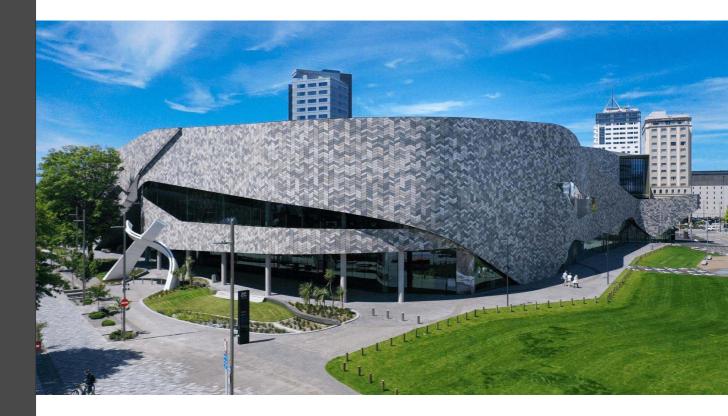


Work-Integrated Learning New Zealand 2023 Abstracts



Weaving together: The future of work-integrated learning

20-21 of April, 2023, Te Pae Convention Centre, Christchurch, New Zealand

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Opportunities to create a thriving, climate resilient, low emissions future. Implications for the way we work and what we work on

Dr. Rod Carr

Chair, He Pou a Rangi Climate Change Commission



Dr. Rod Carr is a leading voice in climate policy and action, with extensive experience in both public and private sector governance and leadership. He served as Chair and nonexecutive director of the Reserve Bank of New Zealand and served as Deputy Governor and for a time Acting Governor of the Bank. He led the University of Canterbury as Vice Chancellor for ten years, leading the University through a challenging period following the Canterbury earthquakes.

Dr. Carr remains the founding trustee of the \$100 million Christchurch Earthquake Appeal Trust and is a Trustee of the Christchurch Arts Centre which has been involved in a decade long \$220 million restoration after the 2011 Christchurch earthquakes. He was a director of Lyttleton Port Company for ten years and is currently a director of

Crown Entity Ōtakaro which has overseen a billion dollars of construction in Te Pae, the Christchurch Convention Centre, and Metro Sports Centre in Christchurch. Dr. Carr served for five years as the founding chair of the National Infrastructure Advisory Board and for ten years as a director of the Canterbury Employers' Chamber of Commerce.

Rod holds a PhD in Insurance and Risk Management and an MA in Applied Economics and Managerial Science, an MBA in money and finance and both an honours degree in law and an honours degree in economics.

Rod has also run 23 marathons most recently in 2019 in North Korea and inside the Polar Circle in Greenland.



The future of learning and how it interconnects with the future of working

Tracey Cotter-Martin

Associate Director: Futures, Insights + Experience, Datacom



An industry expert in bringing innovation and new ways of thinking to the workplace will discuss the future of learning and how it interconnects with the future of working – an area she and her team have researched extensively.

Datacom is Australasia's largest technology services and solutions organisation and Tracey and her team are responsible for bringing an increased focus on innovation and out-of-the-box thinking to its customers throughout Australia, New Zealand and Asia. Recently, Tracey led a major research project examining mindsets, macro trends and industry pressures which identified the need for new ways of working in a post-pandemic world. With her career based in strategy,

consultation and big picture thinking, Tracey is perfectly positioned to discuss how applying a 'mindset-based' approach to learning can help ensure tomorrow's workforce is future fit.

As a recipient of the 2022 Reseller News Women in ICT Awards (WIICTA) Innovation Award, Tracey is interested in understanding the external factors that inform and influence the way in which we work and how meeting the needs of customers can also inform how to build empathetic working environments. She has a Bachelor of Education, Teaching (Primary) from the Wellington College of Education and believes we should always be learning.



Multidisciplinary work WIL projects

Gail Adams-Hutcheson Sandy Muller Karsten Zegwaard Lee Martin Natasha Miller *University of Waikato*

Learning through interdisciplinary opportunities plays a key role in enhancing graduate employability outcomes (Ferns et al., 2022) whilst Gardner and Perry (in press) argue the need for adaptive innovators with broad understandings of systems and knowledges to reflect the interdisciplinary nature of workplace practice. Literature has highlighted that interdisciplinary work-integrated learning (WIL) is regarded as an innovative form of WIL (Kay et al., 2022). Albeit the practice of campus-wide interdisciplinary WIL projects is uncommon, there are examples in the literature such as the CityStudio (CityStudio, 2023) and the Canadian University of Capilano's Co-Lab initiative (Baichoo et al., in press).

In 2018, the University of Waikato developed a new curriculum framework that presented WIL as a compulsory offering in all undergraduate degrees. This curricular redevelopment presented an opportunity to create a campus-wide learning environment through using multidisciplinary teams, thus the University developed The Impact Lab initiative.

The Impact Lab consists of multidisciplinary projects where project selection is guided by the alignment with the UN Sustainable Development Goals (United Nations, 2016). Projects are environmentally and community focused, involving a community stakeholder, and require input from multiple disciplines for completion. Third year students from any discipline can enrol in The Impact Lab as their WIL option and are placed in multidisciplinary teams of five to six students. Currently, there are two forms of delivery of The Impact Lab; multiple projects where students preference the project, and a single project where multiple teams work towards developing a solution in competition with each other. The Impact Lab is facilitated through a central office with academic support from the individual Schools.

In this presentation, details on how The Impact Lab operates are discussed along with the opportunities and challenges encountered. Benefits for the students and the external stakeholders are also discussed along with examples.

Wellbeing challenges students encounter during work placement

Gail Adams-Hutcheson Karsten Zegwaard University of Waikato

Student wellbeing has received increasing attention in literature and by senior leaders at higher education institutions. The New Zealand Government recently introduced the Education (Pastoral Care of Tertiary and International Learners) Code of Practice (2021) to address concerns based on student



wellbeing in higher education. Work placements present a unique set of challenges for students, however, a focus on WIL student wellbeing in the literature has been limited.

Preliminary findings of student stresses and wellbeing during work placements will be presented. The research utilised a Qualtrics survey containing agreement statements and open-ended questions. The survey was sent to 950 students who had recently completed their work placement. The investigation is ongoing, with data collection occurring from mid-2022 through to mid-2023 the research has ethical approval from the University of Waikato.

Initial findings indicate that student wellbeing during work placement ranged widely, however, on average it was low (less than Likert 5 out of 10), with 1/3rd describing their wellbeing as very low (less than Likert 3). The main stressors encountered were financial concerns, physical health, COVID-19, work colleagues, and the need to care for a family member. About 1/3rd of students reported that during work placement they reduced physical activity, contact with others, and healthy eating habits, with some reporting an increase in destructive types of behaviours such as smoking/vaping and alcohol consumption.

About 1/3rd of students indicated that they were aware that the university provided support services, however, many students were not aware where to find these support services. When asked if students needed wellbeing support during work placement, 1/3rd indicated not, ¼ indicated maybe, and just over 1/3 indicated they 'probably' or 'definitely' needed support. When the latter group was asked if they sought or found help, just over half indicated 'no' and ¼ indicated 'yes' (the remainder were 'unsure'). Despite these negative challenges to their wellbeing, students did indicate positive outlooks on life, with many perceiving that the things they were doing were worthwhile and were generally optimistic about the future.

Preliminary results clearly indicate a significant cohort of WIL students struggling with wellbeing and perceiving the need for support, although, not being sure where to find this support. Therefore, an important first step for higher education institutions is to increase the profile of the support services within their student community.

Reflection and reflexivity as WIL strategies for educators

Anne Alkema Independent

While much is written about work integrated learning, little attention is given to work integrated learning for educators. We get qualifications, undertake some professional learning and development and sometimes that's it! The challenge is - how do we stay up to date with the knowledge and skills required to meet the demands of the learners who come into our organisations.

One way is to incorporate work integrated learning into education practice through using the Tapatoru Professional Practice Framework which leads to an award.

Launched in late 2018, Tapatoru incorporates three dimensions: Ō Tātou Uara – what we value; Ō Tātou Mōhiotanga – what we understand; Ā Tātou Mahi – what we do. The framework builds from work overtime in Aotearoa New Zealand and provides a clear and succinct articulation at the national level



of the dimensions that contribute to foundation educator practice. The development of Tapatoru, its early uptake, and its impact on educator thinking and practice were the subject of a doctoral thesis (Alkema, 2021).

In essence, their learning involved three key elements. Firstly, educators' recognition and articulation of \overline{O} Tātou Uara – the values of whanaungatanga, manaakitanga, wairuatanga, and aroha and the ways in which these values allowed them to think about, build towards, or affirm their cultural capability. Secondly, the extent to which going through Tapatoru enabled deliberate reflection-on-action, and for some, reflection-in-action in relation to their knowledge, practice, and values. Thirdly, the reflective commentary process for Tapatoru allowed for articulation of practice in a way that has not been asked for previously in Aotearoa New Zealand.

This presentation will look at how education practitioners integrated learning into their practice as they went through the process of submitting a portfolio of evidence for the Tapatoru Award. It will focus on reflection as a key component of this learning and consider ways in which this might be approached and improved by individual educators and within education organisations.

Relationship between self-efficacy and Saudi pre-service teachers' technology use

Azizah Alsaiari Flinders University, Australia

With the growth of online learning and the implementation of technological tools, especially with COVID-19 pandemic, reliance on digital learning has increased. An important influence on pre-service teacher's use of technology that has been under investigated is how their self-efficacy influences knowledge and use of technology. This research explores how self-efficacy influences pre-service teachers use of technology. In this paper, the purpose is to provide an overview of an ongoing research project on how pre-service teacher education programs use TPACK and SAMR theory to improve teacher self-efficacy with technology.

As part of this study, the researcher conducted Exploratory Factor Analysis (EFA) to assess Saudi preservice teachers' self-efficacy to use technology. The internal reliability coefficient of Cronbach's Alpha was determined using SPSS to assess the reliability of the Teachers' Sense of Efficacy Scale (TSES). This is being developed, and I seek feedback on possible ways to set up methods to enable rigorous analysis.

This experimental study contributes to the understanding of teachers' self-efficacy in adopting technology in higher education in Saudi Arabia.

Keywords: Pre-service teachers, self-efficacy, initial teacher education program, TPACK theory, SAMR model.



Weaving the threads of postgraduate WIL: Experiential learnings from doctor of professional practice mentors

Martin Andrew Otago Polytechnic | Te Pukenga

As educators weave together a collective vision for our educational future at all levels of our education frameworks, there are increasing korero around the shape and purpose of postgraduate learning in work-integrated learning. Simultaneously, we see in Australasia an increasing emphasis on our learners partaking in practicum- or placement-based research as part of a project of promoting high-level employability and afford transferable skills and industry experience (Valencia-Forrester, 2019). This presentation suggests ways in which work-integrated learning postgraduate qualifications, more specifically doctorates, could learn from experience of designing and delivering a work-based learning Doctor of Professional Practice (DProfPrac) degree. Drawing on qualitative experiential data from mentors and learners on the former Otago Polytechnic's 5-year-old DProfPrac degree, I present key pedagogical learnings that organisations considering work-integrated learning postgraduate qualifications, including doctorates, might apply. At the heart of the research-based, research-oriented and research-informed programme is 'work' as a purposive activity that supports learning through work-based research. Primary among the affordances of such a programme is the emphasis on reflecting and enquiring into work activity, and on developing people as reflective, self-managing practitioners (Lester & Costley, 2010). This presentation presents key discoveries of those involved in the heart of delivering a successful work-based doctorate which has seen eight (and counting) completions in its first five years of operation.

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Engaging neurodiverse learners: eLearning to support the NZ Security industry

Elizabeth Asbury George Orsborn Emma Addington Pipi Learning Ltd Gloria McGirr Stratcom Security

Introduction: Twenty percent of New Zealanders are neurodiverse but are eight times more likely to be unemployed than the general population. Stratcom Security faced the challenge of upskilling a diverse population of learners to fill an urgent skill shortage in the security sector. They partnered with



Pipi Learning to explore the impact of creating accessible and inclusive eLearning to support security industry training.

Literature: eLearning could be instrumental in enabling diverse learners to engage and prosper in Work-Integrated Learning (Seale, 2013). By enabling a previously excluded population to succeed, skills shortages and societal pressures could be improved (Krzeminska et al, 2019).

Method: Stratcom Security and Pipi Learning reviewed existing teaching resources to create three modules designed to provide work-based learning, enabling new and existing security personnel to maintain employment while upskilling. The three modules were centred around essential security skills: Time Management, Shift Work and Protective Security Requirements. The modules were specifically designed to include neurodiverse and low literacy learners by employing voiceover, dyslexia friendly font and visual display, along with images and video. All three modules were developed using Articulate 360 and evaluated using the Kirkpatrick Evaluation Framework. Each module contained 30 minutes of engaging interactive content, including expert interviews, animation and quizzes, all created through an Aotearoa New Zealand cultural lens. The modules were piloted and launched in February 2021. Participants were asked to rate their understanding of the module learning outcomes using a seven-point Likert Scale, before and on completion of the module. Data are represented by the mean and standard deviation, statistical significance is set at p<0.05.

Results: Four hundred and seventy five learners completed the evaluations between February 2021 and January 2023. 96% found the modules relevant to their work. 96% reported increased confidence in their understanding of time management, shift work and protective security requirements, and 97% were confident they could apply this understanding in their job. 96% found the modules engaging, useful and comprised of appropriate content. Participants reported a significant increase in their understanding of time management (4.50 ± 1.97 vs. 6.05 ± 1.20 , p<0.001) and shift work (4.62 ± 1.93 vs. 6.13 ± 1.17 , p<0.001), while participants understanding of protective security requirements also increased significantly on completion of the module (4.44 ± 1.99 vs. 6.08 ± 1.19 , p<0.001).

Conclusion: Accessible and inclusive eLearning design enables neurotypical, neurodiverse and low literacy learners to upskill in the workplace, as this continuing collaboration between Stratcom Security and Pipi Learning has demonstrated. Engaging and representative online learning can provide the training environment *all* learners require to succeed.

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How WIL is an imperative of Swiss apprenticeships

Antje Barabasch

Swiss Federal University for Vocational Education and Training

With about 73% of each cohort leaving high school, Switzerland's majority of young adults attends VET and starts to learn and work in companies at an age of 15 or 16 years. Apprenticeships are largely offered by enterprises who hire and pay a small salary for mostly three to four years until the apprenticeship is completed. The industry is also largely driving curricular content within the apprenticeship and ensures



that a wide range of occupation specific skills are acquired, thus making young workers employable in different enterprises afterwards.

Changes in work organization increasingly require apprenticeships to be adjusted in terms of their teaching and learning approaches to develop new competences and transversal skills. In addition, new digital skills are to be delivered. Generation Z raises new expectations as to how they want to learn and work. This inherits the question as to how industries ensure the attractiveness and appropriateness of their apprenticeships. How do they shape their learning culture and enable innovation in training?

Over the past four years six exploratory case studies have been conducted in major Swiss enterprises representing five sectors (telecommunication, public transport, post, pharmaceutical industry, retail trade) in order to understand how and what kind of innovations are introduced in VET (e.g., new approaches to individualized or self-organized learning, coaching, or learning communities and teamwork). More than 200 semi-structured interviews were pursued with apprentices, trainers, and management as well as about 35 observations at workplaces. Drawing on theories of institutional transformation and organizational culture, the presentation will provide insights into innovations in apprenticeship training and argue that national culture, industry specific organizational cultures as much as the constitution of cooperative arrangements between different learning places interact in shaping modern learning cultures. Organizational culture theory (Zilber, 2002, 2007) is concerned with the social construction of reality through interaction of individuals, who negotiate meanings based on their values, norms and attitudes. Institutions internalize organizational culture by shaping institutional norms, structures and practices (Phillips, Lawrence, & Hardy, 2004; Zilber, 2008).

Based on empirical findings I will address how work-integrated learning is adjusted to new workplace demands in different Swiss industries. Results will be presented with a focus on the functioning of the Swiss apprenticeship system and its openness for innovation.

A vocational excellence framework for the food and fibre sector

Adam Barker Scarlatti Limited Josh Williams Skills Consulting Group

Introduction: The Food and Fibre Centre of Vocational Excellence (FFCoVE) was established in 2021 as a result of the 2020 Reform of Vocational Education, with a role to promote and accelerate excellence and innovation in vocational education in New Zealand's food and fibre sector. To demonstrate improvement in vocational excellence, a measurement system was required. The Vocational Excellence Framework was developed by Skills Consulting Group, and refined by Scarlatti Limited, for this purpose.

Description of the good practice: The Vocational Excellence Framework comprises an initial set of 12 rubrics identifying criteria for the reporting of vocational excellence in the design and delivery of vocational education and training (VET) services. While the focus was food and fibre-related VET, the rubrics can be used (as designed or through adaptation) across the entire spectrum of education delivery.



The framework is grouped into three areas: People, Provision and Processes:

People comprise the characteristics and attributes of influencers in the VET system and poses the key questions: When the VET system is excellent, what are employers doing? What are excellent educators doing?

Provision comprises the characteristics and attributes of provision and delivery in the VET system and poses the key question: What has been identified as excellent in the components of VET?

Processes comprise the characteristics and attributes of the contextual processes that support VET systems and poses the key question: What has been identified as excellent in the processes of VET?

Approach: The aims were to:

- Build from international research, but incorporate the practical experience and perspectives of people working within New Zealand's VET system to provide cultural and local practice perspectives.
- Develop a evidence base to support FFCoVE prioritisation and activity.
- Create a tool which is easy to apply.
- Make it easy to expand and adapt.
- Set a high but achievable bar for excellence.

Continuous improvement: The relevant rubrics are applied to all FFCoVE projects and proposals as part of prioritisation and impact assessments. Ongoing FFCoVE work has led to refinement of existing rubrics, and development of additional rubrics, such as a non-formal learning and an ākonga Māori rubric.

The current framework, and a more detailed description, can be viewed at: <u>https://foodandfibrecove.nz/wp-content/uploads/2022/06/Vocational-Excellence-Framework.Ppdf</u>

Creating authentic WIL for international students trapped by COVID lockdowns: A new approach using Hy-flex classrooms

Sandra Barnett

Auckland University of Technology

Work-integrated learning (WIL) impacts on the employability and preparedness of students to enter employment (Ferns & Lilly, 2015; Winchester-Seeto & Piggott, 2020). It is also seen by students as an important way to interact with industry, which can lead to enhanced employment opportunities upon graduation (Jackson et al., 2016). International students enrolling on applied programmes are usually hoping to get authentic work experiences in the host country. However, often these students are on short study time frame programmes such as one-year masters programmes, and also need to have other part-time work. These time issues do not allow for time for relevant WIL placements. Also, there is the issue of the preparedness of international students to undertake WIL (Cameron et al., 2018; Venville et al., 2021). Moreover, international students who during Covid lockdowns are not able to be present in the country have needed special consideration.



This presentation reports on a new approach to dealing with these issues in an applied business management master's programme, where many of the students were not able to come to New Zealand because of Covid travel restrictions. The solution was to conduct the course and a pre-requisite preparatory course in a hy-flex classroom i.e. a combination of hybrid and flexible, using video and audio technology to integrate in-class, online learners and with industry clients coming into the classroom presenting real life industry briefs for student projects. This hy-flex method of delivery can provide the benefits of; presence in the classroom, flexibility of study; equivalence of learning for both groups of students and the reusability of learning artefacts (Beatty, 2019). Equivalence came with the opportunity for on-line students to interact with industry representatives and both witness and interact with the discussion and activities of in-class students. Reusability came when learning artefacts, such as the presentations and question answer sessions with industry clients and all in-class activities and discussions were a captured, published and made available online for all students.

The same hy-flex delivery was used in the preparatory course where students were prepared for the WIL by practising consultancy and communication skills such as simulated client briefings and interviews as well as virtual meetings with their actual project clients.

Feedback from students and teachers of the hy-flex delivery course suggests that the offshore students appreciated the opportunity for presence in the classroom and with the clients and the flexibility and reusability of learning materials, but level of equivalence was not.

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Identifying the profession's view for a co-creation approach to WIL in architecture

Sarah Briant

Queensland University of Technology, Brisbane, Australia

Introduction: The aim of this research is to understand the architecture profession's views of work integrated learning (WIL) and how that perspective can be utilised in a co-creation approach to recommend sustainable WIL strategies for architectural education. While this study focusses on the architecture discipline, it has application across other disciplines, particularly those with professional accreditation requirements.

Literature: While there is extensive literature about the value of WIL programs as part of university work readiness and employability strategies (ACEN, 2022; Billett, 2020; Jackson, 2015; Jackson and



Bridgstock, 2020; Jones *et al*, 2019; Rowe & Zegwaard, 2017;), there is little research specifically about WIL in architecture programs in Australasia (AIA, 2019; Ang, 2007; Authors, 2020; Savage, 2000; Tucker, 2011) and whether the profession is consulted regarding WIL curriculum design.

The context of architectural education has changed significantly in recent times, as has the architecture profession, due to technology shifts, altered procurement processes, globalisation, digitisation, fabrication, multidisciplinarity, involving complex environmental and societal issues (Charalambous and Christou, 2016; Jones and Hyde, 2019; Maroya *et al.*, 2019; Oliver, 2015).

These shifts in the profession and universities exacerbates a long-standing debate between the academy and the profession regarding how we should prepare architecture graduates for practice and the role that WIL might play (Bates *et al*, 2015; Boyer and Mitgang, 1996; Ostwald, 2008; Tucker and Elkadi, 2011; Tzonis, 2014; Samuel, 2018).

Methods: A three round Delphi survey of architecture practitioners involved in WIL across Australasia was undertaken, along with a separate survey of WIL academics in architecture programs (ethics approval number: 1800000704).

Results: The architecture profession agreed (96%) that WIL helps students transition from university to work, articulates skills required for practice (91%), enhances graduate employability (91%) and develops an understanding of workplace culture (83%). Barriers included costs to support students on placement, and a limited understanding of WIL types beyond traditional forms of work-based placement, with many WIL programs in architecture being "hidden" (Jones et al, 2019). Differing views exist between academics and the profession vary regarding graduate capabilities and responsibilities for work readiness skills education.

Conclusions: The research findings support the criticality of engaging the architecture profession, a key stakeholder in Work-Integrated Learning (WIL), in the design and develop of authentic, appropriate, and well-designed WIL (Zegwaard et al, in Ferns et al, 2022). The findings also support the establishment of a co-creation process for WIL development (Ruskin and Bilous, 2020).

Weaving together autonomous learning strategies to teach ESOL in workplaces

Julie Bytheway Michael Carey Deborah Heck Patrea Andersen *University of Sunshine Coast, Australia*

This PhD research explored how post-secondary teachers of English to Speakers of Other Languages (ESOL) learn to teach while working in classrooms. Teachers figured out how to teach by weaving together autonomous interdependent learning strategies into a holistic interconnected learning process. Grounded theory was used to explore the social context and guide the cyclic, flexible research processes. Seven participants shared their experiences and perspectives during semi-structured interviews, and



further member-checking processes. Constant comparative analysis was used to identify properties, concepts, categories, a basic social process, and a grounded theory. The substantive grounded theory of Connecting to Figure Out How to Teach ESOL explains how teachers who started teaching ESOL in post-secondary education without teaching or applied linguistics qualifications or prior teaching experience discovered and determined how to teach ESOL. Connecting to Figure Out How to Teach ESOL is an informal and holistic learning process that weaves together four interdependent and interconnecting parts: becoming (a) *Willing* by initially acknowledging not-knowing how to teach and taking responsibility for students' learning; (b) *Reflecting* by recalling learning experiences, and evaluating language, learning and teaching; (c) *Engaging* by building relationships with students, collaborating with teachers, and using learning resources; and (d) *Adapting* by engaging in interconnected cycles of monitoring students' responses, determining students' wants and needs, and experimenting with teaching. This research builds onto existing knowledge about work integrated learning, teacher education, induction processes, reflective practice, teacher identity, teacher agency, communities of practice, relationship-based learning, assessment for learning and teaching as inquiry.

To pay or not to pay: C'est la question

Craig Cameron University of Sunshine Coast Katharine Hoskyn Patricia Lucas Auckland University of Technology Franziska Trede Loletta Yuen University of Technology, Sydney Sally Anne Rae Consultant Holly Capocchiano Michelle Eady University of Wollongong

Background: Payment to students is one issue associated with Work-Integrated Learning (WIL) placements. The distinction between paid and unpaid WIL is not simply about whether students receive remuneration in exchange for work. Variations exist, such as non-remunerative financial support (scholarships/ stipends). The payment debate gives rise to educational, legal and ethical tensions, which may be seen differently from the perspective of students, workplaces, and academic institutions.

Issue: The purposes of this presentation are: to evaluate financial arrangements and educational and ethical variables influencing the payment debate, and to identify legal issues involved with paid and unpaid WIL placement experiences. The regulation of paid and unpaid WIL is described and evaluated, across a range of jurisdictions, against the following criteria: Access to, and hosting of, WIL placements; Protecting students from harm; and Assuring educational quality of WIL experiences.



Literature: Payment in relation to WIL poses complex legal issues. WIL is an educational approach that integrates students' work and learning, however regulation of work and learning is handled separately in most jurisdictions. Workplace laws tend to cover aspects such as: Human rights; Workplace health and safety rights (WHS); and Labour rights. These rights are not generally covered in education laws. Consequently, a 'regulatory gap' (Hewitt et al., 2018) can occur, in which workplace rights afforded to students completing paid placements as employees ('paid WIL'), are not extended to students who are not remunerated on placement ('unpaid WIL'). The French model is worthy of special consideration as it is designed to ensure educational quality, providing unpaid WIL students with labour rights around working conditions (Jeannet-Milanovic et al., 2017).

Discussion: The French model provides a platform for advancing discussion about the payment versus non-payment of WIL students. Regulation can assure that learning, and not work, is the primary objective of WIL, and extend labor rights, human rights, and WHS rights to unpaid WIL students so that all WIL students have protection from workplace harm.

Implications: The role of payment can never be isolated from the total WIL experience. In any given situation, all stakeholders need to understand why a role is paid or unpaid and the impact of the payment arrangement on the total WIL experience, and especially on the student. Study of the French model has implications for practice in New Zealand and globally.

Using written reflective practice activities with speech-language therapy students: A cross sectional design

Kate Cook University of Canterbury Cheryl Messick Pittsburgh, USA. Megan McAuliffe University of Canterbury

Introduction: Written reflective practice (WRP) activities are regularly embedded in work integrated learning (WIL) experiences, including speech-language pathology (SLP) programs. WRP allows students to develop and demonstrate independent problem-solving skills. It also promotes questioning and critique of approaches and techniques (Brookfield, 1986). Studies have demonstrated that students improve their WRP abilities across time (6-12 weeks), however, it is unclear whether students follow similar patterns of development across the course of a degree program. With improved understanding of the patterns of development educators can better support student learning (Boles 2018; Middlemass et al., 2001).

Aims: To estimate the prevalence and characteristics of SLP student WRP skills at the same time point for each cohort of students across the degree program.

Methodology: Ethical approval was granted by the Human Ethics Committee of the University. 77 SLP students (26 first year, 29 second year and 22 final year students) participated in the study. A cross-sectional study design was employed.



Instrument: Plack et al.'s (2005) framework for coding WRP was used. Breadth of reflection was examined. Breadth of reflection was the different processes of reflection (Mezirow, 1991; Plack et al., 2005). Nine breadth elements were organized from low-level RP elements to higher-level RP elements (Cook et al., 2019).

Procedure: Participants were required to complete weekly written reflections (WR). The 4 WR selected for analysis were taken from the start/end of each clinical course for each semester.

Data analysis: A binary coding system was implemented. 1 indicated presence of an element anywhere in the WR and 0 indicated an element was not present.

Reliability: Inter-rater reliability of mean percentage agreement presence of breadth of elements: 91%. Intra-rater reliability: 98%.

Statistical analysis: Mixed effects models were used to analyze the effects of time (both year group and timepoint) and element (e.g., "content" or "process") on the dependent variable, breath of WRP (Bates et al., 2015).

Results: The statistical final models revealed that for the element of "attend" there was a significant positive effect of time across all year groups (final year students p < 0.05), second year students (p < 0.001), first year students p < 0.001) and "re-evaluate" for second year students (p < 0.05).

Evaluating the effect of time on the development of the various elements within each year group: final year students ("attend" (p < .01), "re-evaluate" (p < 0.001) and "premise" (p < .05)). Second year students ("attend" (p < 0.001), and "reflection-on-action" (p < 0.05)). First year students: ("reflection-on-action" (<0.05) and "attend" (p < .0.001)).

Discussion: In general, as clinical experience increased so did student WRP abilities. This finding has similarities to previous studies (Cook et al. 2019; Hill et al, 2012; Plack et al. 2005) and we suggest the results also relate to enhanced confidence facilitated by an increase in academic knowledge and clinical experiences.

WIL implications: WRP supports transfer of knowledge and skills across clinical placements, offers a reliable way for the educator to first assess and then tailor reflective questions to foster student development of RP ability.

The application of a teaching system for emotional intelligence, wellbeing, and good communication skills to a WIL learning course

Jean Cory-Wright ARA Institute of Canterbury | Te Pukenga

Introduction: All workplaces ask for generic skills such as personal attributes and values. They include workers developing good relationships with co-workers and managers alike. The aim of this presentation is to share a teaching practice method that has worked over 20 years. This method includes a series of reflection assignments which ask the student to reflect on and act to change or grow, their



personal attributes. This includes attributes for the workplace but also embraces life in the future, and the challenges it brings.

The innovative practice: The practice is innovative within the Ara Institute of Canterbury, and is possibly innovative across other institutions. The practice is linked to the students' work experience courses, within a degree called the Bachelor of Sustainability and Outdoor Education. The degree is about students learning to educate around sustainability and to utilise the outdoors as their inspiration space. The practice includes a series of teaching sessions embedded into each semester of the degree. They educate students about emotional intelligence, wellbeing, and good communication skills. Students are taught about these skills but also, they are given experiences in which these skills will need to be demonstrated. The practice bases itself on an experiential teaching model to allow students to immerse themselves in the experiences offered and reflect on them and link this to their overall learning.

Literature: The practice has been based on literature from a lifetime of reading around the topic of emotional intelligence and hauora wellbeing. The author produced a master's thesis on the role emotions play in learning through experiences on a certain programme. In brief the results showed that high impact and memorable learning resulted in a range of areas, including emotional intelligence, social awareness and community wellbeing. The thesis is by Cory-Wright, (2019) and the large number of references cited includes literature from across a range of disciplines. These include Damasio (1999) from neuroscience, Pekrun and Linnenbrink-Garcia (2014) on emotions in education, and Beard and Wilson (2006) from experiential education.

Discussion: The author believes that this teaching practice has helped students with their emotional intelligence skills, which has in turn prepared them well for Work Integrated Learning. It has also developed their wellbeing skills, which in turn has helped them thrive through the pressures of study and work experience. Finally, the skills of being a good communicator are relevant to any workplace and the practice has enhanced this.

Implications for the WIL community: By preparing our learners well for Work Integrated Learning, we are doing good service to both the students and to the work communities.

Enhancing the WIL experience of diverse learners: Weekly forums featuring TED-like talks by construction professionals

Sundeep Daggubati Kam Cheng Kwame Otu-Danquah ARA Institute of Canterbury | Te Pukenga

Introduction: Work Integrated Learning (WIL) is an educational approach that aims to bridge the gap between theory and practice, by integrating classroom learning with real-world work experiences. However, it can be challenging to provide effective WIL experiences for diverse learners, who may have different cultural backgrounds, learning styles, and levels of experience. In this presentation, we



propose a good practice that can enhance the WIL experience of diverse learners through weekly forums that involve TED-like talks given by construction professionals.

Weekly TED-like Forums: The weekly forums were designed to provide diverse learners with exposure to a range of construction professionals and their career paths. These talks are modelled after TED talks and are designed to inspire, educate, and engage students. The talks also covered a range of topics related to construction management and quantity surveying, including industry trends, emerging technologies, sustainability, and best practices. The speakers were selected based on their expertise and diversity, including gender, ethnicity, and age. After the talks, students had the opportunity to ask questions, network with the speakers, and share their own experiences.

Literature: Research has shown that diverse learners often face barriers in accessing WIL opportunities and may not feel included in the learning experience. WIL experiences that are designed to meet the needs of diverse learners can enhance their learning and employability outcomes. Exposure to diverse role models can provide learners with a sense of belonging and inspire them to pursue careers in their field. The practice of using TED-like talks in education has been shown to be effective in engaging students and enhancing their learning experience.

Discussion: The use of weekly forums with TED-like talks by construction professionals is an innovative approach to enhancing the WIL experience of diverse learners. They allowed students to gain a deeper understanding of the construction industry and the various career paths available and provided opportunities for students to network with professionals and learn about potential job and internship opportunities. As the talks featured diverse speakers and covered a range of topics, they helped to create a more inclusive and welcoming environment for all students.

Implications: By partnering with construction industry, featuring diverse speakers, covering a range of topics, and creating regular opportunities for students to engage with professionals, educators can create more inclusive and accessible WIL experiences for diverse learners. This approach is easily adaptable to other industries, making it scalable to enhancing the WIL experience.

From the inside, out: A critical ethnographic account of WIL, participatory action research in Anchorage Alaska

Clare Dannenberg University of Canterbury

Introduction: WIL practitioners often venture into the work integrated ecosystem through disciplinespecific methods and technical skill qualifications, like social work and education. Practitioners outside of pre-professional degree programs (Stellar & Porter, 2011), though, can have more difficulty integrating the work integrated model into their teaching practice (Bartkus & Higgs, 2011). This presentation reports on an Institutional Review Board-approved case study focusing on workintegrated, participatory action research in a linguistic anthropology paper at the University of Alaska Anchorage in 2018. The paper partnered with a local, for-purpose agency, working to provide shelter to house-insecure Anchorage community-members. This presentation outlines lessons acquired, positive WIL practice outcomes, and WIL development opportunities for these practitioners in tertiary spaces.



Literature: Participatory action research (PAR), a sub-category of action research, is akin to workintegrated principles of learning (Dunn 2023). Key aspects of PAR rely heavily on self-reflection and targeted discussion in co-constructed and collaborative research inquiry. PAR requires students to stretch into flexible and uncertain spaces, enhancing innovative problem-solving and creative, critical thinking. These assets align with WIL engagement (Adams & Jones, 2022; Judith et al., 2022) and can move students towards a "turn" in their ontology—that is, their knowledge of "being" in the world (Adams & Jones, 2011). That is, PAR promotes reliance on skills related to "human qualities and dispositions" in addition to the more directly transferable "generic skills" (Barnett, 2012, p. 65).

Methods: This presentation takes a critical ethnographic descriptive approach of participatory action research (Foley et al., 2001). Critical ethnography positions the researcher as a participant observer in the research inquiry. As such, the researcher can critically reflect on how their engagement interacts with constructs such as power, privilege, bias, equity, cultural appropriation, and reciprocity. For this case study, ethnographic data were collected from January to May 2018. Data were sorted thematically from two source logs, which recorded descriptive notes in accord with the Ethnography of Speaking model (Hymes, 1974).

Results and Conclusions: Emergent themes from this case study highlight the vulnerability of students with respect to their agency and ethical responsibilities inside and outside of the classroom. The negotiated relationship between equity and reciprocity amongst all stakeholders (especially silent ones) and the role and resourcing of instructors in WIL participatory action research also emerged as salient themes from this investigation. Recommendations to enhance WIL PAR experiences include research co-production, scaffolded learning, metacognitive framing, and WIL-led training in PAR practices.

Exploring personal/professional impact of WBL on small business owners

Kylie Ellis Otago Polytechnic | Te Pukenga

Introduction: The research focused on exploring the experience of our small business owner graduates who acquired a Bachelor of Applied Management through an independent learning pathway (ILP), which is a work-based learning qualification at Otago Polytechnic/Te Pūkenga. Graduates anecdotally report the process as transformational by enhancing their personal and professional selves. However, the impact of the learning process still requires investigation. Gaining an insight into these variables benefitted Otago Polytechnic and future learners.

Methodology / **Methods:** The research methodology applied a qualitative approach utilising Interpretative Phenomenological Analysis (IPA), and the data collection used semi-structured interviews undertaken either face-to-face or via phone. Nine graduates were interviewed. Interviews were recorded, transcribed verbatim then analysed for emerging themes by the researcher.

Literature: Small businesses are an essential part of the New Zealand economy (Ministry of Business and Innovation, 2019). Yet a changing business landscape, where consumer demands constantly evolve, can make it challenging for business owners to stay relevant (Business Mentors NZ,



2017). Hence, improving management knowledge can enhance business performance or strengthen specific skill sets (Fuller-Love, 2006).

Results: The themes identified challenges small business owners face, such as feeling isolated and the effects of workplace stressors on their mental health and well-being. Sustaining self and business was a sub-theme, the participants recognising that a more holistic approach to business was required for long-term business viability. As a result, the participants prioritise self-care practices to benefit their well-being and employees, enabling them to sustain the "whole business".

Reflective practice was identified as the tool to analyse, evaluate and lay to rest experiences of significant impact. The tools gained were described as having the ability to "self-counsel" to manage their well-being.

Last, small business owners identified an amplification of their leadership capability, which enabled them to increase their effectiveness, thus, increasing the efficiency of their business.

Conclusion: The findings had implications for the facilitators of work-based qualifications, identifying strategies and tools that enrich the facilitator/learner relationship. Finally, there is evidence of the value our small business owners gained from working through an ILP rather than a traditionally taught program. The research provides evidence of the efficacy of ILP delivery through the College of Workbased learning and offers benefits to a wider sector within the business community. This research validates independent learning pathways' and encourages innovative education delivery across Te Pūkenga and other higher education institutions.

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What does excellent external moderation look like and how does it support WIL?

Marianne Farrell Lester Hoare *Muka Tangata Workforce Development Council* Dave Marr *SAARA*

Introduction: The vast majority of vocational learning provision in the food and fibre sector is carried out on-job or work-integrated. Muka Tangata the newly established Workforce Development Council for the Food and Fibre Sector is responsible for developing and implementing a national external moderation system that supports learner and industry success.

RoVE and the establishment of the WDCs created an opportunity to transform to a moderation system that was more holistic and inclusive and to create opportunities to be better connected with Māori and



Te Tiriti o Waitangi. Hearing the voices of the partners/stakeholders on what they understood about external moderation, what they valued, the challenges and opportunities they could see in a fit-forpurpose external moderation system.

Literature: Please refer to the following website:

National-External-Moderation-Review.pdf (mukatangata.nz)

Methods: The review consisted of four phases: **Research** national and international external best practice; **Survey** stakeholders on current knowledge and understanding of external moderation in the food and fibre sector; **Interview** the survey participants regarding current and future external moderation; **Workshop** with new partners on survey and interview key findings; Complete a report with the key findings and considerations.

A key component of the review was the engagement with partners from the multiple industries in the food and fibre sectors. Participants included education providers, industry, learners and the public sector.

Results: Partners told us that they wanted to see external moderation being fit for the future and meeting the needs of learners. They wanted a true partnership which will support all learners with a focus on a quality assurance culture. They wanted support with their internal capacity to provide equity for Māori and other priority groups. Facilitate education on external moderation, equity and priority learners for all partners. Collaborate for success by working closely with and building strong relationships with providers and other agencies and assist providers to work together. Build a quality assurance culture – move from a purely moderation of assessment focus (transactional) to a more holistic and enduring quality assurance. Encouraging assessment in a holistic way by integrating evidence collection into roles and using technology to capture evidence. Moderating programmes rather than individual unit standards.

Conclusions: Muka Tangata's National External Quality Assurance and Moderation Plan 2023 has these considerations embedded. We will support new and innovative ways of assessment and by using our Programme Endorsement function will ensure all new programmes support learner and provider success.

Enhancing engagement and connection in online distance education through the interaction design of a technology

Gloria Gomez OceanBrowser Ltd

It often takes years for an innovative practice with technology to show evidence of impact and benefit. A decade ago, we claimed "existing online systems for fostering collaboration are limited in the sense of enabling a distributed community of practice to engage and exchange to learn together. We created [the OB3] app in which conversations happen around content, not separate from it. Online discussions in context are needed for facilitating [the] establish[ment of] connections among concepts as well as relevance" (Gomez & Tamblyn 2012b).



The bachelor of Midwifery at Ara Institute of Canterbury has been using OB3 since 2013 (Daellenbach, Davies, Kensington, & Tamblyn, 2014). Recently, they published on their networked distributed model for teaching and learning (Daellenbach et al., 2022) and described how OB3 1) supports their model's implementation, 2) is used to "network learners with other learners, with lecturers and experts" (p. 341), and 3) has helped them meet the aim to ensure their students could access distance education in provincial and rural areas.

Ara midwifery's experiences provides evidence in support of our decision to address disconnection between lectures and online forums in distance education through functionality design. To enhance student engagement, content and discussions were brought together into the same interface. To enhance timely updates of lecture content, academic staff were enabled to author their own teaching content with familiar computer skills. This functionality aimed to improve forum communication impeded by delays, lack of clarity and absence of feedback (Daellenbach et al. 2014).

OB3's implementation was informed by design research undertaken from an interaction design perspective (Gomez et al. 2022; Gomez & Petsoglou, 2021; Gomez & Tamblyn, 2012a, 2012b; Gomez et al., 2020). Its educational foundations are drawn from the fields of study skills for academic success (Bandura, 1986), good visual design that facilitates metacognition (Kirsh, 2005), networked learning for promoting connection between people (Goodyear, Banks, Hodgson, & McConnell, 2004; Goodyear & Steeples, 1998), and networked learning technologies (Kyza, 2013).

Ara Midwifery (Daellenbach et al., 2022) also reports on participatory action research outcomes demonstrating how OB3 supports online network learning (that is lecturer- or student-led) and e-portfolios (record of hours, births, and skills, feedback, reflections, personal learning outcomes) (see p. 340). Survey results show that students prefer OB3 for sharing experiences about Midwifery practice placements undertaken in community, hospitals, and virtual reality (see p. 342). This preference could be because OB3 reduces administrative tasks, offers more autonomy than traditional LMS, and is particularly well suited for independent, lifelong, and self-directed styles of learning.

OB3 seems to improves work-integrated learning practice by contributing to our users' (Daellenbach et al., 2022) aim to "ensure that students could access programmes in provincial and rural areas... to improve recruitment and retention of health workers outside of main urban areas..." (p. 335). This aim appears to have been achieved as in their report they claim their graduate destination outcomes statistics indicates "... most of the students have remained in their home areas after graduation" (p. 340).

Keywords: Student engagement, Interaction design, Online distance education , Midwifery education, Network learning, Educational technology, Student placement

Principles and practices for inclusive WIL in host organisations

Kathryn Hay Massey University Jenny Fleming Auckland University of Technology

Host organisations need to consider how they are providing an inclusive workplace ethos with practices that facilitate a positive and rewarding experience for work-integrated learning (WIL) students



(Mackaway & Chalkley, 2022). Students undertaking WIL come from a range of different cultures and socio-economic backgrounds, and have varying academic, physical, and other capabilities. In many workplace environments there are safety and wellbeing implications for WIL students, as well as for workplace staff, and service users. For example, workplace bullying, exploitation, and discrimination will negatively impact on an inclusive workplace learning environment for students.

Drawing on recent literature, along with the authors' own experiences and their research on risk in WIL (Fleming & Hay, 2021; Hay & Fleming, 2021), this presentation will outline key principles that should underpin an inclusive environment for students to learn in a workplace setting. These principles recognise the Te Tiriti partnership and reflect an increasing focus in tertiary institutions on ensuring equity and inclusion of tangata whenua (Māori) in higher education learning spaces. Sociocultural theories related to learning in the workplace (Eames & Bell, 2005; Fleming & Haigh, 2018) are used as a theoretical lens. In addition, a set of guidelines, underpinned by the aforementioned principles, are proposed for organisations to enable and support inclusive WIL experiences for students.

A user-focused approach to WIL resource design: For students, staff & organisations

Alice Hodder

Te Herenga Waka - Victoria University of Wellington

This presentation will describe a user-focused approach to developing new Work-Integrated Learning (WIL) resources for use across the University. The resources include intern hosts guides, project management plans, and career development reflection summaries. The presentation will cover how taking a user-focused and feedback-led approach to resource development can help in understanding what has been done, what works and what doesn't, and identifying the needs and wants of the key stakeholders. Development of the resources involved clearly identifying and prioritising stakeholders, running focus groups and interviews, drafting prototypes, requesting, and incorporating feedback on design and content, to creating and sharing the resources with the final users.

The resources were accessible across all stakeholder groups (students, organisation hosts and the university staff), even if they were not the intended main user of a specific resource, allowing each group to understand the other groups better. This helps cement the important three-way relationship between students, hosts and the university staff, which is key to a successful WIL experience (Fleming, McLauchlan & Pretti, 2018).

A flexible approach to resource sharing also provides autonomy for individuals and organisations within each stakeholder group to adapt the resources to suit their specific context and needs. The resources have been used in multiple courses through academic liaison with clients, intern host mentorship, student project work and career development. A particular focus of the resource design has been understanding the value of reflection in WIL (Villarroel et al., 2018).



The presentation will describe the value of a more user-research approach to resource development and how the use of more practical skills and career development approaches can provide greater authentic assessment experiences (Ajjawi et al., 2019).

I will conclude with a short discussion for conference attendees about their views on this approach. Do they bring a user-design focus into WIL resources development, and, if so, how? How do they remain focused on creating resources and supporting all three key stakeholders? How do they design, manage, and share resources across the University, with organisation hosts, and students?

Designing interdisciplinarity into undergraduate WIL components: Sharing perspectives and practice

Fiona Hurd Felicity Reid Auckland University of Technology

The two-decade long call for higher education to focus on 'relevance' in education (Paton, Burt & Chia, 2014), and 'impact' in research, has focused on bridging the perceived gap between abstract theorising and the practice (Billett, 2009). The practice-turn in higher education, which largely gave rise to the work-integrated learning approach, is now increasingly situated within a context whereby the importance of interdisciplinarity to the development of graduate skills is emphasised (Hains-Wesson & Ji, 2020; Hart, 2019; Parker, 2010). However, within curriculum design and development, the focus remains largely disciplinary, with a prevailing model of single-area 'major' and 'minors'. Indeed, the premise of WIL is that students are exposed to real-life experiences 'relevant to their learning' (Lloyd et al, 2021, p. 810), which has often been assumed to need to be linked to this disciplinary knowledge. However, constraining the student in this way may be restricting the opportunities for the development of interdisciplinary skills and understandings (Hains-Wesson & Ji, 2020). This paradox poses questions for those of us charged with designing capstone work-integrated learning components.

On one hand, the capstone provides an opportunity to deepen disciplinary knowledge, and to bridge this theory-practice 'gap' (Lloyd et al, 2021). Indeed, often the focus of a capstone is constrained to a major discipline. On the other, it also provides an opportunity to create *breadth* and interdisciplinarity for the student, bridging the major discipline with other areas of practice. Perhaps, it is an opportunity for both.

Traditionally, in our own university, work-integrated learning components have been tightly linked to disciplinary areas, with assessment programmes that also focus on linking experience to disciplinary knowledge. However, in the move to make our own programmes interdisciplinary, and to recognise the complex work contexts we are preparing our students for, we are exploring ways to leverage work-integrated learning in intentionally interdisciplinary ways. However, we are conflicted, and recognise that this conundrum is not one unique to our own situation. Indeed, there is a recognised need for discussions on the design of work integrated learning programmes, as opposed to a focus on outcomes (Jackson, 2015).



In the proposed workshop, we wish to facilitate a round table discussion (approx. 20 minutes) to share ideas and practice on interdisciplinarity in work-integrated learning. The workshop session will focus on the following questions:

How might students benefit from a work-integrated learning experience outside of their major discipline of study?

Would a student lose benefits of work-integrated learning if their experience was not deeply embedded within their major discipline of study?

How might an assessment be designed to support and scaffold an interdisciplinary approach to work-integrated learning?

In the accompanying conference paper, we will provide a literature review of interdisciplinarity in WIL to underpin the discussion.

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Assessing via professional conversations in the construction industry

Susie Jacka Karl Sutton BCITO | Te Pukenga

Background: This presentation will examine the boundaries of assessing workplace learners on building sites using professional conversations. Our Field team of assessors ceased using paper-based evidence for assessment almost 15 years ago. Prior to that, written worksheets were required to be completed to demonstrate theory knowledge of the trainee's respective trade, and employers were the on-site assessors.

We use competency-based assessment framework that allows learners to work at their own pace. Tangible assessment material to submit for moderation relies on the Field Team of assessors to document an accurate account of the evidence used to make the assessment judgement in the report



following each assessment. There are no due dates and no compulsion to submit to our online learning platform. Reflective practice is essential for assessors to regularly reflect on their own practice to be able to tailor their assessment practice to suit the individual needs of each learner.

For the last two years we have started to use digital tools to enhance Face to Face engagement, and to provide supplementary evidence uploaded by learners to support the assessment decision(s). This presentation will provide examples of how this works in practice with learners, exploring some of the issues that are emerging for our onsite practice as we begin to weave digital into the mix.

Literature : Our use of professional conversations as the method of assessment is supported by a number of research findings (see Timperley, 2015). Our particular practices have been researched extensively and found to uphold best assessment practice (see NZQA & Ako Aotearoa; Vaughan and Cameron, 2010, and Vaughan, 2018).

Discussion: What we know about assessment in workplace learning contexts is that direct human contact and relationships are highly valued. The impact of digital on our learning environments is in exploratory phases and raises several questions: Are our trade industries ready to engage fully in digital? If not, why not? How do we support them to meaningfully engage in iterative online professional conversations? Implications for workplace integrated learning are huge for construction industries that currently brings thousands of learners into workplace training. Our early attempt to capture conversations in video, for example, show some promise. However, it is not yet clear the extent to which digital enables authentic onsite learning nor how to take authentic assessment practice forward in digital formats.

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Mātauranga Māori: Reclamation, reconnection & reindigenisation in teacher education

Kay-Lee Jones University of Canterbury

Whaowhia te kete mātauranga, fill the basket of knowledge.

This year has seen the establishment of a new Mātauranga Māori teaching qualification at the University of Canterbury. The establishment of a Mātauranga Māori initial teacher education programme in Te Waipounamu¹ that prioritises indigenous Māori knowledges, kaupapa Māori perspectives, and Māori language and culture is necessary and overdue. Our New Zealand education system post-colonisation was founded on assimilationist policies and systemic eradication of indigenous knowledges. We are now in a transformative space, ready to shift the education system, to shift hearts and mindsets whilst empowering, celebrating and reclaiming knowledge that stems from our lands and our waters. We have a critical need to increase the number of quality te reo Māori speaking teachers in New Zealand and to increase the number of teachers of Māori ancestry, our Mātauranga Māori programme aims to support this. In this unique undergraduate teaching degree, many of the kaiako whakangungu (teacher trainee's) are longstanding kaiāwhina (teacher aides/ learning assistants) which early learning or daily classroom experience and are undertaking their first professional practice learning experiences in the early childhood centres or classrooms in which they know the tamariki and whanau so well. Please join me as I share insights, highlights, new learnings and challenges of establishing a new Mātauranga Māori teaching qualification. A teaching programme to promote reclamation, reconnection and reindigenisation.

"Why can't we study and make a difference?" Community engaged learning in the geographical and environmental sciences

Simon Kingham University of Canterbury

Background/Introduction: "Why can't we study and make a difference?". This is what one student said in 2008 after a talk by a leading social scientist on some of the environmental challenges facing society. And so a research methods course shifted its focus and started to address some of the challenges in a local context working with local community partners. This presentation paper will report on how this is done in a 300 level geography and environmental science research methods paper at the University of Canterbury. It will describe how the course operates, including some of the practical challenges in trying to deliver community engaged learning, as well as offering some tips for success. It will also present the results of a survey of students in 2021, which asked a range of questions about the course. Specifically it asked how well students felt the learning outcomes were achieved (or not), but also asked about how well they felt the course enhanced their learning (or not) by using a community engaged and problem based approaches in a range of ways, including social responsibility and citizenship, workplace readiness, and student engagement.



Brief description of the new, innovative or good practice: This course uses a community engaged and problem based approach and involves students working together to solve real world problems using skills that are transferable to the workplace.

Literature: The literature is clear of the many benefits of community engaged learning. We also know that if done well, it can increase students' engagement and if students are more engaged in a course they can do 'better'.

Discussion: The results show that the course helps develops skills in communication and leadership, increased social responsibility and citizenship and made the students feel better prepared for the workplace. Students also agreed that working with a community partner enhanced their learning.

Implications for the WIL community: Community engaged and problem based learning promises many benefits, but for many reasons, can be difficult to deliver. This course demonstrates a way to do it and show the benefits to student learning.

Keywords: Community engaged learning, research methods, geography, environmental science.

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

Jo Kirkwood Otago Polytechnic | Te Pukenga

Background: My background, like many postgraduate supervisors, is from a University model of supervision of Postgraduate students. This approach typically focuses on a student undertaking a study which is in the supervisor's research area (the apprenticeship model). My current role is with Otago Polytechnic (part of Te Pūkenga) in the Master and Doctor of Professional Practice programmes.

Issue: Being a 'supervisor' in professional practice programme where learners are engaged in a wide range of areas of study, supervisors must adapt from the apprenticeship model to a different approach. The learners are in work, adult learners and highly experienced in their field of practice and many are distance learners.

Literature: It is the learner who has a greater knowledge of the situation (Talbot & Lilley, 2014) rather than the 'supervisor'. Thus, the learner is the expert in their field and the facilitator and academic mentor are there for their expertise in areas such as literature reviews, methodologies, insider research, ethical issues, assistance with critical reflection and so forth.

The facilitator and academic mentors become learners as well and the focus is no longer on us being an expert in the research area of the study and to transmit knowledge (Light et al., 2009), but to a model which changes ones role from a bearer of knowledge to a facilitator of learning (Light et al., 2009; Mann et al., 2017; Trautwein, 2018). The facilitation role is more akin to a mentor (Mezirow, 1991) or a coach (Powell, 2003) than a 'supervisor'.

The facilitation relationship is one that is built and sustained, involving reciprocity between the teacher and the student (Karpouza & Emvalotis, 2018). Thus, there is an ongoing dialogue between the learner



and facilitator, as opposed to a transfer of knowledge (Mann et al., 2017). The Māori concept of ako is *a teaching and learning relationship where the educator is also learning from the student in a two-way process.*

Discussion: This mentoring approach may differ from what many of us have been 'trained' to do and involves a different approach and mindset. In the presentation I will offer advice/thoughts for others engaged in supervising/mentoring work-based Postgraduate degrees and share some lessons in my journey from 'sage on the stage to guide on the side' (King, 2010, p. 30).

Implications: Offers advice and suggestions on how to adapt from 'supervisor' to academic mentor/facilitator within work-based learning contexts in postgraduate education.

A new approach to learner pathways

Craig Langdon Jeremy Baker Muka Tangata Workforce Development Council

A New Approach to Learner Pathways responds to the feedback that Muka Tangata Workforce Development Council has heard from industry, iwi and hapū Māori, and education providers that vocational education and training needs to be responsive and flexible for people to succeed, particularly for traditionally underserved people including Māori, Pacific peoples and those with a disability.

This presentation examines the changing state of vocational education, poses questions that will shape our future mahi, and establishes an initial set of refreshed design and review principles. It is an opportunity for Muka Tangata to investigate a streamlined set of qualifications, standards and micro-credentials that work for ākonga (learners) and the food and fibre sector.

We aim to refine this approach through engagement with our partners, including through this presentation. This will guide our development and review of qualifications, standards and micro-credentials to support the diverse needs and aspirations for success across the sector. We welcome feedback and ideas to ensure that we are able deliver on that vision.

WILspace: A small significant online network group (SSONG) in action

Patricia Lucas Helene Wilkinson *Auckland University of Technology* Karsten Zegwaard *University of Waikato*

Introduction and issue: The motivation for this project came about due to the impact COVID19 had on opportunities to connect with others in a meaningful and sustainable way. Counterintuitively, we are more connected than ever through remote work yet increasingly feel disconnected as we miss the common face-to-face interactions of the past (e.g., corridor conversations, etc). Face-to-face interactions at a conference are ideal and highly valued, however, these interactions seldom evolve beyond the initial



meeting and require a strong connection to form a sustainably productive relationship. During the first 2020 COVID lockdown, two of the researchers in this project became involved in a SSONG with a group of international work-integrated learning (WIL) practitioners. We have previously shared the success of that SSONG with our WIL community at the 2022 WILNZ conference. Arising from that presentation is the 'WILspace' initiative. WILspace is a platform to be used by WIL practitioners around the world to connect for conversation, sharing ideas, and collaboration beyond the physical environment of a single conference or Global WIL courses. The intention is to provide a mechanism for establishing enduring partnerships. Through WILspace regular opportunities would arise for small groups (SSONG) of WIL practitioners around the world to meet virtually for conversations and collaborations to enable the benefits of long-term sustainable relationships

Literature: The notion of a Small Significant Online Network Groups (SSONG) was coined by Green et al. (2020) when Green attended a conference workshop focussing on online networks. Green et al. (2020) establish a SSONG after the conference to continue conversations. These groups align with Lave and Wenger's (1991) community of practice (CoP) theory where individuals who share common interests come together to share experiences and knowledge for the advancement of their personal and professional development. A CoP has three key elements, including the topic, the people, and the activity. WILspace will incorporate an assortment of WIL related prompts (topic) to engage and connect WIL practitioners (people) to key themes, ideas, and contemporary content to develop their practice (activity).

Discussion: The WILspace platform and program is in development with the official launch to take place in June at the WACE conference in June this year. During implementation, a series of evaluations will be administered to determine WILspace's effectiveness. Through this presentation we aim to encourage WILNZ delegates consider how they might engage in WILspace to enhance best practice and collaborative research.

Reflecting on the impact of the degree apprenticeship pilot project on students, industry and the polytechnic sector

James Mackay Hana Cadzow Otago Polytechnic | Te Pukenga

Background: In the last three years, the School of Construction, Engineering and Living Sciences at Otago Polytechnic has piloted an engineering degree apprenticeship, focussing on a much-needed area, that of Infrastructure Asset Management. This is the first of its kind in New Zealand and has been based on degree apprenticeships in the United Kingdom (UK). Stakeholder consultation and curriculum development took place prior to the implementation of the pilot in February 2020. This formative development work followed the trailblazer approach (Goodyer & Frater 2015), commonly used to develop higher apprenticeships in the UK. It was also carried out with the help of Manchester Metropolitan University, a leading provider of such apprenticeships in the UK.

Starting with five students on the WelTec campus of Te Pukenga, the project grew to 65 students based at the Otago campus by the end of 2022. This is despite the effect that the Covid -19 pandemic has had



on all three major stakeholders as well as the major disruption felt by the shift from WelTec to Otago. Towards the end of the pilot, the project was evaluated externally by key leaders in the setting up of degree apprenticeships at Manchester Metropolitan University. The evaluation reported positively on the project and made useful suggestions for expansion going forward.

Issue: While the project achieved all the deliverables it intended and was also commended by the external evaluation team on the positive impact that the degree apprenticeship had on students and industry, several issues were noted, and suggestions made to address these going forward. Of major concern to us was the fact that while there was a significant improvement in participation rates by women in the degree, the same could not be said of Māori and Pasifika. The question arises as to what modifications we need to make going forward to ensure that we achieve the expected improvement in participation by Māori and Pasifika students.

Discussion: Research in the UK suggests that women in particular benefit from degree apprenticeships in male dominated disciplines and that in the UK at least, this is the same for minorities, particularly those who are unable to afford degree level study (Clarke 2018). In the design of our degree apprenticeship there was an expectation that there would be significant improvement in the representation of women in engineering, as well as for Māori and Pasifika. While this has happened for women (an increase from 8% in the face-to-face version to 19% in the degree apprenticeship version of the degree, this was not the same for Māori and Pasifika students, where the proportions remained the same (around 7% for both versions of the degree). The implication of these data is that we need to make modifications to investigate specific reasons for these outcomes and make appropriate curriculum changes.

An institutional approach to risk mitigation in WIL: Sharing lessons learned

Clare Murray University of Canterbury Jenny Fleming Auckland University of Technology

Introduction: Driven by the demands of key stakeholders, the expectation upon universities to increase WIL opportunities is on the rise. WIL practitioners celebrate this because they understand the value of WIL to students in its enhancement of skill outcomes, employment prospects and students' understanding of the world of work (Jackson, 2013). However, WIL is a risky business (Cameron, 2017), and the plethora of regulatory requirements in New Zealand continues to require universities to up their game in terms of effective institutional risk management.

The aim of this presentation is to share University of Canterbury's (UC's) story of the development of a pan-University WIL risk mitigation strategy and its implementation. Sharing lessons learned, it is hoped that some of what has been tried, and either succeeded or failed, will be useful to other institutions.

Brief Description of the new, innovative or good practice: The presentation will share UC's recently created WIL Risk Management Framework, and will seek to illustrate its value in terms of how it: (1)



validates what is being done currently; (2) highlights gaps in current practice; and (3) helps to provide evidence for resourcing and reporting purposes. The presentation also aims to 'debunk' the perception that tackling risk is overwhelming.

Literature: The presentation will draw upon the work of Cameron (2020), who discusses the importance of universities managing risks in WIL in Australia. Fleming & Hay (2021) also provide a helpful structure for stakeholder strategies for managing risk in WIL.

Discussion: In the development of the framework, consultation was undertaken widely with internal stakeholders through one-on-one meetings and larger online risk workshop forums (including with colleagues in central roles in Risk and Insurance; Legal; Health and Safety; as well as with WIL practitioners and Executive Deans). Common themes will be discussed.

Implications for the WIL community: Key implications for the WIL Community are that: (1) you may already be putting in place many risk mitigation techniques that serve your students and staff through the work you do in the classroom and more broadly; (2) shared responsibility for WIL risk is something that needs to be understood better even though it can feel confusing and conflicting; and (3) practice can be improved by augmenting measurement of what is being done (ideally through technology).

He Hunga Hanga Mātou: Building people through work-based learning

Nicky Murray BCITO | Te Pukenga

Introduction: The Review of Vocational Education has prompted a paradigm shift in vocational education in Aotearoa. The Building and Construction Industry Training Organisation (BCITO) is now (as part of Te Pūkenga) an education provider, rather than an arranger of training. In this presentation, we outline the development of our Learner Success Framework, which aims to transform the organisation's approach to supporting learners.

The initiative: Supporting work-based learning is fundamental to BCITO's mission and there are a raft of approaches, initiatives, and tools that explicitly, implicitly, or peripherally contribute to providing this support. The Learner Success Framework connects these elements and: is based on the concepts of lifelong learning and learner agency; allows a holistic examination of the challenges and barriers which may disrupt lifelong learning and the development of learner agency and places the learner at the centre.

Literature: Our emphasis on learner agency is based largely on the work of Dr Damon Whitten.¹ Using the concept of learner agency means that every learner support activity explicitly aims to build the skills, capabilities, resilience and mana of the learner so that they can independently actualise their potential as a learner, a tradesperson, an employee, and a member of their whānau and the wider community.

Discussion: Becoming a lifelong learner can be a challenging process and there are many barriers to the development of learner agency. While these challenges and barriers are often deeply interconnected, they can be thought of as including issues relating to the learner's self-identity; their skill levels; the learning environment; and / or broader issues, such as neurodiversity, or financial pressures.



Using the concepts of lifelong learning and learner agency allows BCITO to position the learner at the centre of a wide range of its activities and to reflect on how its approaches, initiatives, and tools work to identify and support learners with low learner agency, remove or lessen barriers to developing learner agency, provide learning strategies that foster the development of learner agency, and enable employers to support their apprentices to develop learner agency.

Implications for the WIL community: The integration of campus, online and work-based vocational education will result in a blurring of the boundaries between 'work-integrated learning' and 'learning-integrated work'. There is much that both communities of practice can learn from each other, and we hope that this presentation stimulates information sharing and future collaboration.

Implementing structured self-reflection reports as an assessment component for law and criminal justice students' workplace placements

Robin Palmer University of Canterbury

Background: With the increasing recognition of student workplace placements to ensure workreadiness as an adjunct to academic study in all disciplines, the crucial role of effective self-reflection methodologies as a component of the curriculum has likewise been emphasised. This has resulted in a need for the inclusion of training in self-reflection methods (like the Gibbs Reflective Cycle), and the adaptation of these methodologies for specific disciplines.

Issue: The issue here is a consideration of how to implement effective self-reflection methodologies and reports for Law and Criminal Justice students in workplace placements or internships.

Literature:

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Discussion: This workplace internship model was developed at the University of Canterbury for Law and Criminal justice students incorporates an adapted form of the Gibbs Reflective Cycle method, combined with a the requirement of the submission of a structured six-part self-reflection report for assessment.

The adapted Gibbs Reflective Cycle comprises a sequential assessment and reflection on relevant workplace experiences, commencing with description (what happened?); stating your feelings about it : evaluation (good and bad aspects); analysis (making sense of it); conclusions (overall assessment) and action plan (what you learnt and what you plan to do about it in the future).

Students are required to keep a journal (daily diary) in which they record their internship activities and experiences, in three categories: Skills acquired or needed; Knowledge acquired or needed; and the



Value impacts of the experiences ('SKV'). This journal forms the basis for the Self-Reflection Report, which has the following six components: [1] Overview of the internship work; [2] Explaining the selection of key internship activities and experiences; [3] Description of key activities selected; [4] Reflection and Evaluation, per item or experience, of skills acquired (S); knowledge gained (K); and value impacts (V) of the internship; [5] SKV Summary; and [6] Recommendations and overall conclusions on internship.

Implications: This internship/ work-placement model combines the traditional strengths of self-reflection with academic rigour and real-world applicability. It was developed for Law and Criminal Justice students, but is easily adaptable for any faculty or discipline.

Developing WIL predictive models using the BERT language model: A machine learning study

Hannah Parsons Pradeesh Parameswaran Karen Murphy *Queenstown Resort College*

Background/introduction: The purpose of this study was to apply machine learning (ML) technology (namely, the BERT language model) to a data set comprised of self-assessed and employer-assessed progress reports of Adventure Tourism Management (ATM) students at Queenstown Resort College in Queenstown, New Zealand, on placement with their Work Integrated Learning (WIL) employers. The progress reports were generated from student WIL placements between the years of 2020-2022.

Brief description of the new, innovative, or good practice: Large language models (LLM) such as ChatGPT have shown promise in understanding natural language descriptions (Devlin et al., 2019) but have infrequently been applied to the Work Integrated Learning context. Here within, we investigate the application of a large language model (BERT) to WIL.

The application of LLM to work integrated learning represents an innovation in data analysis, as well as predictive models which may identify language and semantics that correlate with a) improvements in student progress in employer reports; b) declines in student progress in employer reports; c) accuracy in student self-analysis compared to employer reports, among various others.

Literature: BERT, or Bidirectional Encoder Representations from Transformers, is a machine learning model which is designed to aid in prediction of language, sentiment analysis, and logical connections between sentences – it is capable of analysing language with a relatively human-like "common sense." (Lutkevich, 2020). The BERT model has arisen as a popular state-of-the-art machine learning model that is able to cope with multiple natural language progression (NLP) tasks such as supervised text classification without human supervision (González-Carvajal and Garrido-Merchán, 2021). The benefits of machine learning, artificial intelligence, and specific predictive models like BERT include their neutrality in analysis, the removal of human bias, and far more accurate and powerful capabilities for forecasting, among others (Medeiros, Vasconcelos, Veiga, & Zilberman, 2021).



Discussion: The objective of the study was to conduct a cross-analysis of positive and negative feedback sentiments used within the progress reports, to generate a comparison and to determine potential gaps and discrepancies between the responses. While analysis of this kind has typically been the purview of a work integrated learning manager, (and will largely remain so) introduction of AI technology to aid in deepening analysis through the training of feedback sentiments represents a step forward for the work integrated learning manager, and WIL research paradigm in general.

Implications for the WIL community: Once trained, this technology creates various opportunities for education providers in the context of data management and has future implications for predictive modelling of WIL placement outcomes, based on trained feedback sentiments obtained via self-assessed and employer-assessed progress reports.

Evaluating the effectiveness and impact of embedding te reo and tikanga Māori

Amber Paterson Otago Polytechnic | Te Pukenga

Aim: to evaluate the effectiveness and impact of embedding te reo and tikanga Māori concepts at Otago Polytechnic.

Methods: In phase 1 of this research, we explored the perceptions of staff on the Health Bridging programme. Using qualitative research methodologies, research team members used semi-structured interviews for initial data collection, followed up by thematic data analysis to explore staff perceptions of the process and effectiveness of embedding te reo and tikanga Māori in their programme, and address inquiry questions 1a & b below.

In phase 2 of this research, we explored the impact on students. This phase was carried out over a semester, in which all students on the of the health Bridging programme were invited to participate in this research. We took a mixed-methods approach in phase 2 to survey student participants on the Health Bridging programme, pre- and post-delivery, to collect a mixture of quantitative data (student self-assessments of their confidence in certain te reo and tikanga concepts) and qualitative (students were asked to identify the te reo and tikanga concepts that we have not asked about).

This data has now been collated and we are in phase 3 of the research. This involves following up on the students that indicated they were happy to be interviewed in their new 2023 courses or workplaces to see if there has been any shift in their knowledge and understanding in their new study or workplace. For those learners that did not continue with study and went to the workforce, we are interested to see if there are links between what Te Reo Māori and Tikanga Māori practices they were exposed to in the Health Bridging course and the workforce.

Results: From the initial findings from the staff interviews, we have been able to help implement some changes in the Health Bridging programme to ensure consistency and upskilling of staff.



Trial and Error: Exploring the value of virtual work placements for enabling students

Bianca Price University of South Australia

Background: There is a wealth of research showcasing and evaluating Work Integrated Learning (WIL) as an effective method to build students employability and enhance career readiness, however, few studies have specifically examined if this is consistent for students in enabling programs (Caldicott, et al., 2022). Given the rapid changes caused by the COVID-19 pandemic, Universities had to consider how they prepare students for uncertain futures (Ali, 2020). Consequently, this study responds to calls that explore how diverse WIL opportunities may better serve equity students and better prepare them for their UG studies.

Issue: WIL is often compulsory for many UG programs, however, there is a lack of empirical exploration on the relative value WIL may have in enabling education (Young, Cardilini, & Hermon, 2021). Recent research found notable discrepancies for students that come from equity backgrounds and their ability to engage in meaningful WIL (Bell, et al, 2021). To date, most enabling programs focus on numeracy and literacy skills and fail to examine career development as part of the curriculum. Therefore, the aim of this presentation is to discuss what value virtual WIL may have for enabling students entering an UG program.

Literature: Most Australian Universities have a commitment to graduate outcomes and acknowledge the need to produce 'work-ready graduates' (Doherty & Stephens, 2020; Bracken, Patton & Lindsay, 2022; Dean et al, 2022). This is achieved through WIL, an approach widely used to equip students for the world of work (Lyons et al., 2022). Whilst enabling programs provide an important pathway for 'second chance' equity students, very little is known about the curriculum needs that exist in open access enabling programs and if this improves student readiness to successful complete a UG qualification (Noonan, 2019; O'Rourke, et al., 2019).

Discussion: Extant literature demonstrates the ways WIL may assist graduates in preparation for the world of work (Dean & Campbell, 2020; Lyons, et al., 2022). However much of this research is centered on UG programs, with the contributions of WIL at the enabling level clearly under-researched. This study supports the idea that enabling students recognize the value of virtual WIL and personalized career education prior to their UG studies.

Implications: This presentation argues for virtual WIL opportunities to be embedded in enabling programs. That, in doing so students may be better prepared for the standards associated with UG study as well as the WIL requirements associated with most degrees. In addition, students can also demystify common career stereotypes and assumptions thus making more informed UG choices better suited to them. Results suggest that implementing virtual WIL in enabling programs offers non-traditional students a host of experiences and positive outcomes as a result.

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A Work-integrated Learning (WIL) program for industry professionals in NZ-Horticulture

Meike Rombach Alison Bailey *Lincoln University*

Background & Research Aim: The horticultural sector is an integral part of New Zealand's primary industry. For the past decade, horticultural leaders in Australasia have called for tertiary education programs that allow the next generation of professionals to gain work experience alongside their studies [1]. The diploma program "Horticultural Business" (DIPHORTBUS) is a WIL program for horticultural professionals tailored to this need. The program builds on elements of self-directed learning and face-to-face workshops. The courses deliver strategy, financial management, innovation, entrepreneurship, and marketing concepts. While for undergraduates in horticulture and agriculture, work-integrated learning experiences are well established (e.g., sandwich models and internships) [2], programs for industry professionals are yet to be more widely explored. Building on the work of Acuna et al. (2019), who describes the design and execution of a program for industry professionals [1], the present study is dedicated to Academics engaged in such programs and serve as content creators, teachers, examiners, and supervisors. The present study is twofold and aims to a) identify factors influencing the practices of these academics and b) further understand how they execute their complex and multifaced roles in these programs.

Results & Discussions: The practices of academics involved in WIL programs are influenced by disciplinary traditions, the specific type of WIL model, the variation of people involved, and the degree of involvement of academics with students. These findings align with Winchestor-Seeto et al. (2016), who discuss academic role execution and influential factors in undergraduate programs [3]. The



DIPHORTBUS program requires academics engaged in the delivery to work together closely. The delivery must combine finance, marketing, and entrepreneurship content and be meaningfully tailored to the horticultural lifeworld. Academics with knowledge in both subject areas facilitate the stretch to unite disciplinary traditions. In addition, academics need to accommodate students' personal and professional circumstances. For instance, academic progress, unemployment during the study, work-related peak seasons, such as harvest, and the nature of the industry, including natural disasters. Pastoral care, ethical decisions, and flexibility are critical to the program's success. Pastoral care requires program directors, examiners, and learning success advisors to play administrative, educational, and support roles [4]. Examiners must balance the dual role of advisor and evaluator [3]. In WIL programs, continued advice and mentoring are required, whereas pastoral care is mainly executed in crisis circumstances [4]. The extent of pastoral care depends on the individual academics understanding of the role.

Lessons for the WIL Community: The demands towards academics in DiPHORTBUS and other WIL programs are often complex and need stronger notice within institutions. Students require professional and emotional support beyond the three critical academic roles. The perception of roles, responsibility, and execution is a key challenge in the delivery. The intersection of supervision, pastoral care, and education can be an area of conflict between stakeholders in programs.

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CBE's AWIL programme: Best practice strategies

Dhammika Silva Nima Riini *Wintec | Te Pukenga*

Wintec Te Pukenga came into being to deliver career-focused qualifications and programmes in response to the needs of industry to enable our akonga to develop practical experience to ensure they have the necessary work-based practical skills that industry requires. The Centre for Business and Enterprise's (CBE) Applied Work Integrated Learning (AWIL) Programme took a pedagogical approach to bridge the gap between theory and practice by enabling our akonga with opportunities to apply their knowledge and skills in a real-world context. Our presentation aims to explore the concept of the AWIL Programme and its very importance to CBE and Wintec Te Pukenga as a whole.

The presentation will begin by defining CBE's AWIL Programme and what we are doing in this space. Nima Riini, CBE's Industry Relationships Manager, will address her role within this programme in response to industry needs. Dhammika Silva, CBE's AWIL Co-ordinator will address along research projects that are conducted in many disciplinary areas of business within the Centre. The benefits of the



AWIL Programme will then be examined, including the increased employability, improved academic performance and enhanced skills development. The Presentation will also look at the challenges that CBE faced/are facing pre- and post-COVID, including the difficulty of finding suitable placements and ensuring that the learning objectives are met.

The presentation will also highlight the role that various stakeholders play in our AWIL Programme, including students, educators, employers, and policymakers and exemplifies the effective collaboration and communication that is needed between these stakeholders that is crucial for success of CBE's AWIL Programme. Ongoing research and evaluation that is needed to ensure that WIL continues to meet the changing needs of akonga, educators and employers in a rapidly evolving workforce must not be forgotten.

Constructing women: Investigating the preparation of female students for a work placement in a male-dominated industry

Kylie Taffard *ConCOVE*

Background: The construction industry is male-dominated, however, has begun to see an increase in women entering in both professional and vocational roles. Although, professional roles within the construction industry that have university qualifications, such as construction management and engineering, have begun to see an increase in women (Bigelow et al., 2016; Fielden et al., 2000; Gale, 1994; Lingard & Lin, 2004; Loosemore & Tan, 2000a; Walton et al., 2015). Research has indicated that work experience programmes support young people to transition from a student to a working professional (Eames, 2003). Alongside the transition from student to professional, work experience allows females to identify with a career pathway they may have otherwise excluded due to gender stereotypes.

Issue: The provision of work experience can be an important tool to support females into a non-traditional career pathway. However, the social experience of a non-traditional workplace can be a key factor in the career decision making process. Understanding how to best support females to navigate possible challenges, microaggressions and overt sexist behaviour they may experience when in a work placement could ensure career decisions are based on the work, rather than a negative experience.

Literature: There is a macho man culture that is linked to the construction industry that can influence the onsite experience of women. With onsite relationships often characterised by arguments, excessive swearing and conflict and the possible experience of sexism (Fielden et al., 2000; Ibáñez Pascual, 2017), females participating in work placements could struggle to navigate the environment. Part of the social experience, is a concern that women may have to undo their gender or reject the constructs of femininity to fit into a construction workplace (Chan, 2013; Ibáñez Pascual, 2017). Meaning fitting in can imply that women have to accept poor language and sexist behaviour as "normal banter" (Gale, 1994). Males, including direct reports, can be ambivalent about these experiences of women in the construction industry; moreover, both sexism and sexual harassment can be difficult to report when reporting to a predominately male leadership team (Chan, 2013; Dabke et al., 2008; Fielden et al., 2000).



Discussion: WIL practitioners are uniquely positioned to support their female students to overcome the barriers they may face on a male-dominated worksite. This presentation will focus on finding from research conducted with secondary schools Career Development Educators and their experiences of placing female students into non-traditional work placements. Specifically, the different methods of managing these placements and the merits and concerns with the different methods.

Implications: As more people choose career pathways that are not traditional for their gender, this discussion could support the retention of talent in industries that could benefit from a more diverse workforce.

Complementary learning linkages between theory, projects, and practice

Siju Thomas Wendy Fox-Turnbull Karsten Zegwaard *University of Waikato*

Engineering education is a learning program where students develop engineering knowledge, technical, and non-technical skills through practice, which leads to development of experience-based degree. Modern-day employers need graduates to be work-ready, skilled with the ability to innovate new ideas, ability to work in diverse work environments, ability to understand important aspects of work culture, human, and environment factors, and the use of technical and non-technical skills. The development of conceptual engineering knowledge and skills can be achieved by providing students with active or discovery-based learning that promotes curiosity, initiative, and interest in the subject, thereby favouring students' self-learning, enhancing problem-solving, critical thinking, and development of intellectual growth. These specific learning outcomes are achieved by applying modern teaching approaches, such as, Problem-Based Learning (PBL) and Work-Integrated Learning (WIL) in engineering education.

In engineering education, engineering projects are PBL and work placements are WIL. In engineering projects, students related and applied previously developed engineering knowledge on project's problem statement, thereby, relating theory with practice. Additionally, projects aided in development of additional engineering knowledge, as they were interdisciplinary across engineering. In work placements, students work in an authentic work environment, allowing them to engage with authentic practice and develop professional skills. Students draw on their previous learnings from classroom and engineering projects, and apply them on their work placement applications, thereby, enhancing their engineering knowledge and develop skills.

Mixed methods research was applied in this study to collect and investigate qualitative and quantitative perceptions/views of stakeholders in engineering, through a mixture of online surveys, interviews, observations, and document analysis. The quantitative surveys gave numerical data, which were then described in detail via qualitative interviews, observations, and document analysis. Stakeholders' perceptions of learning outcomes of classroom, engineering projects, and work placements were



obtained, which aided in investigating the extent of development of engineering knowledge and skills through each of these approaches.

The analysis of stakeholders' perceptions, alongside intended learning outcomes of each approaches/engineering papers, shows that engineering projects aided in developing engineering knowledge and skills that were outside the learning scope of classroom learning. Similarly, work placements aided in developing engineering knowledge and skills, which were not developed through classroom learning and engineering projects. The findings of this study suggest that there are complementary learning linkages between classroom, engineering projects, and work placements.

Motivation for, and experience with, work-integrated laboratory education

Carla Tudreu Rebecca Demchick Sashi Jeffries Paul Demchick *Real World Education*

Real World Education is New Zealand's government-funded specialist provider of laboratory education. Real World Education's New Zealand Laboratory Education (NZLE) programmes range from Level 4 (early undergraduate) to Level 8 (postgraduate) on the New Zealand Qualifications Framework. The vast majority of NZLE delivery is work-integrated learning. The experience with this has been overwhelmingly positive, although lessons have been learned from experience along the way.

One motivation for the work-integration of NZLE was to make high quality laboratory training available within commuting range of most New Zealanders. The population distribution in New Zealand would not make this practical through classroom-based training. NZLE programmes accommodate those starting a laboratory career, and those advancing a laboratory career. For both, the work-integration allows a deeper and more nuanced exploration than would be possible in even a good classroom-based situation. Especially topics like laboratory quality systems and analytical procedure changes, although they can be taught without work-integration, are hard to really give a proper understanding of outside of a setting in which the principles are lived.

Work-integrated delivery facilitates people in laboratory employment to up-skill without having to leave their current employment situation. It allows new learning to be promptly applied in a relevant context. Work-integrated delivery allows training on professional-grade equipment which is maintained properly in a way that is hard to resource in classroom-based learning. It also has more hands-on experience than even practical-intensive classroom-based learning. A balance needs to be struck in terms of consistency and diversity in work-integrated experience. Greater diversity of experience than within classroom-based programmes is both a practical necessity, and if managed carefully, a strength of work-integrated learning.

Work-integrated learning in NZLE programmes leads to greater participant success, better employment outcomes, and higher employer satisfaction than classroom-based laboratory education. Even the portions of NZLE offerings that are not themselves work-integrated are strengthened by the fact that



participants will soon be in professional laboratories. That focuses, motivates, and gives a sense of urgency for proper preparation that influences both participants and educators. The frequent contact with commercial laboratories keeps NZLE programmes employment-focused and industry-aware in a way that would be very hard to achieve by traditional consultation.

Advancing the development of literacy and numeracy within the WIL context

Damon Whitten Ako Aotearoa

Developing the literacy and numeracy skills of trainees and apprentices is a growing priority for many industries as they grapple with an increased proportion of trainees with LN needs. A key challenge is how various industries can implement effective approaches within the context of work-integrated learning. For example, how might a training advisor effectively support an apprentice with a numeracy issue within the time constraints of a site visit?

This presentation explores the potential of the NZ adult literacy and numeracy framework to advance the development of learner LN skills within work-integrated learning. Specifically, it reviews how the literacy and numeracy infrastructure (such as the Adult Numeracy Learning Progressions) can be used to identify specific industry LN needs, assess learners needs, and inform effective training solutions. This presentation will suit people looking for fresh, practical, and effective thinking around the development of LN skills.

Threads of the past informing the future: Alumni perspectives

Yvonne Wood Auckland University of Technology / University of Waikato Karsten Zegwaard Wendy Fox-Turnbull University of Waikato

> Ka mua, ka muri – walking backwards into the future – Māori Whakataukī If you want to know the future, look at the past – Albert Einstein We do not learn from experience... we learn from reflecting on experience – Dewey

Walking backwards into the future, is to let the past guide the future. Taking a student centric view of work-integrated learning (WIL), this research focuses on the need to understand students' perceptions of quality WIL. WIL is an inherently experiential and authentic learning context. During WIL, students combine tasks that are real to them and their work context. Recent alumni have the unique position of being able to reflect on their recent past student experience whilst also understanding industry perspectives.



This study aims to inform hospitality and tourism work-integrated learning (WIL) practice. The study design included four participant cohorts (alumni, students, industry mentors, and academic supervisors). The research uses a mixed methods approach with two phases (an alumni phase, followed by a student phase with industry mentors and academic supervisors targeted for triangulation). The rational for the study is further supported by the disproportionate impact of COVID-19 on these industries thus necessitating a broader understanding of WIL within hospitality and tourism.

The research reported here focuses only on the first phase of alumni data. Initial analysis is presented to explore trends and seek feedback from the WILNZ community. Specifically, the focus will be alumni reflections and perceptions of the quality of their WIL experiences and the impact of practical pre-WIL preparation on WIL experiences.

Preliminary analysis of the data found that alumni identify with a broad range of WIL experiences (from 2014–2022), and that there was high satisfaction with the WIL experience (7% low satisfaction), with a positive correlation between overall satisfaction and general WIL preparation.

The more in-depth preparation questions showed fairly consistent results across survey scales. However, the three items with the lowest mean, had different response patterns. Classes with industry specific software or the general use of simulated settings to practice university learning showed an increase in negative responses, whereas classes with site visits showed a negative trend.

These trends warrant further investigation, discussion, and analysis. The survey questions further emphasise *ka mua*, *ka muri* by building on previous research. From a student view of WIL, one could imagine 'students' as the agents for change who weave together 'industry' and 'education'. To build on the conference theme and metaphor students shape the future in terms of weaving, as the 'shuttle' that passes between the 'weft' and 'warp' WIL to create the rich textured future for WIL.

Incorporating community engaged learning in an ICT academic programme

Alvin Yeo David Bainbridge *University of Waikato* Danny Paruru *Whakatōhea Māori Trust Board* Annika Hinze *University of Waikato*

We report on our experiences with Community-Engaged Learning (CEL) within the Master of Information Technology (MInfoTech), at the School of Computing and Mathematical Sciences (CMS), University of Waikato. CEL, a category of Work-Integrated Learning, focuses on educational activities and projects, working together with a community. An MInfoTech graduate attribute is "an ability to work collaboratively with others, interacting effectively and demonstrating respect for others and an appreciation of human and cultural diversity." Our course CSMAX570, Preparing for the ICT Internship, plays a critical role in supporting this MInfoTech goal.



Over the last four years, we have worked with the Whakatōhea iwi (tribe) through the Whakatōhea Māori Trust Board (WMTB) on five CEL projects, which were analysed according to these research questions:

Can we leverage experiential learning in the form of CEL to achieve learning outcomes of an information and communication technology (ICT) academic programme?

What are the opportunities and benefits of CEL to the stakeholders?

Motivation for each project is driven by the Iwi's aspirations, with project scope co-developed by staff at CMS and WMTB. The project work centres around the exploration of systems which can benefit their community. Past project work includes: a digital library to archive the iwi's taonga (treasures), a whakapapa (genealogy) application, and a location-based mobile app for learning about the Iwi. For these projects, students worked in teams to analyse the requirements, design and develop prototypes. Each team met weekly/fortnightly online with the client (WMTB) and the "Project Manager" (course convenor). A handful of in-person meetings also occurred. Evaluation comprised presentations to both Iwi and convenors/markers, and written reports on the technical aspects as well as their project experience.

We have found that CEL projects can be incorporated into the ICT curriculum to achieve the learning outcomes. There have been clear benefits for WMTB, as evidenced by the iwi continuing two projects with their own resources, beyond the duration of the CSMAX570 course. The students have benefited from the interactions with Iwi, increasing their appreciation for — and knowledge about — Te Ao Māori (worldview) and utilisation of te reo, both written and spoken. The students also learn/improve collaborative skills working with their team members. Through this initiative, CMS has also benefited, allowing the University and students to give back to the community. The CEL projects have also led to new funding opportunities, new research projects, and through publications have increased visibility of work with Iwi.





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