, and to provide a record to reflect on adjustments in the design using a subsequent iteration in hDAS. Through a novel formalism of narrative centric interpretive turn called Swims. An Agile software development process that was part of that record was found to be a search of a vocation specific artefact space that is similar to searching for a solution in a computing problem domain.

The outcome of the analysis is that using theoretical frameworks in this process was not completely transparent or straightforward. Ensuring the theoretical framework had an effect required constant and sustained adherence to the theoretical form in situations where the process, in which it was applied, could overwhelm the effect. The process of design and development, using an Agile approach, produced a working system. However, the system could have been improved by less constrained development. None-the-less it is posited that hDAS produces vocational education and teaching (VET) interventions within a vocation's training culture while expressing educational theoretic frames (theory seeding). Both outcomes are gains: the designed intervention belongs to the vocation and educational theory is tested.

Animal centred design in Animal computer interaction: An overview of contexts and outcomes.

A.AL-Sa'di (WelTec) & A.F.Wedyan (ICL Graduate Business School)

Pg 1/2

The purpose of this study is to understand the use of User-Centred Design (UCD) in the context of Animal-Computer Interaction (ACI). The research aims to develop a framework for the best practice of using UCD method with ACI. Animals are increasingly exposed to interactive technologies and involved in technological interactions. The main research direction of ACI is to design and develop computing devices and interfaces for animals to participate and interact with. In addition, this research will help humans to understand animals, improve animal welfare, and promote the relationship between animals, humans, and the entire social ecosystem. On the one hand, these interaction processes often involve humans, so they can be regarded as a special direction of Human-Computer Interaction (HCI), animal-human-computer interaction. The importance of this study is to investigates how interactive technologies affect the individual animals involved; what technologies could be developed.

The research will be conducted on two stages that will link to data collection. The first stage focuses on conducting a systematic literature, where it will be used to find the most common UCD methods used on ACI. The second stage focuses on developing a framework that will guide the best method to be used with ACI. The framework will be evaluated by expert in the field. The Genetic Algorithm optimization will be used to optimize the framework and evaluate the results. The results of this research will be compared with similar results of previous research (Gunpinar & Khan, 2020; Jian Pan et al., 2010).

The initial searches found about 173,000 documents related to ACI that have been identified in several search databases such as IEE, ACM and google scholar. The systematic literature review focuses on papers that provides design ideas, test methods, and successful test results about UCD. The literature review only considered papers results that have been published in English in the last five years. The selected articles used a variety of research methods, including workshops, field visits, focus groups, case studies, and gave a clear description of the results, with possible interference factors.

A full flowchart of the selection process is shown in Figure 1. The author excluded some documents, such as methods for unclearly identifying UCD, and studies not related to dogs. It is worth noting that some studies only focus on a specific topic, such as whether UCD can bring welfare to animals, and how to balance animal freedom and human intervention. The decision was made to exclude these ethical discussions and focus on articles with experimental data results.

Animal centred design in Animal computer interaction: An overview of contexts and outcomes.

A.AL-Sa'di (WelTec) & A.F.Wedyan (ICL Graduate Business School)

Pg 2/2
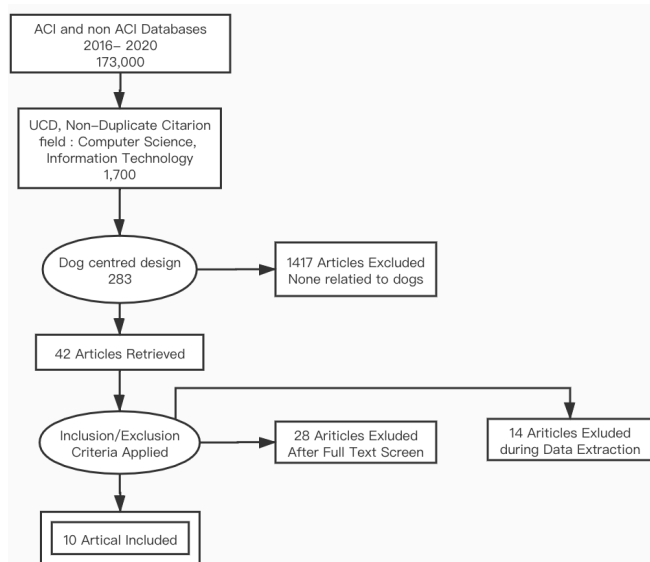
Initial result

This review covered many animals centred ACI designs, but also found some gaps in related fields. Although many games specifically designed for pets can be found in smartphone or tablet stores, there is not much literature on game design. Wirman, H., & Zamansky, A. (2016) proposed a framework concept for playful ACI in their research. They believe that human beings use fun as the primary criterion in the design of games. When designing games with dogs as the centre, dogs should be allowed to feel the fun of the game. However, letting the dog find it interesting, is a difficult subject.

In addition to computer science and information technology, the cooperation of biologists and animal behaviourists is also needed. At present, most ACI research still focuses on dogs and service animals that can directly help us. There are many problems worthy of research in those neglected farm animals. The lack of understanding of other animals is also one of ACI's current blank areas. At the same time, with the rapid development of technology, ACI can give animals more autonomous control (Hirskyj-Douglas, Ilyena; Read, 2016). Many researchers have questioned whether greater freedom means better animal welfare, and analogy that giving children greater freedom is not necessarily more conducive to their healthy development (Grillaert & Camenzind, 2016).

The second phase of this study discussed the use of UCD methods for the animal user interface design applications in additional to draw a best practice of using the UCD. During all the phases of the project lifecycle, UCD focuses on the characteristics and needs of the users. The main aim of the UCD process is to develop a usable and accessible system for all users (Vigoroso et al., 2020). In other words, this approach incorporates information about the users of the application into the design, development, and implementation phase of the project (Huan & Rongtao, 2012). Under the UCD process, the entire development process is focused on user-centred activities to develop an application that is easy and adds value to the intended users (Verhoeven et al., 2010).

Conclusion

This research aims to understand animal behaviours in regards their interaction and participate with the development and design of computing devices and interfaces. The outcome of this research has different real-life applications which can improve the relationship between animals and human.

Decentralised digital identity based user authorisation for controlled datab access.

P. Kuar & S.S. Tirumala (MIT)

In any digital environment, data access is very important. Multiple parties both internal and external will require access to data for retrieval and manipulation. This includes exposing the database to the new users raising the possibility of cyberattacks. Considering the recent events related to cybersecurity, access control has become one of the key aspects particularly with increasing number of cyberattacks using social engineering [1] and password cracking (hacking) [2]. Often it is difficult differentiate a legitimate use and a comprised use when traditional authentication approaches are used using username, passwords and two-factor authentication which can also be compromised particularly with elderly and non-technical users [3]. Further, when comprised, the provider will never know whether the credentials are being used with the knowledge of the user or without his knowledge (stolen).

Decentralized Digital Identity (DDI) is a block chain and distributed ledger-based framework where usernames and passwords are replaced by unique identifiers attached to the individual devices / equipment[5]. The DDIs are self-owned, independent, unique and easily can be device specific and creates self-sovereignty [4]. DDI can also be moved across devices and will require additional passcode to complete authentication. DDIs based authorization provides a way to track and trace the changes in the identifies through distributed ledger and at the same time, giving highest confidence to the users protecting the privacy (as they are self-owned identifiers) and providing 'secured' authorization process. This research tries to investigate the prospects of using DDI framework for authorizing external transaction to on databases to provide secure access. Also, since the identity is self-owned, DDI would enable to track the source quite easily in case the transaction is suspicious. The prospects and the plausibility of DDI being a replacement existing user & password based approaches for personal use is also investigated in this research.

Impact of Covid-19 on New Zealand's tourism sector: An economic analysis.

S. Gonuguntla & R. Narayan (MIT)

The acceleration of globalization process in 1990's has led to, among others, a rapid increase in international tourism. The number of international tourists increased from 530 million in 1995 to 1.5 billion in 2019 ie. an annual average growth rate of 7.5% higher than the global GDP growth rate of about 3% during the same period. According to the World Travel & Tourism Council, the reasons for the rise in global tourism include firstly, the rise in incomes leading to a rise in middle class families in large countries such as China, and India prompting them to travel more. Secondly, the millennials prefer to travel more compared to older generations A direct consequence of rising global tourism is its contribution to employment, and GDP through the tertiary sector. The international tourism expenditure increased from US$ 525b in 1995 to US$2.6T by 2019 ie 1.2% of world GDP to 10.4% in 2019. The WTTC estimates that tourism accounted for 10% of global employment. Thus, tourism sector plays a significant role in the world economy. In line with the global trends, the number of international tourists arriving in New Zealand has steadily increased from 1.3 million in 1995 to 3.9 million in 2019, and contributed to 5.5% of GDP. The tourism sector accounted for 15.7% of employment. Included in the inbound tourists are international students forming part of education exports. Pre Covid, international student education contributed over 5 billion dollars to the NZ economy and was the fifth largest export earner, supporting 45,000 jobs.The Covid-19 pandemic has hit the global tourism sector hard with devastating economic consequences to the global economy due to international travel restrictions imposed by countries across the world to contain the spread of the virus. New Zealand closed its borders in March 2020, consequently the international visitors declined by 95% with its negative flow on effects to the economy in terms of contribution to GDP, employment, and current account balance.

This study aims to forecast the international tourist arrivals to New Zealand up to 2025 under two different scenarios i.e. normal conditions (without Covid-19), and in Covid-19 environment. An Autoregressive model will be constructed using deseasonalised data from 2011 to 2021 to estimate the number of inbound tourists. The second aim is to estimate the impact on GDP by applying the multiplier (estimated by UNCTAD) effect for each of the scenarios. Lastly, New Zealand Government's policies aimed at helping the tourism sector in times Covid-19 will be compared with that of other countries such as Australia, and Singapore in order to assess the adequacy of our policies, and make recommendations for improvement where necessary.

Economic security for Aotearoa through an effective diversification strategy.

A.G. Stone (Open Polytechnic)

Globalisation has accelerated the pace of change of how humans live their lives and countries plan for their economic future. Many advantages of the current age are due to facilitating the global transportation and translocation of goods, information, and people. This phenomenon does not come without challenges. Global uncertainty because of climate change, rise of new political powers , scarcity of clean water, and extreme international competition has been a key driver for countries to re- consider their policies on future security .

In these times of global uncertainty and intense global competition, countries need to focus on their well-being policies. Achieving beneficial international agreements and projects for a country can only occur by developing and implementing a cohesive international strategy. Overcoming immediate challenges and crises are a priority, but such a plan of action has to align within the government's long-term plan and vision.

In this presentation, I will be discussing Aotearoa New Zealand , and in particular how the geographic location, size, population, unique culture, and diverse communities are major factors that determine international trade to be a key driver of New Zealand's economic prosperity.

Successive governments of New Zealand have long understood the need and benefits of diversifying its international partnerships, and for the last half a century have successfully achieved ambitious results through trade diplomacy. The UK, Asia, Australia and the USA have been the main focus for successful trading partnerships.

However, New Zealand is still heavily reliant on its relationship with a small number of countries, most noticeably China. In the first half of 2021, New Zealand's trade with China contributed 32% of its overall international trade, up from 26% the same period a year before (2020). This significant trading relationship, and the fact that it has increased, demonstrates the close relationship between New Zealand and a world superpower. However, it is also a factual indication that there is an economic risk for New Zealand based on its reliance on one country.

This presentation will discuss the importance for having a clearer diversification strategy for New Zealand, citing the Middle East as a successful example of diversification strategy, and provide recommendations to achieve that success. I will base my analysis on my 10 years of academic research and career experience in international relations.

Learning support: The role of learner agency in challenging times.

R.G. Thomas (Toi Ohomai)

This presentation shares the resilience-related aspects of a study titled 'Students' experiences and perceptions of learning support services at Toi Ohomai Institute of Technology'. The services and resources investigated are those provided by the Toi Ohomai Learning Success and Engagement (LSE) team, made up of Learning, Engagement, and Regional Engagement Facilitators. The team offers academic and pastoral support across six campuses, many smaller delivery sites and online, to the Level 2 – 9 students served by Toi Ohomai. The researcher is a Rotorua (Mokoia campus) based Learning Facilitator. Her initial objective was to explore students' experiences and perceptions of existing academic services and resources, however the arrival of COVID-19 and subsequent lockdowns prompted adaptations and innovations which were able to be included.

The researcher selected an explanatory, sequential, mixed-methods design to answer the research questions. Quantitative data (n=278) were gathered via an online survey, shared through student channels, programme leads/tutors and LSE team members. Hard copy surveys were offered where students appeared less likely, or were less able to complete an online survey. Follow up interviews were conducted with 12 survey participants, selected to represent the broader student population (programme, level, location, study modality, gender, ethnicity, background, age) from the 63 survey participants who had expressed interest. Students discussed their use (or not) of services and resources, and barriers that they or others had encountered. Each interviewee was asked to share their definition of study success, to amplify data from the survey, and barriers that might prevent them or others from succeeding. They described their version of the 'ideal' learning support. Face-to-face support was generally preferred; online students also referred to the benefits of face-to-face support. There were gaps in knowledge of the support available, particularly among online students. Many participants stated that more promotion was required.

This presentation will focus on themes related to learner agency, based on qualitative data from the study. Such themes included students' desire 'to work things out' for themselves; the formation of student-initiated peer learning networks, perseverance, and finding strategies to deal with information technology challenges and other barriers. As we in Te Pūkenga establish our network of provision, the researcher expects that the full research findings will assist us to better support students, regardless of their location, mode of delivery and learning context.

Engagement avoidance motives of successful learners who exhibit low online interaction and engagement: Are they more resilient?

R. Joshi & I. Peris (Open Polytechnic)

Education researchers emphasise the importance of pursuing student interaction and engagement through rich learning programmes to prevent attrition and low involvement, and particularly more so in online education due to its transactional distance (Baek & Shore, 2016; Bundick, et al., 2014; Cavinato, et al., 2021). However, a preliminary investigation of Level 5 and above Business courses at the Open Polytechnic suggests that several students successfully complete their courses with good grades (B or above pass) but show poor recorded engagement with them. Research suggests that students high on self-regulation are also high on self-efficacy and learning commitment (Zimmerman, 2011) and take greater ownership of their learning (Ndoye, 2017; Zimmerman, 2011). Zimmerman (2011), notes that they actively endeavour to achieve their goals instead of relying on others, including their teacher, or any other agent of their instruction. Further, Cosnefroy and Carre (2014) claim that self-regulated learners control the proximal goals of their learning activity; suggesting that they manage their choice and quantity of resources, interactions, and other strategies for effectively addressing their immediate learning needs.

However, we posit that looking at the learners' intrinsic factors is important but not sufficient to understand their overall learning behaviour. We use the Activity Theory, more commonly known as the Cultural Historical Activity Theory (CHAT), to recognise the importance and the impact of the social aspects of their learning. CHAT can be used to understand 'who is doing what, why and how', thus making it more of a systems approach to understanding learner behaviour. CHAT provides a conceptual framework from which we can understand the inter-relationship between activities, actions, operations and artefacts, the subjects' motives and goals, and aspects of the social, organisational and societal contexts within which these activities are framed, thus giving us a broader framework to study the learning behaviour of these students from.

This research has two phases. Phase one is related to our conference presentation, where we will show the development of our theoretical framework. We will also present findings from available quantitative data on course completions, interactions, and engagement levels of learners who surprise their course leaders with good grades despite poor engagement vis-à-vis of those who show mediocre performance but high interaction and engagement.

The second phase involves a qualitative study based on the CHAT framework, to study a sample of students in the above two categories to get a deeper understanding of their contextual embeddedness, motives, actions, and outcomes.

The findings should help build insights into why our learners do what they do to achieve their goals. This is important for three key reasons: 1) to better understand learner expectations; 2) to customise the learning environment to suit learner expectations; 3) to highlight the perils of compartmentalising the educational experience as a product rather than a process.

Practical use of education and dyslexic lenses within tertiary education: The dyslexia-friendly quality mark.

V. Beckwith (UCOL)

This article acts as a lens to the Dyslexia-Friendly Quality Mark experience, from the perspective of a dyslexic person, and how their perceptions shaped their perspectives, and the manifestation of these whilst journeying towards achieving the Dyslexia-Friendly Quality Mark.

The true depth of dyslexia is an unknown in most countries, but even more so in Aotearoa New Zealand. Recognised by the Ministry of Education in 2007, Aotearoa New Zealand's dyslexia discussion is in its infancy, but rapidly gaining maturity, particularly within the tertiary sector. Certain key people and organisations in the sector are driving change, and raising awareness, through research, discussion, and training. These catalysts are establishing connections, joining people together in spaces such as the Neurodiversity Community of Practice's Facebook private group, which grew to over 140 members in its first year. In 2020, the Tertiary Education Commission set up their Dyslexia Work Programme Advisory Group, followed by the release of the Commission's report, International Practice in Support of Dyslexic Learners in Tertiary Education: Potential Applications in the New Zealand Context (2021). During 2021, the Dyslexia-Friendly Quality Mark trial was undertaken by three organisations, in preparation for its national release in Quarter 3.

For one of these three organisations, the intention from the outset was to provide solution-focused, robust and sustainable processes, supporting staff, learners, whānau, business, and community. The holistic approach encouraged by the Dyslexia-Friendly Quality Mark meant a period of review and reflection for the organisation, leading to the identification of practical, efficient, cost effective, and flexible practices during the trial. Dyslexia is valued and recognised by the organisation as a learning difference, and that success for dyslexic people requires a whole-of-institution approach, including research-based practices, management and leadership, the quality of teaching and learning, the teaching and learning environment, and the organisation's engagement with external stakeholders.

Normalising dyslexia, and providing safe environments, where dyslexia awareness is seen to be commonplace, are important, and will support those who have prior experiences of struggling with education. Positive awareness of dyslexia supports diversity, performance, motivation, and retention. It also benefits the learning of all learners and staff, not just those with dyslexic tendencies, by equipping them with strategies to benefit themselves, their communities, and organisations, both now and in the future. It is important for tertiary organisations to remember that a dyslexic learner is likely to have dyslexic family members, learners and whānau may not know they are dyslexic (or may not identify as such), learners are still in education despite prior experiences or frustrations, and our dyslexic people are resilient, and determined, having manoeuvered around obstacles to be in our organisations.

The discussion surrounding dyslexia continues globally, but, there are things afoot in Aotearoa New Zealand that have gained attention overseas, and will have a resounding impact on tertiary staff and learners. It is an exciting time for dyslexia and Aotearoa New Zealand!

"Māori and Pasifika collective resilience through connected research in higher education.

H. Smith (Ngā wai ā te tūi Māori & Indigenous research Centre, Unitec Institute of Technology)

Māori and Pasifika peoples are people of the Moana, connected through whakapapa (genealogy), language, ancestral ties, shared and differing, stories of resistance, resilience and thriving while simultaneously maintaining and asserting identities that are complex and heterogenous. Our more recent collective histories of colonisation, capitalism, changing connections to land, language and identity mean that we are regularly and problematically homogenised and defined by the 'other'. In Higher Education the terms Māori (who identify themselves in tribal, sub-tribal and whānau groupings) and Pasifika (who identity as family and village collectives within larger island regions) are used as simplistic descriptors to gloss complex and multi-layered identities.

Drawing on nautical notions of traversing Te Moana Nui a Kiwa, the Pacific Ocean, we seek to encourage Māori and Pasifika researchers to come together in purposeful and transforming ways, not to further homogenise Moana identities but, as many sang in active resistance in Aotearoa New Zealand during the 90's "Kia kotahi mai te Moana-nui-ā-Kiwa" – to bring the Peoples' of the Pacific together. This presentation shares how I, a Maori researcher with my Tongan colleague theorised Vā-kā, a methodology that emerged from within a Higher Education research fellowship focused on Māori student and Pasifika success. Both relationally and conceptually we lashed together the Pasifika term vā – relational time and space - with the Māori term kā - to ignite, to consider, to be in action. Bound together we forward Vā-kā as a way to ignite the relational space between Māori and Pasifika researcher relationships, to share ideas, resources, and 'crew members' in resilient allegiances that work to positively support our different and similar educational agenda and seek transforming change for our diverse and complex communities in the ITP sector.

The effect of Covid-19 quarantine and managed isolation lodging on hotel branding.

Z.L Wisker (WelTec)

The negative impacts of COVID-19 on the world's economy are undeniable, while the pandemic has also had a disasterous effect on the tourism industry. The study aimed to understand the effects that serving as a COVID-19 quarantine and managed isolation lodging had on a hotel's corporate brand image, repurchase intention, and brand loyalty.

Using expectation-disconfirmation and attribution theories, the study hypothesis was that serving as a managed isolation and quarantine lodging was detrimental to a hotel's corporate image, reducing its brand loyalty and repurchase intention. Given results of clinical studies have shown that COVID-19 has more severe impacts on the elderly, a second hypothesis was that age moderates the relationship between independent and dependent variables.

The study used a quasi-experiment survey and adopted repetitive measures. 114 respondents participated in the survey. Data were analysed using a t-test and regressed through Macro SPSS PROCESS Model 1 (Hayes, 2018). Results affirmed the study model, albeit with insignificant moderating effect. Serving as a quarantine and managed isolation lodging, had negative effects on a hotel's brand image, repurchase intention, and brand loyalty.

Building resilience: Current and future contributions of outdoor adventure educators in NZ's ITP sector.

N. Kelly (Toi Ohomai)

Outdoor adventure education uses adventure experiences to push participants to the edge of their potential, growing their self-awareness, mindfulness, selfcare, positive relationships and purpose – the five pillars of resilience. Strengthening people's resilience is important for the development of people's life skills and ability to deal with stressors. The benefits of adventure programming are often misconstrued, and often only fully appreciated by the participants who experience the adventure.

Little is known about how adventure educators ensure there is transfer of learning beyond the adventure programme and how participants use their new-found skills. Recent research involving field observation, a focus group interview and questionnaires, investigated strategies used by New Zealand Adventure Educators to ensure students transfer learning beyond the course as well as identifying how students were using their newfound skills. Phase one of the research project was a written questionnaire of eight questions to students participating at five different outdoor adventure education programmes throughout New Zealand polytechnics.

Phase two entailed face to face interviews with ten adventure educators from the following centers: Tai Poutini Polytechnic located in Greymouth, Waikato Institute of Technology in Hamilton, Christchurch Polytechnic Institute of Technology (CPIT) and their merged polytechnic in Timaru. Other interviewees included the head of the outdoor department at Te Waiariki Purea Trust in Rotorua, and the founder of SSA-Leaders (Strategic Self Awareness Leaders).

Phase three was a five-day observation investigating facilitation processes employed by the outdoor adventure educators at Tai Poutini Polytechnic during one of their kayak courses. Focus group interview was with the year two level 5 outdoor adventure students at Tai Poutini Polytech. The key findings suggest New Zealand polytechnics lead the way in transfer techniques through constructed reflection, and embedding relevant theoretical components coupled with relationship building that foster change and holds students accountable for their actions and their learning. The findings confirm that outdoor adventure education influences students' character, with 93% of students claiming they experienced improved resilience, exceeding their expectations on how far they can push themselves while coping with challenges on the course. These findings have informed my own teaching practice and are relevant to tertiary teachers more generally.

After summarizing the research findings, the presentation focuses on implications for tertiary teaching, highlighting a few key strategies and recommendations that embrace fostering future research collaboration as we move towards becoming one entity under Te Pūkenga. Modelling the learning experience as part of the research the presentations will incorporate an opportunity for those present to also engage in reflections.

Quick tips for using NVIVO to analyse text responses from an online survey tool: Microsoft forms.

P. S. Bidwell (Open Polytechnic)

Online survey forms are frequently used to gather quantitative data, using primarily closed-answer questions. Their use for exploratory qualitative research with the use of more open questions to encourage longer responses is an emerging area, but one that is likely to grow significantly. This presentation aims to show its potential. Mixed-methods research involves interpreting both quantitative and qualitative data and is often derived from a single study. This approach allows researchers to not only learn how many respondents hold a particular position but also to explore their reasons. The presentation will briefly consider whether an online survey tool is an appropriate choice to gather qualitative data and whether it meets the requirements of mixed-methods research.

The presentation will continue by demonstrating how text-based survey responses can be analysed qualitatively. The online survey tool Microsoft Forms is used to generate data, which is then imported and coded using a tool such as NVivo, a software programme used for both qualitative and mixed-methods research. The presentation will look at the best strategies to import Excel .xlsx files as well as tips for data analysis.

This presentation is suitable for current users of NVivo as well as those considering qualitative research and seeking viable online tools. Part I of this presentation is a comparison of two online tools: Microsoft Forms and SurveyMonkey for qualitative analysis.