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Contemporary Research Topics

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EXPLORING CONNECTIONS: OUR 10TH EDITION

David McMaster and Trish Chaplin-Cheyne

Welcome to the 2021 edition of *Scope: Learning and Teaching.* As with our last issue, this tenth edition issue also has an open theme. Despite the disruptions wrought by the global pandemic, we received a record number of submissions for this edition which address challenges and concepts relating to programmes, people and pedagogy that inform contemporary understandings and practices of learning and teaching.

CURRICULUM DESIGN/EMPLOYABILITY

As educators, we understand the need for continual course and programme review and redesign to ensure that our learners receive the best possible learning experiences, and that the capabilities and knowledges acquired position graduates to meet the needs of key stakeholders, whether in industry, the professions or government agencies. The curriculum design/employability nexus is explored in a cluster of papers that focus on the importance of keeping abreast of relevant research literature and the importance of ongoing stakeholder consultation.

Amber Paterson provides a research snapshot of the outcomes of a major research project at Otago Polytechnic investigating the alignment of the key learner capabilities embedded in its programmes with those identified by alumni and employers as being the most important. The research found that the core capabilities identified by teaching staff – "communicates effectively verbally," "works in teams," "solves problems" and "communicates effectively in writing" – align with both employer expectations and alumni workplace experiences.

As part of their five-yearly review of Toi Ohomai's Bachelor of Nursing programme, Judith Honeyfield and Reghuram Ravindran undertook research which examined the mental health and addictions teaching, learning and assessment components of the programme. Feedback from stakeholders led to important changes in the programme including the introduction of mental health themes to all papers across the Bachelor of Nursing curriculum. Also at Toi Ohomai, Cath Fraser, Judith Honeyfield and Mary White present an extensive literature review of aged healthcare research with a view to gaining a deeper understanding of the capabilities that nursing and healthcare students require in order to provide exemplary services to seniors in their care. They also explore how iterative programme development can ensure that elder care is viewed as an attractive and valued career choice.

Bradley Hannigan and Dilhan Athapaththu's contribution presents the findings of their research undertaken with Sri Lankan international students who graduated from an applied management programme. The insights provided by the research participants suggested a range of possible enhancements to the programme, but also prompted the researchers to reconsider what is meant by vocational learning in the context of equipping international learners with work-ready skills, particularly for graduates entering a new (work) culture. Helen Geytenbeek, Dr Lesley Gill, Rachel Byars and Melissa Clarke-Fuller's research with learners in their Improving Organisational Performance paper at Otago Polytechnic explores learner's resistance to teamwork. While, as the authors emphasise, working in diverse teams is a key employability skill for business majors, student reflections on their experiences indicate that when faced with group conflict, they tended to avoid conflict rather than work through it with team members. This insight led to the redesign of a paper, with a stronger focus on team management skills and an increased emphasis on critical reflection.

One of the criticisms often levelled at information technology (IT) education is that the knowledge and skills students acquire date very quickly. However, as John Mumford demonstrates in his contribution, critical thinking in IT is particularly vital today as we move from a mindset of knowing how to apply IT solutions to well-understood situations to one of being able to think critically about problems and identify solutions to unknown issues. As Mumford suggests, this requires shifting the focus away from whether something does or does not work to thinking about why certain solutions work, thus leading to greater cognitive engagement with tasks. In line with this thinking, Tara Malone's article emphasises the importance of formative assessment to encouraging deep learning and the building of work-readiness for new graduates. This mode of assessment, she argues, instils a range of attributes and skills in learners including self-regulation and reflection, self-efficacy and self–other interpersonal skills.

Roz Tocker's fascinating article, "A Starry Starry Night," rounds out this section. Tocker describes an innovative approach to the teaching of indigenous knowledge and values to international food and beverage students, explored through the design and preparation of a Matariki dinner/banquet. Reflecting on this experience, she explains that the event led to "epiphanies" for teachers and students alike in preparing for this major cultural event, an outcome which, Tocker reveals, "completely changed my own teaching pedagogy."

EDUCATIONAL TECHNOLOGY/LEARNING ANALYTICS

In "Mining for Gold," Claire Goode and colleagues highlight the increasing importance of learning analytics to the design and redesign of online and blended courses. Through this data, educators are able to discern not only when and how learners access courses but, crucially, which components of a course they access, and for how long. The researchers also focus on the ethical issues thrown up by learning analytics and the need for transparent policies and practices that protect user confidentiality. They draw our attention to the importance of the Ōritetanga learner analytics ethics framework (2021) produced by New Zealand's Tertiary Education Commission.

In her timely contribution, Terri Brian reminds us that although educational technology is a powerful tool that can open up access to learning opportunities, particularly for marginalised and excluded learner populations, an overdependence on edtech may also lead to (unintended) negative effects. She argues that it is vital that, as with other sub-disciplines in education (curriculum studies, pedagogy, work-based learning), we adopt a critical theory perspective. As Brian reminds us, "far from being neutral, educational technology helps to convey values and biases that reflect its development and carries with it certain conceptions about learning and teaching."

STUDENT EXPERIENCE FOCUS

As Amy Benians and Nathan Laurie point out, while developing employability skills in learners is important, the social and personal outcomes of vocational education also need to be a focus of vocational education. Through their collaborative work, the authors demonstrate the value of a pedagogical model of learning based on teacher–learner co-creation as they worked together to organise a student voice symposium. This spirit of co-creation is also explored in Amber Fraser-Smith's article where she describes how, in the context of a learner-centred approach, her classes with Syrian refugees became more collaborative as she moved away from a general understanding of learner needs to a new learning environment where learners were able to identify their specific knowledge gaps and have these addressed. Also with a learner focus, Trudy Pocock and Anthea Fester advocate for alternative pathways to vocational education for learners who are in care and who may also experience behavioural difficulties and/or mental health issues. Charlotte Chisnell, Mandy Pentecost and Sue Hanna's research also examines the distinctive challenges and barriers to the learning needs of what they call an "invisible population" – young carers and young adult carers. Their case study explores the motivations, obstacles and coping strategies experienced by a range of 18-24-year-old learners undertaking tertiary study while also

managing the demands of family responsibilities. They call for closer cooperation between tertiary researchers and professionals in the field in order to enhance the learning opportunities and experiences of young carers.

Exploring how the COVID-19 pandemic has impacted on learner experiences, Emma Collins and Josie Crawley describe the impact on Year 2 Bachelor of Nursing students dealing with interruptions to their clinical placements. As the authors describe, the resilience and reflections of both lecturers *and* learners produced valuable insights that were integrated into the programme.

TEACHER PROFESSIONAL DEVELOPMENT/COMMUNITIES OF PRACTICE

The next cluster of articles focusses on teacher professional development and also learner facilitation pedagogies. Kawar Tani kicks off this section in an article provocatively titled "Those Who Can Do, Teach." Tani argues that vocational educators' professional development should include their own continuing work-based learning, in addition to maintaining their professional currency in learning and teaching and research.

Examining the approach to professional development at Otago Polytechnic, learning and teaching specialists Amy Benians and Danny Fridberg explore how the delivery of professional development might move from a hierarchical "transmissive" mode to a more bidirectional "transformative" experience for both provider and recipient. Interestingly, this approach to professional development is picked up in an article by David Woodward and colleagues which describes their community of practice initiative, focussed on exploring the range of constructivist theories and models that inform their respective approaches to learning facilitation. Marcia Johnson, Martin Andrew and Glenys Ker also turn their attention to learning facilitation, arguing that professional learning within self-directed educational frameworks is increasingly transdisciplinary, with each participant offering their particular experiences and learning to form what they call "eclectic critical conversations." This notion of eclectic learning is further explored in Johnson's paper, which also emphasises the intersubjective nature of professional development and the importance of trust and empathy to "constructive critical conversations."

The final contribution to this edition of *Scope* comes from Trish Chaplin-Cheyne and presents a critical review of transformational leadership. While this form of leadership is highly valued in higher education, particularly in Aotearoa New Zealand, Chaplin-Cheyne points out that a significant gender gap remains at the executive leadership level. This is particularly evident in the New Zealand Institutes of Technology and Polytechnics sector, where only three women hold chief executive positions compared to 11 men. This imbalance will hopefully be addressed by the wide-ranging Reform of Vocational Education initiative currently underway.

Finally, as always, we extend our gratitude to the contributors, the editorial board, editorial team, and the production crew for their work and continuing support for *Scope: Learning and Teaching.*

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ALIGNING LEARNER CAPABILITIES TO INDUSTRY – A RESEARCH SNAPSHOT

Amber Paterson

Otago Polytechnic's aim is to produce the country's most employable graduates. The nature of work is changing globally, particularly in our COVID-19 affected world. Many people are now working in work environments that differ markedly from what they were before. Flexibility and fluidity to move across workplaces and different ways of working is vital.

BACKGROUND

Learner Capabilities are also known as transferable skills, soft skills, twenty-first-century skills or work-ready skills. They are a set of skills that can be used across a range of jobs. A nurse and a retail assistant need to have interpersonal skills. An engineer and a teacher both need critical thinking skills. A builder and a hairdresser both need the ability to solve problems. Transferable skills are developed throughout a person's lifetime through experiences at work, socially, in the community and through study.

The Learner Capability Framework (LCF) was first used in 2017 at the Otago Polytechnic's Auckland International Campus. From 2018 its implementation in certificate, diploma and degree programmes has continued through our Dunedin campus. A web-based tool called *iamcapable*, which is used by learners to upload evidence of their work-ready capabilities, was instigated in 2019. In the first semester of 2019 the LCF and usage of *iamcapable* was implemented in five diploma and degree programmes, which grew to a further 25 programmes in the second semester. By March 2020, 12 more programmes had embedded both the LCF and *iamcapable* in their programmes. This number has continued to grow through 2020 and 2021.

AIM

This research snapshot summarises research that has been undertaken on how Learner Capabilities (work-ready skills) are important in study and in the workforce.

RESEARCH

A major research project undertaken by Otago Polytechnic staff on Learner Capabilities was launched in 2018. There was a particular focus that year on what employers ranked as their top ten capabilities for their particular area of industry. Over the subsequent two years, further research was undertaken with alumni and current students and staff to assess what capabilities were important in their areas of study and work. This analysis snapshots the findings of these aspects of the research project and compares our findings with research undertaken elsewhere. This snapshot includes quotes from current students, alumni and staff about their experiences. (These comments are unreferenced as the full research document is currently at print.)[i]

During this research, the following groups were interviewed. Employers were initially interviewed to develop the Employer Priority Index. Following on from this, and using the employer index, the Otago Southland Employers Association, Kokiri Training Centre, current students, alumni (who had graduated within five years) and current Otago Polytechnic staff who had been using the LCF, were all interviewed.

Through an analysis of relevant websites we found a number of transferable skills that are similar to the LCF, and that directly correlate with our research at Otago Polytechnic. It is reassuring for us to know that our framework and programmes are aligned with employers' needs and industry practices.

The website Seek has identified a set of core transferable skills that people need in employment (Seek, n.d.). These are:

- Organisational skills (including creativity and time management)
- Communication skills (verbal, both written and oral)
- People skills (interpersonal skills)
- Teamwork (including critical thinking and problem solving).

> *"When you start working in an organisation the main thing is your communication with your colleagues/boss/customer."* (business alumnus)

TradeMe have also listed their top ten list of most wanted transferable skills:

- Adaptability – being willing to make changes and be flexible in one's ways of working
- Growth mindset – being willing to better yourself and learn
- Communication
- Problem solving
- Emotional intelligence – recognising your emotions and those of those around you to assist with building positive relationships with others
- Creativity
- Cultural awareness
- Leadership
- Focus mastery – in a busy office or working from home there are many distractions: focus mastery is the ability to tune out the distractions around you
- Persuasion – the ability to persuade others that your ideas are worth pursuing.

> *"The lecturers in the BCA programmes really helped me identify my potentials … during project-based learning they helped me identify my capability and what I could be doing in the future."* (culinary arts alumnus)

Careers NZ emphasise the importance of transferable skills and have identified seven essential skills for the workplace (Careers.govt.nz, 2020):

- Positive attitude
- Communication
- Teamwork
- Self-management
- Willingness to learn
- Thinking skills (including thinking critically and problem solving)
- Resilience

Transferable skills extend across all walks of life, all kinds of vocations and all stages of the career path. When comparing transferable skills across these three employment websites we begin to see a trend, with the same skills popping up on all three lists. These include communication, teamwork, critical thinking, creativity and personal organisation.

OTAGO POLYTECHNIC RESEARCH

In 2018 many lecturers headed out into industry settings to interview employers about the capabilities that are regarded as the most important in their fields. They showed the employers the full list of 25 capabilities (now 26) on the LCF and asked them to rank them from one to ten in order of importance. The employers' fields or work types were amalgamated into clusters and the data was then analysed in these clusters.

During the various stages of the research, it became clear that there were commonalities across the different clusters.

> *"I think for me, the prime selection would be if you were going to be a good team fit – that is why I have put 'displays effective interpersonal behaviour.'"* (visual arts employer)

Across all the study area clusters we found that, out of the 25 offered, employers valued four capabilities the most highly (in order of importance):

1. Works in teams
2. Solves problems
3. Communicates effectively verbally
4. Organises effectively.

Figure 1. Employer top ratings.

Similarly, having questioned alumni in a variety of areas, we found that they ranked the following as most important:

1. Communicates effectively verbally
2. Displays positive interpersonal behaviour and independence
3. Works in teams
4. Communicates effectively in writing.
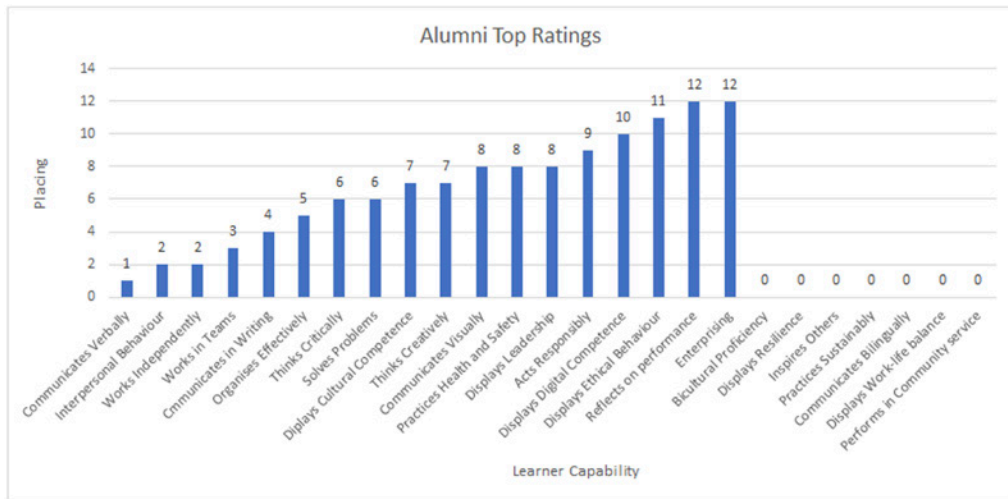
Figure 2. Alumni top ratings.

When we analysed the data more closely across employers and alumni, four capabilities emerged as commonalities:

1. Organises effectively
2. Communicates effectively verbally and works in teams
3. Displays positive interpersonal behaviour
4. Solves problems.

"If you communicate verbally, you will build relationships, you will build contacts, you will do a lot, you will move forward very effectively." (quantity surveying employer)
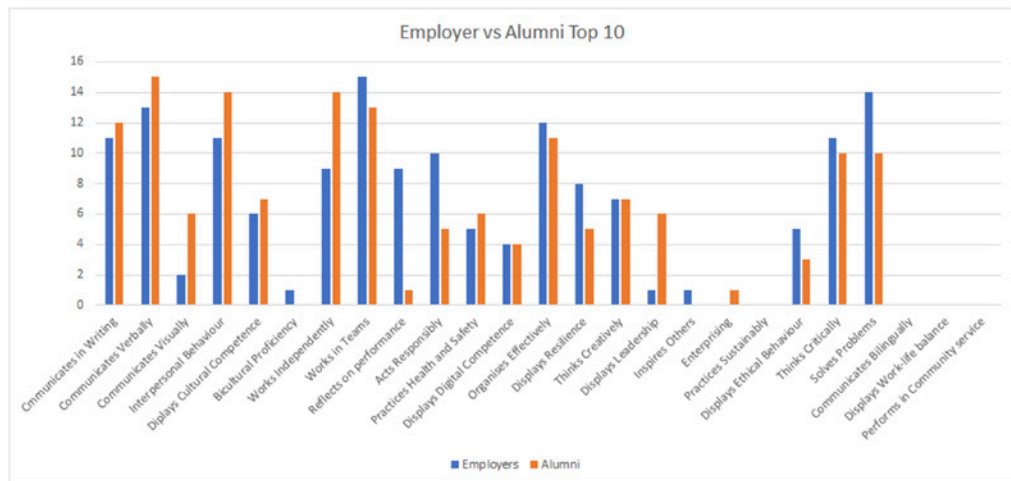
Figure 3. Employer vs alumni top 10.

IMPLICATIONS

When an analysis was undertaken of the Learner Capabilities that individual Otago Polytechnic programmes had chosen as their core focus capabilities, we found that four factors –"communicates effectively verbally," "works in teams," "solves problems" and "communicates effectively in writing" – were most commonly chosen by teaching staff. This indicates that the capabilities we focus on in our teaching programmes are also identified as key by our alumni and by employers. This suggests that, overall, there is a good match between teaching and learning, on the one hand, and employment, on the other, and that this correlates closely with the capabilities that Seek, TradeMe and Careers NZ have identified.

However, while most alumni questioned stated that they felt capability-ready, they would have liked more practical, real-world scenarios in the classroom, as well as help with seeking work and networking opportunities.

While this project has now concluded, further research in this area is desirable including further investigations into increasing the number of undergraduate certificate and diplomas and the long-term impact and usage of the Learner Capability Framework and the web-based tool *iamcapable*.

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i   Otago Polytechnic Learner Capability Research documentation is available at https://issuu.com/oplearnercapability.

DEVELOPING UNDERGRADUATE NURSING MENTAL HEALTH AND ADDICTIONS TEACHING: PRACTICE AND EDUCATION PERSPECTIVES

Judith Honeyfield and Reghuram Ravindran

INTRODUCTION

Undergraduate nursing education must prepare students in a range of settings where people may present with mental health issues. The aim of this research was to consider if the current teaching and assessment approaches prepare Bachelor of Nursing (BN) graduates to meet stakeholder needs. Mental health nurses and teaching staff delivering mental health and addictions education were contacted to identify issues and good practice in the educational preparation for mental health nursing (MHN). Feedback from mental health nurses identified four key themes: (1) *Normalising mental health is a health issue*; (2) *Active caring and compassion*; (3) *Learn the art of assessment – what do you see?* (4) *Back to basics – you are new to mental health, but not everything is new.*

Mental health and addictions educators identified the emergence of two parallel models in mental health and addictions undergraduate education: (a) specialist content papers in mental health and addictions; (b) integration of mental health and addictions education across BN curricula. The response to this research was the development of a Year two mental health and addictions paper alongside integrated content in all papers of the BN curriculum to best position graduates to provide safe and effective MHN practice.

BN programmes in Aotearoa New Zealand offer a three-year degree preparing students to meet the Nursing Council of New Zealand competencies and successfully pass the national state examination to register as a nurse. All programmes are required to deliver core MHN concepts and knowledge, supported by a range of bio-psychosocial content and practice to support mental health and wellbeing (Ministry of Health [MOH], 2018). All BN students complete mental health practicum experiences in a range of acute inpatient and community practice settings. The bicultural BN curriculum at Toi Ohomai Institute of Technology confirms Māori as tangata whenua (indigenous people of the land) and reflects the four articles of Te Tiriti o Waitangi as a founding document of our country. Core registered nurse competencies (Nursing Council of New Zealand, 2016) are developed and measured throughout the BN to ensure that all nursing practice is culturally safe (Honeyfield et al., 2020).

BN curricula are reviewed every five years by academic leaders and teaching teams for routine quality assurance, and feedback is sought from a range of practice settings, health agencies, stakeholders and students. Strategic policy reviews, professional body updates and current research is also analysed and considered in a review. In 2019, as part of a five-year review outcome at Toi Ohomai Institute of Technology, the mental health paper was found to require redevelopment and it was suggested that new pedagogical approaches be considered.

This strengthening of the mental health and addictions focus in the curriculum also responds to reduced recruitment of BN graduates into MHN practice (Lienert-Brown, 2013; Stevens et al., 2013). A number of initiatives have been instigated to reverse this trend (Cleary et al., 2006; Happell, 2008) and there have been reports of improved MHN and sector performance (MOH, 2019). Nevertheless, the literature continues to report negative undergraduate student experiences in practice and difficulties in recruitment (Hazelton et al., 2011; Hooper et al., 2016; Honeyfield et al., 2020; MOH, 2018).

THE MENTAL HEALTH CONTEXT

While most New Zealanders report good mental wellbeing most of the time, about one in five people will have had a diagnosable mental illness in the previous 12 months; and of these people, about one in 30 will experience severe mental illness and require specialist services (MOH, 2018). Over the last two years, the proportion of people seen in primary care practice with a diagnosed mental health issue has increased by 22 percent. In addition, an estimated 12 percent of New Zealanders will experience a substance use disorder in their lifetime, of whom 70 percent will have a co-existing mental health issue (MOH, 2018). Mental health and wellbeing are complex, and issues such as unemployment, poverty, discrimination, misuse of alcohol and drugs, abuse and family violence are further barriers to good mental health and wellbeing. These factors must be addressed, along with providing accessible, high-quality, effective support for people who are mentally unwell.

THE MENTAL HEALTH AND ADDICTIONS WORKFORCE

Nurses make up the largest group of regulated health professionals in mental health and addictions services, as shown in Figure 1.
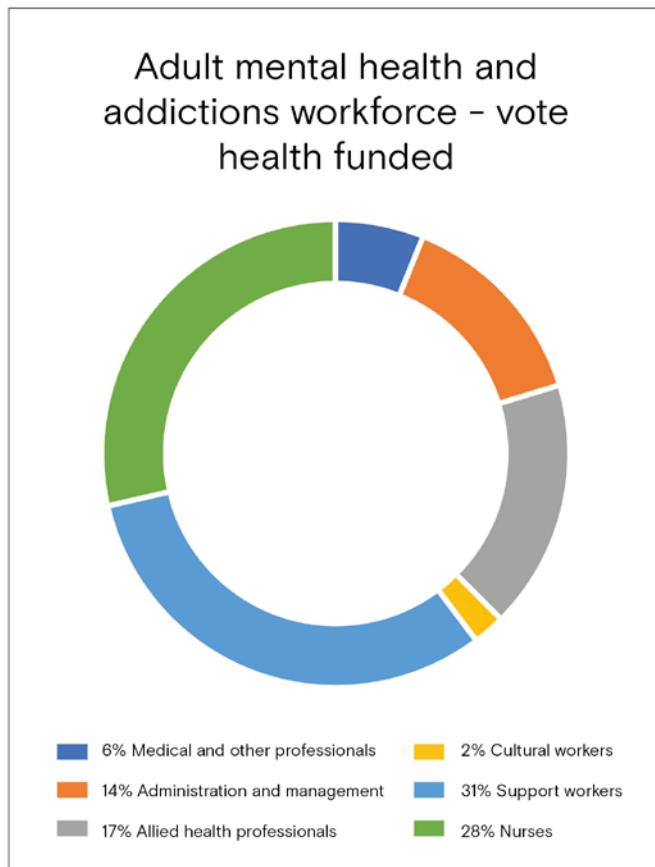
Figure 1. Adult mental health and addictions workforce – public health funded. Source: MOH, 2018.

The Mental Health and Addiction Workforce Action Plan 2017–2021 (MOH, 2018) confirmed that all health and social service providers are responsible for promoting and maintaining mental wellbeing, signalling a need for collaboration and integrating a range of knowledge across the health continuum, which should be evolved in BN curricula. This responsibility includes developing values and attitudes required of nurses and health workers to create a culture where people's voice, along with their whānau (family), are core to discovering what really matters to the service consumers. The action plan (MOH, 2018, p. 1) identified four priority areas in mental health and addictions workforce requirements, creating a workforce that is:

1. Focused on people and improved outcomes
2. Integrated and connected across the continuum
3. Competent and capable
4. The right size and skill mix

The *More Than Numbers* (Te Pou o Te Whakaaro Nui, 2018) workforce survey, held in 2014 and 2018, reported that while the workforce had grown by 7 percent, and there had been an increase in services, only a minimal increase in funding occurred. Of note is increased staff turnover from 19 to 23 percent during the same time period, resulting in a greater need for addiction practitioners, support staff and social workers. In addition, improved representation of both Māori and Pacific peoples in the mental health and addictions workforce is needed due to the prevalence of mental health issues among Māori and Pacific communities (MOH, 2019).

These findings reinforce the need for improved addiction and therapeutic practice content in the BN and a focus on working in MHN as a career choice, as well as the need for a comprehensive mental health services review.

MENTAL HEALTH AND ADDICTIONS INQUIRY

A national mental health and addictions inquiry led to the publication of *He Ara Oranga* (New Zealand Government, 2018), and identified significant unmet needs for mental health and wellbeing services. *He Ara Oranga* presented 40 recommendations designed to set a clear direction for the mental health and addictions sectors and the community, with the government announcing that it had accepted in principle or in full 38 of the 40 recommendations (MOH, 2019).

However, *He Ara Oranga* has been criticised for the invisibility of nurses' perspectives (Cottingham, 2020) – nurses make up 28 percent of the mental health and addictions workforce. O'Connor (2020) also takes issue with the *He Ara Oranga* recommendations and progress made toward achieving them and, while welcoming a shift toward better support for people with mild to moderate needs, suggests that a more pressing need is to improve services for people with complex and ongoing mental health requirements.

O'Connor (2020) believes that *He Ara Oranga* lacks attention to a range of areas that mental health nurses are concerned with. These include the need to support people who experience harm from substance use; improving mental health and addiction services for pregnant women and new mothers, including more integrated care for women and their babies, pointing out that suicide is the leading cause of maternal mortality, with Māori whānau most affected; expanding the capacity of forensic mental health services, noting a 25 percent increase in the prison population since 2013, yet little increase in forensic mental health capacity; ensuring that all mental health and addictions services are culturally safe and work for Māori; reducing high rates of compulsion and the increasing use of seclusion, especially for Māori, and increasing specialty mental health and addictions services, which were under pressure. This lengthy list of service issues and requirements confirms that the mental health and addictions nursing workforce is an area facing multiple challenges, and provides important strategic workforce development pointers which and should be considered in content area in BN curricula.

New initiatives signal important changes in MHN. In our region, *Te Ara Tauwhirotanga* has recently been established as new model for care (Lakes DHB, 2021), co-developed with tangata whaiora (people with lived experience of mental illness). This is a holistic model premised on tangata (people) experiences, their whānau, a caring, well-supported workforce and connectedness. Its underlying values (tikanga) are based in a te ao Māori world view: protecting and promoting wellbeing, access to help, and healing and recovery. The concept of taiao (environment) requires a local service presence and equitable outcomes. Taken together, this model of care informs tangata whaiora that their improved wellbeing is something they can expect in the future.

These recent publications, research efforts, professional positions and new models of care prompted this research project, with a view to furthering our understanding of the preparation of BN students from a mental health services perspective, and of the experiences of educators in developing BN curricula in national schools of nursing.

BACKGROUND TO THE RESEARCH

To prepare graduates for mental health and addictions nursing practice, and to equip them to respond effectively to people presenting to any care environment when changes to their mental health occur, we need broad evidence and stakeholder feedback in order to discover how our BN students' preparation is perceived. In addition, feedback from other nursing programmes, also responding to current and future BN education in mental health and addictions, will assist our redevelopment. We also recognise the importance of curricula links, including developing primary health care/health determinants, whānau/family-focused activities and collaborative multi-disciplinary teams working in a broad range of services including health, social, education and justice, that impact student understanding of mental health and wellbeing. Currently, many of these topics are covered superficially within the various mental health papers (or not at all), yet are integrated strands throughout the BN. This suggests that "a whole of BN" approach to mental health needs to be considered, and will be informed by this project.

The overarching research question that guided this study was: How are the mental health and addictions teaching, learning and assessment components of the BN programme positioning graduates to meet the needs of key stakeholders?

The aim of the research was to seek robust stakeholder and regional mental health sector feedback in order to inform curricula responses and to improve the mental health and addictions components of the BN programme.

Ethical approval for this research from Toi Ohomai Institute of Technology's research and human ethics committee was granted in 2019 (Ref. TRC 2019.034).

METHODOLOGY

A descriptive, exploratory, mixed-methods approach was undertaken, using an online survey and telephone interviews with mental health nurses/leaders from two district health boards (DHBs), two non-governmental organisations (NGOs) and two Māori mental health services. We also interviewed and surveyed mental health educators from six schools of nursing. Although the plan was to include all 16 schools, lack of timely contact, consent and follow-up meant that this number was reduced to six. The survey used both open and closed questions (quantitative and qualitative). Interviews were audio-recorded and transcribed. Participants were sent transcriptions to correct and verify accuracy. Data was analysed using key word and thematic analysis. The data was individually reviewed by two nurse educator researchers and one specialist mental health nurse to mitigate bias and/or misinterpretation. The researchers subsequently met to discuss, compare and agree findings, to ensure robust moderation and to select of pertinent quotations as evidence of our findings.

FINDINGS/DISCUSSIONS

Mental health nurses were asked about preparation of current BN students including the extent of their knowledge base, gaps in preparation observable in new graduates and ways to collaborate to prepare BN graduates to meet workforce needs.

We found a high level of congruence between the six interview transcripts from service providers; most felt that current BN students' preparation was "better" or "improved over the last few years," with two participants agreeing that "we do get some very good students."

Four key themes or needs emerged in terms of BN students' preparation for MHN:

1. Normalising mental health is a health issue

As well as reporting concerns with recruitment, retention and the perception of MHN as "not very glamorous" and that it "was not prioritised in the BN," participants shared their perception that "students appear fearful of MHN, yet demonstrate suitability on practicum." One participant shared their belief that "students as non-mental health nurses believe mental health patients need to be treated differently as we all know they don't." One participant was adamant that "mental health is a health issue and lots of mental health issues impact on physical health and physical health issues have a mental health component," advising that BN curricula need to "normalise mental health and take a holistic view."

2. Active caring and compassion

While one participant agreed that "we had some brilliant students" – describing their attributes as "keen, part of the team, how to be caring" – another participant suggested students were "unsure of what is a caring response," adding that "we shouldn't have to teach people that." Another participant asserted that "demonstrating compassion" and "active caring" are key models in the DHB.

3. Learn the art of assessment – What do you see?

In this theme, one participant reported that "they [students] have some idea of what they are observing, an important interaction between nurse and patient," suggesting that they "must have some understanding of what they are seeing." One participant asked, "who can be prepared for mental health?" acknowledging that "students have covered the first two years in BN so they understand practice." However, another participant shared a different perspective: "our assessment skills are different – around mental health Act," yet concluded, "I haven't found students that don't know about all this stuff."

Another participant reported that an important feature of their model is "listening to her [the patient] tell you how they will keep well," summarising: "it's a lot about uplifting the person – it works." Another participant asserted the "the biggest [need to know] is holistic care, the whare [house] is honesty, life values and beliefs – thus a different way of assessment."

4. Back to the basics … You are a new MHN practice, but not everything is new

One participant believed that we need to "go back to the basics," described as being "non-judgemental, using empathy, basic listening, receiving a warm welcome … acknowledging distress and how your communication and behaviour are received by other people."

All participants identified challenges with the current curriculum, with one stating that "it is too pressured." A second practitioner suggested that MHN is "crammed into a few weeks."

The final question asked practitioners about ways to collaborate in order to prepare and attract more BN graduates to meet workforce needs. The feedback received suggested that shifting the timing and duration of MHN teaching to Year two in order to reduce pressure, change competence assessment forms (Nursing Council of New Zealand, 2016) and work more closely with preceptors would be a good move. One participant reminded us that "mental health is not for everyone … we are all different people… but part of your job is to care."

Mental health and addictions educators were asked to outline their beliefs about the strengths of their current delivery of mental health and addictions content. Two parallel approaches emerged – the first, where specialist MHN papers were delivered and the second, where MHN content was integrated across papers in the curriculum.

Model 1: Specialist MHN core papers

Participants gave feedback on the strength of the mental health and addictions component taught as speciality papers in Year two of the BN, alongside a Treaty of Waitangi course and rotating with six-week mental health practicums. The strength of this approach was identified by participants as follows:

- taught by highly experienced MHN teaching staff
- hands-on approaches to learning
- "using a range of videos of people presenting, then students completing mental health assessments of video"
- group work and group activities
- strong online content with worksheets and quizzes, and using flipped classrooms
- "hearing voices" sessions (audio resources on Moodle for students to add to their mobile device, then listen to this material while they attempt to do a list of usual tasks including shopping)
- revisions in specialist mental health services including forensic
- involvement of consumers addressing students.

For participants, Dedicated Education Units (DEUs) have "proved very successful," with "good outcomes for students;" specifically, "working collaboratively with clinical staff and students gives the best outcome – better than one preceptor." In addition, DEUs foster "really good relationship[s] with DHBs – regular meetings with mental health services and organisation."

However, participants believe that improvements are required: "students need more communication – every psychiatric condition we present [to] them needs to spend time on how to communicate with someone." Another participant agreed that we "need more emphasis on communication rather than pathophysiology." A further issue was the clinical setting itself, where one participant believed that students are "not prepared for how burnt-out staff are;" they also identified staff shortages and noted that "it is hard to prepare them for a negative ward environment – negative irritable staff."

Model 2: Integration (no standalone paper)

In response to the first question about educational preparation for workforce needs and what could change, one participant asserted that "mental health and addictions is slotted in the BN curricula, in recognition that mental health is all inclusive of all other diagnosis." This participant identified the importance of their institution's bi-cultural approach, noting that "our emphasis on Mate Māori and Māori perspectives were [models] covered in Year two whaiora paper."

Another participant identified the outcome of a significant online component – "our mental health and addictions content is much reduced … we are skimming" – drawing on a particular example: "inclusion of policies and legal consideration and overseas context is barely mentioned this year … one hour each." Yet they emphasised the importance of mental health content: "the material aligns to Nursing Council competencies so students understand why they have to learn it."

To another participant, "integration is required, which means all tutors have to be onboard with mental health aspects and in that respect, it is quite good;" they noted further that while "de-stigmatisation was the rationale, lecturers focused entirely on pathology [and] did not like it [integration]." The reason identified was that "They [educators] had to widen their brief as holistic is more sensible, people have co-morbidity, mental and physical issues." Another participant asserted that "[integration] is best practice across a lot of issues – for example, diabetes if it is really long-term, people might present with depression."

A second participant noted that their integrated programme is "inclusive of different ways of knowing and includes narrative and lived experience. The focus on recovery and human rights leads to the elimination of coercive practice, and supported patient decision making."

For participants, the strengths of integration included smaller classes, more one-to-one time and an allocated clinical practicum room onsite at the DHB for tutorials. In addition, the mental health team:

- have currency – teaching is based on current literature and resources
- teach BATOMI (Behaviour and appearance; Affect and mood; Thought and speech; Orientation, cognition and sensorium; Memory; Insight and judgement), a comprehensive mental health status assessment framework (Foster et al., 2021)
- use cultural assessment: "watch and go out with psychiatric triage team and cultural assessment team [who] do risk assessments"
- cover topics such as anxiety and depression in Year one
- connect shared knowledge and practice in an active learning environment using lived experience learning and simulations
- ensure pharmacology and pathophysiology is taught throughout.

For this model, challenges were identified as "condensing a whole semester in a few hours" and reporting "superficial" content. One participant, illustrating the need for ongoing development, noted that the integrated case study across the life span in chronic care did not include a mental health focus.

Asked about meeting workforce needs, participants responded, "we are fortunate to have good preceptors in placements to fill gaps in student knowledge," and are able to "incorporate more content workshops and refine as we go." Some topics required greater coverage; participants wanted "more on addictions, and trauma leading to addictions and mental health issues – only two hours of alcohol and other drugs," and wanted to "ask for increase in hours, especially for suicide."

One participant reported that their students did not really meet practice needs, a situation that "will change with increased collaboration across the faculty (of health/mental health strand community of practice group) and mental health sector." Further planning to meet workforce needs would include "more placements in inpatients or community services in Year two," confirming that DEUs are "used in inpatient, child and adolescent services, rehabilitation, mental health and medical wards and one NGO." This participant asserted that "preceptors do most of work."

One participant was positive about integration, summarising their views: "active blended learning, students use mental health knowledge and skill in all clinical areas and those who enter mental health workforce report they are well prepared for practice and ongoing learning." Another pointed out that "the [mental health] workforce can be institutionalised and do not always support supported decision making, to achieve less coercive practice."

Participants also identified the importance of the relationships formed during their time in practice and supervising students as important stakeholder engagement opportunities to assist curricula development.

DISCUSSION AND SUMMARY

By sharing the voices of practitioners and educators, this research confirmed the strengths and challenges of current practice and the need to carefully consider ways to further develop mental health and addictions education in BN curricula. The two parallel models identified by participants each have their own strengths and challenges.

The *Mental health and addiction workforce action plan* (MOH, 2018), with its strong emphasis on integration and holistic models, sets a framework to ensure that tangata whaiora experience high levels of care, compassion and effective support in any health service they access. Mental health as a practice setting and nursing career speciality requires further normalisation and destigmatisation. Students must be exposed to practice environments where they can observe nursing role models sharing hope, care and compassion, and develop skills in assessment, observation and therapeutic responses in settings that support their learning. DEUs are highly valued as contributing to such a learning environment, developing education and practice collaborations, holistic care and culturally appropriate models and strategies. In this environment, BN students can consider the impact of the social determinants of health (World Health Organization, 2010) that contribute to mental health and wellbeing.

Lakes DHB's new model of care, *Te Ara Tauwhirotanga*, offers important values and approaches to develop collaborative integrated learning and teaching strategies reflecting kindness and compassion in the curricula. As a result, the academic leadership and teaching team responded to the findings of this research, designed to improve BN students' theory and practice experiences, in the following ways:

- developed a year-long specialist mental health and addictions paper for Year two of the BN
- increased curriculum hours for deeper exploration of preconceptions, destigmatisation and building confidence in strengths/person-centered approaches, kindness and care
- worked with Māori as tangata whenua, ensuring that Te Tiriti o Waitangi and cultural models and practices were embedded.
- developed further case scenario-based online learning and specialist learning packages for experiential learning
- facilitated whole-person assessment using holistic models
- further developed role play in order to expand communication and active caring approaches
- built on student clinical placement and lived experiences with new language and therapeutic approaches in learning activities
- created more support in clinical placements using experienced preceptors/nurses and expanded DEUs in mental health services
- used a competency assessment framework between education and practice to share experiences, clarify expectations and collaborate in supporting students and evaluation
- contributed to specific mental health content in all BN papers across the curriculum.

These curricula and learning and teaching redevelopments continue to be embedded and enhanced in 2021, including greater involvement with the mental health clinical teams, including shared professional development and specialist practice colleagues contributing to content.

CONCLUSION

By contributing essential perspectives from practice and MHN educators, this research has helped redevelop learning and teaching in mental health and addictions in the BN curriculum at Toi Ohomai Institute of Technology.

Relevant clinical placements and the ongoing development of DEUs and collaborative relationships with iwi Māori services, acute and community mental health service providers will all be essential to further develop the MHN workforce. Appropriate values and care/compassion models designed to advance wellbeing for tangata whaiora embedded across BN curricula will support the urgent need for ongoing service development summarised by O'Connor (2020).

Further research that captures the perspectives of students in their preparation and intentions to join the MHN workforce is needed to monitor the impact of our redevelopment efforts and ongoing collaborative shaping of our practice.

Challenges continue for teaching mental health and addictions in nursing as Aotearoa New Zealand moves to a single tertiary education institutional model under Te Pūkenga, a shift which will facilitate curricula examination and the evidence we use to develop our practice. Educational developments in nursing must reflect iwi Māori perspectives and unique stakeholder needs to prepare nurses for the future.

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REPOSITIONING AGED HEALTHCARE AS A PREFERRED CAREER OPTION FOR NURSING STUDENTS: LESSONS FROM THE LITERATURE

Cath Fraser, Judith Honeyfield and Mary White

INTRODUCTION

The global rise in longevity means that older people are making a growing demand on the health sector around the world, yet specialist training in aged healthcare attracts fewer applicants than almost any other area (Gawande, 2014), and the supply of "personnel to meet the demand is not projected to keep pace" (King et al., 2011, p. 9). So what do nursing and healthcare students need to know, and to be, in order to provide exemplary services to older people? And, how should we be guiding higher education programme development to ensure that healthcare of older people is viewed as an attractive and valued career choice? The drive to answer these two questions became the catalyst for the research project reported in this literature review.

In Aotearoa New Zealand our healthcare services face this same challenge of a burgeoning older population and a shortfall of qualified practitioners – but we can also make a significant contribution to the discussion, drawing on an environment which promotes health, physical activity and wellbeing, as well as our unique bicultural heritage which blends indigenous and Western perspectives on how we respect and support older people.

Aotearoa New Zealand is widely recognised internationally for its universal healthcare and culturally responsive healthcare provision (Gauld, 2020; Ministry of Health, 2014). These are some of the reasons that our institute of technology – as a subsidiary of Te Pūkenga: New Zealand Institute of Skills and Technology – was recently approached by a number of Chinese higher education providers, including universities and teaching hospitals, to progress teaching, learning and research collaborations in aged healthcare education.

The plan is that, together, our respective organisations will develop a Sino–New Zealand programme to prepare and credential students within a culturally responsive teaching and learning context, to address the challenges of catering for this rapidly growing population segment. The first step towards this goal has been the completion of a substantive integrative literature review of good practice reports regarding aged healthcare provision. The New Zealand and Chinese partners identified three inter-related strands of particular interest, 'Wellness,' 'Culture' and 'Education.' This paper reports on the lessons and good practice indicators outlined in the literature relevant to the third domain – education – and the focus questions in the first paragraph above which guided our study.

METHODOLOGY

The integrative literature review research method enabled the researchers to summarise literature from diverse sources, including published and 'grey' (non-academic) literature and contemporary commentary (Broome, 2000). This approach allows multiple perspectives in defining concepts, reviewing theories, considering evidence,

identifying gaps in the literature and recognising the applicability of all of these to policy and practice (Whittemore & Knafl, 2005). As Broome notes, "the primary purpose of a review of existing knowledge, usually in a large part the literature, is to gain an in-depth understanding of a phenomenon by building on the work of others" (p. 231).

Potential sources of accounts of good practice in aged care were largely identified through databases accessed via the EBSCO Discovery search engine, which includes multiple medical, nursing and health databases and individual e-journal subscriptions. Google Scholar was used to find full-text articles and others were sourced through our organisation's library interloan system. Most searches were conducted by first seeking Aotearoa New Zealand and Australian studies. Keywords used in the searches related to wellbeing included terms like "aged health," "aged care," "active retirement," "positive aging" and "good practice." In the sections relating to culture and education, these terms were often paired with other keywords, including "Māori," "biculturalism," "kaupapa," "kaumatua" and "qualifications," "nurse education," "career," "carer," "healthcare assistant." Literature was generally excluded if older than 20 years.

Sources were logged in an Excel spreadsheet, using a series of headings based on Booth's (2006) *SPICE* framework: Setting; Perspective; Intervention; Comparison; Evaluation. Next, we added subheadings – for example, "Setting" included "country," "population/ethnicity," "private/public hospital," "residential care/independent living," "community" and "agency," as shown in Figure 1. This tool enabled easy access across the team and assisted us to cross-reference accounts for document analysis, conducted under the three broad categories of "wellness," "culture" and "education." Importantly, all this material was viewed through a *cultural lens* (Hardin et al., 2014), which separated mainstream and Westernised accounts from indigenous and smaller population studies.

Setting	Perspective	Intervention	Comparison	Evaluation	Cultural lens	Strand
Country	Nurse	Clinical / procedural	Control group	Qualitative / quantitative	OECD	Wellness
Population/ ethnicity	Caregiver / healthcare assistant	Education / training	Cohorts – by year or region	Sample size	Western	Culture
Private/public hospital	Medical – GP, specialist	Personnel – buddy / mentor	Inter-agency	Research design / methodology	Non-Western mainstream	Education
Residential care/ independent living	Student (including placements); graduate	External advisors (cultural, language)	Different providers	Multiple participant groups	Indigenous	
Community	Management/ leadership		International		Māori	
Agency					Pasifika	

Figure 1. The Sino–New Zealand aged healthcare research team's SPICE framework for collating review sources.

RESEARCH DESIGN – THE CULTURAL LENS APPROACH

The overarching research design adopted for this review is the cultural lens approach, a model widely used in psychology, which offers a way to evaluate how theories, practices or phenomena apply across cultural groups (Hardin et al., 2014). The cultural validity of outcomes and/or models is therefore about "the extent to which aspects of theories are generalizable across, equally relevant to, or equally useful to diverse groups" (Hardin et al., 2014, p. 656). Another way of describing this concept is offered in a photography metaphor:

> Culture acts like the coloured lens that a photographer uses to see a landscape in a particular way, or the wide-angle lens that both captures and distorts reality. The universal behaviour patterns remain, but they are coloured and bent by the cultural environment. (Ryan, 2017, para. 5).

The cultural lens approach follows five steps (paraphrased from Dik et al., 2019) and Hardin et al. (2014):

1. **Articulate how central constructs have been defined (implicitly or explicitly) and thus operationalised in past research.**
    This step is about stating and exploring conceptual definitions and processes related to the topic – nursing education curricula, nursing educators' beliefs and student nurses' experiences of learning about aged healthcare.

2. **Identify the groups (a) from which these definitions have been derived and (b) to which the constructs have either not been applied or with which surprising results have been found.**
    This step identifies the cultural group(s) of interest and the group(s) from which the theory was originally derived. It considers previous studies such as reviews of nursing education curricula development, recognising that almost all have been situated in a Western healthcare system. The literature in Aotearoa New Zealand which directly addresses the two cultural groups of Māori and non-Māori nursing students is still comparatively small.

3. **Identify relevant dimensions underlying cultural variability: What do we know about the cultural contexts of Groups A and B?**
    This step begins by acquiring basic cultural knowledge and considers sources of cultural variability without yet making conceptual connections to the theory, avoiding easy or 'intuitive' assumptions. In Aotearoa New Zealand we are fortunate to have a large and growing body of scholarship relating to the enactment of biculturalism in healthcare provision to draw on as we considered how best to explore the gap identified in Step 2 above.

4. **Evaluate the definitions/operationalisations of the central constructs (from Step 1) in the context of broader cultural knowledge about those groups (from Step 3): What do we know about the topic concept within the cultural context of Group B?**
    This step entails a synthesis of the previous steps, seeking to connect and explain differences. What do these differences mean? We were able to find several areas in which there appeared to be some tension between the direction offered by a European tradition of aged healthcare and an indigenous sense of cultural identity. At this point we were consciously moving from knowledge to implications, which in this study highlighted areas of cultural safety – mostly but not always in practicum placements, rather than the classroom.

5. **Derive research questions and specific hypotheses based on the questions and answers from Step 4.**
    This final step seeks to develop directions for new research and/or practice, based on the insights gained from the cultural lens approach process. Directions indicated for the present inquiry include addressing potential areas of cross-cultural misunderstandings with changes in curricula delivery, practicum placement assessment criteria, and targeted professional development initiatives with host placement providers.

The rationale for adopting the cultural lens tool to guide our literature review was multi-faceted. First, our Chinese partners were keen to learn more about bicultural delivery and how to incorporate diversity into healthcare delivery. Podsiadlowski and Fox (2011) describe how "New Zealand has a particularly unique and compelling cultural landscape, with an indigenous population coexisting civilly if inequitably with the postcolonial European population for two centuries" (p. 5). This situation means, they say, that Māori and non-Māori have very different world views. In addition, we now have numerous other ethnicities, and so Aotearoa New Zealand must be considered *multicultural* as well as *bicultural* – again, an area of interest to our Chinese association members.

Second, as noted above, Māori are disadvantaged compared to non-Māori in many spheres of life, including healthcare access and outcomes. Māori have a lower life expectancy (a gap of approximately 7 years) a higher incidence of smoking, hazardous drinking and obesity. Māori health status is also unequal across almost all chronic and infectious diseases, as well as injuries, including suicide (Health Quality and Safety Commission of New Zealand (HQSC), 2019). Health equity is therefore an important governmental focus (Ministry of Health, 2014; Ministry of Justice, 2016), and nursing graduates need key understandings of the causes and consequences of the cultural divide to address this situation as registered practitioners in the workplace.

Third, reducing inequity is a core driver behind our tertiary sector's emphasis on ensuring that programmes and qualifications model active and meaningful Māori /Crown partnerships, as described in Te Pūkenga – New Zealand Institute of Skills and Technology's *Te Pae Tawhiti: Tiriti o Waitangi Excellence Framework* (Te Pūkenga, 2020). The five underpinning goals (greater relevance of provision, better equitable access, stronger Māori participation, more equitable outcomes, and stronger responsive practices) all require an understanding of cultural differences and cultural identity. In addition, Māori comprise 43 percent of our institute's student body and usually 25-33 percent of our nursing student intake (Toi Ohomai, 2021); in addition, the Bay of Plenty region, which is the setting for this study, ranks third of the 16 regions in Aotearoa New Zealand for Māori population (Statistics New Zealand, 2014). Clearly, this organisation and our teaching staff in nursing and community health programmes have plenty of reasons to be engaged in research which focuses on a cultural explanation of what works and what doesn't – in aged healthcare and in aged healthcare education.

Finally, in using the cultural lens approach it is important to recognise and clarify the ambiguity which can accompany the use of the term *culture*. In anthropological studies, culture groups are often considered according to geographic, national, racial and linguistic characteristics (Hardin et al., 2014). In global studies, culture is more about identity, or what Hofstede et al. (2010) calls "the software of the mind" and the United Nations (2012) see as including concepts like social inclusiveness and rootedness, resilience, creativity and the use of local resources, skills and indigenous knowledge. Cultural factors encompass the social, political and economic, influencing lifestyles, individual behaviour, consumption patterns, values and our interaction with the natural environment. According to Soini and Dessein (2016), multiple understandings of culture can co-exist simultaneously, and the context is all important: culture can be "mono-, multi-, inter-, or transdisciplinary" (p. 8). Statistics New Zealand (2009) offers a local and official definition:

> Culture can be defined as a general way of life that contributes to national identity and society. Culture can also be defined as the shared knowledge, values, and practices of specific groups. People's identity may relate to their ethnicity, gender, sexual orientation, religious and spiritual beliefs, or physical, artistic, and cultural activities …
> Cultural expression and participation contribute to individual well-being and sense of belonging. The expression of, and respect for, cultural practices, language, and beliefs is part of a socially cohesive society. These expressions of culture are sustained by being passed down generations, and through the protection of heritage. (p. 127)

As this review draws on both governmental and academic documents, and focuses on the Aotearoa New Zealand setting, the use of the term culture will most closely align with this last description. Considering culture as a way of life within the cultural lens approach, then, allowed us to scan and sort the sources in our iterative literature review according to their intrinsic 'fit' with our bicultural environment. From this starting point, we then derived a series of broad fields of good practice within our three target strands (wellness, culture, education). The next section outlines our findings related to education.

FINDINGS

Ten fields of good practice in higher education provision related to aged healthcare were identified. Each of these draws on literature from across the various review sources, and is included, following consideration through a cultural lens, in terms of its valorisation of equity, empowering learners, and strengthening the perception of aged healthcare as a desirable graduate career path. The following summary briefly introduces each field, and lists associated good practice indicators identified from the review.

1. Combating ageism

Age and ageism are socially constructed. Fisher (2018) describes how old age is frequently defined in one of two ways: "either from a positive paradigm of wisdom, influence and worthy of respect; or from a perspective of ageing as a deficit with significant physical and mental deterioration that is irreversible and undesirable" (p. 61). An associated good practice exercise in higher education is:

- Structured sessions to raise student awareness of their own ageist attitudes / unconscious bias and potential impact of these in the workplace.

2. Promoting aged healthcare as a preferred area of practice

Ageism is linked not only to the individual, but also to their treatment and environment. Healthcare students frequently express concerns that community aged healthcare settings, with their low-tech character and lack of rigour compared to hospital positions, will mean that their education and high-tech skills are underutilised and potentially lost (Wilkinson et al., 2016). Recommendations from the literature to reverse such perceptions include:

- Challenging the concept of low-tech caring and compassion nursing as a less prestigious calling than high-tech, acute hospital roles
- Having positive, enthusiastic and knowledgeable guest lecturers from the field as role models.

3. Ensuring that older adults are constructed positively in education curricula

Attitudes toward older people have an important effect on the quality of care provided by nurses and other healthcare professionals, as well as on patient experience and employment preferences. Gerontological nursing education has been reported as a key factor that influences students' attitudes toward older people (Hsu et al., 2019). Good practice suggestions include:

- Constructing the older person as a unique individual (not a stereotype) and emphasising diversity across this demographic
- Offering an integrated approach in which healthcare for older adults is woven through all semesters and topics.

4. A holistic, rather than medicalised view of older people

People at all ages of the lifespan are the product of their culture, context and experiences and a discourse related to their medical attributes is inevitably partial. Better practice identified in the literature includes:

- Modelling and exploring a postmodernist view of ageing as a social, rather than scientific construct
- Providing holistic training which includes physiological, psychological and sociological dimensions of knowledge about ageing
- Using surveys (including pre- and post-placement) about knowledge and perceptions of older people identifies gaps and can challenge students' stereotypes with facts, statistics and published study outcomes.

5. Teaching history to understand current practice

Teaching history as a designated topic area to healthcare students is suggested by several authors: first, to strengthen and enrich a sense of professional identity and, second, to further develop critical thinking skills by questioning myths and supposed truisms, including those about colonialism and settlement, from the past (Madsen, 2008; Podsiadlowski & Fox, 2011). Good practice indicators in education provision are:

- Teaching a *critical* history of nursing to build professional identity and encourage challenging of stereotypes
- Teaching Te Tiriti o Waitangi as a living document and supporting learners to make both a personal and professional practice connection.

6. Teaching empathy and respect

The Nursing Council of New Zealand (NCNZ) (2012) emphasises importance of the healthcare worker-patient relationship and communication – two further examples of soft skills which may not be science, but are nonetheless essential to healthcare practice. NCNZ's (2012) Code of Conduct outlines eight principles underpinning professional conduct; the first of these is "Respect the dignity and individuality of health consumers" (p. 6). Standards 1.1 and 1.3 relating to "dignity" and active listening are particularly relevant to educating students in ways that will combat ageism and support a positive construction of older people in the healthcare system. Suggested good practice includes the following:

- Educators must role-model and teach the components of empathy and respect – students absorb 'bedside manner' from observation
- Content should include the moral responsibility of nurses to ensure that older people's needs and wishes are respected, even when patients have diminished ability to express these themselves.

7. Twenty-first-century pedagogy

An important element of good practice in modern curricula design is the inclusion of a wide range of activities to suit the diversity of learners in our contemporary classrooms; factors to be considered include cultural background, learning needs and preferences, prior knowledge and learning experiences, goals and motivation. Rivierea et al. (2019) advocate activities which focus on people, rather than conditions, to foreshadow clinical placements. Examples are:

- Teaching metacognitive skills – focus on how to learn, rather than content
- Active and learner-centred, with a wide range of activities to suit student diversity
- Preparation for placement with activities which emphasise communication: e.g., scenario-based learning, role plays, analysing videos of patient–nurse contact, simulations
- Using a thematic approach to interweave past, present, political and personal perspectives of a topic
- Use of tutorials for participatory group work
- Use of primary source material to promote critical reflection and questioning
- Regular, condensed set readings linked to end activities.

8. Effective clinical placements

As Fergusson (2019) notes, "the lay person enrols on the programme to learn how to be a nurse and exits the programme with a degree qualification. The subtle distinction of doing nursing or being a nurse is played out in structure[ed] learning" (p. 124), including both classroom and practice settings, where the student learns "to think like, act like, and be a nurse" (p. 125). Literature which specifically considers clinical placements in aged care settings emphasises the impact that this experience can have in combating ageism and shifting students' attitudes towards older people (Rodgers & Gilmour, 2011). Identified good practice includes:

- Aged healthcare placements often occur early in a training programme for all-round interpersonal and skill development, but benefits are consolidated by a second placement towards the end of training
- Students already working in paid employment in aged care maximise the benefits offered by clinical placements
- Assigned buddies can assist students' integration into a healthcare workplace, so long as the informal 'mentor' has skills, experience and strong professional practice in the aged care sector
- The preceptor–student relationship comprises personal, interpersonal, organisational and policy dimensions, and is a shared responsibility between educational institution, workplace site and student
- Placements are an ideal setting for interprofessional learning with students from other healthcare disciplines
- Prepare students for placement by teaching self-efficacy skills, including technical, practical and emancipatory reflection models and critical thinking
- Continuing professional development for new graduates working in aged care improves competence and confidence, and should be promoted to both students and healthcare providers
- Reflective journals during placement assist with timely feedback and create a resource for post-placement peer learning and debriefing
- Practical placements should be in student-friendly facilities, open to new approaches, where staff model enthusiasm and people-centered care.

9. Promoting aged and palliative care as a specialism

Many studies cited in this review note the low level of esteem too frequently assigned to aged healthcare and those who work there (e.g., Fisher, 2018; Parker et al., 2021). In consequence, there is a growing call by commentators (e.g., Gawande, 2014; Rodgers & Gilmour, 2011) for a paradigm shift. These authors advocate that aged healthcare (or "gerontology" or "geriatric medicine") be established as a specialism for healthcare students, with dedicated instructors and collaboration with specialist care facilities. A summary of this position is:

- An emphasis on the advanced knowledge and specialist skills is required to shift negative perceptions of working in this area. This can be addressed by creating nurse specialist training, qualifications and professional identity.

10. Embedding culture in the curriculum

Healthcare in modern-day Aotearoa New Zealand is committed to meeting its obligations under Te Tiriti o Waitangi to achieve the best health outcomes for Māori. NCNZ's (2020) Te Tiriti o Waitangi Policy Statement provides high-level direction for working with iwi and Māori, including the implementation of He Korowai Oranga – New Zealand's Māori Health Strategy & Action Plan (Ministry of Health, 2014) and the concept of cultural safety. This commitment is threaded through the Nursing Council's standards for the nursing profession, and is therefore integral to education curricula preparing nurses and healthcare workers for professional practice. Some helpful practice suggestions described in recent studies, including LiLACS NZ (2017), are:

- Cultural inclusivity and content are woven through the curriculum, rather than taught discretely
- Cultural competence and cultural safety are deconstructed; students are able to relate these concepts to their own assumptions and world views, and to understand the impact of these on their practice and workplace relationships
- Active recruitment and retention of Māori students via enabling strategies including increasing the number of Māori teaching staff, ensuring cultural relevance within the curriculum and providing safe learning environments

- Active recruitment and retention of male students via enabling strategies including increasing the number of male teaching staff and challenging gender-based stereotypes about healthcare occupations and roles
- Ensure international students are treated equitably by providing enrolment, pastoral and academic support, and dispelling stereotypes.

CONCLUSION

The shift from profiling older people as frail, needy and disproportionate users of health services to positive contributors to, and participants in, their community has been building over the last two decades or so. Government policies both reflect and drive these attitudes towards healthy aging and wellness, and higher education curricula must do the same. This paper has offered indicators of good practice gleaned from an extended literature review, points which are intended to inform programme development for an aged healthcare qualification, as part of a Sino–New Zealand partnership initiative. It is hoped that these findings may also be of interest to other healthcare education providers. The key contribution we hope that this paper makes to our sector is the application of the cultural lens approach as a useful tool for evaluating strategies and suggestions from the literature. The ultimate goal is that healthcare education related to care of the aged is built on a framework which advances equity and respect – for learners, graduates and the people they will be looking after. In this way, we hope, caring for our older members of society will come to be viewed as a rich and rewarding career path; a professionally satisfying life-work which advances all of our wellbeing.

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SRI LANKAN GRADUATES' PERSPECTIVES ON VOCATIONAL EDUCATION AND POST-STUDY EMPLOYMENT

Bradley Hannigan and Dilhan Athapaththu

INTRODUCTION

This research explores Sri Lankan graduate perspectives on vocational education and experiences of work readiness. The creation of Te Pūkenga – New Zealand Institute of Skills and Technology and subsequent developments in the vocational education space in Aotearoa New Zealand hold the promise of new ways of envisioning how the vocational education curriculum can work. The participants in the research were 14 Sri Lankan graduates of a postgraduate applied management programme in one Te Pūkenga – New Zealand Institute of Skills and Technology subsidiary. Participants were interviewed and provided insights into their experiences, as well as providing suggestions for the ongoing development of vocational education provision in Aotearoa New Zealand.

The recent and ongoing merger of Aotearoa New Zealand's 16 polytechnics and the integration of industry training organisations into one organisation has been in the news since the Review of Vocational Education (RoVE) was announced for consultation at the beginning of 2019. According to the Ministry of Education (2019), "the world of work is changing significantly, and vocational education needs to adapt to stay ahead of these changes" (p. 1). Vocational education is career-focused, with the aim of supporting learner mobility into work: "Vocational education and training gives you skills that can lead to an exciting new career direction," where learners are challenged to "choose a vocation for a better future" (careers.govt.nz, 2021). This article explores the experiences of a specific group of students who were enrolled in, and graduated from, vocational education and training in Aotearoa New Zealand: international students – in particular, Sri Lankan students studying applied business management.

The question used for this research was "What are the experiences of Sri Lankan students transitioning from vocational education to work?" The aim of this research was two-fold: to explore experiences of this particular group of students, as well as giving voice to the experiences of Sri Lankan graduates. The approach taken is inductive and exploratory. This approach was selected to ensure that data collection and interpretation could proceed unhindered by a theoretical framework. The value of this research lies in providing graduate experiences as a reflection piece for vocational education and educationalists in Aotearoa New Zealand.

The marketing message of the vocational education industry raises a realisable hope that offers the promise of a better future, not only for individuals but for the community and society at large (Tertiary Education Commission, 2021). However, is this the case for all graduates? This article offers insights into Sri Lankan graduate experiences of transitioning into the job market after graduation. In 2019 there were 226,270 students enrolled in vocational education and training in this country (Education Counts, 2021). Of this number, 16 percent were ethnicities other than European, Māori and Pacific Peoples (Education Counts, 2021). The data includes not only international students in general, but also Sri Lankan students in vocational institutions.

International students are people who leave their homelands for higher education (Morris-Lange & Brands, 2015). Research has shown that a large proportion of those students stay in their host country post-training and find meaningful employment there (Bryła, 2019; Wu & Wilkes, 2017). While international students may study in a country for multiple reasons including gaining international exposure (Beech, 2018) and personal learning (Mucsi et al., 2019), post-study employment is a major motivation (Le & LaCost, 2017).

While research on international students' vocational experiences post-study in Aotearoa New Zealand is relatively scarce, some similar studies to this research project have been carried out. Dyer and Lu (2010) reported the experiences of ten Chinese students and their post-study transition to work. Although participants were not enrolled in vocational education per se, this study showed that holding a New Zealand qualification and having English-language skills, peer and work networks built up through study were essential to finding work post-study for this group. Again in 2010, The New Zealand Department of Labour published its *Life After Study* report (Wilkinson et al., 2010), which found that 68 percent of former graduates who stayed in Aotearoa New Zealand found employment; that degree and post-degree qualifications were good predictors of post-study employment success; and that language proficiency and work readiness were central elements for successful employment.

Researchers have shown that many international students study abroad for more reasons than gaining a foreign qualification (Huang et al., 2014). Employability (Gribble et al., 2017), practicality (Eichhorst et al., 2015) and job-related experiences (Gautam et al., 2016) are all areas of concern for many international students. They are the clients of an education sector that has long been dependent on the contribution that international students make to the financial outcomes of tertiary institutions (Marshall, 2019). It is a benefit that therefore goes, or should go, two ways. New Zealand has been quick to leverage this situation: international student numbers doubled between 2007 and 2017 (Education Counts, 2020), with approximately 50 percent of doctoral candidates being international students (Burns & Rajcan, 2019), and the income derived from international students in 2018 exceeding NZ$5.1 billion (Education New Zealand, 2020).

The New Zealand *International Education Strategy/He Rautaki Mātauranga a Ao* (Ministry of Education, 2018) aims to deliver "an excellent education and student experience" including student satisfaction and "alumni outcome success" (p. 9). While the indicators of success in the strategy document all appear reasonable, for the most part they are educational and nationally strategic, avoiding employability as an outcome – except to say that students who choose to stay in Aotearoa New Zealand "are appropriately skilled and qualified" (Ministry of Education, 2018, p. 13). There is no indication of what "appropriately" means in this general context, or in a vocational education sense. The Te Pūkenga – New Zealand Institute of Skills and Technology (2020) strategic priorities for internationalisation take this commitment into the vocational education space, with strategic objectives aiming to develop and deliver high-quality vocational education, including a commitment to consider ongoing programme and qualification development.

Since this research was carried out in early 2020 the COVID-19 pandemic has taken hold worldwide. Subsequent border closures have meant that the international student market has dried up, having a disastrous effect on tertiary education organisations in Aotearoa New Zealand (Blommerde, 2020; Kenny, 2020). In 2021 the country's borders opened to 1000 international students, only 135 of whom have so far arrived in the country, six months on from the announcement (Wiltshire, 2021). This situation may well provide organisations with the time thay need to rethink exactly what they are offering international students in terms of vocational education, and how courses and other offerings can not only best meet academic outcomes, but also the employment aspirations of those who enrol. This article adds the experiences and voices of a group of 14 Sri Lankan graduates from one vocational education programme in Aotearoa New Zealand to the mix.

METHODOLOGY

Data for this study was collected between 25 February and 16 March 2020 via semi-structured interviews. Ethical approval was obtained before the research commenced (NMIT2020-1). Participants were selected using the following criteria: they had come to Aotearoa New Zealand as Sri Lankan-born international tertiary-level students; they had gained a New Zealand tertiary qualification; they had completed their education at a vocational education institution; and they had gained (or were in the process of gaining) post-study employment in Aotearoa New Zealand. Given the exploratory nature of this research, we followed an inductive strategy whereby understandings are constructed from the data itself, rather than compared, contrasted or organised using an a priori theoretical framework. Inductive thematic analysis was used to organise the responses of participants and garner insight into their experiences. In reporting here, our aim is to let participants' words tell their story with as little interpretation as possible.

FINDINGS AND ANALYSIS

When asked about how their vocational education supported them to gain employment, two thirds of participants noted that they had gained good subject knowledge, but not the skills to be work-ready. This disappointment experienced by participants was the first theme of the research. One participant stated: "It gave me the whole background of, like, every subject. But I think those subjects were not really helpful to, like, adapt to a new environment or a new job." Reflecting on the need to be more strategic in selecting a programme of study, another participant stated:

> I am strongly advising if someone wants to come to New Zealand, they have to go through the skill list first, and then they have to find a program which is [a] skill shortage in New Zealand, rather than finding a programme just to come to New Zealand.

Participants said that regardless of the qualification they had earned, they found it very difficult to get their foot in the door of prospective employers: "I applied [for] nearly, like, a thousand or two thousand jobs and was really fed up to apply for many jobs. The experience was really hard; I was really fed up of, like, applying for jobs." All but one participant said that finding work after their study was completed was a lot harder than they had thought it would be. One participant was thoroughly disillusioned: "Unfortunately, there were not any internships or job-related training opportunities for the qualification that I have completed."

Aside from these disappointments, a second theme extracted from the data was the value that participants placed on their study in terms of gaining a better understanding of Aotearoa New Zealand work cultures, and developing skills that could be applied to employment contexts. For example, one participant said: "I think you have to be open-minded and also understand those differences between work culture, respect different views. If you have a better understanding, it is easy to work in the New Zealand workforce." Another participant agreed, stating: "If you keep on thinking [about] what you did in Sri Lanka, it may be very difficult to adapt to [the] New Zealand work environment." In terms of the skills developed through their educational experience, one participant reflected that "I developed lots of managerial skills and [skills in] managing everything together." Participants reported they developed communication and analytic skills from their study that put them in good stead for obtaining future employment.

A third theme that arose from the interviews was what worked for participants when it came to finding employment. This theme encompassed both advice and reflection on personal experiences. All participants agreed that the networks and connections they made through their studies were the primary means of finding employment; one participant captured this theme nicely in this piece of advice: "Even while you are studying, you have to find out ways and avenues, especially making connections with the business environment, people, managers you know,

make networks – without networking you wouldn't be able to find a job." Other participants talked about how a part-time job held while studying had led them to find full-time employment, advising students to think carefully about not only what they study, but also where they work while they are studying. One participant stated that they got "a part-time job which is exactly the same job that I do now in full time". Other participants claimed that it was the skills and experience that they brought with them to Aotearoa New Zealand that landed them a post: "My Sri Lanka experience also helped me a lot to secure this job." Who you know and what you have done were seen as key determinants in finding work post-study.

The final theme that emerged from the interviews was a willingness by participants to offer advice as to what could have been done differently to enhance their vocational education experience, particularly in the area of finding employment after graduation. Participants strongly advocated the need for more opportunities to engage with the local business community through their study; one participant stated: "I selected the workplace elective … So it gave me a good idea to understand how New Zealand companies work." This participant used that experience and the connections made to quickly secure full-time work at the end of their study. Another participant was quite pointed in their advice: "The job market should interconnect with the studies. What I mean is, unfortunately, there were not any internships or job-related training opportunities for the qualification that I have completed." Another participant echoed this sentiment: "I think they can give more internships and experience focus training for international students," and another suggested: "At least have a strategy to support migrant students not only to complete their studies, but for things to support after their studies."

This radical idea that vocational education institutions have a responsibility beyond the provision of a programme of study was taken a step further by another participant: "Helping them to find a new job in New Zealand after they complete their studies would [be] beneficial for them, to find jobs easily and quite fast." Another went further and took aim at the wider context in which vocational education is provided: "If you're getting lots of international students into small cities, it's important to have the infrastructure built and to develop more jobs. So that students won't move out, they will stay here and look for work." This last point underlines that the transition from vocational education into employment can not only be unsettling and fraught with uncertainty but, conversely, could potentially be planned in advance as part of the course provision. This last proposition poses a particularly interesting problem for an education system that separates training from negotiating subsequent employment.

DISCUSSION

Similar to the research undertaken by Dau and Lu (2010), our research found that students gained linguistic and cultural capability and technical skills from their education experience. Dau and Lu (2010) studied university students, whereas our research focused on graduates from a vocational institution. While it might be expected that those enrolled in vocational education would have higher expectations of employment post-study, given the organisation's name and function, both groups had similar expectations of employment at the conclusion of their study. Like Dau and Lu (2010), our study found that participants voiced a mix of responses – disappointment, success and also hope. The benefits of vocational education outlined in our findings also resonate positively with Department of Labour research on the benefits of local education for international students (Wilkinson et al., 2010).

The experiences and hopes of Sri Lankan graduates outlined here highlight two particular opportunities for curriculum design in vocational education: providing opportunities to connect with local businesses through the curriculum itself, and encouraging a shift in the role of the institution towards supporting employment (after-sales service). This could be done through internships being built into the design of papers and the teaching and learning programme itself. Postgraduate study programmes in management and business are traditionally more academic than experiential in their design. To integrate an experiential component in terms of internship or a practicum

scenario requires not only design changes to the structure of programmes, but also significant logistical investment in terms of managing these components. Furthermore, there may be further difficulties in terms of getting local businesses to welcome students, particularly in small centres where demand may quickly outstrip supply. That said, the call to support graduates into paid employment at the end of their study is perennial (Gribble et al., 2017; Le & LaCost, 2017; Wilkinson et al., 2010).

The idea of including internships in vocational business studies programmes is not new and exists to some extent in multiple organisations. However, the idea that vocational education providers also have a responsibility to support graduates into work at the end of their study is more radical. It stretches the notion of vocational education from merely providing skills leading to exciting opportunities (Careers.govt.nz, 2021) towards an education system that really has skin in the game of supporting students into vocations. This is a shift from a curriculum premised on the *hope* of employment to one premised on the *promise* of employment. At present, this proposition seems outside the realms of what is possible, given the structure of tertiary education in Aotearoa New Zealand. However, for the participants in this research, the prospect of their education provider having a more active role in their subsequent employment was a distinct possibility. At a time when all the cards for vocational education have been 'thrown in the air,' this idea could well be put on the table.

Our research provides feedback from end users of vocational education just prior to the 2020 COVID-19 lockdown. The respondents' views challenge vocational educators, particularly in subjects like business studies, where there is no clear progression into work (as opposed to trades, nursing and hospitality), to consider precisely what the vocational component of the education they are offering may be. If it does not end in a vocation, or provide experience that not only results in skills, but also connections in the field of management, then how does this differ from the theory-focused curriculum of universities? Furthermore, what are the challenges for tutors when it comes to not only being subject experts, but also experts in finding and maintaining workplace placements? Do vocational institutions need to include another department when it comes to placing and maintaining placements during a course of study, and securing employment opportunities post-study? The implications are many.

Our research gives reason to pause at a time when vocational education in Aotearoa New Zealand is being reconsidered. Structural changes in terms of the merger of 16 polytechnics into one nationwide Te Pūkenga – New Zealand Institute of Skills and Technology are only one part of the change. What the curriculum looks like for different subjects across the organisation is another. This particular shift opens the door to new thinking about vocational education when it comes to subjects like business studies. What is the *vocational* element that is being incorporated in the design? Is it a set of skills and practices that the student takes away with them to apply to future employment? Is it the provision of practical experience in businesses alongside the development of skills, integrated as part of the formal curriculum? Or do we go a step further and develop employment opportunities as a necessary outcome of vocational education and training in the business domain? Or a blend of all these approaches? Now may be the time to have this conversation for, as the feedback from these graduates shows, what counts as an excellent student experience and alumni outcome success (Ministry of Education, 2018), and what counts as high-quality vocational education (Te Pūkenga, 2020) are still contested and contestable terms.

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EXPLORING INTERVENTIONS THAT REDUCE LEARNER AVERSION TO WORKING IN TEAMS

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INTRODUCTION

A real challenge in today's classrooms is learners' resistance to working in teams. This paper explores some of the factors that inform this phenomenon including societal factors such as greater independence, isolation and self-reliance. Given an increased need to be able to work in teams in organisations, employability skills required to successfully transition between the classroom and the workplace are paramount. This paper presents a problem-solving approach using case study methodology, based on the compulsory Level 6 Improving Organisational Performance (IOP) paper, part of a suite of papers in Otago Polytechnic's Bachelor of Applied Management, which aims to develop learners' research skills and teamwork as well as employability skills. Implicit in IOP's learning outcomes is the expectation that learners develop these team skills. As a result, a new emphasis was placed on effective team formation, cohesion and performance for the purpose of reducing learner aversion to working in teams.

IOP is a paper where learners work within a team setting in collaboration with a host organisation (for example, a local restaurant, supermarket or gym) and their academic supervisor (lecturer) to identify and investigate a problem, challenge or opportunity and then propose feasible, implementable outcomes for the organisation. Groups are designed by the lecturer and generally consist of four to five members. The purpose of the paper is to develop the learners' competencies by applying a range of management concepts, theories, frameworks and key analytical tools used in business research. Skills such as problem solving, effective business communication, conflict management and project management form an additional skill set that complements the requirements of the learning outcomes.

The outcomes of the learners' research investigation informs the host organisation's managerial decision-making. Learners apply appropriate research methods to investigate and identify the root cause of the problem or opportunity at issue within the organisation. This course aids in developing learners' employability skills by fostering their ability to critically assess scholarly management science literature, as well as enhancing knowledge creation in real-time business environments, in addition to gaining other skills such as emotional intelligence.

EMPLOYABILITY SKILLS

Employability skills are abilities and skills that reduce the gap between theory-filled learners and those who are able to apply their learning directly to the workplace. Carrying out research in Scotland and elsewhere in the U.K., Lowden et al. (2011) identified ten employers who had participated in identifying their top employability skills. These employers sought staff who were/had/could:

1. strong communicators
2. capable of independent work
3. time management skills
4. presentation skills
5. work as part of a team
6. lead when appropriate
7. networking skills
8. form relationships and get to know people
9. commercial awareness/awareness of the industry
10. willing to learn and taking responsibility for their own development
11. reflective about themselves and what they want out of the job
12. motivated and enthusiastic
13. self-confidence
14. work-readiness: awareness of appropriate work behaviour.

One of the key factors that Otago Polytechnic's research identified in its *Learner Capability Framework: Employer Priority Index* was teamwork (Otago Polytechnic, 2019). Indeed, teamwork was top priority in the Otago Polytechnic School of Business, as identified by industry, which sought graduates who could "build trust and collaborate [and] plan and complete projects by deadlines" (p. 18). According to Schultz, Wilson and Hess (2010), teams outperform individuals. They point to the advantages of team-based assignments that "incorporate skills necessary for employability like collaboration, problem solving, communication, and shared vision" (p. 17). McCann and Selsky (2012) point out the importance of building adaptive capacity for handling chaos and change. Teams provide a wider span of skills and experience that affords greater flexibility and symbiotic co-operation.

However, Shultz et al. (2010) also acknowledge that many students feel burdened and disadvantaged by non-productive peers, resulting in poorer academic outcomes. Velinov et al. (2019) noted that many students had an aversion to online team assignments, given that most assignments were team-based. They found that students' aversion to teamwork varied depending on their level of autonomy, based on whether working in a team was mandatory or optional.

THE IMPROVING ORGANISATIONAL PERFORMANCE FRAMEWORK

In the IOP paper, learners present a proposal for their intended research project, which includes the aim, research question(s), methodology, research methods and literature review. They undertake empirical research following successful ethical approval. Based on the data they have collected and analysed, learners produce a report and present their findings to a panel of assessors made up of host organisation employees and lecturers.

One component of the paper requires learners to undertake a 360-degree review of their performance and that of others in their team including a reflection on the team process as a whole. This review creates an opportunity for self-reflection as well as reflection on working with others, an important element in closing the loop on the experiential learning experience. According to Stefano et al. (2016), once a person has some experience of a task,

gaining further experience with that same task is not as beneficial as discussing and reflecting on the numerous experiences associated with it. They argue that until time has been taken to truly reflect on a given task and articulate and organise it for future improvements, other immediate experiences may fail to be reflected on, as "individuals largely prefer doing to thinking" (p. 4).

The 16-week delivery of the paper involved a team of three lecturers, who delivered four two-hour classes per week. The workload was heavy for learners, so dividing them into teams of four to five, with the work equally shared, helped address these challenges. According to Cole (2019), teams can achieve more together than they can alone and, on the whole, people enjoy being part of a successful team.

Of the four classes per week, one was concentrated on data skills, two others on research design and the fourth was a tutorial. In the first two weeks, learners complete a team agreement to establish team behavioural guidelines, expectations and accountability. This process is overseen by the lecturer involved, and all teams are alloted a supervisor to meet with on a weekly basis. The first eight weeks are lecturer-directed and involve team formation and problem-solving skill acquisition, while learners work with a business. Learners spend the next two weeks collecting and analysing data associated with their project and writing a report. At this stage of the course design the lecturers take on the role of supervisors, meeting with the teams on a weekly basis.

According to Oinam (2017), using the student-centred approach to teaching and learning focuses on innovative methods of teaching, with an emphasis on effective communication and students actively participating through problem-solving, using critical and reflective thinking and being involved in their own learning. According to Educational International (2010), student-centred learning comprises the following elements:

- The reliance on active rather than passive learning
- An emphasis on deep learning and understanding
- Increased responsibility and accountability on the part of the learner
- An increased sense of autonomy in the learner
- An interdependence between teacher and learner
- Mutual respect within the learner-teacher relationship; and
- A reflexive approach to the teaching and learning process on the part of both the teacher and the learner. (as cited in Oinam, 2017, p. 29)

Reflection processes are built into the structure and layout of the paper and are intended to inform and guide the learners to analyse, digest, learn from and articulate their experiences by linking them with the theory relating to emotional intelligence, experiential learning and personal growth in team environments. This approach is supported by Schedlitzki (2019), who asserts that the lifelong process of critical reflection is an opportunity to evolve the leadership practices and decision-making processes that managers and co-workers engage in regularly and that are beneficial for learners in their daily practice.

FINDINGS

At the end of the 16-week process, it became clear through reading the learners' reflections that there was discontent and resentment in some teams where conflict had been avoided and not confronted. According to Cole (2016), avoiding conflict ignores one's own and others' concerns. Often the team agreement is completed at the start of the course, but is not referred to again, meaning that meetings may not maintain structure, based on a lack of expectations. As a result, there can be a lack of accountability and responsibility both for individuals and team tasks. This new semester paper had been taught three times to date, and it was evident that the biggest challenge learners faced was working successfully in their teams.

The IOP paper also focusses on teaching emotional intelligence skills, using the Goleman and Boyatzis (2017) model (See Figure 1). Goleman and Boyatzis (2017) focus on individuals with an array of emotional intelligence capabilities that are well balanced and targetted to help leaders face tough challenges. These capabilities need to be learned to enable the development of professional performance as a leader, at work or in an applied project situation. In addition, Pipera et al. (2019) demonstrate the relevance of emotional intelligence development during university studies to enhance the learner's prospects of a successful professional business career. While developing emotional intelligence is not a specific learning outcome of the paper, it aims to further learners' skill development and capabilities insofar as it applies to knowledge creation and awareness.

Emotional Intelligence Domains and Competencies

SELF-AWARENESS	SELF-MANAGEMENT	SOCIAL AWARENESS	RELATIONSHIP MANAGEMENT
Emotional self-awareness	Emotional self-control	Empathy	Influence
	Adaptability		Coach and mentor
	Achievement orientation	Organizational awareness	Conflict management
			Teamwork
	Positive outlook		Inspirational leadership

Figure 1. Emotional Intelligence domains and competencies (Goleman & Boyatzis, 2017).

One of the learning outcomes of the IOP paper specifies that learners will participate effectively in a variety of team roles, and the role of lecturers and supervisors is to help the teams to learn how to manage themselves. According to Dyer et al. (Dyer et al., 2013), four factors are required to manage teams to achieve superior performance, as shown in Figure 2.
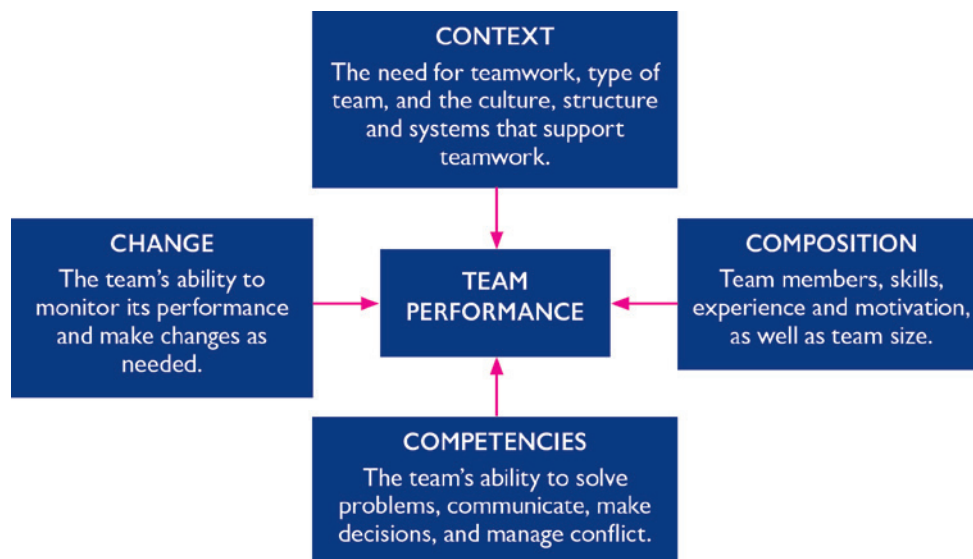
Figure 2: The four C's of team performance (Dyer et al., 2013).

By managing the characteristics of each 'C' of the model (Figure 2), the team can develop high-performance behaviours. All these behaviours are desirable aspects and outcomes for the learners.

DISCUSSION

We have seen that discontent and resentment within teams is a common factor. According to educational psychologist Bruce Tuckman (1965), teams must move through specific stages of team formation in order for them to develop high-performance behaviours. These "forming, storming, norming, and performing" stages are all necessary in order to create team synergy, a concept wherein "the whole is greater than the sum of its parts" (Federer, 2013, para. 2). The leader has an important role in utilising the powerful combined effort of the team to achieve its goals. According to Black et al. (2019), tasks and interpersonal relationships are more effectively managed by high-performing teams, demonstrating team performance and effectiveness. However, in our study, a number of factors during the teaching process stalled the teams, and many of them were not able to move beyond the "storming" stage, or fluctuated between "norming" and "storming".

Refering to Figure 2, Dyer et al. (2013) assert that teams need competencies in order to clearly articulate the team's goals and metrics, communicate effectively, give appropriate feedback, build trust and commitment, and resolve disputes and disagreements in the team.

Aversion to working in Improving Organisational Performance teams

During the delivery of the paper we observed that some learners disengaged with other members of their team, thereby avoiding communicating effectively; they did not give feedback and were unable to meet deadlines or produce high-quality work.

Change without consultation

One particular problem was observed when team members were contributing individually to the report. Different levels of academic ability were displayed, with some students having a poor understanding of academic writing, APA referencing, giving and receiving feedback and handing in their draft work on time. Evidence from reflection undertaken in the groups led the lecturers to observe patterns of behaviour within the teams. Poor individual performance only becomes evident once the first draft of academic writing is presented. Learners who have spent their first year in the Business School are more aware of the academic expectations required by Otago Polytechnic. The diverse academic abilities within the teams create immediate concern from high-achieving students who strive to do well. Based on feedback received from their reflections, their first instinct is to correct and rework the draft submissions from the other learners' contributions. These changes, often corrected without consultation, cause polarisation and resentment within the group. According to Barnett and O'Rourke (2011), team members who do not feel included often withdraw, create subgroups or become inactive. This act of undermining within the team is two-fold in nature – it indicates a lack of social awareness and empathy on the part of the team member who is changing colleagues' work; and a lack of organisational awareness, teamwork and expectations on the part of the learner who has had their work rewritten.

Missing in action

The lecturers also observed the effect of team members' absences on the dynamics of each of the teams. The teams are instructed to have a weekly face-to-face meeting, take minutes and record their action points in a shared document. Team members inform each other via Microsoft Teams when they are absent. Those diligent learners who consistently attend classes often take on a tutoring role and bring other learners up to speed on missed content. This often leads to confusion through misinterpretation of the work missed, delays in completion of work and general discontent from those learners who attend conscientiously. Depending on the diligent learner's self-awareness of their "relationship management" (Figure 1), they will take on a mentoring and coaching role to some extent. Often the diligent learner resents this additional workload until it is pointed out to them, on an informal basis, that their own personal growth and development is benefitting. Goleman and Boyatzis (2017) note that learners may be sensitive to others' needs and be problem-solvers, but may not yet have developed the emotional intelligence to give critical feedback to colleagues, "the courage to ruffle feathers and drive change, the creativity to think outside the box" (p. 3). This is not their role within the team either.

The new design for the paper

The paper redesign is focused on the teams "learning by doing and reflecting" on the learning process. The lecturer's role is to observe the group dynamics, the interactions, and actively listen to the learners' questions, offering advice and assisting them to problem-solve their challenges. Lecturers need to recognise the personal growth opportunities that occur for learners who step up into leadership roles and articulate this, so that learners become aware of the links between their own practice and the theory that is being taught.

The revised paper structure and new learning opportunities for the learners are based on the lecturers' reflections on the learners' resistance to working in diverse teams, as well as on the work of McHann and Frost (2010), the PDSA Model for Improvement adapted from Deming's PDSA Cycle (Langley et al., 1994), Otago Polytechnic's Integrating Experiential Learning into Business courses, and the Four C's of team performance (Figure 2). The Teaching as Inquiry model (Ministry of Education., 2007) (Figure 3) helped the lecturers to reflect while they were facilitating and to come up with better ways of helping the learners process their learning, and for lecturers to enquire about the impact of their teaching on their learners. The concept of ako ("to teach and to learn") and the contributions the learners bring to the class environment were also reflected on by the lecturers, as the value of ako lies in the reciprocal and integrated relationship between learner and whānau (Hikitia, 2008, as cited in Ministry of Education., 2020).
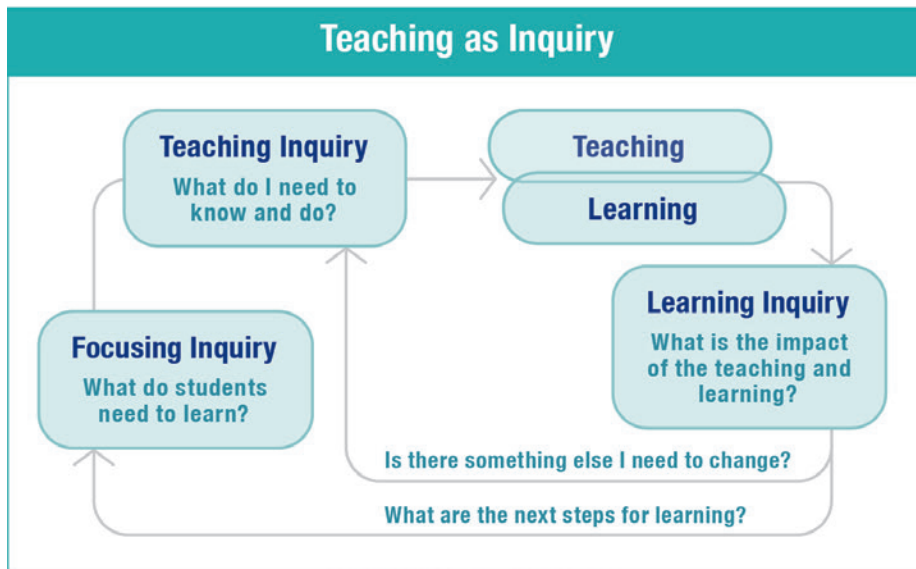
Figure 3. The Teaching as Inquiry model. Source: New Zealand Curriculum, Ministry of Education, 2007, p. 35.

Deming's Plan, Do, Study, Act model and structure (The W. Edwards Deming Institute, 2021) was used as part of the redesign of the IOP paper and will be adopted as part of learning processes. According to Chicquette (2010), learners can apply the model's planning stage to assessment and data analysis, adding a plan of action based on their limited evidence, using milestones to assess if their goals and objectives are tracking well and adjust if necessary. The model could also be applied as part of their project management plan to keep track of and assess their own quality improvements.

The Plan cycle stage (see Figure 4) could be used to develop a quality development plan or project management plan. In this stage, the teams are "forming" – setting out their expectations, designing a team agreement and assessing individual strengths and weaknesses. Meeting times are set up, with role allocation and delegation of tasks. The cycle continues in the Do stage and the plan is implemented; this stage could be the "storming" stage of Tuckman's (1965) theory. The Study stage allows for a review of the plan against the assessment criteria and criteria set by the supervisors in the weekly meetings; at this stage the teams should be "norming" and starting to become productive. The final stage is Act, where the plan is modified to meet the assessment criteria, with feedback from the supervisors; there may be some movement back to the "storming" stage here, or a shift to a state where the team is "performing" well together (Chicquette, 2010). Much of this progress is dependent on individual motivations, levels of self-awareness and previous academic experiences.

If the School of Business can implement the strategic move of preparing students for academic success prior to IOP commencing each semester, then this could assist with their self-confidence and adjustment to a new learning environment.
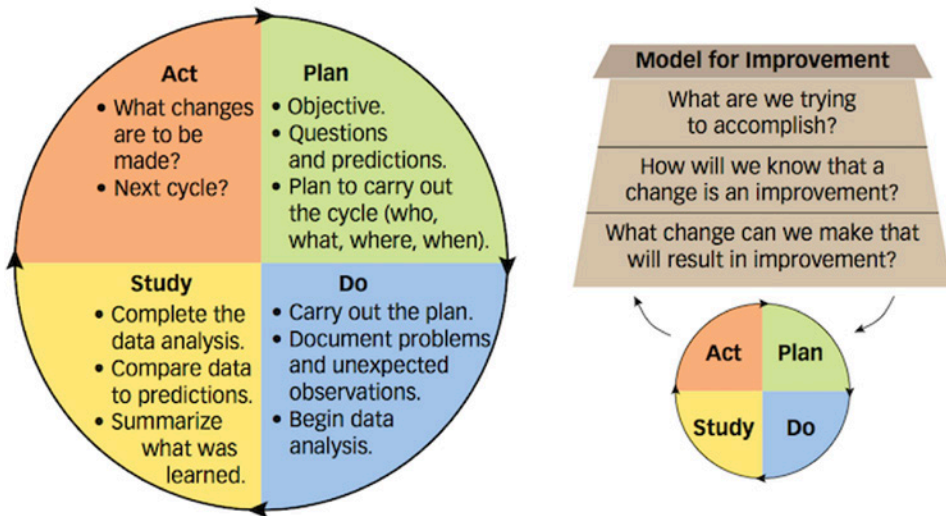
Figure 4. The PDSA Cycle and Model for Improvement (Langley et al., 1994).

FUTURE WORK

The IOP paper will continue with the theoretical teaching component – introducing the course outline, reflective journals and theories – thus enabling learners to *acquire* the important information they need about the course subject matter (context).

Weekly meetings with both lecturers to engage in question-and-answer sessions, with problem solving and re-phrasing the learners' questions back to them, will continue, as they assist learners with their *interpretation* of the important information derived from the course. Changes in the structure of the weekly meetings will be made to encourage the learners to engage in making journal entries about an idea, concept or principle that they have learnt during the week, presenting a two-fold learning opportunity. Firstly, learners are able to *reflect o*n and *apply or begin to apply* some of the learning from their studies during that week to their personal or professional life; and, secondly, drawing on their immediate experiences, they are providing evidence for themselves that they will be able to look back on and recall for their reflective assessment at the end of the paper. The learners will be asked three questions to help them focus, be directed in their answers and reflect on their performance as a team so far: What did you achieve last week? What do you plan to do this week? What are your challenges? The meetings will be learner-led, with a rotation of team members chairing the meeting each week, ensuring that all students are being held accountable and taking some leadership role within their team. Additional time will also be spent on the effective use of journalling as a reflective tool. According to McHann and Frost (2010), "this [reflective] tool can be put to powerful use to teach application and inculcate habits of learning by doing" (p. 6).

Additional emphasis will be focused on the team agreement and its purpose as a working document that must be brought to each team meeting; this will have the benefit of assisting learners to project-manage weekly face-to-face meetings using an agenda and minutes. According to Barnett and O'Rourke (2011), because it is more

difficult to gain "shared meaning" within a diverse team, it is important for the lecturers to spend time in helping the teams to pinpoint their strengths and weaknesses and draw up their team agreement with their explicit expectations of how each member will take responsibility and accountability in their roles. It was recognised that during high-pressure moments, such as learners analysing their data and the challenging task of working together collaboratively, lecturer support becomes more crucial for learners. This is often the time when some of the learners disappear or are unable to prioritise their different workloads, and so conflict can occur. According to Barnett and O'Rourke (2011), it is important for learners to balance too much conflict against too little conflict in order for them to achieve synergy, and so that the collective and collaborative approach to working productively can assist in achieving team outcomes.

New ideas about how to counter the problem of different levels of academic understanding within each team will be trialled by introducing in-class exercises where all learners are given pieces of academic work to give feedback on, with the opportunity to discuss them in-class under the direction of the lecturer. Learners will next create a piece of academic work based on their first assessment – a draft of the research methods that they will use – and then distribute it among the team for feedback. While this activity could help to identify areas of academic weakness, it also offers a learning opportunity about how best to give constructive feedback on work among team members.

The importance of doing and the nature of real application are key to gaining employability skills and achieiving team cohesion (Moen & Norman, 2010). McHann and Frost (2010) assert that learning how to apply learning must be self-directed and "caught" rather than "taught." The challenge lies in observing this self-taught learning, identifying it and discussing it to determine whether it encompasses a positive or negative observation of the individual or group dynamic. While the team should try to be self-managing, the course lecturers are able to intervene when required.

The interventions associated with the redesign of the IOP paper will continue to be monitored through lecturers' reflective practice, learner feedback and considerations relevant to the future employability of the learners.

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EMBEDDING CRITICAL THINKING IN INFORMATION TECHNOLOGY NUMBER SYSTEMS STUDIES: REFLECTIONS ON TEACHING BINARY AND DECIMAL CONVERSIONS WITHIN A FOUNDATIONAL DEVELOPING COMPUTER APPLICATIONS COURSE

John Mumford

INTRODUCTION

Critical Thinking (CT) is integral to the teaching of information technology (IT) at the Southern Institute of Technology in undergraduate- and particularly at postgraduate-level programmes. The skills and dispositions involved in CT provide a lifelong toolkit for academic studies and for adaptation to the changing needs of technology in the workplace. The National Education and Learning Priorities and the Tertiary Education Strategy advocates CT at early childhood, primary, secondary and tertiary levels of study (Tertiary Education Council, 2020). Definitions and perspectives about CT vary, but its importance for students and teachers is likely to be enduring.

The Programme for International Student Achievement, which incorporates CT, aims to assesses the ability to skilfully apply reading, mathematics and science knowledge to address real-world problems (OECD, 2021). Dan Finkel, a speaker, math game designer, master teacher, writer and developer, who is dedicated to the transformation of mathematics education, confirms that, traditionally, within the mathematical domain, "There's no room to doubt or imagine or refuse – so there's no real thinking here" (TEDx, 2016). We need people who can think and problem-solve to deal with the rapidly changing world and continuously adapt themselves to new technologies. Now, more than ever, we need more critical thinkers. From school level to tertiary level, our numerical and data-rich world requires the application of CT and IT to empower individuals to manage their lives and careers. CT, like playing music is, to some extent, a set of skills that can be learned with guidance and practice. CT can also be applied to concepts, their rationale and, ultimately, to their underlying assumptions.

CRITICAL THINKING IN INFORMATION TECHNOLOGY

In the context of IT education, real-life challenges include computational thinking which, as a core skill, is more than just following or coding an algorithm. Doleck, Bazelais, Lemay, Saxena and Basnet (2017) identify five computational thinking competencies: algorithmic thinking, cooperativity, creativity, critical thinking and problem solving. Although it would be possible, but not desirable, to teach algorithmic thinking in isolation from CT, why not embed CT within number systems studies and create both present and future benefits for our students? Why should we follow mathematical procedures uncritically and often passively? Admittedly, we need proven algorithms that can be readily applied to given tasks to consistently produce the correct answers. However, let's

think about how some notable scientists and thinkers with deep knowledge of their domains frequently question such approaches. Such questions can lead to new ways of understanding procedures and may open the way to less explored areas of science.

The concepts associated with mathematical procedures are the vital link to asking, why does it work? Or perhaps, why should it work? What are the logical bases for such concepts? We may even ask, why does it matter if we understand the concept underlying a procedure, if we can get the right answer? Admittedly, "Theory without practice is empty; practice without theory is blind" (Ako Aotearoa, 2021).

This article outlines the teaching strategies forming the basis for a series of lessons on number systems in IT, students' responses, teacher reflections and ways of promoting and modelling CT for a pre-degree course in computer applications.

CRITICAL THINKING IN THE CLASSROOM

The session started on a Monday morning on campus with ten New Zealand Certificate in Information Technology Essentials (Level 4) students. Noting that there were several mature students with prior computing experience among the school leavers in the class, I could see an opportunity to draw on their work and life experiences to inform a fresh approach to teaching number systems conversions. Some students would be revisiting semi-familiar material and others would be returning to education after some years of employment, and perhaps had never dealt with this topic. This seemed to be an ideal opportunity to present the material with a questioning approach at the outset to foreground CT, rather than defer it to more advanced courses. Students familiar with number systems conversion procedures would revisit why and what assumptions we start with, rather than just how we do the conversions. Mature students returning to study bring with them the benefits of life experience and frequently ask, Why do I need to learn number systems conversions? How could it be useful in an IT applications course?

The lesson commenced with a short sequence of 0's and 1's written on the whiteboard – for example, 101, followed by a prompt to the class to comment on what it means to them. This revealed the assumptions that were made (or had to be made) to create some agreed meaning. We then reviewed the values and positions of the decimal columns which frame our shared understanding of what we assumed had been written down. Thus, "learning takes place when new information is built into and added onto an individual's current structure of knowledge, understanding and skills" (Pritchard, 2009, p. 17). Naturally, this led on to further sessions involving the range of number bases – for example, the octal and hexadecimal systems used in computing and the implications that may flow from these.

The next class began illustrating the principles of the denary number system and how they might also apply to other systems such the binary system. We considered the value or 'weight' of the columns and the range of digits that could meaningfully be used within each system – for example, 0 to 9 for denary, 0 to 1 for binary. This then naturally led to noting that the number of columns needed was driven by the range of numbers that we needed to represent. Of course, bits and bytes were already familiar terms for the students, and thus groupings of 8 bits flowed from such thinking. We looked at several examples of numbers within these systems and observed that there seemed to be a relationship between the maximum number in each set of columns – for example, 99_{10} is the same as 100_{10}, the next column to the left, minus one. We tried this with binary, to see if it held true. For example, 3_{10} is the same as 4_{10} -1 or $011_2 = 100_2 - 001_2$ visually (without carrying or borrowing).

By this time, the class was beginning to get curious about how we could know which number system we were using at the outset. It was encouraging to see small glimpses of CT being shown here – what must be assumed to proceed with such number systems conversions? Do people always state explicitly what number base they are using? But thankfully the class felt that there was inconsistency here, and that computers were logical and completely consistent. We agreed that making a practice of explicitly writing the number base as a subscript (thus

101_2) would be better, especially when the base could be 8 or even 16. We began to see just how valuable CT is, even in the middle of 'number crunching.' In the context of experiential learning theory, teachers acting in the subject expert role "often teach by example, modelling and encouraging critical thinking" (Kolb & Kolb, 2017, p. 18). Several conversion examples were worked through with the students noting the importance of writing the number base explicitly and of taking care about verbalising incorrect statements – for example, 101_2 was not "one hundred and one" in binary, but "one zero, one" in base two (binary).

After experiencing other non-denary number systems in their hardware and web design classes, the students were beginning to see the benefits of grasping the principles of these differing (but related) number systems, and enjoying the buzz of becoming proficient in converting between them as required. It seemed that these curious number systems found uses in hardware addresses, network addresses, red green blue (RGB) hexadecimal number codes in web design, and even in programming.

We finished the week with a view to further develop converting between number systems and to discuss various algorithms or involve CT to question standard routines and to experiment with informal 'eyeballing' methods. The students thought that that sounded a little unstructured and not particularly 'algorithmic.' However, as they began to try out other strategies to convert between number bases with varying success, it started to become clear that established approaches to conversion had good bases. Despite knowing what would work, inviting them to experiment by trial and error helped the students to grasp the computer rationale for standard approaches, while acknowledging that a numerate human could work backwards from the number given to get the correct answer, without necessarily following a strict algorithm. This tapped into their creativity and problem-solving dispositions, while they co-operated on set exercises to arrive at the correct answers.

Slowly, but surely, the explicit embedding of CT was stimulating the students to approach an apparently routine topic with a more open, and sometimes playful, disposition. It was encouraging to see the beginnings of CT stirring within students, even in a foundational computing course. Also, it was reassuring to sense that the sessions catered for various learning styles (Honey & Mumford, 1986) including those who prefer to learn by doing (activists), those who stand back and observe (reflectors), those who like to see how things fit into frameworks and concepts (theorists) and students who are happy if a method works (pragmatists).

OBSTACLES TO LEARNING

Several obstacles were encountered as we worked through conversion examples. Using the standard 'divide and remainder' algorithm, the concept and practice of integer division caused some confusion. For example, using integers for simplicity, dividing say 10 by 2 for binary conversion repeatedly until we cannot (meaningfully) divide any further, generated some interesting discussion. The result sequence produced remainders of 0 and 1 at various steps. But why can't we take $5/2 = 2.5$ and use this to arrive at the correct answer? Do we have to use division? What about starting with 10 and performing repeated subtraction until that process naturally finishes? These are all valid points and after some experimentation, the repeated subtraction method was most preferred. The students began to realise that we had made (or needed to make) simplifying assumptions to proceed with the logic of number systems conversion. Yet again, CT was surfacing with logic and assumptions.

The second obstacle was knowing which digit we start with to populate the columns to get a correct answer. Trying to fill the columns up starting at the unit (ones) column seemed easier – but then did not produce the right answer. Interestingly, even after the students became quite proficient with the conversion process, doubts were still present about where this could lead. Perhaps 0 and 1 could be used to indicate not only number values but electrical states, since digital devices used on/off-type processing. By being open to other perspectives, we were unwittingly making small steps in CT skill development.

CONCLUSION

Institutes of technology focus on vocational education and training. Application and qualification in IT courses aim to develop technical and soft skills for further study or employment. The embedding of CT in teaching and learning at the Southern Institute of Technology encourages students to challenge themselves and their often-hidden assumptions about the topics they study, the concepts that are needed and the dispositions that accompany them. This article has outlined some of the teaching and learning approaches I use with CT foregrounded, and my reflections on various perspectives of number systems conversions. All the students achieved their learning outcomes, with the added value of CT to take with them on their academic or employment journeys. Not only did the students graduate with their New Zealand Certificate in Information Technology Essentials (Level 4), but this course prepared them for undergraduate study and beyond by embedding CT in a relatively simple context of number systems conversions.

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EFFECTIVE FORMATIVE ASSESSMENT STRATEGIES CONTRIBUTE POSITIVELY TO THE WORK-READINESS OF NEW GRADUATES IN HIGHER EDUCATION

Tara Malone

INTRODUCTION

Assessment has long been viewed as central to the student's experience; historically, pedagogy demonstrated that teachers teach to the test, students learn for the test, and curriculum is often designed to support and guide both functions. Assessment defines what students view as being important, with a focus often placed on assessment preparation as opposed to class attendance (Gibbs 2007a, cited in Price et al., 2011). Student outcomes were mainly viewed as being related to intellect and effort, rather than the need for institutions to cater to the student's individual needs (Wiliam, 2011). Assessment was not even considered to be a part of the learning process (Pla-Campas et al., 2016); rather, it was something 'done' to students at the end of instruction. While Gipps (1994, as cited in Lau, 2016) proposed a complete shift from the intellectual model to the cognitive model, Lau (2016) suggests that studies by Biggs (1998) and Taras (2005) demonstrate the need for a balance: that summative and formative assessment should be connected to each other, to the teaching and learning environment, and to the student.

This article explores current understanding and practices of assessment in the tertiary education sector, and the implications for practice that sustainable assessment has in equipping students to meet the demands of the real world.

LIFELONG LEARNING IN A CHANGING SOCIETY

Interest in teaching and learning practices across higher levels of education point to the need for a shift from passive learning to an active learning model (Boud & Falchikov, 2006), as part of a student-centred approach. Active learning results in students attaining deep learning and understanding, being responsible and accountable for their learning, being autonomous and having an interdependent, rather than dependent, relationship with the teacher (Lea et al., 2003). Literature supports this shift as graduates encounter a competitive market where there is a demand for lifelong learners (Fook & Sidhu, 2013) who can meet the changing economic and sociocultural demands of society. These demands include being work-ready, having the ability to think critically, being innovative, creative and future-oriented (Ministry of Science, Technology and Innovation, 2005, cited in Gerritsen-van Leeuwenkamp et al., 2017).

To cite healthcare as an example of these work-ready requirements of industry, new graduates will possess leadership skills, are self-aware (Allen et al., 2009) and are competent communicators and collaborators (Nursing Council of New Zealand [NCNZ], 2015). Furthermore, new graduate nurses are expected to be competent in exercising their professional responsibilities and management of nursing care, and have the ability to form and sustain interpersonal and inter-professional relationships (New Zealand Nursing Council [NZNC], 2007). The

literature suggests that sustainable assessment, which focuses on equipping students with skills for success in future assessment tasks, as well as tasks in the 'here and now,' is an effective strategy towards achieving work-readiness (Boud & Soler, 2016).

ASSESSMENT AND LEARNING

Summative assessment, also referred to as assessment of learning, occurs *after* learning has taken place, and is designed to assess if students have learned what they were supposed to have learned (Tang & Biggs, 2007; Sadler & Reimann, 2018; Taylor & Burke da Silva, 2014). These assessments are generally viewed as high-stakes assessment, with the grade contributing to overall success, or failure, for the student (Yorke, 2003). Formative assessment, however, defined as assessment *for* learning (Black, 1986, cited in Wiliam, 2011), takes place during the learning (Cowie & Bell, 1999, cited in Wiliam, 2011; Sadler & Reimann, 2018; Taylor & Burke da Silva, 2014), occurring within a partnership between teacher and student, with the purpose of enhancing the student's abilities to their fullest potential (Yorke, 2003).

Learning can be considered as a process whereby the student consistently constructs their knowledge, rather than reproducing knowledge (Barr & Tagg, 1995, DeCorte, 1996, Nicol, 1997, cited in Nicol & MacFarlane, 2006), with both surface and deep learning occurring not as the result of personality traits, but rather, of the teaching and learning environment (Biggs, 2012). There is a call for assessment practices to align with this thinking (Boud, 2000, cited in Boud & Falchikov, 2006). Ensuring robust formative assessment processes, which have the ability to provide students with feedback on their learning, during their learning, leads to improved results for students in higher education settings (Hattie & Timperley 2007; López-Pastor et al., 2013, cited in López-Pastor & Sicilia-Camacho, 2017). This includes empowering them to become self-regulated learners (Carless, 2006, cited in Sadler, 2010). Continuous and qualitative feedback, and peer- and self-assessment as part of the formative assessment process, are also aspects of a student-centred approach to learning (Lea et al., 2003) and development of the student's knowledge of self.

Tang & Biggs, (2007) view effective learning as that which reframes our worldview; this occurs through how we think about the knowledge we acquire, rather than just the acquisition of knowledge. Because higher education is the last systematic stage of education, whereby the student can widen their perspective in preparation for life (Boud & Falchikov, 2006), it is important that student outcomes are maximised. To understand this point further in relation to work-readiness, the purpose and current practice of formative assessment in the higher education setting, as part of sustainable assessment (Boud & Soler, 2016), is investigated below.

HIGHER EDUCATION AND ASSESSMENT

Internationally, the Bologna Declaration of 1999 (cited in Pereira et al., 2016) started a rethink of assessment processes, launching a move towards a student-centric approach to teaching and learning, where students are viewed as active learners, able to participate in their own learning, and are critical thinkers. This meant a move towards assessment processes that developed student autonomy and self-responsibility for learning, including the practice of self-reflection as a means of reviewing their own learning (Sluijsmans et al., 1999, cited in Pereira et al., 2016).

Providers of higher education are judged on the quality of their graduates; assessment practices determine this quality (Boud, 2017). Hence, students focus their learning around assessment. Brown and Knight (1994) confirm this premise by stating that "assessment is at the heart of the student experience" (cited in Price et al., 2011), and it is assessment information and outcomes that determine the student's ability to meet the societal demands placed on today's graduates. Although support for formative assessment processes in higher education is growing, there remains a professional culture that associates assessment solely with final grades and examinations (Zabalza, 2003,

cited in López-Pastor & Sicilia-Camacho, 2017). Boud (2017) describes assessment as having three main functions: firstly, to verify student performance; secondly, to provide feedback to aid further learning; and thirdly, to build the student's capacity to make decisions about their own learning. Sustainable assessment allows the student to utilise feedback to move forward, not only contributing to what is being learned in the classroom, but also deepening the learning and evaluative skills required for lifelong learning and successful employment (Bloxham & Boyd, 2007; Segers & Dochy, 2001, cited in Pereira et al., 2016).

The move towards a more student-centred, continuous form of assessment practice also promotes the use of group and peer work (Bloxham & Boyd, 2007, cited in MacFarlane, 2016) – again, skills relevant for employment. It is therefore reasonable to conclude that while summative assessment determines what the new graduate should know, formative assessment contributes more to developing the new graduate to be prepared for further societal demands. Additional influences can be traced to the rise of the student engagement movement (MacFarlane, 2016), which led to higher education facilities thinking creatively about how to better engage and retain students; assessment is itself an opportunity for student engagement. Furthermore, assessment should contribute to the principal objective of higher education: to develop students' capacity and enable them to be independent, self-critical learners, having the ability to evaluate and act on the need for improvement (Ion et al., 2017).

Today, assessment is evolving, with a shift in focus from summative assessment towards a more blended approach to teaching and learning (Sadler & Reimann, 2018); often summative and formative approaches are used concurrently. Historically, the focus of higher education was on producing small, elitist groups of intellectuals (Pryor & Crossouard, 2010); conventional summative assessment models measured this intellectual quantum by setting tests which measured skills, knowledge and attitudes towards goals set by teachers (Gipps, 2012, as cited in Sadler & Reimann, 2018). The student role was passive and there was little interaction between teacher and student (Schuwirth & Van der Vleuten, 2011; Shepard, 2000, cited in Gerritsen-van Leeuwenkamp et al., 2017). Assessment was informed by trait theory, whereby a student's intelligence and abilities were predetermined, based on their genetic makeup, and were innate and fixed (Taylor, 1994; Gipps, 1994; Hager & Butler, 1996, cited in Lau, 2016).

A shift from focussing on intelligence to cognition meant that the process of thinking, reasoning and interaction with others led to a new way of considering assessment (Shepard, 2000, cited in Lau, 2016). Universities and other tertiary education providers are now required to cater for a wide range of diverse individuals, who are creative thinkers competing globally for employment opportunities (Pryor & Crossouard, 2010). A review of the literature undertaken by Pereira et al. in 2016 suggests that assessment methods in higher education, other than conventional tests, benefit students learning, including the interpersonal relationship between student and teacher. While assessment does need to measure achievement and provide quality assurance and accountability for higher education facilities, it also needs to enhance learning by engaging, motivating and stimulating students, as well as providing robust feedback (Price et al., 2011).

Research shows that formative assessment impacts positively on students' learning and final grades (Fisher et al., 2011; Romero-Martín et al., 2014, cited in Pla-Campus et al., 2016). Formative assessment gives the student the chance to examine their own learning (Nicol & Macfarlane-Dick, 2006); using effective formative assessment practices in higher education settings could be the link between learning and the development of work-ready skills and attributes. The major elements of formative assessment, as outlined by Wiliam (2011), are the provision of effective feedback; the active involvement of students in their own learning; consideration of assessment results in teaching practices; recognition of the effect assessment has on motivation and self-esteem; the need for self-assessment; and an understanding of how to improve (Wiliam, 2011). Good formative assessment processes involve the active partnership between teacher and student to enable the best performance by the student (Rushton, 2005; Windstone & Boud, 2018). Self-regulating the learning process is part of the student learning to learn (James, 2015, cited in Lysaght, 2015; Senye-Mir et al., 2016).

Formative assessment processes, in particular feedback, are viewed as the most powerful enhancer of learning (Hattie, 1987, cited in Rushton, 2005; Tang & Biggs, 2007; Hattie & Timperley, 2007). However, research and student satisfaction surveys reveal that feedback is often lacking in both quality and quantity, leading to frustration and disengagement (Price et al., 2011; Taylor & Burke da Silva, 2014; Windstone & Boud, 2018). Thus, there is an onus on higher education facilities to improve practice. By learning to understand what is expected of them to meet learning outcomes, students, through feedback, learn to self-regulate (Yorke, 2003). In the higher education context, self-regulation leads to the student's empowerment through monitoring and regulation of their own learning of both internal and external goals (Nicol & Macfarlane-Dick, 2006). Students with a higher level of self-regulation make better use of internal and external feedback (Nicol & Macfarlane-Dick, 2006), and can better regulate aspects of their thinking, motivation and behaviours during their learning (Pintrich & Zusho, 2002, cited in Nicol & Macfarlane-Dick, 2006), in preparation for skills required following graduation (Boud, 2000). The ability to self-evaluate is therefore integral to learning (Rushton, 2005), especially where deep learning is concerned.

Further to this is the need to align assessment practices with lifelong learning, as the skills and attributes required of new graduates will evolve further in the near future (Boud & Falchikov, 2006). Students who are lifelong learners will be more able to adapt to continually meet these changing demands; Boud and Falchikov (2006) suggest that sustainable assessment (Boud & Soler, 2016), in particular the processes involved in formative assessment, can contribute to the development of lifelong learning skills.

CONSIDERATIONS AND IMPLICATIONS FOR PRACTICE

Sadler (1989, cited in Fook & Sidhu, 2013) views formative assessment as a tool to give teachers information that improves teaching, a tool which should be utilised to help students understand how they learn best and how well they have learned. Formative assessment also enables the planning of individual teaching strategies, the provision of useful and effective feedback, and gives rise to opportunities for students to reach their potential and assess their own learning efficiently (Sadler, 1989, cited in Fook & Sidhu, 2013). In essence, formative assessment is a tool that develops students into self-regulated graduates (Nicol & MacFarlane-Dick, 2006), who are ready to succeed and meet the demands of society. Given the well-documented importance of feedback, it is concerning that the literature identifies the giving of feedback, and feedforward, as one of the weakest assessment processes (Carless et al., 2011; Pereira et al., 2008; Price et al., 2010; Scoles et al., 2012, cited in O'Donovan et al., 2016; Taylor & Burke da Silva, 2014). There are, however, some barriers to the successful use of formative assessment in higher education that need to be considered, and room for the development of new and innovative practices.

There is a dearth of empirical literature that explores teachers' understanding of formative and summative models of assessment (Sadler & Reimann, 2018). However, Maclellan (2001) undertook a study which demonstrated that while staff had an awareness of and commitment to undertaking formative assessment, many of their practices did not correlate with demonstrating this, with the emphasis being placed on grading as opposed to students' motivation for learning. It can therefore be assumed that student learning, through the use of formative assessment, is largely dependent on the teacher's engagement with formative assessment (Koh, 2009). Additional to this are the teacher's personal values and beliefs about teaching and learning practices (Samuelowicz & Bain, 2002, cited in Koh, 2009). Furthermore, a study by Lysaght in 2015 found that teachers overestimated their understanding and use of formative assessment processes, and were reluctant to explore them further for fear of undermining the quality of their existing teaching, learning and assessment practices.

Cowie and Bell (1999, cited in Yorke, 2003) found that in the secondary school setting, teachers sometimes did not recognise when they were undertaking formative assessment activities, and so opportunities were often missed; this may be true also of higher education. In addition, pressure is often placed on teachers in higher education to direct their attention to summative assessment, which provides institutions with information with which to measure the demands of accountability, outcomes and quality assurance, leaving little time to focus on how the student actually learns. Practice, therefore, continues to focus on teaching to the test (Lau, 2016).

While Falchikov and Boud (2007, cited in Rowe 2011) acknowledge the potential for the generation of strong feelings attached to assessment, Rowe (2011) investigated the link between emotions and students' response to assessment and feedback in higher education. It is known that positive emotions – and sometimes negative ones – enhance learning, particularly self-regulation and motivation (Pekrun & Stephens, 2010, cited in Rowe, 2017), attributes identified in this article as work-ready skills.

Feedback has the potential to elicit emotion in both teacher and student. According to Rowe (2017), emphasis should be placed on the importance of teachers understanding their students, which may be enhanced through relationships and teaching strategies. However, the teacher's ability to engage in this process is often hindered by their understanding of assessment practices (Sadler & Reimann, 2018), academic workloads (Taylor & Burke da Silva, 2014), and feelings of inadequacy in their ability to deal with emotions (Rowe, 2017). A more student-centred approach, in line with developing real-world skills, involves enhancement of the student's ability to self-manage and better utilise their emotions (Rowe, 2013, cited in Rowe, 2017). Evans (2013) also emphasises the need to acknowledge the affective component of giving and receiving feedback, particularly the connection between emotions, cognitive and conative processes and, indeed, resiliency (Rowe, 2017).

Strategies such as e-assessment feedback, via a variety of digital technologies, allow opportunities for effective feedback in large cohorts (Gikandi et al., 2011, cited in Evans, 2013). There is a positive impact on student outcomes through the use of feedback experiences that are relevant to students of this generation of "digital natives" (Gilbert et al., 2001, cited in Evans, 2013). However, emphasis needs to be placed on the training and instruction given to students, and teachers, for this type of feedback to be effective (Evans, 2013). Podcasts, as tools for feedback, also need to be considered, given their potential to promote efficacy in both individuals and groups (McSwiggan & Campbell, 2016). Other strategies include the use of clickers in large lecture situations (Ludvigsen et al., 2015) and online games, discussed by Broussard (2012), as innovative ways to formatively assess.

Formative assessment and game-based learning share seven common aims: to promote active learning environments; support the use of frequent and immediate feedback; provide intrinsic motivation; allow opportunities to practice and test knowledge without consequence; support scaffolded learning; encourage reflection and problem-based critical thinking; and provide opportunities for social learning. Other tools for assessment and learning, such as portfolios, have been found to enhance self-regulation and development of learning skills, and e-portfolios have the ability to provide timely feedback to the student (Beishuizen et al., 2006).

Although Nicol (2009) posits that the student enters higher education with the ability to self-regulate, Alkaher and Dolan (2011, cited in Evans, 2013) suggest that all students need assistance with aspects of self-regulation to benefit their learning. To enable students and teachers to ascertain what that assistance is, they firstly need to understand the student's ability to make judgements about their learning, and strategies used to develop learning (Lew et al., 2010, cited in Evans, 2013). Weurlander, et al., (2012) found that continuous formative assessment opportunities impacted on students' success by making them aware of their own learning and their contribution to that learning; however, consideration needs to be given to student workload and creativity in planning assessments. These findings are supported by a study undertaken by Hernandez (2012). Rowe (2011, cited in Ekholm et al., 2015) suggests that in higher education settings, the student's perception of feedback is especially important; given the often-large cohorts involved, this may be the sole source of relationship with the teacher.

CONCLUSION

While formative and summative assessment both have merit in the higher education setting, there needs to be a balance. Measuring what the student knows in order to meet the increasing demands for (both internal and external) institutional credibility, accountability, retention, completion, and quality assurance cannot usurp the importance of providing equality and equity for a diverse range of lifelong learners to reach their fullest potential. Graduates need to be adequately prepared to meet the global economic and societal real-world demands that

they face. This article highlights how formative assessment can be used as an effective strategy to promote self-regulation and the graduate's preparation for the real world, but there is considerable work to be undertaken to ensure that students and teachers have a clear understanding of what formative assessment entails.

The literature supports the hypothesis that formative assessment can contribute to the work-readiness of new graduates in higher education by encouraging deep learning and fostering a lifelong learning approach; developing the student's ability to self-regulate, self-reflect and attain self-efficacy; and generating opportunities to enhance interpersonal skills through teacher–student relationships. Being work-ready means having the ability to think critically, be innovative, creative and future-oriented (Ministry of Science, Technology and Innovation, 2005, cited in Gerritsen-van Leeuwenkamp et al., 2017), be a competent communicator, possess leadership skills and be self-aware (Allen et al., 2009). Effective, informed and purposeful feedback, feedforward and self-assessment are valid processes to enable this to happen.

It is impossible to ensure that higher education is moving in the right direction without considering the view through both the teacher's and student's lens. However, there seems to be an inconsistency in the literature between teacher and student perceptions (Windstone & Boud, 2014), in addition to the value placed on the role of formative assessment in enhancing real-life skills and the student's knowledge and awareness of this value – two areas for further investigation. Students (and teachers) need to value feedback and feedforward as a way of enhancing their learning (Mulliner & Tucker, 2017), not just something received following an assessment. Thus, higher education facilities need to develop a culture that is inclusive of, and values, formative assessment as an effective learning tool (Havnes et al., 2012). If graduates need to be future-focussed, critical thinkers, self-regulators, motivated, innovative, resilient and creative to compete in the real world, so too, then, do higher education facilities and their assessment practices.

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A STARRY STARRY NIGHT: LEARNINGS FROM A MULTICULTURAL MATARIKI DINNER HOSTED BY A COHORT OF INTERNATIONAL STUDENTS

Roz Tocker

INTRODUCTION

Over several years of teaching mostly international students in hospitality programmes, it has become increasingly apparent that most struggle with concepts of tikanga Māori (customary values and practices) in the classroom. Furthermore, a great many intend to make Aotearoa New Zealand their home and, as educators, it seems morally incumbent on us to help them understand the unique dual heritage and culture into which they will be settling. International students arrive having their own set of values, but we need to enable those students to absorb our morals and ethics, too, to be truly exposed to them, and to understand that all cultural values have synergy: they can overlap. Butcher and McGrath (2004) point out that often international students will arrive in a new setting with a myriad of complex predicaments and expectations. These may include language and financial issues and an awareness that, somehow, they need to become assimilated into a society which is sometimes discriminatory.

This article describes how, through a Matariki dinner/banquet, a large group of Level 4 international food and beverage students at Toi Ohomai Institute of Technology were taught, and learnt, about the Māori cultural values of the institution. The initiative has led to epiphanies for both teacher and students, and has completely changed my own teaching pedagogy.

BEING NON-MĀORI

As a non-Māori academic staff member, I strive to live bicultural values within our own Toi Ohomai principles:

> *Whanaungatanga* – we build and nurture relationships and connections; *Toitūtanga* – we are humble in our pursuit of excellence; *Kotahitanga* – we are united towards our shared purpose and lastly *Manaakitanga* – we uphold and strengthen the mana of others and our communities (Toi Ohomai Institute of Technology, 2021, Our values section).

While I am learning new ways to think and feel in my professional role, I can understand a little of how international students must feel, encountering a whole new realm of often tacit knowledge. My starting point with this project came from questioning how, as their teachers, we can create an environment where the students can know, understand and experience these cultural values. This made me aware of what Larrivee (2000) argues, that educators should evaluate their expectations in order to deliver a more meaningful learning experience. This was therefore an opportunity for me, too, to reassess my teaching methods in order to embrace a multicultural classroom. In a food and beverage training context, I framed this from a teaching and learning perspective as: "We need to understand who we are as people, how we grow our food, and how close we are to the source and our sense of manaakitanga or hospitality" (Clifford, 2018).

THE MATARIKI CELEBRATION

Matariki heralds the Māori New Year and is seen as a time of reflection and celebration. It has become a significant event on the lunar and social calendar and, from Friday 24 June 2022, it will be celebrated as a public holiday. According to Hardy and Whaanga (2019), most Māori understand that the Matariki celebration is associated with the indigenous knowledge of the departmental gods, the children of Ranginui (sky father) and Papatūānuku (earth mother). They also celebrate with elements including fire and water, and with various forms of food cultivation and gathering. Furthermore, food which corresponds to each star is cooked and a karakia (prayer) is offered to the stars to ensure nourishment. Hardy and Whaanga (2019) further suggest that by celebrating these practices, Māori are "reinvigorating the principles of whakapapa" and incorporating "the link between deities, the environment, animals and the activities of human beings" (p. 8).

In light of these traditions, it was equally important that our Toi Ohomai Matariki menu was aligned to the significance of the stars. This resulted in significant collaboration between chefs, students, tutors and our Māori academic team.

Following a number of discussions with the strategic partnership team, I developed the concept of a degustation dinner in Kaiwhata (our Mokoia (Rotorua) campus training restaurant) to celebrate Matariki. As part of the student learning experience, the restaurant is open to the public, stakeholders and fellow students several times a semester. This opportunity gives hospitality students a realistic, hands-on experience. However, this dinner was in a different league from what students would normally experience, so it really put them to the test. Because this event required significant student involvement, it showcased biculturalism and multiculturalism as well as innovation, and incorporated all of Toi Ohomai's values.

Meeting the responsibilities inherent in these values was a major undertaking, so I adopted a whakataukī (Māori proverb) to guide me through the degustation project: "Whāia te iti kahurangi ki te tūohu koe me he maunga teitei" (Woodward, 2020): "Seek the treasure you value most dearly and if you bow your head, let it be to a lofty mountain." The message of this whakataukī is to be persistent and not to let obstacles stop you from reaching your goal. One of the perceived obstacles when developing the Matariki initiative was that I had a multicultural class of students (one Māori/Niuean, four Nepalese, one Malaysian and ten Indian students) with limited understanding of te ao Māori (Māori worldview). As these students would be instrumental in delivering and hosting the event, and would need some background knowledge of biculturalism, I approached our Māori academic team, who offered me invaluable support in providing information sessions with the students and tutors about the cultural relevance of the Matariki constellation.

In 2019 Matariki reappeared in the dawn sky between 25 and 28 June, signalling the start of the Māori New Year. I wanted to celebrate this by helping create a new or different life for our students, while keeping in mind those who had passed (as in any family or culture) and planning a new future full of knowledge and good health. I endeavoured to create a whānau atmosphere of trust and guidance, while enjoying kai (food), waiata (song) and tākaro (games).

With all this in mind, from mid-April I began planning a dinner event to take place on Thursday 27 June 2019. After some research on the Matariki star cluster, I decided that the dinner theme would take the form of nine courses, each representing a star. I then spoke with some of the culinary arts staff to ascertain their interest in the event. Two chef tutors were enthusiastic and, after discussions with a Māori academic advisor, I left them to create authentic dishes for a menu suited to the occasion.

Figures 1 and 2 show the dishes conceived for the menu, each aligned with a star in the Matariki cluster, and the menu flyer created for the event.

The star	Significance	Menu interpretation
Matariki	Matariki is the star that signifies reflection, hope, our connection to the environment and the gathering of people. Matariki is also connected to the health and wellbeing of people.	*Kawakawa shot and wild herb salad – a healthy start for the dishes to come*
Pōhutukawa	Pōhutukawa is the star connected to those who have passed on.	*Venison, wild mushroom and grilled pikopiko open pie*
Waitī	Waitī is connected with all freshwater bodies and the food sources that are sustained by those waters.	*Smoked eel, watercress jelly and koura foam – tuna (eel), watercress and koura (freshwater crayfish) (all found in lakes, rivers and streams)*
Waitā	Waitā is associated with the ocean and the food sources within it.	*Hapuku, oysters, kina glaze with sea kelp (all from the ocean)*
Waipuna-ā-Rangi	Waipuna-ā-Rangi is connected with the rain.	*Persimmon sherbet (ice crystals from the fruit floating on dry ice)*
Tupuānuku	Tupuānuku is the star connected with everything that grows within the soil to be harvested or gathered for food.	*Taewa, kumara and yams with cricket and wild berries (all from the soil, berries fallen from the tree)*
Tupuārangi	Tupuārangi is connected with everything that grows in the trees: fruits, berries and birds.	*Confit muttonbird with tricolour kumara, cherry salsa on toasted rewana (tītī – traditionally harvested sooty shearwater bird)*
Ururangi	Ururangi is the star connected with the winds.	*Fried bread pocket with pulled pork, coleslaw, apple chutney and watercress mayonnaise (light and airy)*
Hiwaiterangi	Hiwaiterangi is the star connected with granting our wishes and realising our aspirations for the coming year.	*Steamed pudding on chocolate soil, vanilla cream anglaise spheres, kawakawa cream and buttermilk gelato (traditional pudding; spheres are aspirations, gelato a treat)*

Figure 1. The menu items aligned to the nine Matariki stars.
Source: Toi Ohomai Institute of Technology Marketing Department

Figure 2. The menu flyer. Source: Toi Ohomai Institute of Technology Marketing Department

PLANNING AND DELIVERING THROUGH COLLABORATION

The concept for the dinner was to have nine round tables to represent the nine stars of Matariki, with each of the nine courses incorporating ingredients that would represent the significance of each star. Several departments collaborated to make the night a success. The culinary arts team were joined by students from our hospitality courses, who hosted a full dinner service, matching alcoholic beverages with each dish; the carpentry students made the round table tops for the dinner; electrical students provided a starry lighting spectacle; the music department provided waiata; design students created nine handcrafted star lanterns to go above each table; facilities shaped wooden serving platters; marketing provided advertising and menu design; and Māori academic staff conducted information sessions with students and tutors.

Significantly, this level of participation consolidated all our institutional values and culminated in an amazing cultural achievement, with diners enjoying the relaxed atmosphere and innovative dishes. The students were buoyed by the experience, and the confidence they gained was immeasurable. As a result of this event, students realised the value of food as a universal means of bringing people together and understanding culture through food. They learnt the significance of indigenous Māori foods and the concept of food sovereignty and compared their own regional foods with what was on offer. Importantly, they learnt first-hand the value of toitūtanga – to be humble in their learning in order to pursue excellence by successfully delivering kai hakari (dinner/banquet).

The values of whanaungatanga (build and nurture relationships and connections), kotahitanga (united toward a shared purpose), and manaakitanga (strengthen the mana of others and our communities) were further evidenced through the preparation for the dinner. Students and tutors stood alongside each other to give help, support and commitment. Firstly, it was important to support student learning about Māori cultural ideals – specifically, to identify the star cluster that envelopes Matariki. While students may have heard of the Pleiades, the focus on Matariki was to proceed from mātauranga Māori (a Māori perspective). Thus, I had introduced the students to a Māori academic tutor who, over a series of classes, taught them the significance of the stars and our own organisation's values (see Figure 3). As a result, in of one of these classes we unilaterally decided that the students would korero (talk through) the menu and describe the content and cultural significance of each course to diners on the night. The process of discussion or korero ensured that the students' voices were captured – adding richness to the cultural aspect of the event, upholding the value of manaakitanga and giving mana to the students involved. In addition, I created cue cards for the students so they would be reassured in what would be a time of apprehension for them – talking in English about te ao Māori in front of 50 paying guests.

Figure 3. Māori academic advisor teaching the students about Matariki. Source: Author

In the lead-up to the dinner all the students became very involved in the preparation of the ingredients and other materials required for the event. They helped gather kawakawa (for the Matariki dish and garnish), seaweed for the Waitā course and fern fronds for garnish; they glazed and polished newly made platters so they were food-ready; they made the flax napkin rings; they hung lanterns; they polished cutlery and glassware. Students were divided into two groups according to their roles as service or beverage waiters. There were a myriad of logistical elements to be considered in the presentation of the dinner, notwithstanding the plan of nine food courses matched with nine beverage courses. The students were instrumental in devising systems and service styles – in doing so, we developed a great deal of respect for one another which created a tight bond between us all. This modelled a strong example of whanaungatanga for everyone involved (Figures 4-7).

Figure 4. Students making serving platters. Source: Author

Figure 5. Students making napkin rings. Source: Author

Figure 6. Students lining up for service. Source: Toi Ohomai Institute of Technology Marketing Department

Figure 7. Waipuna-ā-Rangi. Source: Toi Ohomai Institute of Technology Marketing Department

Following the dinner, we received some wonderful feedback from colleagues who attended the event, which I shared with the students. Representative comments included:

> I especially loved that Matariki became a wonderful, meaningful, practical and memorable experience of learning for staff, students and diners!

> Thank you for letting me be a small part of this Matariki event; I sincerely hope that a Matariki-inspired dinner at Toi Ohomai becomes an annual event.

> I would like to acknowledge all the extra time and effort that you put into the recent extremely successful Matariki Degustation Dinner. All the behind-the-scenes work that create the magic but sometimes get overlooked in the accolades. The seaweed you gathered and dried, the wood you stained and oiled, the flowers you picked, the buzz you generated. I believe that this one event embodied all four of our Toi Ohomai Values.

DISCUSSION

The four stages of Kolb's (1984) experiential cycle – concrete experience, reflective observation, abstract conceptualisation and active experimentation – provided the fundamental framework for the development and delivery of the Matariki dinner. Didactic components were delivered in class during the four weeks prior to the event, culminating in the presentation of the dinner itself (concrete experience). Within this timeframe, the students were constantly reflecting and observing each other, coming up with improved approaches and systems as they explored both active experimentation and abstract conceptualisation.

The dinner was an opportunity for students to learn through doing, rather than being prepared by tutors to undertake an activity. Bolton (2010, p. 29) argues that this form of reflective practice also "allows relationships with students, clients, patients or colleagues to be seen within a range of possible roles. The whole person of the professional relates to the whole client." This meant that the students undertook roles that put them in the place of clients, learners, teachers and role models, a situation which they adapted to very well. Creating work-based scenarios within the learning environment was of benefit not only to me, but also to my learners.

According to Rogers (1969), learning is enhanced when the learner takes ownership of their own learning. Furthermore, "the goal of education, if we are to survive, is the *facilitation of change and learning*. The only person who is educated is the person who has learned how to learn; the person who has learned how to adapt and change" (Rogers, 1969, p. 152). We teach our students the basics of customer service – such as good personal presentation and open communication – but in the real world, we need systems. It was at this point that my students taught me. In Māori pedagogy this is referred to as "ako" – ako reinforces the symbiotic relationship between teacher and learner through learning together – the teacher is the learner; the learner is the teacher. It was a wonderful experience being on the same level and learning from my students as they were learning from me. The event was indicative of this process. The students were disciplined, enthusiastic and wanted to try hard. And the best part was that we exemplified at first hand Carl Rogers' theory that if the teacher values and demonstrates how the student thinks and feels, then valuable learning takes place (Rogers, 1983).

This experience opened my eyes, not only to different cultures of the world, but to our own indigenous culture. The Matariki dinner demonstrated that learning is transferable from student to teacher and vice versa. Johnson (2012) explains:

> Teaching is far more complicated than simply delivering content, and learning is far more complicated than simply receiving it. Viewed through using an ecological lens, the teacher-student relationship is symbiotic. Teachers and students have a mutually beneficial relationship; each supports the other's existence. (para. 5)

This also underscores the Māori concept of tuakana–teina, which provides a model for buddy systems.

> "An older or more expert tuakana (brother, sister or cousin) helps and guides a younger or less expert teina (originally a younger sibling or cousin of the same gender). In Māori pedagogy, if tuakana-teina is conducted with aroha and manaakitanga then the mana is strengthened and all participants are rewarded"
> (Winitana, 2012).

In a learning environment that recognises the value of ako, the tuakana–teina roles may be reversed at any time (Te Kete Ipurangi, n.d.).

REFLECTING ON MY OWN TEACHING PRACTICE

As a critical reflection on my own teaching practice, giving students a surrogate workplace initiative to help non-New Zealand students to understand our bicultural heritage through the Matariki degustation experience was a success. I felt that using Māori mythology to support international students learning about te ao Māori had been inspiring for all involved.

This experience has enabled me to recognise trust, respect for my own beliefs and integrity, personal responsibility and generosity through personal development and a positive regard for future actions (Bolton, 2010). Further to this, my own experience has given me a greater insight into accommodating the physical, psychological and financial needs and cultural diversity of students. Speaking as a teacher, empathy with students is a valuable asset in teaching pedagogy, as it helps us understand student needs and wants and allows the students to feel valued and thus more inclined to learn (Rogers, 1983).

In the planning stages of the dinner, I had very little student feedback or involvement as the students relied on me as the tutor to give them the information required to organise the event. However, two days before the event, and after much cajoling, the students felt comfortable enough to give me their feedback on how the event could be run and how we could better deliver the meals, and indeed the whole experience. I feel at that stage that I had also discovered a degree of leadership within myself, in that I was so focussed on the successful outcome of the event that I drew the students into my commitment, which in turn enabled them to offer me support (Bennis, 1976). This encouragement led to a focussed approach at the final dinner and gave the students a level of confidence that was not evident earlier.

On a personal level, I feel that I am a good listener. As Helyer (2015) advocates, "One of the most important things that tutors of work-based learners can do is develop good listening skills. They need to listen and also to respond appropriately. This response might include prompts and encouragement rather than instructions" (Helyer, 2015, p. 22). Hence the reason for the prompt cards. Understanding other people's needs, as well as being responsible, enthusiastic, friendly, patient and helpful, are important teaching attributes, and are elements that I try to weave into my own teaching philosophy.

Naturally, it helped that I was delivering a service that I was passionate about and that I also had the knowledge to enable me to upskill the students. I was able to debunk the theory that "education expertise and knowledge has been predicated on a separation of learning from working" (Vaughan, 2012, p. 4). Vaughan continues: "workplace-based education is therefore held responsible for practice (situated and tacit knowledge), as well as socialising people, inculcating them into work-related knowledge and skill and incorporating them into a community of practice" (p. 5). The Matariki degustation menu experience was an excellent opportunity to do exactly this, and to reunify the learning and working paradigm.

CONCLUSION

As a teacher, it is always rewarding to successfully pass on knowledge for others to make discoveries. This article has outlined one initiative in which interdisciplinary expertise and competency created a platform for indigenous knowledge to be shared with international students and our surrounding community. The concept of an inspirational whakataukī, and Māori mythology as a design for delivery, is not new, nor restricted to any particular educational or vocational discipline. I hope that others may find something in the narrative offered here to be a useful departure point for their own journey towards bicultural learning, whether personal or in the classroom, and whether their learners are domestic or international. According to Andresen, Boud and Cohen (2005), a participative, learner-centred approach based on personal experience enriches learning events. This was certainly true of my experience with the Matariki degustation dinner. However, parallel to this, I credit the awhi (support) and connections with my colleagues for the event's success. We do not go on this journey alone and, together, we can overcome most obstacles:

Whāia te iti kahurangi ki te tūohu koe me he maunga teitei!

Roz Tocker is a senior lecturer in tourism and hospitality at the Mokoia campus of Toi Ohomai Institute of Technology. Prior to teaching, her experience covered many aspects of hospitality, as she had owned and operated several successful restaurants and hotels. Roz has a strong interest in gastronomic tourism and hopes to impart her enthusiasm for this subject to her students. She is currently studying for a Master of Professional Practice.

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MINING FOR GOLD: LEARNING ANALYTICS AND DESIGN FOR LEARNING: A REVIEW

Claire Goode, Ana Terry, Hugh Harlow and Rachel Cash

INTRODUCTION

Learning analytics (LA) has been a key development in learning design (LD) and technology-enhanced learning over the past decade. Mining data relating to the user experience of technology can help educators understand *when* learners access sites and resources, *how* they access them, and *what* they access. This can inform the next iteration of course design, maximise the value of interactions with students, and enable institutions to develop learner-centred courses and improve learner success, all of which may set them apart from the mass of competition in online and/or blended learning. In this article, we first consider the definition and purpose of LA, specifically in a tertiary education context, then review the literature in this fast-moving field, focusing on three core areas.

BACKGROUND

Learning analytics is frequently defined as "the measurement, collection, analysis and reporting of data about learners and their contexts for purposes of understanding and optimizing learning and the environments in which it occurs" (Siemens, 2011). This includes not only looking at data retrospectively, in order to improve LD and teaching and assessment practices, for example, but also analysing data to predict future behaviours and recognise potential problems so that they can be addressed. In other words, LA should provide "actionable intelligence for learners and teachers" (Learning Analytics Community Exchange, 2014). In 2013, the NMC Horizon Report (Johnson et al., 2013) identified LA as an area of emerging technology that would impact significantly on higher education, with an expected time-to-adoption horizon of two to three years; by 2019, the same report (Alexander et al., 2019) suggested the time-to-adoption horizon had dropped to one year or less.

Over time, the student body in tertiary education is becoming "increasingly diverse in age, cultural and socioeconomic background, motivation and general experience with technology" (Corrin et al., 2016, p. 7). An upsurge in the use of technology tools in teaching (particularly relevant during a global pandemic, with teachers and learners all working from home at different times) means that there is more and more data available for analytics. One advantage of this is that, as Lockyer et al. (2013) highlight, LA data can be used to provide evidence to inform pedagogical decisions, ultimately enhancing learning effectiveness and learner success. A multi-institutional collaborative project in Australia (Corrin et al., 2016), for example, focused on "how learning analytics can be delivered to [tertiary] teachers in meaningful ways [to] help improve teaching and learning practices" (p. 5). Having said this, the terminology associated with LA – including 'big data,' 'data mining,' 'machine learning,' 'business intelligence' and 'clickstream analytics' – is not only varied, but can often be too technical. If we want teachers to become involved and engaged in LA, it needs to be seen simply as a way in which data can help them answer questions about learning, or to address common challenges in learning and teaching (Gunn et al., 2017).

Previously, while data gathering was already occurring in educational institutions, it was perhaps not being valued for the wealth of information that it provided. In 2010, for instance, Dawson et al. reported that "[t]he information

on student behaviour captured by the [Learning Management System (LMS)] has been … rarely interrogated and adopted beyond basic load and tool usage" (p. 121), and that "access to these data has traditionally been removed from the learning context, and has only recently begun to expand into the scholarship of teaching and learning" (p. 124). Long and Siemens (2011, p. 32) would agree: "Higher Education … has traditionally been inefficient in its data use … Something must change." A report from the United Kingdom's (UK) Higher Education Commission (Shacklock, 2016) sets out 11 recommendations, including a call for a sector-wide LA strategy (p. 13), and "clear ethical policies and codes of practices" (p. 39). Five years on, it is timely to consider how the field of LA has progressed, how educational institutions are implementing the use of LA in policy and practice, what insights have been gained, and what further recommendations can be made.

SUPPORTING DESIGN FOR LEARNING

Echoing the call for LA terminology and purpose to be transparent, Kennedy et al. assert that it can be difficult for educators "to make sense of learning analytics data without a clear understanding of the pedagogical intent behind the design of learning tasks set for students" (2014, p. 436). They go on to argue that linking LD with LA tools and techniques will lead to a "better understanding of how analytics can be most usefully applied, interpreted, and actioned by academic staff" (p. 436). Mangaroska and Giannakos (2019) agree, seeing learning analytics and learning design as two complementary fields within educational technology. Seeing LA in action, then, is key to successful integration into ongoing practice.

Mor et al. (2015) look at how LD, LA and teacher inquiry combine "to form a virtuous circle" (p. 221), each informing and improving the others. As they explain, "within this circle, learning analytics offers a powerful set of tools for teacher inquiry, feeding back into improved learning design. Learning design provides a semantic structure for analytics, whereas teacher inquiry defines meaningful questions to analyse" (Mor et al., 2015, p. 221). Similar interactions are suggested in Bakharia et al.'s (2016) conceptual framework (Figure 1), consisting of five dimensions of LA – temporal analytics, comparative analytics, cohort dynamics, tool specific analytics, and contingency and intervention support tools – in which "the teacher plays a crucial role in bringing context to the analysis and making decisions on the feedback provided to learners, as well as the scaffolding and adaptation of the learning design" (2016, section 4, para 1).
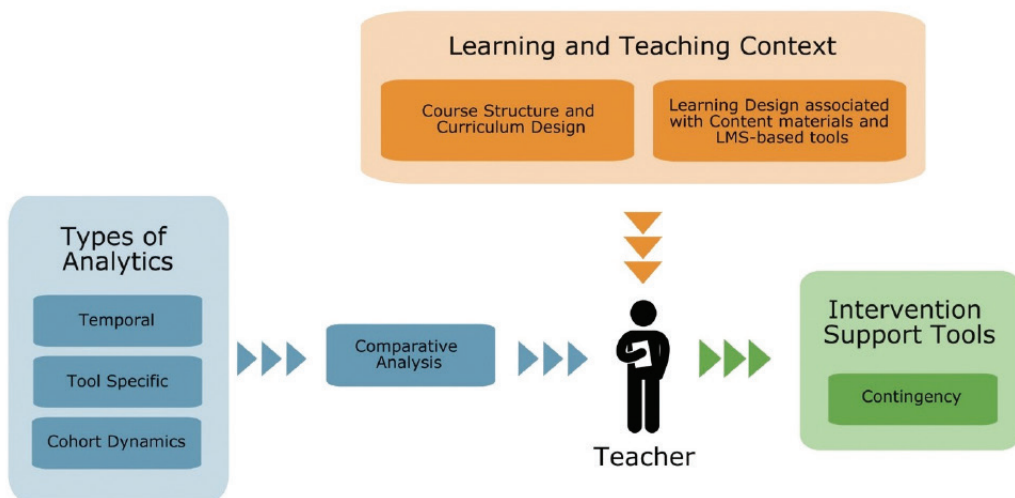
Figure 1. The learning analytics for learning design conceptual framework (Bakharia et al., 2016).

They suggest that this framework "bridg[es] the gap between learning design and learning analytics while establishing a platform to support enquiry-based evaluation and scaffolding of learning activities" (Bakharia et al., 2016, p. 336), but it is unclear whether any subsequent research has been undertaken to implement this.

Gunn et al.'s (2017) Learning analytics-learning design framework (Figure 2) aims to:

> prompt teachers to focus on very specific questions at different points during the regular teaching cycle. It can also be used as an entry point to make sense of more complex learning analytics conceptual frameworks as teachers gain confidence and begin to incorporate learning analytics data into their daily practice. (2017, p. 12)

In addition, the framework may help different stakeholders reflect on and develop appropriate policies and strategic plans, and could be used as part of professional development conversations to build teachers' confidence around the use and benefits of learning analytics.
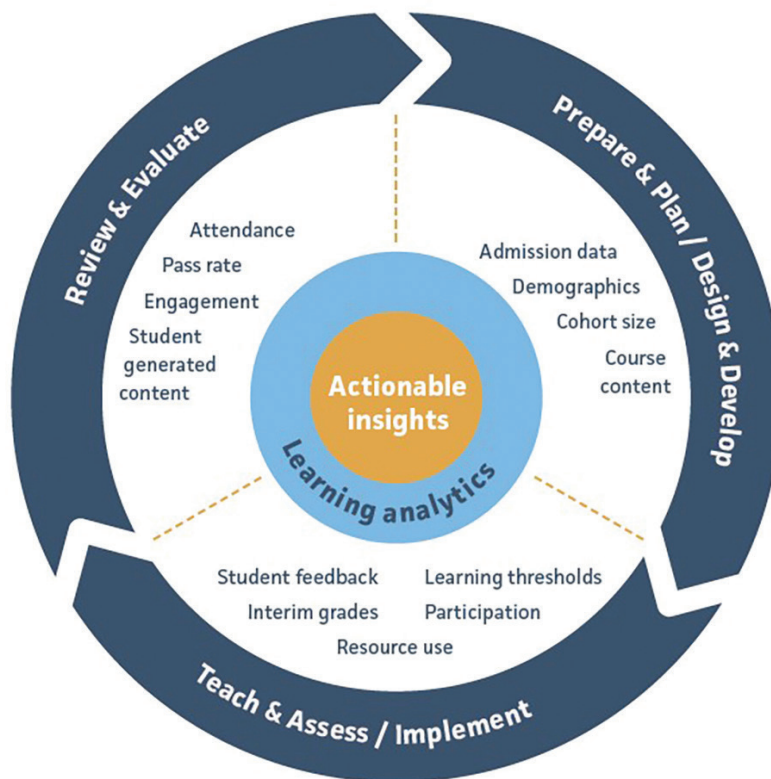
Figure 2. The learning analytics–learning design framework (Gunn et al., 2017).

To what extent, though, do the expectations of the learning designer align with the real user experience? After all, as Gunn et al. (2017, p. 5) emphasise, "Linking learning analytics to learning design is seen as a critical step towards evidence-based course design." Ahn et al. (2019) report on the use of human-centred design as a way of managing any misalignment between LA dashboard design and its intended use. Dollinger and Lodge (2018), again drawing attention to the "persistent issue" (p. 97) of the mismatch between interface design and user

engagement, call for "a perspective shift for learning analytics to be not only 'about learners' but also **with** learners" (2018, p. 97), and emphasise the need for students and educators to be involved in the co-creation of LA design and processes. Neither learning designers, educators nor researchers should 'assume' to know what learners want without inviting them into the discussion. Designing in partnership and in context brings with it multiple advantages over designing in isolation (Ahn et al., 2019; Dollinger & Lodge, 2018). While teachers may wish to see data comparisons across their cohorts, for instance, some learners may find this demotivating (Schumacher & Ifenthaler, 2018). Furthermore, "[s]tudents expect highly developed learning analytics systems, combining the functions of various programs, allowing personalization, showing the results of diverse analyses, and giving recommendations for further learning" (Schumacher & Ifenthaler, 2018, p. 75). We return to the topic of user concerns and challenges in the next section.

For Hernández-Leo et al. (2019), despite the clear synergies between LA and LD, there is only "limited and fragmented work exploring the use of data analytics to support learning design" (p. 140). Following a systematic literature review of their own, they concluded that there are "no models capturing the variety of connections that exist between learner/educator data, the design, co-design processes and the implementation of learning tasks" (p. 140). As a result, they propose an "Analytics Layers for Learning Design" (AL4LD) framework (Figure 3), articulating three differentiated but interdependent layers of data analytics to support informed decision-making in LD by addressing the following design questions:

•   What are the effects of the learning design on the actual learning experiences? (learning analytics layer)
•   What are the design decisions and related aspects that characterise the learning designs? (design analytics layer)
•   How do educators (and related roles) co-design for learning? (community analytics layer)
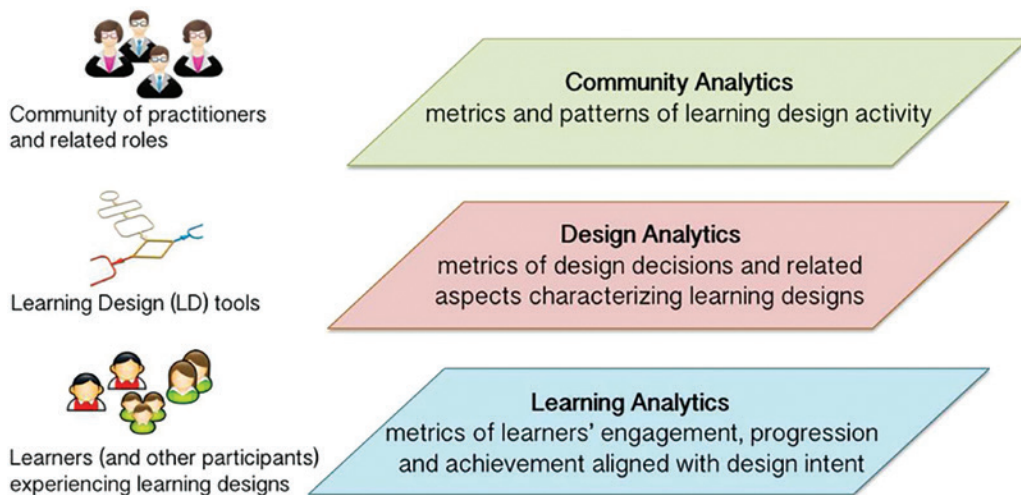
Figure 3. Graphical representation of the AL4LD framework (Hernández-Leo et al., 2019).

Interactions between these layers capture the relevant synergies, such as aligning the design intent with a learner's activity patterns, making it easier to interpret LA. In turn, the authors suggest that, if LA are aligned with the design intent, then teachers can consider the data to improve LD in future iterations.

Holmes et al. (2019) used a "Learning Analytics for Learning Design" methodology to investigate the implementation of LD in an online distance-learning context. Using LA, they researched common patterns of learning activities among different LD practitioners, how learners' behaviour varies across different patterns of learning activities, and which patterns of LD activities have the most potential for improving learner outcomes. Their study focuses on two key innovations: combinations or *patterns* of LD activities, by means of a cluster analysis (which revealed that different patterns of LD were associated with statistically significant differences in learner behaviour); and applying *social network analysis* to the clusters to further clarify the relationships between learning activities within each cluster.

Similarly, Mangaroska and Giannakos (2019), in their review of how LA and LD intersect, explored "what learning analytics have been used to inform learning design decisions, and what were the main design approaches researchers embraced" (2019, p. 531) over a seven-year period (2010-17). They concluded that a tendency to view LA as purely quantitative can lead to "a misalignment between the information generated by learning analytics tools with the needs, problems, and concerns that teachers have regarding learning designs and learning activities (2019, p. 527), and recommend that "future research should consider developing a framework on how to capture and systematize learning design data and follow what learning design choices made by educators influence subsequent learning activities and performances over time" (2019, p. 531).

In summary, there needs to be close collaboration between key stakeholders – including learner, learning designer and teacher – in any LA initiative, given the need for understanding both its context and application.

PLAYING TO THE GALLERY?

As the use of LA has grown, there has been an increase in critical analysis and discussion of both the learner's expectations of LA, their mistrust and the potential for this to further isolate learners already feeling disenfranchised or struggling with their studies. Several strands contribute to this unease, including concerns around surveillance, coersion, lack of agency and a sense of performativity.

Selwyn (2019), for example, considers how LA can influence what students do and how they may respond in ways which in fact *counter* what LA has been designed to do – to support learning. Selwyn highlights that, "while not designed to be 'evaluatory' per se, learning analytics technologies are nevertheless being implemented in school and university contexts shaped by evaluation, testing, measuring, ranking, and performance comparison" (p.13). With such high stakes, compounded by the sense of being analysed (as the name 'analytics' itself reinforces), learner behaviour may be influenced by LA to 'play the game' or 'please' the indicators.

Prinsloo (2019) critically examines this potential through a social cartography of data analytics by scrutinising LA and describing it as an **actant** – an agent which *creates* the learner's narrative rather than supporting it. He provides evidence to suggest LA is not only representational, but is also increasingly performative and political, and argues that an LA system defines success and creates "norms" by constructing a reality which is presented as truth. Like Selwyn (2019), Prinsloo proposes that one consequence of this is that students learn the rules and regulations of their context and perform to comply within them.

Part of Prinsloo's analysis focuses on reviewing what is gathered in the way of data and its relevance – for example, data on age, gender, race and marital status. Prinsloo suggests that these "zombie categories" (2020, pp. 619-620) may limit our understanding of difference and perpetuate "norms." Selwyn (2019, p. 13) agrees: "A central concern here relates to the reproduction of existing social inequalities as well as the generation of new forms of inequality through data-driven processes." Beer (2018), too, contends that data is not objective; all data is

modelled and constructed, shaped and evaluated based on the designer's and/or analyst's ideas and assumptions. Indeed, "data and algorithms can contain and perpetuate bias" (University of Edinburgh, 2018, p. 2). This is one area, then, in which both critical reflection and transparency are essential.

As well as potentially placing learners into predetermined silos, the assumptions and dominant discourses of LA designers have shed little light on what influences learner engagement. "Analytics cannot give a complete picture of an individual's learning" (University of Wollongong, 2020, p. 7). As a result, LA has the potential to 'colonise' learning as students realise they must both conform with and perform to dominant narratives of what their learning should look like. In essence, then, critics argue that LA lacks a nuanced awareness of or ability to capture and represent the complexities of individual learners and/or their learning experiences.

These findings again support the need to engage students in the decision-making process about LA (Roberts et al., 2016; Slade & Prinsloo, 2013). However, few studies have gone beyond 'surface' collaboration, focusing on user experience preferences (personalised dashboards, progress bars, and so on) as opposed to understanding the individual needs of learners.

DATA, DISTRUST AND DECISIONS

Alongside these concerns, awareness has also grown of the ethical considerations surrounding the collection and use of student data (Prinsloo & Slade, 2017; Slade & Prinsloo, 2013). Viberg et al. (2018) suggest that the use of LA "poses moral and policy issues for students' privacy [and] there are crucial questions that need to be addressed to ensure that [Learning Analytics] are commensurate with students' privacy and autonomy" (p. 108). One potential consequence of these concerns is the risk that LA adoption may be hindered because of "fear induced by ethics and privacy issues [which] can easily lead to misunderstandings and distrust in institutions" (Tsai et al, 2018, p. 7, citing Drachsler & Greller, 2016). Several authors (including Slade & Prinsloo, 2013; Tsai et al., 2018) suggest that informed consent is essential in establishing trust. As Welsh and McKinney explain:

> informed consent means that: (a) clear and accurate information is provided about what data is or may be collected, why and how it is collected, how it is stored and how it is used; and (b) agreement is freely given to the practice(s) described. (2015, p. 590)

Alongside this is the need to give students the ability to 'opt out' of a Learning Analytics programme. Selwyn (2019, p. 16), however, goes a step further, suggesting that "it might be more appropriate for learning analytics systems to be designed on an 'opt-in' basis." This is echoed by New Zealand's Tertiary Education Commission (2021, p. 21), who recommend that consent "should be opt-in rather than opt-out," to ensure complete transparency.

The establishment and implementation of clear principles and policies is an essential step in an organisation's adoption of LA, in order to "guide the stakeholders and encourage ethical use of data within an educational system where power is unequally distributed among different stakeholders" (Tsai et al., 2018, p. 6). The University of Edinburgh, for instance, places an emphasis on "ensur[ing] learning analytics projects and implementations are conducted according to defined ethical principles and align with organisational strategy, policy and values" (2018, p. 3). Tsai et al. (2018, p. 6), who contributed to the development of the European SHEILA framework, agree, saying that "in order to establish analytics sustainability, it is imperative that [educational organisations] align the adoption of LA with their institutional vison and goals."

Policies should also ensure that data is used "only in the context and purpose for which it was provided" (Prinsloo & Slade, 2017, p. 53). Without clear guidelines, as Selwyn (2019) contends, there is the risk of "mission-creep" in which data is "co-opted into broader institutional purposes" (p. 13). Policies should therefore ensure transparency in how the organisation "collect[s] and use[s] data, with whom [they] share it, where consent applies, and where responsibilities for the ethical use of data lie" (University of Edinburgh, 2018, p. 2). Examples of this transparency

can be seen in the University of Edinburgh's documentation (2018, p. 3), which states that "data generated from learning analytics will not be used to monitor staff performance, unless specifically authorised following additional consultation," and in the University of West London's policy (2016, p. 3), indicating that LA "will not be used as a form of student assessment or to influence the marking of any student assessments."

Policies also need to recognise that any presentation of data, and decisions made from that data, can have unforeseen negative consequences, regardless of intention. Schumacher and Ifenthaler (2018), for example, draw attention to students suffering "demotivating consequences due to visualization of poor performances or comparisons with fellow students" (p. 70), while the University of West London (2016, p. 3) states that LA "must not be used to limit the [institution's] or the students' expectations of what they can achieve." Just as students may learn to 'play the game' and work the LA system, Selwyn (2019, p. 13) suggests that careless use of data might mean that

> [t]eachers will work to "second guess" what the system will reward; for example, "teaching to the algorithm" in a similar manner to the well-established phenomenon of "teaching to the test." When working in educational settings overlaid with analytics, it is inevitable that teachers and students will focus on the things being analysed.

It is reassuring to see that the Tertiary Education Commission's comprehensive Ōritetanga learner analytics ethics framework (2021) draws on many of the principles previously outlined in the literature and highlighted here, and incorporates considerations unique to New Zealand's bicultural context.

CONCLUSION

The Tertiary Education Commission's framework comes at a time of increased interest in LA. If institutions are considering developing their own LA programmes, the framework has arrived in time to inform the associated policies and practices and, along with other international examples (including the SHEILA project in Europe), outlines the steps for establishing successful and ethical LA programmes.

These programmes require policies and strategies which are developed in collaboration with all stakeholders, before jumping feet-first into the data. It is not about creating 'ideal' learner behaviour. Instead, the 'gold' within learning analytics is found when it informs learning design to help educators and institutions provide better learning experiences.

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EDUCATIONAL EQUITY AND THE APPLICATION OF TECHNOLOGY: A CRITICAL APPROACH

Terri Brian

INTRODUCTION

The provision of equitable learning opportunities and outcomes to increasingly diverse learner populations is an ongoing global challenge (UNESCO, 2014). In Aotearoa New Zealand, this challenge is particularly significant where a large achievement gap is apparent, and frequently related to ethnicity or socio-economic background. Despite numerous policy interventions by successive governments, data shows that those from minority populations are still over-represented by inequalities in educational opportunity and achievement. As a result, the need for education that overcomes socio-economic and socio-cultural barriers and differences continues to present a critical challenge for policymakers and educators. For many, the additional delivery options provided by technology, are seen as a means of providing more equitable opportunities and outcomes within tertiary education. The implementation and application of this technology, however, is in many cases not supported by robust pedagogical knowledge, or by a thorough understanding of the social and cultural contexts in which it operates. Despite widespread and enthusiastic rhetoric about its use in educational and social reform, the integration of educational technology has, to date, had a relatively superficial impact on equity or learning and teaching practices and, instead, has often tended to be applied to the reworking of the status quo.

This article suggests that, although educational technology is a powerful tool in the promotion of equity, its application must be accompanied by an understanding of how it supports, enhances or alters learning opportunities and power relationships. If we apply a critical theory perspective to the use of technology in tertiary education, we are able to see it as a catalyst for empowerment, rather than as a pre-determined policy imperative. This transforms it into a tool that can support equity and social change, and lays the foundations for pedagogies that support the empowerment of marginalised and excluded learner populations.

THE CURRENT CONTEXT

According to Bolton (2017), an equitable education system is one where all learners, regardless of ethnicity, culture, socio-economic status or ability, can succeed. This may mean that previously excluded populations are provided with educational opportunities to enhance their lives and employment prospects. Alternatively, it may involve redressing imbalances in the types of learners attracted to educational institutions. Educational equity is defined by the OECD in terms of fairness and inclusion. Fairness ensures that personal and social circumstances do not prevent learners from achieving their academic potential. Inclusion requires the setting of basic minimum educational standards and outcomes, to be achieved by all learners regardless of background, personal characteristics, circumstances or location (OECD, 2008). UNESCO (2015) identifies educational equity as an important global priority in the promotion of a vision of holistic, lifelong learning. Within this vision, equity is achieved, firstly, through the advancement of inclusion and the reduction and elimination of disparities in educational outcomes; and, secondly, by sustaining a focus on equipping people with the skills, knowledge and values necessary to obtain satisfactory employment and participate as national and global citizens. The need for

safe and enabling learning environments, consisting of sufficient numbers of qualified and motivated educators, and supported by management, technologies and infrastructure, is also recognised. Importantly, promoting and achieving educational equity is not about treating all learners exactly the same, but about providing interventions that promote equality of opportunity (Salmi & Bassett, 2014).

In Aotearoa New Zealand, the objectives of the National Education and Learning Priorities (NELP) and the Tertiary Education Strategy (TES) reflect these definitions, and seek to prioritise learners who, historically, have not been well served by the current system (Ministry of Education, 2020). Participation in education is also seen as key to redressing regional imbalances where fragile local economies, higher rates of unemployment, greater numbers of at-risk children and young people, and housing affordability are significant issues (Centre for Social Impact, 2018). Educational institutions are encouraged to focus on ensuring that places of learning are inclusive and barrier-free, taking account of diversity in language, culture and identity, and developing staff to provide high-quality learning experiences that support equitable outcomes and opportunities (Ministry of Education, 2020).

Over the past few decades, however, and despite the various projects and policies of governments and other institutions, only fairly limited advancements in educational equity have resulted. Although the OECD's latest economic survey of Aotearoa New Zealand shows an increase in the proportion of tertiary-educated adults, and attainment similar to the OECD average, there are ongoing concerns about disparities in educational outcomes. These disparities are substantial, and especially evident at degree level and higher. They also include strong intergenerational persistence and ethnic inequalities (OECD, 2020). For example, although tertiary attainment rates have been rising for Māori and Pasifika learner groups, they are not improving at the same pace as those of other ethnicities (Ministry of Education, 2021).

The stories behind many of these outcome and achievement gaps, are often related to the challenges associated with accessing education. Salmi and Bassett (2014) suggest that equity and access are terms commonly used interchangeably, but that equity is not created by just entering tertiary education. It involves having equal opportunities to select from a range of existing institutions and academic pathways, and being equipped to persist, progress, and complete programmes of study. Within most tertiary institutions in Aotearoa New Zealand, learner populations include both school leavers and those who may have been away from formal education for some time. Many already have extensive whānau and employment responsibilities, while some live in isolated, rural or semi-rural communities (Alexander-Crawford et al., 2015). Research has shown that the need to maintain employment, leave home, change location or incur travel costs are all significant deterrents or barriers to accessing tertiary education, and can negatively impact learner retention and success (Stone, 2017). Additionally, inadequate academic preparation and support, competing whānau interests, cultural capital, and personal uncertainties are potential obstacles to successful participation (Eggins 2010).

In response to many of these challenges, the use of digital technology is seen as key to expanding educational opportunities, and enabling tertiary learners to balance study with other demands and commitments. Inarguably, the increased options provided by online and flexible programme delivery can offer those in remote locations, or with other existing responsibilities, the chance to update their knowledge and skills while saving costs and allowing a more workable schedule (Park and Choi, 2009). This line of thinking has led many policymakers and institutions to attempt to use technology to close persistent gaps in access, in the belief that it will mitigate disadvantage and increase educational equity (Eynon & Geniets, 2016). Additionally, in our current context, we are encountering the massive disruption brought about by the global pandemic and, visions of digitally-enhanced and socially-distanced education have hastened the transition to online learning solutions. Silva et al. (2021) however, point to the ways in which this unexpected use has demonstrated the need to guarantee conscious and democratic access to technology-based education. It appears that the focus on the use of educational technology, not only raises new opportunities, but also runs the risk of emphasising exclusion for often already marginalised, learner groups.

DIGITAL LITERACY

In addition to difficulties associated with participating in tertiary education, marginalised and vulnerable members of society are more likely to experience barriers related to the access and use of technology (Gonzales et al., 2018). In Aotearoa New Zealand, lack of internet connectivity and appropriate hardware predominantly affects those in rural or low socio-economic communities, such as Māori and Pasifika, people with disabilities, the elderly, refugees and migrants with English as a second language, and people with limited educational experience (Hartnett & Fields, 2019). Eynon and Geniets (2016) suggest that, although the term "digital divide" has historically been used to describe these observed inequalities, it suggests a simple dichotomy of those who have access to technology and those who do not. It also assumes that those who have access are able to use it effectively. Schwenger (2016), suggests that this framing does not acknowledge the implicit digital literacy demands within many online learning activities and courses, and therefore, some learners may experience these as a barrier to success.

Studies of technological change and social inequity have identified correlations between differential access, usage, attitudes and skills, which in turn affect factors such as life chances, civic engagement, social capital and education (Robinson et al., 2015). According to Hartnett and Fields (2019), when individuals and communities are given equal access to technology, it is digital literacy that sets apart those who have the resources to take advantage of its benefits. There are numerous definitions of digital literacy, however Buckingham (2007), describes it as more than the ability to access digital tools, or use them for learning, and suggests that it also involves developing a broad, critical understanding, that addresses their social, economic and cultural implications.

In tertiary education, an imbalance is often reflected between learners' often well-developed digital technology skills and their approaches to the use of information. Young, seemingly technologically proficient learners are often perceived to be "digital natives", raised in a world surrounded by digital technology and, assumed to be comfortable and familiar with how to use it (Prensky, 2001). In response to this accepted technical capability, we often expect learners to be able to apply often fairly complex digital literacy skills, or to be capable of improving them independently (Drew & Forbes, 2017). Ultimately, Buckingham (2007) believes, the elements of digital literacy should be seen as essential in the context of democratic participation, equity and social inclusion and adequately scaffolded and extended throughout curriculum content and design.

PEDAGOGY

Over the past few decades, educational theory has undergone a paradigm shift whereby the application of new and emerging pedagogies has provided possibilities for social and learner-centred learning opportunities. Within these paradigms, learning environments are defined by authentic, discussion-based, inquiry-focused and collaborative activities that support experiential learning and critical reflection (Girvan & Savage, 2010). Although digital tools and technologies have immense potential to support these epistemologies, they require educators to possess the necessary expertise and pedagogical knowledge to use them effectively (Papendieck, 2018).

Trewern and Wenmoth (2008) suggest that understanding of the use of educational technology as an equity tool is not widespread. Despite its rapid development and permeation, pedagogical practices, especially in tertiary education, have largely remained unchanged. According to Sims (2017), far from being used as tools to promote equity, many technological innovations have merely supported existing learning and teaching practices, used for flexibility or convenience rather than for the development of strategies that facilitate deeper learning. Clemmons et al. (2014) believe this is the result of initiatives and professional development programmes that are often focused on the technology itself, rather than on the pedagogies that support its application.

Pedagogical approaches identified as useful for promoting educational equity are largely based on social-constructivist models that aim to integrate learners' cultural attributes with the collaborative construction of knowledge. They also maintain a focus on the distribution of power; access to materials and resources; and equal rights and opportunities

in all learning environments. Interaction forms an essential part of a social-constructivist epistemology, defined in an online environment by activities that support experiential learning and critical reflection (Eisner, 2005). This approach may represent a fundamental change in the roles and identities of learners and teachers, and can be difficult to change, as these models are often deeply embedded in institutional culture. The effectiveness of these approaches are also influenced by the design of the systems and programmes that support them (Girvan & Savage, 2010).

Philip and Olivares-Pasillas (2016) suggest that without adequate consideration of pedagogy or the systemic inequities that exist within tertiary education, the introduction of new technologies leads to the same cycle of unfulfilled promises of digitally-inspired reform. The meaningful use of educational technology therefore, requires and implies transformations in our own roles, as well as in those of learners and the wider community, and in the criteria that determine and validate the processes of learning, teaching and the production of knowledge (Strydom et al., 2021).

A CRITICAL THEORY PERSPECTIVE

Historically, issues relating to widening educational access and ensuring the success and retention of under-represented groups are deeply rooted in history and culture and contained within complex social, economic and political structures (Altbach et al., 2009). As a framework for examining these issues, critical theory exposes and challenges some of the biases that may undermine and alienate learners. Crucially, it focuses on creating transformative action that leads to social change, and emphasises the provision of knowledge and understanding necessary to free people from oppression (Brookfield, 2005).

In the later part of the twentieth century, critical theorists (e.g. Freire, 1972; Giroux, 1980; McLaren, 1994), assisted in the development of frameworks and pedagogies relating to education, social transformation and personal freedom. These theorists argued that the primary purpose of education is to enable learners to develop awareness and agency, in order to liberate themselves from oppression. Freire (1972) in particular, challenged traditional methods and systems of education, and observed the ways in which these tend to reflect and favour those that understand them. Within these systems, challenges faced by marginalised populations are generally viewed as inherent and, because underlying issues are not recognised, existing inequities are replicated. As a result, learners from dominant cultures and groups continue to succeed, while those who are marginalised continue to struggle (Rossatto, 2005). In general terms, applying a critical theory paradigm to educational equity, involves identifying, challenging and changing the way in which dominant ideologies result in the acceptance of marginalisation and oppression.

According to Wang and Torrisi-Steele (2015), although a critical theory perspective is often found within disciplines such as pedagogy and curriculum studies, it is less commonly applied to the use of educational technology. Selwyn (2015) suggests that, viewed through a critical lens, the use of technology in education, can be seen as, not only an effective tool for enabling equity through social change, but also as the result of power relations and multiple contradictory interests. Within tertiary education, a pervasive determinism commonly misaligns the use of technology with the quality and effectiveness of learning and teaching, and it is therefore attributed with an intrinsic quality, that diverts attention from how it is being applied. These applications are, additionally, often driven by the needs of the more dominant and powerful groups in society. In this way, far from being neutral, educational technology helps to convey values and biases that reflect its development and carries with it, certain conceptions about learning and teaching resulting from the various interests of those involved in its design (Wang & Torrisi-Steele, 2015).

In order to create opportunities for equitable achievement in tertiary learning environments, there remains a need for the transformation of technology-based delivery techniques towards those that empower learners and increase their chances for success. By applying a critical lens, we can see the use of educational technology as a tool to support learners in the development of the knowledge and skills they need to achieve equity. This epistemology, requires that we understand how dominant educational, social and political systems shape learning

and understanding. We must also be willing to identify and challenge our own assumptions about how we use educational technology, and its role in enabling equitable outcomes and achievement. In this way, we can develop and apply the appropriate pedagogical knowledge and tools to address these issues within our practice (Brinkmann & Tanggaard, 2010).

CONCLUSION

It is clear that, as educators, we need to be taking an active role in empowering learners, and enabling them to create social change. A better understanding of the systemic and pervasive causes of inequity in wider society is needed, however, before we can begin to address those that have manifested themselves within tertiary education. Equality of opportunity, and making learning available for all, without discrimination, is a concern, not least because of the way in which education and knowledge impact on people's life opportunities. A commitment to educational equity requires ensuring that all learners have the requisite knowledge, skills and competencies to be successful; that individual circumstances do not create obstacles to achieving potential; and that all learners are able to achieve a minimum level of skill acquisition. Achieving this, involves closing gaps in access and participation, and ensuring that all learners, irrespective of their economic or socio-cultural backgrounds, are provided with well-designed learning tools and experiences.

While the inherent potential of educational technology as an equity tool is powerful, its benefits should not be presumed and, its effective use necessitates a pedagogical understanding beyond the boundaries of the digital divide. This involves expanding our educational repertoires and designing learning opportunities that, not only improve access and participation, but also help learners to make sense of multiple sources and representations of knowledge. A critical approach to teaching practices, and to the use of technology in the learning environment, can support us to question and develop our knowledge of equity-related pedagogies. This, in turn, helps us address the underlying causes of existing inequities, and their accompanying social, cultural and technological complexities.

Terri Brian lives in Whangārei in Tai Tokerau Northland and recently completed her Master of Contemporary Education, where she focused her final project on educational equity. Terri is interested in exploring how technology and the application of contemporary pedagogies and practices can help to improve educational opportunities and outcomes.

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A PEDAGOGY OF CO-CREATION: WHAT IMPROVEMENTS DOES CO-CREATION BRING TO VOCATIONAL LEARNING ENVIRONMENTS?

Nathan Laurie and Amy Benians

An individual can't create anything itself. All of our dreams come true with the cooperation and co-creation of other souls (Hashmi, 2014).

INTRODUCTION

We start from the premise that education involves more than achievement of academic outcomes, development of graduate capabilities and delivery of 'work-ready' graduates to our ever-needy industries. There are also profound social and personal outcomes to which our students aspire – to foster fulfilling relationships and make meaningful contributions to their communities that will ultimately enhance the quality of living in our societies.

In this article, we describe how co-creation projects provide rich opportunities for students' social and personal development. In an editorial on Māori education, Russel Bishop describes the moral imperative by means of which educators are asked to take a three-layered view, where educational outcomes include social and personal outcomes, as well as academic outcomes (Bishop, R., editorial in Timperley et al., 2007). Personal education outcomes include self-actualisation, improved confidence and self-esteem, and enhanced career prospects. Social outcomes include enhanced teacher and peer relationships and development of interpersonal and networking skills. Suffice to say, academic outcomes (discipline-specific knowledge, acquisition of new skills and graduate capabilities) are given the highest priority by most education providers, while the priority given to social and personal outcomes is dependent on the importance placed on these by individual educators.

For educators wishing to extend their repertoire and engage with students in co-creation or partnership projects, we present the pros and cons of these pedagogical approaches and arrive at partnership learning communities as a preferred model. This article is a reflection on our shared experience as a staff member and a student; in it we hope to capture examples of best practice co-creation in vocational education and generate a sense of optimism that barriers to working in student–staff partnerships can be overcome.

BACKGROUND

We are now entering a student-centred era in tertiary education in Aotearoa New Zealand, ushered in by the reform of vocational education, resulting in the merger of 16 Institutes of Technology and Polytechnics into a single national institution, now known as Te Pūkenga – New Zealand Institute of Skills and Technology. A primary objective of Te Pūkenga – New Zealand Institute of Skills and Technology is to operate with the learner experience at the centre, aiming in part to "ensure the unique needs of ākonga, including Māori, Pacific Peoples, disabled and other under-served learners, are met through co-design with ākonga, their whānau and our stakeholders"

(Te Pūkenga, 2021). One way to achieve this objective is to keep the "Student Voice" at the forefront. Another way that we explore in this article is through staff–student partnerships.

Here we describe the development of a staff–student partnership to create the inaugural Student Voice Symposium (SVS), Te Reo Tuatahi, at Otago Polytechnic (OP) in 2020. A subgroup of OP's Learning and Teaching Development (LTD) team worked with third-year OP students undertaking internships to deliver the SVS in September 2020. This co-creation project incorporated aspects of professional practice into the students' learning environment. By modelling professional behaviours and creating a trusting, high-performance environment, the team observed that the students responded well to LTD's non-hierarchical approach.

In 2020, former OP student Nathan Laurie was in his final year of the Bachelor of Applied Management, with an event management major. As his research project, the SVS was a collaborative effort between OP students and staff; it displayed concepts of collaborative learning, experiential learning, partnership, critical thinking and exploring what it means to be a student in the modern world. During this process, Nathan was encouraged to co-author a research article with Amy Benians of LTD on co-creation between staff and students in vocational education.

The aims of this reflective article are to:

1. Investigate the pedagogical models relating to co-creation in contemporary research.
2. Reflect on shared experiences as a staff member and a student in order to capture examples of best practice co-creation in vocational education.
3. Finally, share the findings and recommendations of Nathan's internship report on SVS.

We begin by exploring the benefits of co-creation projects to students, staff and the wider institution. Next, in the discussion section we reflect on the pedagogical models that have enabled co-creation in our vocational learning environment. Then, we consider a model of "partnership learning communities" in supporting both staff and students undertaking co-creation projects and internships, which offer the advantages of being scalable, inclusive and sustainable.

MAKING THE CASE FOR CO-CREATION PROJECTS AS STAFF–STUDENT PARTNERSHIPS

The benefits of co-creation projects in vocational education – firstly, for students, then staff and, finally, for the wider institution – are discussed in this section.

In considering co-creation projects – such as in event planning, research and community-based initiatives – we consider these as part of a broader set of staff–student partnerships in which students can engage as partners with academic staff in higher education (Healy et al., 2014). In vocational education there is a heavy emphasis on producing work-ready and capable graduates, and opportunities for work experience are built into OP's programmes of study. These include **field-based education** (clinical and industry placements, occupational therapy fieldwork, and so on) and **work-based learning** (such as Aotearoa New Zealand's managed apprenticeships, or the independent learning pathways for in-work learners offered by the College of Work-based Learning). Hence, it is necessary to distinguish these forms of work experience from co-creation projects and staff–student partnerships, in which the work experience occurs within the educational setting.

Benefits for students

Co-creation projects need to be inbuilt into programmes of study and incorporated into existing curricula and assessments. This has been done for the Bachelor of Applied Management final-year internship, which resulted in the successful SVS co-creation project. Co-creation projects between OP's students, local businesses and community

groups have led to many exciting collaborations over the years – for example, the Interactive Experience Project (2018) between the Otago Museum and Communication Design Year 3 students. Similar co-creation projects are underway at other Institutes of Technology and Polytechnics such as the Southern Institute of Technology (Cathcart, 2019).

Like field-based learning and work-based learning, co-creation projects allow students opportunities to build their graduate capabilities, albeit in a familiar and safe environment, and to develop interpersonal and professional skills by creating a workplace-like learning environment. Clearly, building on student capabilities or 'soft skills' will support their future employability and professionalism. Other aspects of professionalism are learned – for example, time-keeping, being proactive, accountable and self-managing, and taking initiative and responsibility for the success of a project.

Benefits for staff

At the moment, we find ourselves in a neutral predicament characterised by a general apathy towards participation in community-building events that may arise from co-creation projects. Students may see these as surplus to their core education, and many staff are reluctant to take on extra-curricular commitments. To make the case for co-creation projects and engage staff in these important learning opportunities, benefits for staff are outlined below. Furthermore, in the discussion section, the theoretical basis on which learning should occur is examined for co-creation projects and internships through the lens of an alternative pedagogical framework.

Students can engage as partners with academic staff in many areas in higher and tertiary education, with multiple benefits for staff:

- Where students are engaged in learning and teaching – for example, by co-construction of an assessment – the student is given greater visibility into the inner workings of academia and learning and teaching, and achieves a fuller understanding of what was assessed and the purposes of assessment (Nister & Abd Latif, 2020).

- Where students are engaged in curriculum design and pedagogic consultancy, the students' involvement exceeds mere end-of-course evaluations; they become change agents. In an initiative at the U.K.'s Birmingham City University from 2009 onwards, students (who were paid for up to 100 hours) were involved in creating new learning resources, developing content in new areas and evaluating existing innovations (Nygaard at al., 2013).

- Where students are engaged in inquiry-based research projects, staff can benefit from significant advances in their areas of discipline-specific research. In such a model, students become co-inquirers where staff take the lead, but students are active collaborators. Different levels of student autonomy in directing the research and deciding on the activities engaged in have been explored, creating a model where "student-framed inquiry" is the preferred mode (Levy, 2011, p. 38).

- Where students are engaged in partnership with staff in the scholarship of teaching and learning (SOTL), an academic can extend their own research, hear a different voice and gain a broader perspective. SOTL involves taking a scholarly approach to ensure that one's teaching is research-informed, evidence-based and shared with one's peers through publication. Trigwell and Shale (2004) have reimagined SOTL with students as our collaborators, "not just as objects but as connoisseurs" (p. 528) of teaching and learning. Tai Paseta describes her role as a learning and teaching specialist at an Australian university where she engaged a group of students to organise, scribe, then reflect on an annual assessment symposium (they were paid for 60 hours each but, in reality, did much more). In her dual role, firstly, to support academic staff to adopt an inquiry-based, active learning and teaching approach, and secondly, to support student learning overall at the university, she reflects that "[t]hat disposition – caring for student learning" was the glue that held her network of fellow academics together (Paseta, 2013).

From a student's perspective, if an educator has a particular 'kaupapa' or knowledge that they wish to explore with students – for example, a social event or research question – the best approach is first to engage with students to gauge their interest in the given topic. One critical step is to discover the mutual curiosity, passion or interest which should pave the way to uncover aligned values and aspirations among the group. Another critical step for educators is to highlight their own challenges with learning and teaching; showing their vulnerability to a trusted group of students should balance the inherent scales of power that typically lean towards the educator or lecturer.

Benefits for the institution

In marketing terms, value arises from co-creation projects at two stages: first, during co-production and, secondly, during interactions between a consumer and the finished product –the "value-in-use" (Dollinger et al., 2018, p. 211). Co-production between teaching staff and students – for example, in the design and development of an event, product or research project – delivers value through the exchange of knowledge, increased interactions with teaching staff and the perception of achievement, empowerment and equity engendered through these interactions. The "value-in-use" of the end-product is enhanced when co-production has occurred as a result of the experience of personalising a product to one's own requirements, and from interactions with the organisation (Dollinger et al., 2018).

In educational terms, we often consider the value-in-use attached to a student's certificate, diploma, degree or postgraduate qualification – has it led them into employment or further study? With student partnerships and co-creation projects, value-in-use is amplified due to the ongoing relationships built on previous interactions during co-production. These can potentially offer elements of innovation, shared learnings and production of further outputs. Institutions engaging in co-creating educational offerings need to develop an awareness of these outputs, to incorporate them into their data collection and showcase them. In addition to student benefits, co-creation projects offer potential enhancements of an institution's reputation, culture and community involvement.

As an example, along with Nathan's internship report, a second report on SVS was written to provide recommendations to Te Pūkenga – New Zealand Institute of Skills and Technology and the Ministry of Education. These two reports provide current examples of co-creation and the learner experience. From Nathan's internship report on how events can enrich the learner experience at OP, valuable recommendations were made, which included:

1. Co-creating collaborative projects that further develop and enhance the OP community.
2. Recreating the intranet site available to OP students and expanding this to include an online calendar of activities available to students.
3. Hiring or assigning an OP staff member as dedicated liaison with the student union for more effective communication.
4. Establishing an OP events committee to meet regularly with Otago Polytechnic Students' Association to discuss short-term and long-term event plans.
5. Assisting the student union through improvements to funding, integration and communication to provide more meaningful events.

While highly specific to our current context, these recommendations provide a sound basis for future event co-creation projects at OP. They are one of many positive outcomes arising from this successful staff–student partnership. Other outcomes include staff and student satisfaction in bringing to completion this event co-creation project, amplification of the Student Voice at a time of change in the vocational education sector, and the enhancement of the reputation of OP as a student-centred and forward-thinking institution in supporting the Student Voice.

DISCUSSION

In this section, we draw on our experiences of co-creating the SVS to help inform future co-creation projects in Aotearoa New Zealand's vocational education sector. During the co-creation process, we adopted a **collaborative learning pedagogy**, in which students and learning and teaching specialists from the LTD unit worked together to share knowledge and learn from each other. This happened as we created a new website, planned a schedule of speakers and workshops and conceptualised the inaugural event. The two-day symposium, planned for September 2020, was offered both face-to-face and online, and would have been moved wholly online if COVID-19 restrictions had prevailed. Fortnightly meetings increased in frequency to weekly, as more responsibility was allocated to students to action items. In contrast, a more teacher-led pedagogical approach was taken with second-year Communication Design students, who were tasked with designing the SVS logo as part of their brand design workshops. This involved taking a **cooperative learning approach**, in which Communication Design students worked with SVS students as clients within a predetermined brief and a teacher-defined end goal (Dooley, 2008).

When designing learning environments for co-creation projects, it is worth considering using both co-operative and collaborative learning, as each draws different responses from the students involved. The collaborative learning space brought passion and enthusiasm from students, who remained committed, while the co-operative learning environment merely encouraged students to make a finite contribution, with no ongoing expectations from them for the rest of the co-creation project.

Event co-creation projects can be seen in the tradition of John Dewey's **experiential learning** (1938) which pairs an active approach in which students are involved in direct experiences with guided reflection, in which they assimilate learnings from those experiences. The advantage of this pedagogical approach is that educators "increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities" (Association for Experiential Education, 2013, para. 2). In this way, experiential learning experiences have the potential for empowerment of learners, where they not only develop enhanced capabilities, but may also be motivated to put these into action in their communities (Shellman, 2016).

Experiential learning also offers a more holistic, deeper understanding of new knowledge, as it involves immersion in real-life experiences, compared to simulated experiences such as scenarios. In his Bachelor's degree in event management, Nathan carried out practice event planning scenarios as well as planning real events. He notes clear differences between the two, mainly where a higher sense of responsibility was present for the real events. The responsibility here was to actual stakeholders and interested parties, so the consequences were more far-reaching than a mere grade outcome. Many more factors needed to be considered, making for a more accurate depiction of the event planning experience. Hence, we conclude that responsibility, accountability and complexity are incorporated into experiential learning when it is coupled with co-creation.

As a final pedagogical model, we structured our SVS planning committee on a **community of practice (CoP) framework**, with a common purpose/passion; mutual engagement in shared tasks; a shared repository or kete of resources; and distinct roles within the community (Wenger, 1998). Fluid membership allowed for a core community and also more peripheral members with a common interest in the SVS, but with less commitment. For example, two third-year marketing students advised, pitched and implemented the social media marketing of the SVS event. As "legitimate peripheral participants" (Lave & Wenger, 1991), they could easily access resources from our shared repository (e.g., SVS logo and branding); they made a strong contribution to marketing the event, but did not need to take further responsibility for it. The core members brought diverse skills and experience which were vital for the success of the student-led symposium, SVS, in September 2020. Positive feedback was received from the around 40 staff members and 70 students who attended, including national student union representatives from Wellington and Nelson, and a senior Ministry of Education official.

Following the inaugural event, we were left to ponder the future. Firstly, how could the Student Voice be elevated, amplified and harnessed in this changing landscape of vocational education? Secondly, how could we improve equity and engage more students in co-creation projects?

In our imagined future, by creating a community of students and staff working in partnership, we could propel the Student Voice forward into an annual symposium, each year informed by data collection, thematic analysis and reflective learnings from previous events. A pedagogical model that supports enduring and sustainable student partnerships, beyond one-off events and projects, is the building of "**partnership learning communities**" based on a CoP framework of creating learning communities of students and staff (Healey et al., 2014). Notably, shorter-duration programmes in vocational education would require newcomers to be inducted into the community by longer-serving members, which would ensure that collective memories of past events are carried forward. In this way, the continuity and sustainability of this event would be ensured by successive waves of committed students and staff.

Our second question asked if we could improve equity and engage more students in co-creation projects. Kuh (2007) found that, while student partnerships in American universities can deepen student engagement, participation in these can be perceived as elitist or "boutique," where rich opportunities for student learning are limited to a select few. The creation of partnership learning communities could address issues of **inclusivity, sustainability and scalability** and improve the equity of future co-creation projects by opening these up to more than just a few privileged students.

- For an inclusive model, the advantages for institutions need to be made clear. By opening partnerships up to more students, educational institutions benefit by providing a more equitable student experience, greater opportunities to interact and gain feedback from students, and generate more value through co-creation processes (Dollinger et al. 2018). Notably, staff–student partnerships provide access to the inner workings of educational institutions, which requires an institutional culture of transparency.

- For a sustainable model, student–staff partnerships or co-creation projects need to become part of the curriculum and students' assessments. Otherwise, these projects will not be prioritised by students, staff or institutions.

- For a scalable model, of the pedagogical models discussed above (collaborative learning, experiential learning, etc.), only partnership learning communities afford the scalability that would be required to extend partnerships and co-creation projects to large numbers of students.

Before entering into partnership learning communities, Healey and colleagues (2014) urge us to reflect on issues of power relationships; remuneration, reward and recognition; and identity. These factors all contribute to – or potentially detract from – the quality of the co-creative process and the overall learner experience.

Power relationships

Power imbalances are innate to the student–staff relationship and will persist in partnership learning communities. Tensions may arise if students are co-producing work for their own assessment or an academic's research, requiring them to adhere to academic standards or ethical processes, respectively. Conversely, tensions may be eased when students are engaged with staff to co-create assessments, whereby students are given insights into the subject, learning and teaching, and the role of assessment in their learning (Nistor & Abd Latif, 2020). Because educators typically possess the power in a learning environment, they can also redistribute power and enter a more democratic partnership with students (Fielding, 2011). Through our observations, we believe this can be achieved by educators breaking down the status quo, showing their vulnerabilities and treating their students as equals in a co-creative context.

Additionally, this can contribute to culturally inclusive learning environments. Bishop and colleagues have found that educators who proactively build power-sharing into their practice are better able to engage previously marginalised students, who can then "more successfully participate and engage in educational systems on their own culturally constituted terms" (Bishop et al., 2009, p. 736).

Remuneration, reward and recognition

In our vocational educational context, clearly not all internships, fieldwork placements, work-based learning and co-creation projects are created equal! While some provide multiple opportunities for networking, learning and self-promotion, for others the work experience consists of more physical, practical work. Remuneration should be proportionate to the physical work involved. Like employees who are motivated by sufficient reward and recognition for their work, students are in training to become high-calibre employees, so their understanding of reward and recognition should be fostered through their work experience.

Another related issue is future employers' perceptions of students' work experience, where external work experience is more highly valued than work experience acquired within an educational institution (Irwin et al., 2019). The relevance of the work experience was also found to be an important factor. These are important considerations for our learners, who need to consider what work experience to choose, and where to take it.

Identity

Co-creation projects and staff–student partnerships tend to occur as students approach the end of their studies and start to consider the prospect of careers. As with many dramatic changes in life, this places the student in an identity crisis as they transition into a "liminal" phase between a student identity and a new, emerging identity. Named the "liminal phase" after the waxing phase of the moon, this represents a challenging time as students need to appropriate new professional identities (if starting work), move between social groups or attempt to resume further academic studies. Support for students' emergent identities has been shown to occur within communities of practice (CoP) and related partnership learning communities (Islam, 2008). This bolsters our preference for such models, where our students need continuing support from staff and their peers as they move from education into a brave new world of work.

Islam (2008) discusses identity and rituals in organisations, collating studies which link the concepts of individual and collective identity to a sense of commitment, increased motivation, group loyalty, and even the driving force behind effective practice. Through serving a collective purpose, CoPs provide a sense of direction to individuals, hence strengthening their career goals. They were also found to help the individual in realising their identity in relation to others, hence enhancing their interpersonal skills through working in a team (Islam, 2008).

Ultimately, this notion of working with others towards a greater goal is a cornerstone of many career fields, from marketing and construction to sports and social services. We surmise that students would be far more ready to enter team-oriented work environments if genuine processes of co-creation were implemented in their curricula.

CONCLUSION

In this article we have considered pedagogical models that support student learning in co-creation projects at OP. While co-operative and collaborative learning have their relative merits (Dooley, 2008), experiential learning forms the foundation of all real-life learning models (Kolb, 1984; Matsuo, 2015). Alongside experiential learning, our preferred model is to create sustainable, scalable, inclusive and equitable partnership learning communities, which harness the trusting, supportive structure of a CoP framework. For staff, these communities offer increased interaction with students and greater opportunities for productive exchanges, such as engaging in SOTL with students (Trigwell & Shale, 2004). For students, acts of co-creation present the possibility to learn from a range of dedicated staff and student peers, thus ensuring a breadth of knowledge and skills, an openness to a wider range of interpretations and deeper learning than that acquired in a traditional format.

Lastly, as educators move from a mindset of the "student as consumer" to "students as partners," we are reminded that both parties are partners in a reciprocal learning relationship, Ako, in our bicultural context of Aotearoa New Zealand.

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RECOGNISING A WORLD OF EXPERIENCE: EMBRACING AKO WITH REFUGEE-BACKGROUND STUDENTS

Amber Fraser-Smith

Under moonlight
An unknown route
A sky the colour of intense anxiety.

Behrouz Boochani (2018, p. 1)

The words above, from former refugee and author of *No Friend but the Mountain*, Behrouz Boochani, evoke a sense of the journey a refugee must take before arriving in a new land. It is a journey that few of us can imagine – with many experiencing insecurity, fear and trauma from years of war or persecution, followed by time spent in refugee camps or in forms of temporary accommodation in the period between being forced to leave their home country and that of arriving in their new country. Yet, once they arrive in their countries of resettlement, the journey is far from over. Refugees often need to learn a new language, a new culture and build new lives. For many, this means having to gain new skills and qualifications – usually by studying in Western tertiary institutes.

"We're setting them up to fail" (Harris & Marlowe, 2011, p. 189). This comment, made by staff members at an Australian university, demonstrated concern about the lack of specifically targeted support for refugee-background students[i] who arrive without the necessary skills for academic study in Western tertiary settings. Unfortunately, these were not lone voices – an increasing number of studies (e.g., Baker et al., 2018; Hannah, 1999; Kong et al., 2016) reveal a similar concern from staff and students in tertiary institutes around the world. The inequity that refugee-background students experience when entering this new environment risks further disempowering an already vulnerable group.

My initiation into the world of teaching refugee-background students coincided with Dunedin becoming Aotearoa New Zealand's sixth refugee-settlement city in 2016. It also coincided with my search for a thesis topic for the Master of Educational Psychology degree that I had started a couple of years earlier. As an English for Speakers of Other Languages (ESOL) lecturer at Otago Polytechnic, my role involved teaching general and academic English to some of the new settlers who had arrived from Syria and Iraq via transit countries. Now they had found a new home, my students had dreams of an education that would allow them to find good jobs, build new lives and support their families, while contributing to their new country. They came with skills and knowledge from their previous lives, yet with the exception of a small handful, one by one they started dropping out of their mainstream courses. Some of them never even started their studies, fearing that they would go down the same pathway, experiencing stress and failure. As I saw their dreams disintegrate, I realised that I – and the education system I was part of – had not adequately prepared them for the path ahead, and I knew that I had to start looking into ways of supporting them to get the education they deserved.

THE RESEARCH STUDY

Despite a growing call for institutional and governmental support in order to provide a more equitable chance of success (e.g., Hannah, 1999; Harris & Marlowe, 2011; Joe et al., 2011), refugee-background students are not recognised as an equity group by the New Zealand government. A couple of universities had committed to providing equity within their own institutes; however, the Ministry of Education showed little sign of making this an official policy. In the meantime, my students were being unfairly penalised while we waited for any changes to happen, if indeed they ever would. I knew that I had to look into ways to empower myself and my students to receive the education they needed and – as permanent New Zealand residents – had the right to receive. However, I realised this was not something I could do alone, so I enlisted five Middle Eastern students to take part in two focus groups and an action research project looking at the ways in which ESOL teachers could best support the successful transition of refugee-background students from English-language classes into mainstream tertiary studies. My hope was that we would explore different ideas and activities to incorporate into the English-language curriculum and that in doing so, we would identify the skills and knowledge needed to help refugee-background students succeed in their mainstream studies. At this stage, my focus was on how teachers could help students. It was not until later that I realised that my students were about to become my teachers.

Seeking to uncover my students' narrative, I took a qualitative approach to the research; action research methodology was deemed most suitable by my supervisors, who pointed out the need for more practitioners to be involved in research. I was further encouraged by Greenwood and Levin's description of action research as a way of building a "better, freer, fairer society through collaborative problem analysis and problem solving in context" (2006, p. 3) and by O'Leary (2014), who added that it has particular appeal in education given its ability to provide "a collaborative research approach that could empower stakeholders to improve their own practice, circumstances and environments" (p. 167).

ACKNOWLEDGING THE CHALLENGES

When I considered the challenges faced by refugee-background students entering Western education systems, they seemed almost overwhelming. They included the need for new knowledge and skills (such as understanding how much time and work was required in terms of independent study), dealing with different assessment types, writing academically and managing time effectively (Joyce et al., 2010), as well as learning to think critically rather than simply accepting the knowledge given by teaching staff (Chang et al., 2010).

For many refugee-background students, these issues are compounded by other challenges, including adapting to new technology (e.g., Ben-Moshe et al., 2008; Kong et al., 2016), finding the right course and career advice (Ben-Moshe et al., 2008), lacking support and understanding from lecturers and support services (Baker et al., 2018), and having to juggle numerous external priorities and manage finances (Silburn et al., 2010).

Having sufficient English-language skills to deal with course requirements, as well as to communicate with staff and other students, was a major challenge. Despite meeting the English-language entry criteria, many refugee-background students report that language is a significant barrier to success (Kong et al., 2016). The problems associated with language included coping with the amount of course reading and subject-specific vocabulary (Hirano, 2014; O'Rourke, 2011), which can be particularly difficult for those who have not had adequate exposure to printed text during their childhood (Stanovich, 1986).

In an Aotearoa New Zealand context, O'Rourke (2011) found that the key issues were "weak academic English, coupled with good spoken English; lack of cultural and social capital appropriate to tertiary study in Aotearoa New Zealand; trust and safety issues rooted in refugee experience trauma; [and] lack of a sense of belonging" (p. 28).

Most of the previous research on refugee-background students in tertiary settings centred on students who had either moved on from secondary school or who were studying as young people in universities. In contrast,

my students at Otago Polytechnic ranged in age from 18 to their mid 50s and many of them had been out of the education system for a decade or more. In addition, they were dealing with a plethora of issues outside the classroom, including housing and health problems, financial issues, family breakdowns and adjusting to a cold climate. Yet, despite these difficulties, they kept attending classes, believing that this education would give them, and subsequently their families, the hope of a brighter future.

GETTING TO KNOW OUR STUDENTS

> I used to tell my teacher "we have some other things we need to give to you –
> you need to consider our background, our culture – it may help you know how to handle
> different persons". (Burundi student, Onsando & Billett, 2009, p. 7)

This student's view – that teachers did not understand or appreciate their students' backgrounds – was shared by other African students interviewed by Onsando and Billett at a TAFE institute in Australia. These refugee-background students, along with the participants in my study, felt that teachers and other students needed to be more aware of the life experiences, educational background and sociocultural practices that refugee-background students might have experienced and how these might differ from those used in a Western educational setting.

Understanding these different ways of learning and perceiving the world is essential if we are to give our students the best chance of success. Likewise, it is important for teachers to consider the knowledge, experience and characteristics that refugee-background students bring to their studies (Hayward, 2019). This was also recognised by O'Rourke (2011), who pointed out that even though there is great diversity in the refugee-background student population in any country, they tend to share valuable characteristics, such as resilience, curiosity and motivation to succeed. In addition to positive characteristics such as these, refugee-background students bring with them a wealth of experience from their lives before resettlement – both from their everyday lives prior to leaving their country and from the refugee journeys they have made since that time.

During the first focus group, the research participants recognised the following strengths in themselves: adaptability, life experience and a love of challenges. They felt that drawing on these strengths had already helped them adapt to a new culture and could also help them fit more easily into a new educational context. Acknowledging strengths that refugee-background students bring with them is important because these skills and traits can be used to help them succeed within a new education system (O'Rourke, 2011). Furthermore, a focus on strengths can counteract the Western tendency to use a deficit-based perspective in which former refugees are viewed primarily as trauma victims (Hayward, 2019).

THE NEED FOR SOCIOCULTURAL CAPITAL

Despite the need to focus on strengths, it is important to acknowledge that many refugee-background students enter tertiary education without the sociocultural capital necessary for studying in a Western education system. In order to fully understand how this affects their ability to have an equitable education, it is necessary to consider the sociocultural differences that can impact on success. In a literature review of student transitions into higher education, Donnell et al. (2016) found that many researchers drew on Bourdieu's work on cultural capital (1986) in pointing out the inequities that eventuate when members of one group enter the world of another without the same sociocultural capital. While their research did not focus on refugees, Donnell et al. concluded that "[i]nstitutions and their students must come together and recognise their respective roles in transition, and institutional identities, as well as student identities, should shift to accommodate and support these processes of development and change" (p. 19).

This comment alludes to a need for educators and organisations to reconsider how they provide education in increasingly multicultural communities. A start in this direction was suggested by Silburn et al. (2010), who called for teachers to include international perspectives in the curriculum, provide speakers from similar backgrounds to the students, and be aware of the knowledge and skills that refugee-background students bring to their studies.

While changes in the curriculum can help, empowerment is a key concept that needs to be addressed. In his well-known book *Pedagogy of the Oppressed*, Brazilian educator Paulo Freire (1970) stipulated that an acknowledgement and understanding of empowerment is essential, especially when working with those who may have lost power through authoritarian leaderships and displacement. Freire recommended empowering students by using what he termed as a problem-posing method of education, in which students are given the opportunity to find solutions to their own problems. This form of pedagogy transforms the role of teacher and student into the new relationships of teacher–student and student–teacher, who work collaboratively. This is similar to the Māori concept of *ako*, another dialogic method which the Ministry of Education (2013) describes, using ideas explained by Pere (1982), as an inclusive practice where shared teaching and learning experiences take place, resulting in new knowledge and understanding. This method of teaching and learning avoids what Freire called the "banking concept of education" (p. 72) in which the students are simply vessels to be filled with knowledge by the teacher, with no regard for the knowledge they already hold. Instead, using these collaborative approaches, knowledge is shared and aspects of society are critiqued, challenged and changed in order to bring about a fairer and more socially equitable world.

EMBRACING AKO TO OVERCOME EDUCATIONAL CHALLENGES

By using ako with my research participants, I gained a new perspective on the need to incorporate different educational styles into my teaching in order to cater for a much wider range of students and learning styles. None of the participants in my study had experienced education at a tertiary level before arriving in Aotearoa New Zealand – two of them had completed high school, while the other three had left school at around the age of 14. For all but one of them, this meant a gap of between seven and 24 years since they had last studied in a formal learning environment. The students worried that this time away from study would make it difficult to establish new study habits, particularly given the Western focus on literacy and the different learning styles used in the Western and Middle Eastern education systems. They were already beginning to note many of the differences, including that during their schooling they had been taught what to learn, but not how to learn – other than through rote memorisation. One participant feared this had led to an inability to use critical thinking skills:

> We're just memorising, we just try to memorise it to pass the exam. We don't have to do researches [*sic*]. We don't have to think critically. It's like we have to memorise the book and then print it out on exam sheets.

Despite this student's dismissal of her previous learning style as "just memorising," it is important to acknowledge the benefits that different cultural practices, such as rote learning, can bring to the classroom. Chang et al. (2011) described the difference between learning in Eastern and Western contexts as the former focusing on social learning – copying the success of others, rote learning and harmonious values – and the latter focusing on independent learning using innovation and trial-and-error methods. They reasoned that both styles had their place in education, claiming that skills such as rote learning and memorisation typically used by Eastern learners could be used in combination with Western-style problem-solving activities to produce more successful outcomes than through Western methods alone.

AN EXAMPLE OF AKO IN ACTION

A particular concern mentioned by all five participants was how to cope with reading requirements in their future courses. This ignited a discussion about our different experiences of reading. I am an avid reader, a pleasure instilled in me by book-loving parents who read to me for countless hours in my childhood and role-modelled their own love of reading. My students, however, pointed out that reading was not a normalised behaviour in their culture and subsequently they found it difficult to motivate themselves to read in their own time, for either study or pleasure. The exception to this was during Ramadan,[ii] at which time it is a requirement for Muslims to read or recite the Qur'an, the holy book of Islam, an experience described by one participant: "During Ramadan we have to finish the whole Qur'an and we do it, we can do it. We do it at least once. So, we have the reading culture, but we're not committed to it."

These comments on motivation to read prompted a discussion on ways the students could establish new habits, such as reading at home for enjoyment. Three of the participants, who had children at school, felt their children were developing the habit, but that they still struggled to do so themselves – not simply because it was a new habit, but also because of the many other household responsibilities they had to attend to first. A suggestion from one participant was that the practice could be introduced slowly: "When we think about reading the whole book [it] is a huge idea. Maybe some baby steps. One page a day. Only one page a day. Maybe that's the way." This participant also suggested that teachers read stories aloud to their classes so the students could learn correct pronunciation at the same time.

Having a chance to read different types of text was another suggestion given to help promote reading. Two of the participants enthusiastically described the enjoyment they felt when one of their teachers gave them the task of reading a condensed novel in the form of graded readers[iii] that they chose from the library. Reading fiction in this way was a new experience for them and one they found particularly rewarding, as one participant described:

> The novels that we read, they were interesting, and we felt like if you could find a good book that has things that we like to read, maybe that will help. It's like we were watching a movie and seeing it, but we were turning the pages.

This student explained that she was so engaged in the story that her reading became more fluent: "Surprisingly, I read it without translating and could understand it easily."

The participants felt that other ways of increasing their interest would be through access to stories from their own culture translated into English and enjoyed through collaborative reading, where everyone in the class reads aloud with help from the teacher. As another student said: "I think instead of just letting us read on our own, if we're all reading together, it's easier to listen and read and understand and be able to answer the questions." These suggestions point to the need for teachers to have an in-depth understanding of different cultures in order to incorporate more culturally relevant practices into the classroom.

COLLABORATION IN THE CLASSROOM

In my classes, I would encourage students to discuss aspects of their culture and we would talk about these in relation to different aspects of Aotearoa New Zealand culture. I had always considered this practice "sharing cultures" and thought I was learning about the students through doing so. Yet, during this research, when the participants started talking in more depth about their prior learning experiences, their childhood dreams, the difficulties they dealt with on a day-to-day basis and their fears about their future education, I realised I did not really know them at all. I had either not been asking the right questions or I had not been listening actively and as a result, I had missed out on valuable information that could help me teach them more effectively and, subsequently, could help them learn more effectively. As Lenette and Ingamells (2013) warn, "the wealth of experience-based

knowledge that all students bring, and the cultural and professional knowledge that adult, educated migrants and refugees hold, are at risk of being discounted in contemporary learning and teaching processes'' (p. 66).

Utilising the practice of ako, along with Freire's problem-posing method (1970), the participants and I were able to pool our knowledge and subsequently consider ways of bridging the cultural divide. In a collaborative environment, we were able to speak openly and honestly, without judgement, enabling us to identify some of the knowledge gaps that could have a profound impact on their ability to study successfully in the future. For teachers working with students from all over the world, there is a need to avoid making generalised assumptions and instead to actively learn about the knowledge and expectations that each student holds.

Dialogue with the participants helped me to realise the fears they had about various aspects of studying, such as coping with the reading requirements in mainstream education. Yet, in a very short time, they gave me several ideas that I could incorporate into my teaching practice to encourage them to read more and to help them develop a love of reading. Over the ten-week project, the participants and I discussed the challenges they faced, the strengths and qualities they brought to their studies, their past educational experiences and their ideas for how a Western education system could work more effectively. With their honesty, openness and enthusiasm for the possibilities of intercultural best practice, I realised that my students had become my greatest teachers. By encompassing cultural practices, ideas, skills and knowledge, not only can we help avoid the ''intense anxiety'' described by Behrouz Boochani at the beginning of this article, but we can enrich both the learning *and* the teaching journey.

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i.   In Aotearoa New Zealand, refugees become permanent residents on arrival and from that point on are referred to as former refugees. Once they enter study, former refugees are usually referred to as refugee-background students.

ii.   Ramadan is a month-long religious observance in which Muslims around the world focus on fasting, prayer, reflection and community.

iii.   Graded readers are short books with simplified language, designed specifically to encourage reading in English-language learners.

YOUTH IN CARE WITH EMOTIONAL AND BEHAVIOURAL CHALLENGES: ALTERNATIVE PATHWAYS TO TERTIARY EDUCATION

Trudy Pocock and Anthea Fester

INTRODUCTION

This article aims to start a discussion on whether an alternative pathway to tertiary education can be found for New Zealand youth who are in care and who are experiencing mental health and/or behavioural difficulties and, more specifically, conduct problems. Our purpose is to challenge the conventional approaches to education and to propose a method that could support the development of more tailored and effective educational pathways. These proposed, potentially more effective, pathways would see youth in care – who would not ordinarily achieve New Zealand's National Certificate of Education Achievement (NCEA) levels 1 and 2 (due to externalising behaviours which impact progress to tertiary education) – gain success in these qualifications.

EDUCATION IN AOTEAROA NEW ZEALAND: THE CURRENT SITUATION

At a national level, the New Zealand Qualifications Framework (NZQF) recognises that educational achievement contributes directly to Aotearoa New Zealand's economic, social and cultural success (New Zealand Qualifications Framework, 2016). On an individual level, education is an important part of a young person's life, and success within education correlates strongly with positive life outcomes (e.g., Fergusson et al., 2002; Kawachi et al., 2010). From a financial perspective, young people leaving school with higher qualifications are likely to earn significantly more than their peers leaving school with only NCEA level 1, or with no qualifications at all (Ministry of Education, 2020).

Scott (2018) has analysed the employment and further education outcomes of all students in Aotearoa New Zealand from 2009 to 2015. He reports that lower achievement at school correlates with young people being less likely to be in work and, if they are working, they are more likely to be earning less than their better qualified peers. More specifically, he found that more than 40 percent of youth leaving school without qualifications never engage in employment or further education and training; and that seven years after leaving school, nearly 60 percent of this group are not in employment and are earning on average 51 percent less than their peers who left school with NCEA level 2.

But low levels of school achievement are associated with more than financial disadvantage. Fergusson et al. (2004) describe how longitudinal studies conducted by both the Dunedin Multidisciplinary Health and Development Study (DMHDS) and the Christchurch Health and Development Study (CHDS) found that lower levels of academic achievement were "associated with poorer mental health, mainly in terms of high rates of externalising problems, specifically conduct disorder" (p. 121). The DMHDS study included a birth cohort of 1037 children who were born in Dunedin, New Zealand, between April 1972 and March 1973, while the CHDS included a birth cohort of 1265 children who were born in Christchurch, New Zealand, in 1977. Their findings are problematic, as the effects of conduct disorder are experienced not just by the individuals facing those difficulties, but also by their

families, communities and the wider society. Studies such as the CHDS have suggested that conduct problems that are apparent in childhood and adolescence are "a strong and consistent predictor of adult crime" (Horwood et al., 2015, p. 2). If conduct problems continue into adulthood, the cost to society is high due to the inevitable increased use of criminal justice, health and social welfare services (Rivenbark et al., 2018). More positively, Jakobsen et al. (2012) report that data from the CDHS indicate that increases in educational attainment can mitigate the longer-term risks of antisocial behaviour in youth.

The Education and Training Act 2020 recognises the rights of all children and young people to attend school, including those with disabilities or learning needs, which include mental health and behavioural challenges (New Zealand Legislation, 2020). In its Learning Support Action Plan 2019–2025, the Ministry of Education (2019) has clearly stated that "All children and young people, no matter their risk factors, have the right to the same opportunities to meet their potential as their peers" (p. 37). Despite this, in the statistics it provides on young people who are Not in Employment, Education or Training (NEET), the Education Counts website provides robust evidence that the current education system is not providing for many children and youth (aged 15-24 years). The proportion of youth that fall into this category is high across Aotearoa New Zealand, standing at 12.9 percent (Figure NZ Trust, 2021). Some areas contribute more to this statistic, including the Bay of Plenty (16.3 percent), Northland (14.8 percent) and the Waikato Region (14.6 percent). These figures offer a strong indication that the education system is not working for all.

Furthermore, the Ministry of Education has developed a *Statement of National Education Learning Priorities (NELP) & Tertiary Education Strategy (TES)* that has been issued under the Education and Training Act 2020 (New Zealand Legislation, 2020; Ministry of Education, n.d.-a). This document includes a summary of the actions that the government is taking to provide Barrier Free Access (Objective 2) to education, including for those learners with learning support needs. To achieve this objective, several actions are suggested including supporting coherent secondary/tertiary learning pathways, achievement and transition to employment; reviewing alternative education; and reviewing existing supports for children and young people with high levels of need (Ministry of Education, n.d.-a, p. 5).

At the same time, the tertiary education sector in Aotearoa New Zealand is undergoing transformation driven by the Review of Vocational Education (RoVE). In 2020, Te Pūkenga – New Zealand Institute of Skills and Technology was established. In an "Updated letter of expectations to Te Pūkenga subsidiaries" (8 June 2021), the chair and chief executive clearly state that within "Council Priority 2.2. Delivering customised learning approaches that meet the needs of learners and trainees wherever they are," they expect that each Te Pūkenga subsidiary will prioritise certain groups, including rangatahi (youth) who are NEET.

There is a growing body of literature on the notion of widening participation (WP) in higher education (Burke, 2021; Leach, 2015) that is pertinent to the research projected in this article. Burke (2012, p. 53) asserts that "As widening participation is about redressing historical exclusions and inequalities, it must grapple with the politics of social relations, including the intersections of difference, inequality and identity across age, class, dis/ability, ethnicity, gender, nationality, race, religion and sexuality." This study aligns with the underpinning driving force of WP and hopes to redress pathways for youth with different challenges. Leach (2015) has explored WP in the Aotearoa New Zealand context by analysing available tertiary education documents published between 2000 and 2014, finding that one of the major drivers for WP was strengthening the economy through ensuring enhanced higher education accessibility, thus creating improved employment opportunities. However, up until now, data on the Education Counts website has continued to provide evidence that effective systems to ensure suitable education pathways for youth with behavioural and mental health challenges are yet to be established.

Over the past several years, initiatives targeting youth who are NEET and providing them with the opportunity to experience educational success in an alternative format have been provided through trades academies, services academies, gateway funding and Youth Guarantee courses (Ministry of Education, n.d.-b). One difficulty, however,

is that these options often come too late. Previous research has confirmed there is a pathway from externalising or conduct problems in earlier childhood to academic problems later on (e.g., Esch et al., 2014; Van der Ende et al., 2016), and so addressing the problem at the end of compulsory education is too late. Mental health and/ or behavioural challenges have often impacted on young people's attendance and engagement in school much earlier than this. This issue is outlined by McGirr (2019), who has identified the need for a move away from the current focus on youth transitions to "fewer, longer and deeper interventions" (p. 3). More interventions during the primary and secondary schooling years are suggested, including preventative approaches such as additional support for non-cognitive skills (soft skills), which can be influenced during this period.

In this exploratory position article, transdisciplinary research (TDR) principles (see further below), such as taking all stakeholders' voices on board prior to establishing potential solutions to a problematical situation, are also explored. Thus, this article is not designed to provide alternative pathway options prior to the gathering of data, as potential pathways will be explored once data has been gathered incorporating all key stakeholders' voices. While there are established interventions in place now (including the NEET programmes listed above and Learning Support options such as the Resource Teacher Learning and Behaviour Service), a further problem faced by youth in state care, who often get moved around, is that their education programmes (and associated educational supports) are interrupted when they move because these programmes and learning supports are attached to the region, city or town where they have been living. In these situations, the focus is on establishing a continuing, alternative education pathway that will ensure that youth with mental and behavioural difficulties have health, social and fiscal outcomes similar to those of youth whose learning is in a Western-based or mainstream education system.

TRANSDISCIPLINARY RESEARCH AS AN APPROACH TO THE PROBLEM

Previous research has demonstrated that as children move into adolescence and early adulthood, the success of interventions reduces and the task of reversing a negative trajectory becomes more complex and expensive (Church, 2003). It is recognised that the various factors affecting the lives of youth become more complex as they grow older and the influences on them widen, particularly as peers and social media take a more prominent role in the decisions they make day to day. A robust approach is required to account for this complexity when addressing problems in this age group.

TDR is one approach that can cope with such "wicked problems." Wicked problems have been described as "typically heterogeneous, changeable, contextually localized, value-laden, sometimes caused by those charged with addressing them, and difficult to understand and solve" (Neuhauser, 2018, pp. 31-32). They are often characterised by uncertainty around how to formulate the problem or the solution (Head & Xiang, 2016). In Aotearoa New Zealand, identifying alternative educational pathways can be categorised as a "wicked problem" insofar as it proposes addressing an issue that has persisted over an extensive period of time, despite funding and support being provided through the Learning Support branch of the Ministry of Education and Youth Guarantee initiatives. Providing educational services to young people in care with mental health and/or behavioural challenges is complex, as there are many factors at play that impact on both the young person involved as well as the social and ecological systems around them.

In addition, many stakeholders are a part of this particular wicked problem. First, there are the young people in care and their whānau, who have their own language and history, and then there are stakeholders spread throughout the social and ecological system surrounding these young people. All those involved view the wicked problem from different perspectives, depending on their own knowledge, experience and position in the sociological context. A TDR theoretical approach is certainly complex, and the seminal work by Nicolescu attests to this complexity (Nicolescu, 2010). However, one of the underlying key TDR principles is solving real-world issues by concentrating on human-centred solutions. This translates to a primary focus on stakeholder engagement as

a methodology that can pull various perspectives together from scientists from different disciplines (objective worldviews) and non-scientists (subjective worldviews), and in so doing bridge the gap between them by weaving the joint new knowledge together. This process allows the unification of these various realities while still preserving their differences. The work of Jahn et al. (2012) further supports this weaving together of new knowledge. For the purposes of this article, the conceptual module of transdisciplinarity proposed by Jahn et al. (2012) will be used in the form of a simplified representation (See Figure 1).

In the Jahn et al. (2021) model, the TDR process has three phases. In phase 1, a common research object is formed by taking a societal problem and linking it to scientific problem(s), while ensuring that all key stakeholder views and goals are considered. In phase 2, new knowledge is acquired through integrating knowledge drawn from researchers ('science') and non-scientific stakeholders (actors who represent 'society'). The final phase is transdisciplinary integration, where new knowledge is created and phase 2 is evaluated. From here, further modification or even a reframing of the initial problem is likely to occur, with a return to phases 1 or 2. Coupled with this process is a particular strength of TDR, the flexibility to be iterative in its approach and to address a wicked problem in any context. Using models drawn from TDR contributes to the continuous solving of new problems and challenges, as well as identifying the new opportunities that arise when one element is changed, causing other factors to change in different contexts. New problems could then be created, leading to a continuation of the iterative process. Thus, change is inevitable in the proposed TDR conceptual model (Jahn et al., 2012).
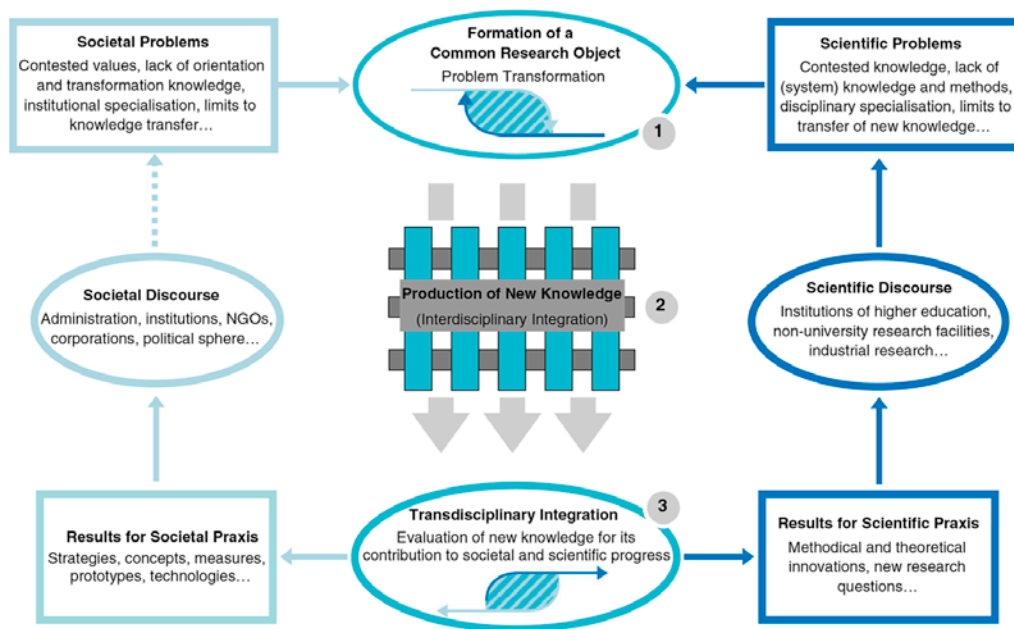

Figure 1. A conceptual model of transdisciplinarity. Source: Jahn et al., 2012, p. 5.

THE WICKED PROBLEM: ELABORATION

Generally, principals of state schools may stand down or suspend a student who demonstrates gross misconduct or continual disobedience (New Zealand Legislation, 2020). The school board can then exclude the student or impose further conditions on their attendance. If the student is excluded from one state school, the Education and Training Act provides for the secretary of education to direct another school board to enrol the student. However, without this specific direction, any state school board can refuse to enrol an excluded student; there are a significant number of students who are not attending school at any one time due to being stood down, suspended or excluded.

There is evidence that regardless of other factors such as demographics or school achievement, out-of-school suspension and exclusion/expulsion is associated with negative developmental outcomes, including involvement in the justice system (Novak, 2019; Skiba et al., 2014). For example, in an American study that compared 480 youths, all of whom had been suspended, with a matched group of 1,193 youths from a nationally representative sample, who had not been suspended, Rosenbaum (2020) found that 12 years after suspension, the suspended youth were more likely to have been involved in the criminal system and less likely to have attained educational qualifications.

Internationally, youth who are not engaged in the education system are correlated with higher rates of delinquency and with poor life outcomes, including poverty, poor health and imprisonment (Mathur et al., 2018; Rocque et al., 2017). This pattern is described by Skiba et al. (2014) as the "school to prison pipeline," a construct used to describe policies and practices, especially with respect to school discipline, in the public schools and juvenile justice system that decrease the probability of school success for at-risk children and youth. It also increases the probability of negative life outcomes, particularly through involvement in the juvenile justice system (p. 546).

In the Aotearoa New Zealand context, Sutherland (2011) and Wertz et al. (2018) have suggested that education can provide positive opportunities to those who may be on a pathway to youth offending. While genetic risk for low educational achievement, as determined through a genome-wide polygenic score, has been linked to antisocial behaviour across the lifespan that may include criminal activity, it has also been suggested that improving school experiences can mitigate this (Wertz et al., 2018). Therefore, research is needed into how young people with underlying mental health and behavioural challenges can be engaged in successful educational and training pathways.

In Aotearoa New Zealand, the NZQF recognises that learning can be obtained in a range of ways including on the job, online, by distance and in institutions (New Zealand Qualifications Framework, 2016). It is also possible to gain learning through a mix of these modalities. This learning can happen at different points in a person's life, can be obtained in a range of places and can be achieved through part-time study. This is an important principle in addressing the problem of youth who experience difficulties that limit their ability to attend mainstream (and even existing alternative) education programmes. However, despite this, funding is generally only available for qualifications that are quality assured and recognised by the NZQF. While these safeguards are necessary to ensure high-quality programmes, an unintended outcome is that institutions place further restrictions on how learning can occur, as they are required to show that students are attending courses and achieving results within given timeframes in order to receive funding to deliver those programmes. In practice, this means that students with emotional and behavioural challenges, who frequently have breaks in their attendance in educational institutions, miss opportunities to complete units of learning and gain NZQA credits and higher (tertiary) levels of education.

THE MONETARY IMPACT OF THE WICKED PROBLEM

Pacheco and Dye (2014) have previously estimated both the short-term costs to the economy and the long-term impacts on society of youth who are NEETs in Aotearoa New Zealand. By considering projected loss to productivity (foregone wages) and the cost to public finances, they concluded that NEET youth would accumulate an expected

per capita cost of approximately $26,847 over the following 1-3 years. It is likely that this figure would increase over time and that there would be further cost involved beyond the three years for those youth who never engage in employment or education (see above, Scott, 2018).

Other significant costs to society if conduct problems continue into adulthood include increased use of criminal justice, health and social welfare services (Rivenbark et al., 2018). Rivenbark et al. (2018) analysed service utilisation by adults up to 38 years of age in the DMHDS (see above) across multiple sectors including health, social services and justice. Although participants identified as having conduct problems in childhood accounted for 9.0 percent of the population group studied, they made up 53.3 percent of all convictions, 20.5 percent of all prescription fills and 24.7 percent of welfare benefit months. Thus, if an alternative educational pathway succeeds in retaining youth in education for longer, there is also likely to be a cost benefit as they transition to adulthood.

So why focus on the monetary impact of the wicked problem? Funding for programmes is limited and significant funding is already provided to Learning Support and other agencies to support the education of at-risk youth. However, the statistics presented above suggest these significant financial costs provide a convincing argument that better educational alternatives for youth with conduct problems should be sought than have been offered to date.

CONCLUSION

In many societies, the search for educational pathways for at-risk youth presents an ongoing dilemma. A proactive approach is needed to ensure successful intervention, especially for those in care facing mental health and behavioural challenges. The solution to providing positive outcomes for some youth may not be found in traditional or current approaches. A better approach might be to reflect on the advantages gained by learners who succeed in the current education system that allow them to enter tertiary education, and then consider how youth in care experiencing mental health and/or behavioural challenges might obtain these same benefits or skills in a different way. In other words: we should start with the end goal in mind – engagement in tertiary education – and then work back to determine what critical factors must be present to enable this outcome.

There are compelling reasons for seeking alternative educational pathways to tertiary education for youth in care with specific challenges. From a government policy perspective, this group should be able to access high-quality, culturally responsive and inclusive education. If they do not, this group of learners will more likely become part of the "school to prison pipeline" and experience negative, long-term life outcomes in terms of health, unemployment and poverty. This is not a new problem, as the research explored above shows. The problem of how to keep this group in education and support them through to tertiary education is indeed a "wicked problem," and one that could benefit from a transdisciplinary research approach.

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AN INVISIBLE POPULATION – THE EXPERIENCES OF YOUNG ADULT CARERS STUDYING AT THE EASTERN INSTITUTE OF TECHNOLOGY

Charlotte Chisnell, Mandy Pentecost and Sue Hanna

INTRODUCTION

Jo arrives late to class again. She immediately looks at her phone. She doesn't have her textbook and looks really tired.

You agree to give Mai another extension on an assignment because of family issues. This is a pattern with this student; you tell her that this has to stop happening.

Such scenarios are familiar to tertiary educators and are often attributed to the student's lack of self-management skills or not making study a priority. However, maybe these students have a hidden burden of responsibility and care. Could they be a young carer?

Our research explores the issues that young adult carers, aged between 18 and 25, faced while undertaking tertiary study at the Eastern Institute of Technology (EIT) while at the same time trying to balance their caring responsibilities with education. Research of this nature, involving connections and collaboration between tertiary applied researchers and professionals in the field, is essential to enhance the learning experience for young adult carers.

WHAT IS A YOUNG CARER?

Young carers and young adult carers are young people "who provide *regular* and ongoing care and emotional support to a family member who is physically or mentally disabled, or misuses substances [emphasis in original]" (Research in Practice, 2016, p. 2). These responsibilities are beyond what would be expected of their peers. Joseph et al. (2019) suggest that young carers in different countries share similar experiences, all of which can have an impact on their education and wellbeing.

There are an estimated 40,000 young carers in Aotearoa New Zealand (Ministry of Social Development [MSD], 2019, p. 5), with approximately 9 percent of carers aged between 15 and 24 years (MSD, 2019, p. 9). Research indicates that the unique needs of young carers and young adult carers has not been recognised in Aotearoa New Zealand until recently. In May 2021, a *Sunday* television programme (Sutherland, 2021) and a subsequent *Breakfast* news story (Fisher, 2021) highlighted the hidden issues of young carers and young adult carers in Aotearoa New Zealand.

During the *Sunday* interview Dr Saul Becker, who is an international researcher, stated:

> It makes me angry, but also really sad, actually, that a country like New Zealand, which leads in the world on so many things, a civilised nation which has such fantastic values and support systems in place for so many things, has been so slow to identify young carers in your midst.

> We need, particularly for New Zealand to wake up. To wake up and say, this isn't acceptable in a civilised, decent society, we have to do something to recognise and support young carers. (Sutherland, 2021)

As these groups of young people are not widely known or understood in Aotearoa New Zealand, their needs are rarely recognised. They are often an isolated demographic, who need more support to manage their additional caring responsibilities while attending school or tertiary study. In the U.K., young adult carers are four times more likely to drop out of college or university than other students (Sempik & Becker, 2014).

In many, if not most, families the contribution of children to day-to-day household operations is expected and encouraged. The young carer group has responsibilities which are either too demanding for their developmental stage, or take away their opportunities to 'act their age.' Dearden & Becker (2004) assigned these responsibilities to six categories: household and gardening tasks; providing emotional support; carrying out personal care (includes bathing, feeding, lifting, administering medication); supervision of younger siblings; managing finances; and acting as translator for those with little or no English as a second language. The expectations are such that they have a detrimental effect on the young person's wellbeing and ability to fully participate in typical social activities for their age, and may limit their educational achievement. Because these tasks are, for many, just part of the necessary, every day running of the household, young caring is often invisible – even to the young carers themselves (Aldridge, 2018).

All families establish patterns of care and responsibility. In Aotearoa New Zealand, expectations within Māori and Pacific families in particular significantly shape the caring roles expected of family members. According to Drewery and Claiborne (2014, p. 51), "responsibility and family values include contributing to the family's livelihood in a range of ways – even, sometimes, if it is seen by others, such as the child's teacher, as detrimental to their schooling." The roles taken by young carers typically develop either incrementally over time or arrive all at once as a result of a family crisis or emergency (Chikhradze et. al., 2017). Donnan's (2018) New Zealand research identified that the young person may have sole responsibility for caregiving tasks or be supporting "a burnt-out adult carer," but with a "significant helping out role" (Fisher, 2021). In Britain, The Children's Society (2013) found that young carers are more likely to come from ethnic minorities and not to have English as their first language. Addiction, family violence and mental health issues are present in approximately a third of British young carers' families (The Children's Society, 2016; Cunningham et al., 2017; Kennan et al., 2012; Research in Practice, 2016). U.K. research further points to poverty and low incomes, and being in a sole-parent family, as contributing factors (Aldridge, 2018).

Typically, these carers do not want to stop their caring responsibilities (Fisher, 2021). However, according to the research literature it is clear that their role is stressful, and that the resulting detrimental effects impact on their present and future possibilities (Children's Society, 2013, 2016; Cree, 2003; Dearden & Becker, 2004; Moore et al., 2009). U.K. studies have identified that, for this group, educational attainment in the compulsory schooling sector falls significantly below that of other young people, with 27 percent missing school or experiencing educational difficulties, such that they are less likely to enter, or remain, in tertiary education (Children's Society, 2013, 2016; Dearden & Becker, 2004). The incidence of mental ill-health in this group was 38 percent (Children's Society, 2013).

As with any situations of adversity, there is also the possibility of positive effects. Cunningham et al. (2017) identified the development of resilience as an effect for young carers. This was especially the case for those who experienced less stress, often because they felt well enough supported to be able to manage their situation, and had developed good coping strategies. For example, those who felt well-informed about their parent's illness were found to have a stronger capacity for resilience (McGibbon et al., 2018).

METHODOLOGY

The objectives of the research were to explore the particular obstacles that young adult carers face in accessing tertiary study, and the support they require once enrolled in higher education to ensure they are able to reach their academic potential. Qualitative research is particularly useful in exploring situations and phenomena about which little is known, and where the person-centred, holistic and contextual emphasis facilitated by this methodology make it suitable to manage sensitive and emotionally charged data (Padgett, 2008). A qualitative framework also allows for an epistemological foundation informed by social constructivism, enabling a focus on the voices of the participants and how they construct their experiences within their families and within the broader narratives and expectations about tertiary study and the student experience within which they are located.

We were interested to find out:

* What/who motivates young carers to enrol in tertiary study, and how do they prepare for this experience?
* What obstacles to academic study and participation do young carers encounter in a tertiary environment?
* What coping strategies do young carers utilise to manage the demands of study and family responsibilities?

We invited participation from students who were currently enrolled as a full- or part-time student at EIT, and who were currently or previously involved between 18 and 24 years of age in providing unpaid caring responsibilities to a family member.

Due to the lack of awareness and recognition of the role of young adult carers, we prepared a participant information sheet which included a definition of an adult young carer. After reading the definition, the participants volunteered because they identified with either being a young adult carer or a former young carer.

Snowball sampling – arranged through informed and knowledgeable contacts and invitations during classes and lectures to participate in the research – was used to secure a purposive sample. Twelve respondents participated in focus groups and an additional two, who could not attend a focus group, participated in semi-structured interviews.

Focus groups and in-depth, semi-structured, individual interviews were utilised, as this method of data collection is best suited to accommodate the potential complexity of the personal and educational experiences of young adult carers (Hardill & McDonald, 2000). The group conversations and interviews were transcribed, with data anonymised.

The transcripts were analysed using an inductive approach to data analysis which concentrates on condensing raw data to establish links between the evaluation objectives and the study findings. The focus was on the described experiences of the participants from the perspectives of their various environments, with the aim of identifying the ways in which they all contribute towards answering the evaluation questions.

The process of thematic analysis was incorporated into the research design, which allowed the researchers to identify common themes that had emerged from the data. Thematic analysis "provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex account of data" (Braun and Clarke, 2006, p. 3), with the aim of uncovering themes in textual data at varying levels of complexity (Padgett, 2008).

During the analysis, the focus group participants' specific words and phrases were highlighted and coded, which enabled themes and emerging patterns to be identified in order to "reflect the themes in the lives of the participants" (Sheppard, 2006, p. 242).

A preliminary thematic analysis identified a number of common themes that emerged from the data, including invisibility, inevitability, isolation and loneliness, guilt, coping strategies, resilience, determination and perseverance.

FINDINGS

Our research identified a number of themes that highlighted the impact of being a young adult carer or former young carer studying at tertiary level education at EIT. Verbatim transcripts of the expert voices of young adult carers are presented under each theme heading, articulating their lived experience.

Invisibility

In her New Zealand research, Lauren Donnan found that she could not initially find young carers, as "they did not self-identify" at first, later acknowledging, "I think I might be a young carer." In a caring role for a family member herself, it was a title she too had "stumbled upon" (Fisher, 2021). We received similar responses as participants volunteered, and during the focus groups the invisibility of the role was evident:

F: "It's a bit of a hidden thing because you don't really understand it until someone points it out to you. When he said that to me I thought, 'Wow.'"

E: "The school knew I was taking time off to look after my mother on a regular basis. To my knowledge, I don't recall there ever being any specific meetings at the school to discuss how they were going to help me cope with that or anything like that."

Inevitability

There was a sense from most of the participants that the caring responsibility naturally and inevitably fell to them.

B: "I didn't have a choice."

A: "But, you know, that's what some people do – care for others, right?"

They did not question this role, or oppose it, even though they often struggled with the extra calls on their time and emotional wellbeing.

C: "Then I would think about it and, 'Do I need to be doing this?' But, then something would happen with my sister and I'd be like, 'Okay, I have to do it.'"

One of the participants expressed her obligation to her family members through her Pasifika cultural lens. She could not refuse because it was an expected role:

N: "It would basically offend my relatives. In my case, if I had kind of said, 'No, I can't do this,' it would be, like, 'Oh, I do so much for you.' You couldn't really express how I was feeling."

The concept of *not* providing care from within the family is foreign and does not make sense:

N: "When people don't grow up in a family that's, like, tight-knit, or a culture that is, like, you help your family members, I guess, I don't know, how can you explain it to them? They wouldn't understand. I felt like I needed to look after her, like it was my responsibility to look after my [family member]. She had done so much for our family."

Disruption to personal lives

Caring duties and the strong sense of responsibility had an inevitable impact on the participants' personal lives and their education. They reported being unable to join in usual activities of their peers, or not being able to relax if they did.

A: "I did notice that I was cancelling plans to stay home and I was under a lot of stress while I was studying, just because I was constantly putting them off to care for my relatives. It was a lot of pressure."

Isolation and loneliness

Participants also spoke of isolation and loneliness. The invisibility of the role and the sense that it was inevitably theirs also led to a reluctance to ask for support.

M: *"Because my Dad suffered from schizophrenia it was very isolating; you didn't really let people in because of his mental health state."*

Most did not wish to tell too many others, including lecturers, about their circumstances:

N: *"If I could, I wouldn't have told the lecturers, but I had to, because I had to tell them the reason why I was leaving, why I couldn't have come in."*

One participant explained why she did not ask for help:

C: *"I think before I was, like, 'No, it's not okay, you have to do everything on your own.'"*

Tiredness

All the participants agreed that tiredness, even "exhaustion," was a constant in their lives.

N: *"It's a miracle when I think back now, because I think the most time that I ever got for self-care back then was for sleep, and that was barely any sleep."*

C: *"Yeah, the minute that I would have to wake up it would all start again. I was just barely making it through the day."*

Adding the pressure of course and assignment work to an already full schedule often meant making a choice between doing that work or getting some sleep or relaxation.

T: *"The time I did have I didn't want to do schoolwork because I was exhausted."*

Guilt

A number of the participants expressed guilt at not being more fully available to those they cared for, and taking time for their own pursuits such as study.

F: *"I feel terrible when I can't be there for him when he rings me and asks where I am."*

Participants also felt guilt at not being able to give their study the attention it required.

L: *"It kind of made me upset a little bit because I would hear at that time some classmates would be, like, 'I'm halfway through my assignment,' and it's not due till two weeks. I'm sitting there feeling all this guilt. I just feel upset about myself, not being able to do that."*

Disruption to education

Several of the participants reported that they had experienced disruption to either their schooling or tertiary education. They reported patterns of absence and distraction, not having time for assignments or extra-curricular activities.

A: *"It was to the point I would be in a class and I'd get a phone call or a message, and I would just instantly freak out and be, like, 'Oh my god, what's going on? Do I have to come home? What's happening?' It was a lot."*

M: *"There were times where I wasn't sure if I was going to be able to do my assessments in time. I was constantly freaking out and having panic attacks and things like that."*

Coping strategies

But they survived. We were interested in how they took care of themselves and what coping strategies they adopted. Participants reported that they had few self-care strategies.

L: *"There wasn't really a huge amount of coping strategy."*

F: *"I probably didn't look after myself as well as I should have, but I just felt there were things more pressing; there were things that needed my attention more than myself at the current time."*

However, they were under constant pressure and developed a number of potentially destructive ways of dealing with the pressure. These usually involved getting "out of it."

L: *"Yeah, it was basically just escaping, even for a little bit."*

B: *"I'd just drink the whole weekend away, and then go home. I was not in a good place. I think my worst was I developed a substance dependency and it was very bad. It was very bad."*

Determination and perseverance

Despite the enormous challenges, all the participants were in tertiary education, even if their progression from schooling had been delayed. They managed their education by means that probably challenged their teachers, but they were keeping their heads just above water. For some, the situation that led to their carer role was also the driver for their educational and career goals.

B: *"I guess that was the motivation there. I really wanted a degree. I wanted to do something with my life, I guess. The biggest motivator to enrol in social work was my parents."*

If resilience is the ability to keep going when times are tough, for these students their ability to keep going whatever was happening was what got them through:

C: *"It was, like, 'You've been through worse, you can push this off just a little bit more.'"*

What helps?

The participants identified a number of strategies that educational institutions have provided, or could provide, to support their learning journeys.

They valued flexibility – for example, they made optimal use of extensions for assignment submission. They also suggested providing recordings of essential information for those not in class.

L: *"We could just turn on the laptop at the same time of the lecture, like a live lecture. That way we're viewing it from home, and then we're not missing out on anything, as well as the class discussions. We may not be able to give any feedback, but that way we are listening in to other people's perspectives as well."*

They also thought that their institutions needed to inquire more about their situation, as life improved for them once their lecturers "knew."

C: *"Most of the time they would just listen; they would just kind of be present with me while I'd be having a breakdown. It would be, like, 'What's going on?' and it's like, 'Oh, there's so much going on. We don't have food at home. The power just got turned off and I can't do anything about it. The assessment is due tomorrow and I haven't even started it yet.' So, they'd be, like, 'Okay, just relax.'"*

DISCUSSION AND RECOMMENDATIONS

Young carers and young adult carers are often invisible, and can experience disruption to their personal lives, development and education. There is a growing body of evidence which recognises that whānau/informal caring can come with a hidden burden, as it did for these participants.

A different focus is needed in terms of how society supports and works with young carers and young adult carers, to encourage the further development of motivation, perseverance and resilience in young adult carers (Aldridge, 2018). Internationally, young carer policies have appeared over the past decade, with Aotearoa New Zealand entering policy development in the last two years.

In the U.K., the enactment of the Children and Families Act 2014 and the Care Act 2014 placed a duty on social services to assess needs and provide support for young carers. Although progress has been slow, finally the profile and needs of young carers have been recognised in statutes (Cheesbrough et al., 2017).

> A broad definition of caring must inevitably be at the heart of policy if it is to help address the complex web of the different needs of families to reduce the burden of care, support young people who care, and address the problems that arise from caring. (Joseph et al., 2019, p. 12)

The objective of this research has been to document and collate the experiences of tertiary students at EIT, learners who identified as being either adult young carers or former young carers, and to identify areas for future development in how the institution operates which could help to support and enhance their learning experience. Young adult carers are four times more likely to drop out of higher education than their peers, or not to participate at all. (Kettell, 2020; Hill et al., 2011).

It is all too easy to label students as lacking motivation and time management, poor attendees, easily distracted, always on their phone. International evidence and our own findings suggest the need for a paradigm shift which allows tertiary institutions to identify and address some of the barriers which can impact on effective engagement and student success. Firstly, as educators we have a responsibility to understand both the role and the demands that can be associated with "invisible caring" (Hanna & Chisnell, 2019).

The difficulty is, because the problem is invisible, we need to ask more questions. Typically, this group does not volunteer the information that they may need extra support. Often, tutors find out about their student's situation only when the student is overwhelmed. U.K. institutions are now required to include a section in their admissions forms which asks an applicant to identify their caring responsibilities (Sempik & Becker, 2014). However, despite this change in policy, many young adult carers do not identify themselves with this demographic, a situation which highlights the need for tertiary institutions to develop clear information and policies about the unique challenges that young adult carers can face (Kettell, 2020).

Sempik and Becker (2014) and Kettell (2020) both suggest that pastoral care is crucial to support young adult carers. This view was supported by our participants, who agreed that a regular, informal 'catch up' would be welcomed to allow them to check in about their caring responsibilities and general wellbeing. The participants also suggested various mechanisms for support, such as recording classes for those not in attendance; providing support groups for students who need a space to talk; and including specific check-ins about home responsibilities as part of pastoral care. Once we know about a student's additional responsibilities, we need to identify ways to actively support them as they navigate tertiary study. Our participants were extremely grateful for assignment extensions, although it was recognised that they are not handed out easily in all programmes.

Tertiary institutions can use their online platform to support young adult carers, including recording teaching sessions and using flexible submission dates (Kettell, 2020). This approach was confirmed by our participants who suggested that additional support such as recorded teaching sessions and the provision of support groups would

be beneficial. As educators, we should find other ways to be flexible. For example, the Bachelor of Social Work programme at EIT has two mandatory 60-day, full-time placements, which require careful advance planning for all students with family responsibilities. Such requirements can seem quite inflexible, and staff should be encouraged to work with students and placement agencies to make alternative arrangements when the ability to attend has become an issue.

Perhaps one of the biggest challenges will be simply raising awareness of the issues that many adult young carers can face and providing consistent, unified support across institutions. "Ensuring staff are aware of what support services are available, and understand[ing] how to signpost students effectively, may help alleviate the feeling of being 'passed on' experienced by some [young adult carers]" (Kettle, 2020, p. 109).

Ultimately, we should endeavour to understand the distinctive challenges and barriers that young adult carers face, including the responsibility to encourage this group to recognise their unique status.

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LEARNING UNVEILED: REFLECTING ON UNEXPECTED OUTCOMES FROM COVID-19

Emma Collins and Josie Crawley

INTRODUCTION

The COVID-19 pandemic caused significant upheaval for the education of nursing students globally, particularly in 2020. In Otago, New Zealand, unexpected student learning unfolded from students' completing an interrupted clinical placement after a significant hiatus. Students returning to the same placement (with the same supporting clinical lecturer), after eight months of alternate learning, achieved a growth in knowledge, practice and confidence in a way that a student's placement in a new practice area did not. Employing the Rolfe, Freshwater and Jasper model of reflective learning (2001, 2010), this article describes this situation, reflects on student feedback and explores the implications for future education, including lecturers' responses to this phenomenon.

THE ROLFE, FRESHWATER AND JASPER REFLECTION MODEL

The Rolfe, Freshwater and Jasper model of reflective learning (2001, 2010) is an uncomplicated model of reflection, providing a simple framework for nurses and health professionals to work through the process of reflection. The process has three phases: What?, So what? and Now what? (building on Borton's (1970) model incorporating the same three questions). These stages provide the framework for learning from reflection – a process whereby past events are recalled to recapture the experience and the observed outcomes are analysed from multiple perspectives, providing a foundation for identifying and planning future improvements (Schon, 1991). While Rolfe et al. (2010) subsequently provided more prescriptive questions to be asked at each process stage, the flexibility of the model remains (Skinner and Mitchell, 2016).

Rolfe, Freshwater and Jasper (2010) explain that the first part of the process, "What?," is mostly descriptive. This includes observation of what happened and the outcome for participants (the student, the lecturer, the placement site), including descriptions of emotive states. The second stage, "So What?," encompasses the analytical part of the reflective process – what meaning does the experience hold? Ideally, consultation of both literature and others involved (in our case, the students) occurs at this stage in order to consolidate multiple perspectives on the situation. The final phase looks to the future, creating and implementing a proactive plan. "Now what?" requires participants to explore the broader implications of the situation and consider what steps to take to respond to learning, in our case to create and action a plan that will build teaching/learning and nursing practice.

Jasper (2013) argues that applying the Rolfe et al. (2010) model consistently results in a reflective learning process where experience is valued by creating higher levels of self-awareness, with the second and third stages supporting the incorporation of theoretical knowledge into practice, thereby enabling ongoing quality improvement.

WHAT?

This is the story of part of our COVID-19 response with the Year 2 Bachelor of Nursing team at Otago Polytechnic. Globally, 2020 was a tumultuous year and, like everyone else, we did not know where this pandemic was going. It was a rapidly evolving landscape and tertiary institutions were adapting to a new way of life, as were governments, district health boards and non-governmental organisations. Like the rest of the world, the programme for the Bachelor of Nursing Year 2 learners was significantly interrupted.

Our learners were on their first placement for the year in a variety of clinical areas (mental health, community, senior persons' and acute care settings) when they were told to cease their placement and observe the Levels 3 and 4 lockdowns in March 2020. This resulted in a great deal of stress for the learners, as well as for teaching staff and the clinical placement areas. Many learners had completed only one week of placement, while others had completed over two weeks out of three. However, the familiarising week of orientation had taken place, and learners were just beginning to see their potential practice when it was withdrawn. While withdrawal from placement was abrupt, it followed several days of disrupted practice – for example, learners turning up to a clinical placement and being told by staff to go home, then being contacted again to come in.

For those in all settings, the week beginning 16 March 2020 was an unprecedented time of enormous uncertainty and constant stress, with alerts announcing rapidly changing levels at short notice. It was originally unclear if learner nurses were deemed to be essential staff by the Ministry of Health, or which health facilities and services would be required to stay open, given that we were preparing for a potential, perhaps deadly, epidemic within Aotearoa New Zealand's borders. At Level 2, learners in most senior persons' areas were immediately shut out (by the facilities themselves), while some community-based placements which were setting up COVID-19 testing stations asked if learners could continue to work through.

Our focus was on ensuring that learners were safe, ideally home with family and/or friends. Staff also needed to be safe and secure and, once that was dealt with, it was a time of reorganising theory and clinical placements. This involved checking in with learners individually, as well as in groups, to keep them fully informed of what was happening with their learning and checking that they were safe.

Learners returned to their theory learning in May 2020, dispersing to their pre-planned clinical placement locations in late May. In November, after their end-of-year exams, learners returned (mostly) to the same clinical area that they had left in March to complete their learning experience. Some learners had 3-4 shifts to complete and others had many more. This took a significant amount of planning and partnership with clinical areas. The learners had had eight months away from their clinical areas, and during this time had completed three other clinical placement experiences. Learners had never returned to a clinical area before during their Year 2 placements.

SO WHAT?

Returning to the interrupted clinical placements which had started in March was problematic for both staff, learners and placements. Staff at clinical placement areas were exhausted after an uncertain year, were experiencing staffing shortages and high-acuity patients, and were working to make up backlogs from COVID-19, all under high stress conditions. The potential for changing alert levels was still very real. Learners were also anxious about returning to their clinical area, delaying their end-of-year break which resulted in financial hardship for some. They were tired from the year they had had and very much wanted it to be over. However, learners were all offered placements, and welcomed back to their original facility. This initiated a very positive experience with which to conclude an overwhelming year. The positive welcome they received was a surprise – the placements were very hard to organise as organisations did not want to commit themselves when conditions could change with 24 hours' notice; they also felt that student learning would be compromised by adapted practice, such as increased reliance on telehealth.

During the November/December placements the lecturing staff supporting the learners in their clinical placements were hearing that they were enjoying this placement and were finding it to be a very rewarding and uplifting experience. These were unprompted responses from the learners and the nurses they worked with. By returning to the same clinical area after eight months' alternate learning, learners could appreciate the growth in their learning, confidence, knowledge and skills that had occurred during this time. This prompted the lecturing staff to reflect on this phenomenon further, both with their learners and between themselves, generating much reflection on the learners' experiences and potential modifications to their learning journey.

Previously, lecturers had viewed returning to the same area as limiting learners' exposure to practice, and had sought to provide a range of experiences. Some lecturers felt that the orientation week was the most stressful week of clinical and, with that under their belt, learners should be able to slip into their placement routines. Had the placement been completed any later, learners may have expected to be working within the Year 3 scope of practice, and would have required re-orientation into their areas. The point was also made that each clinical course is siloed as a separate course. Lecturers often get learners to reflect verbally about their learning from the beginning to the end of placement (a four-week period); however, learning from previous courses is not normally visible, unless the learner had required additional support to complete the placement. By returning to the same placement, with the same supervising lecturer, students, lecturers and nurses could look at the objectives learners had set themselves in March, and see that their practice had already grown to encompass these.

Nurses supervising in placements provided solicited feedback to the learners' supervising lecturer. Many shared that they really enjoyed having the learners back, noting that seeing an individual learner's growth in skills, confidence and learning across the year added value to their preceptorship. Some nurses commented that it validated the belief that learners do learn from being with them.

Staff talked with the learners that they were working with and reflected on the experience that they had had, with the learners and with each other. Discussions between faculty staff determined that there were a number of considerations to the learners journey that were emerging.

Learners felt that they could "see" the difference in themselves compared with eight months earlier when they were in the same environment. Being in the same placement area with the same scope expectations enabled learners to notice a change and a progression in their clinical practice and knowledge base. They felt that it was much easier to see the learning that they had engaged with over the year and how this was able to be applied to the clinical context. This was an uplifting and rewarding experience, for learners as well as for staff, and learners found it very motivating. Sargeant et al. (2011) found that learners self-monitor when learning in practice, reflecting during and after activities, suggesting an integrative process of self-assessment, drawing on all relevant experience to date. The frequent use of the word "see" by respondents implies observing, noticing, thinking about, becoming aware of – suggesting that this experience engaged them in reflective learning. Hay, Kinchin and Lygo-Baker (2008) state that in tertiary settings, only the learner can make learning meaningful, defining learning as the perception of personal change. Returning to the same environment provided an experiential opportunity that illuminated learners' growth in the knowledge and skills gained from their first experience through to their delayed completion through the integration of new material from other placements, resulting in meaningful learning. They were able to reflect on their competency development, and could "see" the personal change that had occurred.

After an additional eight months of learning, the learners felt a lot more confident about their skills and clinical abilities. This was very visible to them as they returned to the same clinical area and were doing many of the same tasks. Some learners commented that they felt a lot more confident compared to the start of the year, in particular with certain nursing skills, as well as how they were able to interact with patients and staff. For the learners, this was a catalyst for developing self-efficacy, a belief in one's ability to take action or, in a nursing context, to manage clinical tasks (Stump et al., 2012). Many had also been part of developing COVID-19 contingency plans in March – which had come to fruition – and they then worked within them in November/December.

Learners also found that returning to their clinical placements was motivating. Through the visibility of the experience and the confidence that was gained, motivation increased and this, we believe, put the learners in a good position for their final year of their degree. Motivation is important in learning because motivated learners tend to engage in activities that help them learn, as well as helping them to achieve in academic settings (Jones, 2009). Therefore, we want our learners to be highly motivated, and for them to motivate themselves – what happened with this placement is even more desirable.

Many of the learners felt that they could see how much their clinical skills had improved over the year. This was in part due to their developing confidence, but also their self-development and motivation. The development of clinical skills is important in a Bachelor of Nursing programme and teachers are constantly looking for ways to develop skills, especially when clinical experience may be limited. It was important that the learners did not miss out on this clinical experience, as research has shown that clinical experiences give learners more confidence in their ability to perform skills and other behaviours in the clinical environment (George et al., 2020). Many learners simply felt more comfortable going back into this clinical environment, right from the beginning. They also felt significantly reduced anxiety levels compared to when they normally commenced a placement. Feeling more comfortable heading into their clinical placement allowed them to make the most of the learning opportunities available to them, and to utilise their time there well. A study by Doyle et al. (2017) discusses the importance of learners feeling comfortable in clinical placement. They state that the culture of the nursing unit has the most impact on satisfaction rates for learners by making them feel comfortable (p. 30). It was important to these learners that they were comfortable returning to these clinical areas:

Learners enjoyed going back to their clinical areas, seeing how much they had improved and reconnecting with their clinical preceptors. They enjoyed seeing some of the same residents from their first placement and revisiting objectives that had been set earlier in the year – objectives that had initially seemed daunting, and now had to be revisited and were even more challenging. The positivity and enjoyment that came out of this learning made a great end to the year. Gomez, Wu and Passerini (2010, as cited in Lin et al., 2020) state that when learners feel that the learning experience is pleasurable for them, they perceive enjoyment. Therefore as educators, we are constantly trying to ensure that our learners' experiences are enjoyable.

Although we mainly reflected on positive experiences from this catch-up placement, some learners reflected with sadness as residents who were present at the beginning of the year had since passed away. While this situation was an unavoidable and sad consequence of the placement for this learner, it also demonstrates their connectedness to this particular clinical area and the team.

NOW WHAT?

Our 2020 revisit was an exhaustive crisis response to complete learners' placement hours and enable Year 2 learners to progress to Year 3 of their Bachelor of Nursing degree. Currently, the New Zealand Nursing Council requires breadth of exposure to varied clinical experience settings, while our model of delivery provides different learning methods. However, when we silo practice areas we restrict the visibility of learning to the student, and potentially restrict lecturer support to best scaffold student learning. For learners, once a course is passed, that course work is put aside to focus on another course. For lecturers, with a new group of 30 learners four times a year, the majority of learners arrive as a clean slate.

Depth of student learning and growth is reliant on the learner being able to consolidate competency learning across different areas of practice through introspective self-awareness. Although it is likely that some learners do this independently, it has not previously been reported to lecturers as an achievement that learners and placements are actively celebrating in their fourth placement. Student learning and enjoyment from revisiting practice in the COVID-19 make-up placements is an opportunity to improve future practice.

Did this unexpected response to COVID-19 imply that curricula should be designed to include revisiting a clinical area in order to illuminate growth in professional practice? As the School of Nursing is at the beginning of a five-yearly curriculum review cycle, there is limited scope for significant changes to curricula. The introduction of a fifth placement, or a split first placement, involves costs in organising placements, reduced lecturer cover due to leave, an extended financial student year, placement burnout and a disinclination to take new learners the following March (as it feels to staff that they have only just left).

Unable to change curricula at this stage, nurse lecturers have explored options that will engage each learner, making explicit their own learning journey. Having one lecturer assigned to a learner across all different settings would mean that the learning journey will now be very visible, with clear scaffolding opportunities for learning; however, this arrangement would undermine lecturer knowledge of specialty areas, be detrimental to placement relationships and increase lecturer workload. Alternatively, the option of building in mentoring with a group of 30 learners, who check in with a consistent lecturer after each clinical placement, is still being explored.

However, the teaching team involved have already found other ways to incorporate this learning into current teaching and learning contexts. Three initiatives have been developed and put in place to break down the silos between the clinical courses, and to help engage learners across the year by increasing learning visibility to both learners and lecturers.

The first initiative involves forming an objective at the end of one placement for achievement in the next placement, which is recorded on the learner's summative form. Learners are encouraged to share this objective with the lecturer in the following placement, but are also referred to it in the preparatory week before their next placement. For most courses, this objective has become part of the introductory session for the next placement.

Secondly, a written requirement for each separate clinical placement student portfolio has been introduced: the provision of learner self-assessment exemplars against the ten course outcomes. These outcomes are consistent across the Year 2 clinical courses and reflect the competencies learners must demonstrate under Nursing Council requirements. In 2020 this learning was siloed in four separate clinical courses, each with its own digital platform. In 2021, lecturers combined student self-assessments against course outcomes/competencies into one single document. Currently, this document is uploaded to each clinical course digital portfolio, added to and reloaded for the next, until all four placement exemplars are together on the one form by the end of the year.

Combining these exemplars has shifted the focus from one-off practice evidence to growing learner competency and scope of practice assessed across a range of placements. This is now a space where learners can chart their learning against a particular competency for each placement across the year, and engage in reflective practice by looking at their earlier examples. This increases the visibility of previous and current learning to both learner and lecturer, as well as highlighting areas where practice needs to grow. There are opportunities to discuss this learning in the summative assessment of the clinical course, in a 30-minute one-on-one session celebrating the student's learning. Future developments aimed at breaking down silos may include using an ePortfolio digital platform, where a single clinical portfolio may be added to across the year while maintaining course independence.

The third initiative is a hand-over meeting of clinical course co-ordinators before finalising the next student placements. Traditionally in nursing handovers, nurses comment on patients' progress and any potential new challenges. These meetings adapt this practice to the learning environment so that learners are more intentionally matched to a placement based on individual requirements, and systems can be put in place to support learner health, wellbeing and learning before the next placement, thus increasing opportunities for positive learning.

CONCLUSION

While COVID-19 has forever changed nursing practice, there have been some positive experiences. Lecturers have learned that there may be strengths in nursing students returning to the same placement after consolidating learning in other courses, reducing concerns if a learner is assigned to the same placement area in Years 1 and 2. If they are, it may be useful to assign the same supervising lecturer and ensure that placements are not back-to-back. Because of logistical difficulties in arranging a repeat or split placement, alternative strategies to make student learning visible to learners and provide opportunities to scaffold student learning across placements have been implemented.

As lecturers, we have been reassured by our learners' experience in 2020 that learners are able to consolidate and build their learning across the four clinical courses, but we also believe that they may need lecturer assistance to make that learning visible to themselves. We have also been reminded that the tools we encourage students to use, such as reflective learning frameworks, can also be employed by lecturers to continually improve the quality of the learner experience. Seeing learners reflect on their growth in practice was a humbling and rewarding experience for staff, and led us to think about how this can be achieved in a post-COVID-19 learning environment, as illustrated in our action plan during 2021.

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THOSE WHO CAN DO, TEACH: THE IMPORTANCE OF BRIDGING THE DELIVERY AND APPLICATION OF LEARNING IN TERTIARY EDUCATION

Kawtar Tani

INTRODUCTION

Overlap in the raison d'être of universities and polytechnics is likely increasing. While, historically, there was greater emphasis in polytechnic institutions on providing training for employment in the workplace, there is much less of a dichotomy today. At least in Germany, Voss and Gruber's (2006) survey of student expectations supports such a shift: "students are mainly concerned about vocational aspects of their studies and are less interested in their subject" (p. 234).

In many fields, the expectation that teaching staff (for example, lecturers, tutors and teaching assistants) will be up-to-date in their areas will seldom have been put to the test. Indeed, a lecturer, whether having assistant or full status, may have been working in a higher education environment for many years and have vanishingly little currency in the area that they teach, with respect to how it is operationalised in the 'real world.' While in some areas current real-world experience is unlikely to be an issue (for example, philosophy and politics majors), in other areas it will almost certainly be highly relevant (nursing, IT, accountancy).

George Bernard Shaw is credited with saying, "He who can, does. He who cannot, teaches," a quip which has frequently been repeated in the context of education. The implication is that teachers are not on a par with those who are practitioners in the field; that the teaching profession is full of those who have failed outside the world of academia; and that students are learning from teachers who may not possess the capability to help them succeed outside of the classroom. While such implications may be too extreme, such truisms often contain a kernel of the truth. Some believe that the ability to teach is completely separate from the ability to do. For example, having the ability to coach a team to succeed is different from being a successful player. Good teachers are not necessarily good performers, but they may produce good performers.

Many concur with George Bernard Shaw's witticism and argue that it is impossible to understand how to do something, but be unable to do it, and there is some truth in this. For example, in order to teach a musical instrument, the teacher has to be able to play the instrument themselves. Or, in order to be able to teach medicine, the teacher has to be a practitioner of medicine. However, being able to transfer the ability to do something to the realm of knowledge is different from being able to do something well, or to teach well.

There is a perception that educators in the majority of disciplines in tertiary education focus on the theories and abstract principles of an industry, without ever having implemented them themselves. It is possible that the best educators in tertiary education are those with experience and accomplishment in their fields. According to Charles Mayo, one of the founders of the internationally renowned Mayo Clinic, who was considered to be a surgical wonder of his time and an inspirational teacher, a doctor must always be a student in order to be a teacher of medicine (Naini, 2006).

THE TRIANGLE OF THE MODERN EDUCATOR

My proposed model (Figure 1) is built on the argument that quality teaching in tertiary education organisations is not just about pedagogical and research skills, but also about the professional skills of the educator. Well-rounded educators are likely to have these traits, as well as the willingness to enhance their abilities as needed in order to address the needs of their learners. According to Boice (1992), the key professional qualities involved include technical competence, disciplinary competence and knowledge about career advancement.
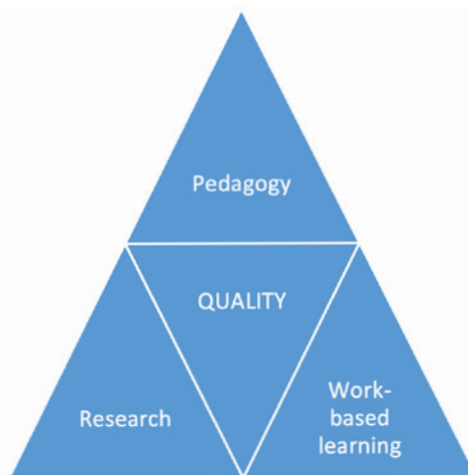

Figure 1. The triangle of the modern educator. Source: Author.

The model (Figure 1) is a triangle which emphasises that the three primary components of quality in tertiary education are: i) pedagogy – a deep knowledge of topics and the ability to deliver these well; ii) research – possessing an enquiring and analytical mind and the skills to enhance pedagogy; and iii) work-based learning – professional and practical skills to support the enhancement of pedagogy.

The proposed model highlights that the key characteristic of a quality educator is their ability to 'do' as well as 'teach,' where teaching means delivering learning. Thus, developing the components of the triangle could empower educators to give quality professional and pedagogical guidance to meet the expectations of the new generation. Deficiency in any of the components of the triangle could result in a compromise in quality. For example, a person who has been mostly 'doing' may not be able to explain why and how, compared with an educator whose main skills lie in disseminating the details of a subject with the support of the relevant literature.

Tertiary education organisations differ in their emphasis on the practical skills of their educators. While mainstream higher education institutions might emphasise the need for research skills, tertiary education organisations put more weight on the ability to deliver learning and the ability to demonstrate possession of practical skills.

In the institution where I am employed, a tertiary education organisation, demonstrating practical skills is one of the most highly recommended attributes for a new educator. However, maintaining these practical skills is not an easy task, given the high teaching workloads of staff. As a result, most educators focus on pedagogical skills. In saying that, the institution is not opposed to professional development, sabbaticals and opportunities to improve relationships with industry. For example, when I sought to reduce my teaching hours in order to conduct work in industry, my employer recognised the benefits of going back to industry after four years of teaching. These benefits include maintaining the currency of my technical skills, building relationships with stakeholders in industry (which has the further potential benefit of creating work placement opportunities for my students), and ensuring

that the content of my courses aligns with current industry demands. Indeed, this exercise resulted in creating opportunities for work-based learning for our students, exposed me to current practices in industry, and equipped me with recent case studies that I used in the classroom to support delivery of learning.

DOES WORK-BASED LEARNING MATTER?

Some of us, looking back over our higher or tertiary education, can attribute our likes and dislikes of particular topics to one or more lecturers. Indeed, correlational evidence indicates a relationship between academic success and liking a particular lecturer (for example, Montalvo et al., 2007), who may have instilled in us the desire to pursue a particular career path. Most tertiary education organisations invest in a variety of ways to deliver programmes and develop the pedagogical techniques of educators. Arguably, however, neither pedagogical techniques, personality traits nor likeability ensure that academics possess the professional skills that students need to learn (Chan, 2018).

Many tertiary education organisations, especially those offering applied programmes, have compulsory courses where students in their final year of study undertake a work placement in industry to get some 'hands-on' experience related to their programmes of study, such as project work or internships. This is evidence that tertiary education organisations see the value to students of gaining work experience, and their success in the work-based course component indicates that they are capable of joining the 'real-life' world. If this is the case, then should tertiary education organisations place an equal importance on the practical skills of their educators? Work-based learning may "assure academics of their professional immortality by attending to the needs of the next generation" (Hayes, 2005, p. 445).

PROFESSIONAL DEVELOPMENT OF EDUCATORS IN TERTIARY EDUCATION

Most, if not all, higher education institutes are expected to be involved in research. In most disciplines taught in higher education institutions, collaboration between industry and academia exists at the research level, with senior academics being more involved, and more expected to get involved, in research activities. This situation is no different for tertiary education organisations; the New Zealand Qualifications Authority (NZQA) mandates that all teaching staff of degree-level programmes and postgraduate programmes be research-active (NZQA, 2020). More recently, there has been an incentive for tertiary education organisations delivering degree programmes to also be actively involved in research (for example, through the Performance-Based Research Fund (PBRF) funding mechanism). As a result, it is less common for educators in these organisations to look for work-based learning opportunities to gain hands-on knowledge of the modern workplace, and both the specific competencies and generic skills that are in demands in their sectors (Chan, 2018). Rather, most of their professional lives are spent within their educational institutions. Indeed, the professional development programmes and sabbaticals offered to educators in tertiary education organisations are mostly about developing their research and teaching skills. It is proposed that work-based learning should be a compulsory part of the professional development of educators in tertiary education, even those whose disciplines do not map closely to a particular professional sector.

Professional development programmes outside the framework of the traditional teaching and research model may provide an alternative opportunity for developing professional and practical skills that could benefit students. During recruitment, potential educators in tertiary education organisations could be asked about the specific area of expertise in which they have practical work experience, and how they believe they can maintain and enhance that experience to benefit their students. However, this approach can only be successful if educators are willing to devote time and energy to develop their work-based learning skills, and when tertiary education organisations are willing to empower new and continuing educators by supporting their professional growth and renewal (Boice, 1992). Indeed, Chan (2018) maintains that potential educators should undergo a year-long work-based learning program before they start teaching. Chan also maintains that as part of educators' professional development and career advancement, they should return to work in industry every three to five years.

LIMITATIONS

There are a number of limitations associated with the implementation of this model. While tertiary education organisations might not be opposed to the idea of educators' request for work-based learning on a temporary basis, it will always be difficult to cover the workload of educators while they are working in industry. However, some tertiary education organisations have adopted teaching and non-teaching semesters, presenting a valuable opportunity for work-based learning to be achieved. In the absence of such an approach, effective planning and organisation of staff workloads might overcome this limitation.

Another possible limitation might be the lack of commitment on the part of both staff and employers to implement the model. Not all would see the benefits of the proposed model. Educators, especially those who have been teaching for a long period of time, might be reluctant to gain new practical skills. Similarly, employers might lack the resources to support the implementation of the model and the focus would remain on the immediate needs of the institution, which are often related to teaching and delivery of courses.

CONCLUSION

Every tertiary education organisation is in need of educators having abilities in both the delivery and application of learning. Educators' credibility lies in their ability to break down their subject matter for their learners, their ability to explain complex problems in ways that their learners can understand, and their ability to get very specific about details, which often comes from applied experience.

Educators need to be up-to-date with advancements in professional practice and pedagogy, so that the future workforce is equipped with the right skills to find its proper place in this dynamic environment.

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ON BECOMING AN AUTONOMOUS TEACHING PROFESSIONAL: MAPPING STAFF PROFESSIONAL DEVELOPMENT PREFERENCES

Amy Benians and Daniel Fridberg

INTRODUCTION

The Learning and Teaching Development (LTD) team at Otago Polytechnic (OP) is a service centre that provides support and professional development (PD) for staff in Learning and Teaching. LTD is tasked with planning and designing workshops, modules and bespoke training to support the teaching staff at OP. This positions LTD at the junction of adult education, teacher training and organisational learning.

To articulate this point, let's consider these three components in turn. Adult education lends itself to self-directed learning, where an individual identifies their learning needs, decides on goals, discovers resources and strategies for learning and then self-evaluates (Knowles, 1980); teacher training lends itself to experiential forms of learning (Timperley & Alton-Lee, 2008); and organisational learning lends itself to situated cognition, which recognises that knowledge is embedded within the context in which the activity occurs, and in the organisational language and culture to which it pertains (Brown et al., 1989). In these different areas, LTD supports individuals in providing adult education, training teachers in pedagogy and course development, and works with programme teams across the organisation to embed strategic frameworks and establish learning groups and communities of practice (CoPs).

While professional learning within these three areas can, at times, seem to present competing demands, examining the literature on learning in each of these broad areas (see, for example, Knowles, 1980; Hansman, 2008) reveals that these pedagogies are complementary rather than competing. All revolve around shared educational values that closely align to our OP values of courage, caring, empowerment and accountability.

For example, in the Adult Learning space, as an individual teacher develops in their teaching role, they start to identify their own learning needs to best support their students and become increasingly self-directed and autonomous in pursuit of these learning goals (Hansman, 2008). In the space of Teacher Training, there is an expectation at OP that teaching staff hold a formal qualification in tertiary education. Often tertiary educators have specialised expertise in their trade or discipline, but they may not have a teaching qualification or a background in Learning and Teaching (Viskovic, 2005). At OP this initial teacher training is provided by LTD through the Graduate Diploma in Tertiary Education (GDTE). Thereafter, teachers at OP are encouraged to engage in continuing PD in their discipline as well as in Learning and Teaching, with ongoing support from LTD. Finally, in the Organisational Learning space, situated learning describes how individuals acquire embedded knowledge, learn to use the "tools of their trade," and refine these skills within the context that the knowledge, tools and skills will be used in their practice. Furthermore, sharing in embedded knowledge can happen through situated learning in real-world organisational contexts, either as individuals (Brown et al., n.d.) or within CoPs (Lave & Wenger, 1991).

So, what are CoPs? These are broadly defined as groups of people who share a concern or passion for something that they do and learn how to do it better as they interact regularly (Wenger & Snyder, 2000). The key driver for people to assemble in CoPs is the situated learning that takes place (Lave & Wenger, 1991). The CoP framework has been widely used in education to create learning communities which are established by teachers, for students, to engage students in a community of practice (CoP) pedagogy. As an example of a learning community, students may be tasked with a joint enterprise such as arranging an art exhibition with alumni (Wassenaar, 2017). They accomplish this by collectively engaging as a community, and in so doing develop a shared repertoire, including artifacts, resources and documentation, and arrive at a common language that they develop as a group. Such learning communities have been found to be very useful in reducing the isolation of online or distance learners (Andrew, 2014).

The CoP framework is a frequently used model of PD at OP. These are working groups of staff interested in broadening their understanding and increasing their competency in specific areas of Learning and Teaching, including educational technology, academic supervision and mentorship, and teaching peer-observation.

As a Learning and Teaching unit, one of the reasons for our interest in models of PD was a number of papers by Aileen Kennedy (2005, 2014) of the University of Strathclyde. In these papers, she examined different models for continuing professional development for teachers. She categorised these on a spectrum from transmissive to transitional to transformative. In her classification, she considered teachers' professional autonomy in undertaking PD, accountability for PD and the power relations underlying the reasons for taking up PD (Figure 1). In Kennedy's schematic, "transformative" refers to models of PD in which a teacher has professional and intellectual autonomy; she argues that such transformative PD models have the capacity to bring about lasting educational change.

Model of PD	Purpose of model	
The training model The award-bearing model The deficit model The cascade model	Transmissive	Increasing capacity for professional autonomy and teacher agency
The standards-based model The coaching/mentoring model The community of practice model	Transitional	
The action research model The transformative model	Transformative	

Figure 1. Kennedy's spectrum of PD models (Kennedy, 2005, 2014).

We wished to examine how Kennedy's model translates in our own practice of delivering PD. Based on relevant literature (see, for example, Hudson, 2016; Manke, 1997; Wong, 2016), we have articulated two factors that might promote teachers' increased autonomy in pursuing PD:

1. Reduction of the hierarchical nature of the interaction between PD provider and recipient.
2. Having the direction of information flow change from unidirectional to bidirectional, as we move from the transmissive to the transformative.

Thus, theoretically, as we move from transmissive towards transformative PD, the learner becomes more autonomous, self-driven and self-directed in their learning. To illustrate this with an example, the CoP model of PD sits in the transitional zone in Figure 1. Within a CoP, information flow is bidirectional and usually occurs within a democratic structure, reducing the hierarchy between expert and novice learner. However, there is still an expectation within a CoP for facilitation and leadership which sets the mandate for the group (Wenger & Snyder, 2000). Of interest to us, as staff developers, is that as one moves from a transmissive towards a transformative model of PD, there is an increasing capacity for professional autonomy, whereby the staff member engaging in PD has a greater capacity to decide on the direction that they wish to engage in self-directed learning. Figure 2 illustrates how these factors relate to Kennedy's modes of PD.

		Criterion 1: Teacher-learner hierarchy present?	
		Yes	No
Criterion 2: Direction of information flow	One way	Transmissive	
	Two ways	Transitional	Transformative

Figure 2. PD classification criteria.

Some examples that illustrate these criteria include a face-to-face workshop, in which a one-way information flow takes places with a hierarchical division between an expert facilitator and learners. Conversely, in a peer-mentoring circle, no formal roles are allocated and information flows in all directions, making it a transformative means of PD.

To summarise, LTD is involved in designing and delivering PD in different settings (individual, group-based and institutional), ranging from transmissive methods of delivery to more autonomous, transformative ones. One predominant form of PD, which promotes learners' autonomy, though not yet manifesting full autonomy, is the CoP model, which is a widely practiced form of PD at OP. Based on this practice, in our research we sought to answer the question: What are OP's staff preferences for their own PD in terms of Kennedy's spectrum? Following on from this initial question, we explored the existing CoPs in which OP staff play an active role and classified them.

METHODS

Data was collected for quantitative and qualitative analysis using an anonymous survey in Qualtrics that was emailed to all teaching staff at OP across three campuses (Dunedin, Cromwell and Auckland). Staff were invited to participate in this survey in July 2020, allowing 5-6 weeks return to normal campus-based teaching following the COVID-19 related lockdown. Ethics approval for this research was obtained from OP's research ethics committee (reference number 864a).

The survey consisted of three parts. In the first part, multiple-choice demographic questions were asked about gender, ethnicity, campus, years of teaching and other personal data. In the second part, teachers were asked about their preferred ways of receiving PD (for example, face-to-face workshops and online workshops) and about areas of Learning and Teaching in which they would like to be better able to support their learners. In the third part, teachers were asked questions relating to CoP, enquiring if the staff member was a member of any CoPs and, if so, the names and purposes of these (with a maximum of three).

Community of Practice Mapping

To map OP's staff CoPs, a thematic analysis of the names and purposes of the CoPs described at OP was performed, based on the procedure described by Boyatzis (1998). Themes were not pre-decided, but were allowed to emerge from the data through an initial inspection of a subset of the data by the first author. Themes were coded as follows:

1. Learning and Teaching – to include all activities related to teacher training, apprenticeships and classroom teaching.
2. Educational technologies.
3. Professional identity – to include all professional registration bodies, such as Chambers of Commerce, and groups contributing to staff development within their discipline area.
4. Research.
5. Cultural or related to ethnicity.
6. Wellbeing or related to pastoral support of either students or staff members.
7. Not a CoP. This theme was to describe reported communities that were deemed to be lacking the element of practice (Wenger, 1998), such as a faith-based group.

The thematic analysis was conducted by three members of the research team to independently code the data set. An interrater reliability of 80 percent was reached, calculated as a percentage of the number of times the three researchers agreed on the codes, divided by the total. Disagreements were easily resolved through discussion of the coding and a consensus decision reached, after which the majority decision was taken as consensus.

Kennedy Score

In order to analyse our data in light of Kennedy's model (Kennedy, 2005), participants were classified by their preferred means of PD into three categories: transmissive, transitional and transformative. Next, a Kennedy Score (KS) ranging from 1 to 3 was calculated for each participant. Each classified mode (transmissive, transitional and transformative) received a value of 1, 2 or 3 respectively. Then, numeric values were calculated as an average of a participant's choices between their five highest preferred PD modes. A high KS approaching 3 indicated a preference for transformational delivery of PD, while a low score approaching 1 indicated a preference for transmissive delivery of PD.

The SPSS data analysis package was used to perform quantitative analyses on the de-identified data set, including descriptive statistics and statistical tests to examine for relationships between variables such as bivariate analyses.

RESULTS

Demographics

The responses to the demographic questions indicated that of the 98 respondents, 37 were male and 55 were female. Of those, six identified as Māori and 92 were non-Māori and non-Pasifika. Roughly 70 percent of the respondents worked at the Dunedin campus at the time of taking the survey, which is reflective of OP's distribution across its three campuses, with a small number of respondents (~4 percent) at the Central Otago campus and a small but significant number of respondents (~12 percent) at the Auckland International campus. The around 11 percent who selected "other" were most likely staff working at distance around the country.

Of the respondents, more than half (56-57 percent) said that they had been working at OP for more than six years. The respondents' level of professional qualification is presented in Figure 3.

What is your highest level professional qualification?

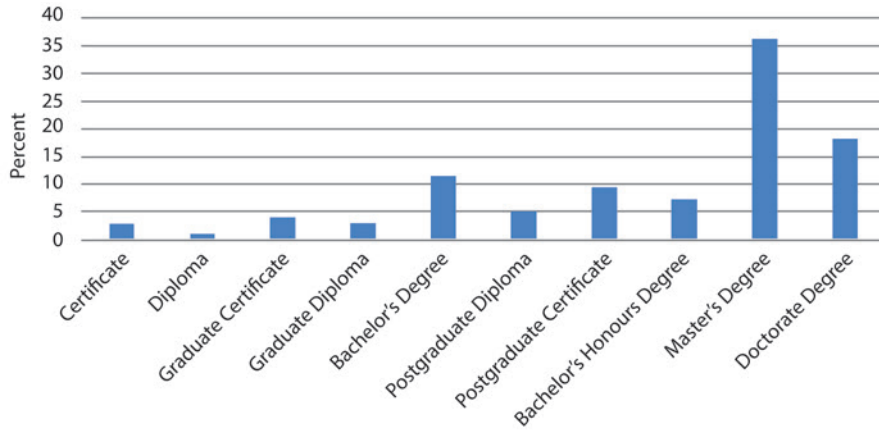Figure 3. Respondents' level of professional qualification.

As Figure 3 shows, more than half of the respondents hold a Master's degree or above.

Community of Practice mapping

Forty-eight of the 98 participants felt that they belonged to one or more CoP. The CoPs mentioned by the participants are presented by themes in Figure 4.
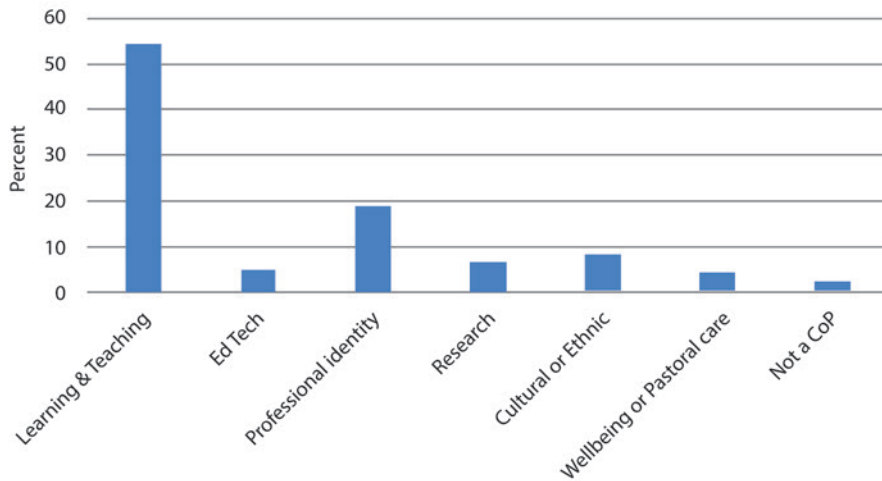
Type of Community of Practice

Figure 4. Type of CoP reported by participants.

As Figure 4 indicates, 60 percent of the CoPs mentioned by the participants revolve around Learning and Teaching practice, including educational technology.

The 48 participants who are members of one CoP or more were then asked to what extent their participation in CoPs contributes to their practice. Their responses are summarised in Figure 5.

To what extent does your participation in this group contribute to your practice?
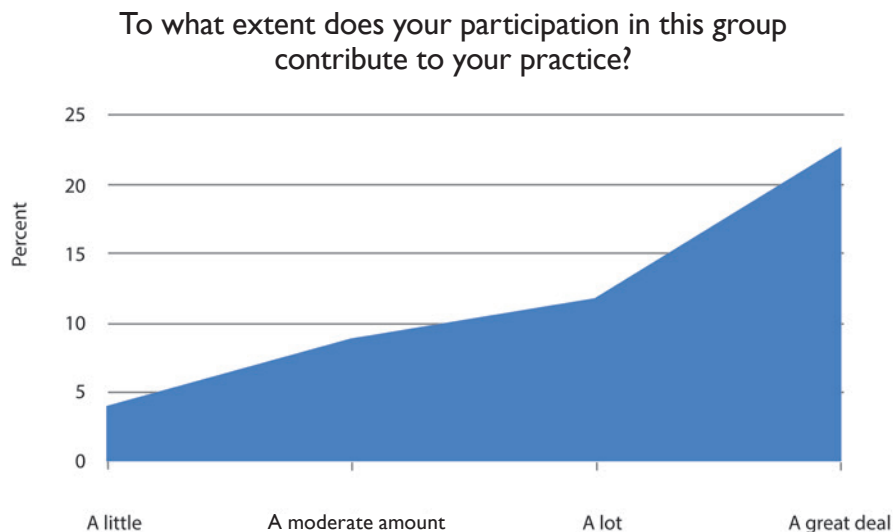
Figure 5. Participants' perceptions regarding contribution of CoPs to their practice.

Results were then examined for correlations. The length of time teaching was the only significant factor in determining membership of a CoP and perception of its value. Specifically, length of time teaching at OP was found to be positively correlated with belonging to one or more CoP (n= 82, R= .287. P < .01). This means that the longer a teacher teaches at OP, the more likely they are to belong to a CoP. Also, the length of time teaching was found to be positively correlated with respondents' perceived contribution to their teaching practice of participation in a CoP (n=48, R = .290, P< .5). That is, the longer a teacher teaches, the more likely they are to see the value in participating in a CoP for their teaching practice. Other demographic variables, including gender, location, part- or full-time status and level of professional qualification, were not found to be less significant in this respect.

Kennedy Score

As a next step, respondents' KS were analysed, both to map their PD preference and to check for possible factors influencing it. The relative weightings of Kennedy's modes of PD in the participants' responses are presented in Figure 6.

How do you normally prefer to engage in PD?
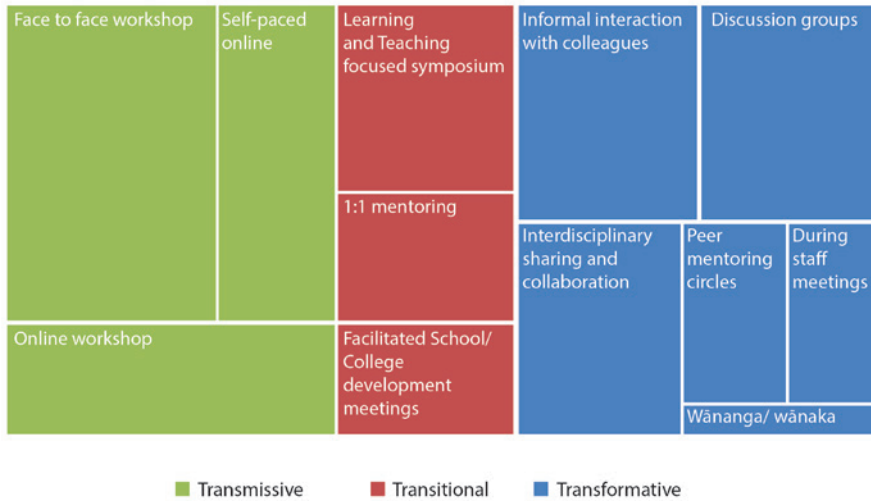
Figure 6. Participants' preferences for modes of PD.

As Figure 6 shows, a majority of the participants, almost in equal numbers, have preferences for either transmissive or transformative modes of PD. Although it may seem as if there is a polarisation in participants' preferences of PD modes, further analysis indicates that there is a close-to-normal distribution of individuals' KS, with the mean KS being very close to 2 (N=91, Mean=1.92, StD=.374). Figure 7 below presents the distribution of the participants' KS.

Kennedy's score
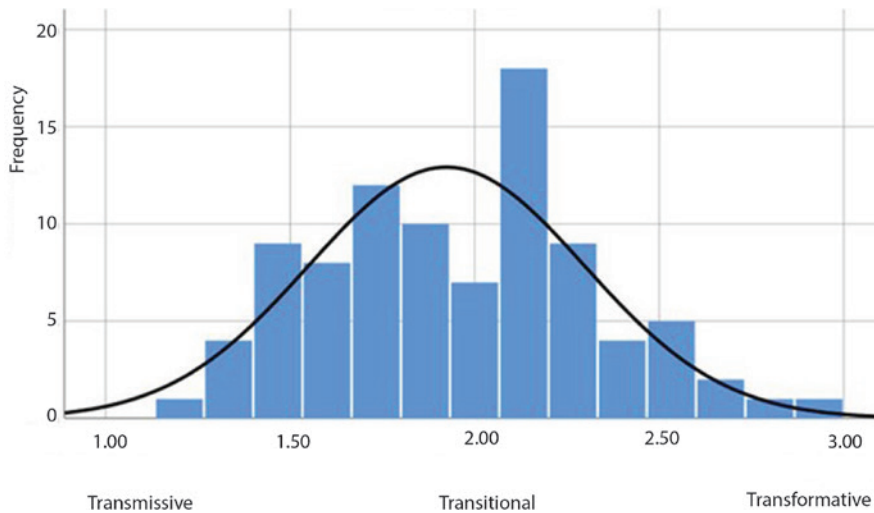
Figure 7. Participants' KS distribution.

Following the distribution analysis, a correlation analysis was performed to identify possible factors which might influence participants' preference for one mode of PD over another. The findings indicated that time spent teaching is positively correlated with the KS (n=91, r=.257, p<.05), meaning that the longer a teacher teaches, the more they are inclined towards a transformative mode of PD. Furthermore, a T-test indicated that a likely cut-off point of length of teaching was six years (n=91, t=.255. p<.05). Conversely, this finding indicates that teachers with less than six years of teaching experience have a preference for PD modes positioned on the transitional–transmissive area of the KS spectrum. No other demographic factors were found to have a significant effect on participants' KS.

DISCUSSION

Our research aimed to address two main questions – what are OP's staff preferences for their own PD, in terms of Kennedy's spectrum; and what are the existing CoPs in which OP staff play an active role? This section presents the main findings on these questions, exploring some of their theoretical meanings. Next, implications for OP staff development are explored, for the LTD team as well at the institutional level. Finally, the next steps for this research project are presented.

With regard to the first research question, Kennedy (2005) argues that the progress along the spectrum of PD modes supports the development of professional autonomy and capacity for transformative practice. Our results indicate that while this may be very much the case, a time factor should also be integrated into this model, to allow new teachers to gain competency by engaging in transmissive modes of PD before they have the confidence and capability to engage in more autonomous forms of PD.

The KS, while being important in introducing a conceptual framework for teachers' PD, does not fully address the question of causality. That is, why are different modes preferred by different teachers and, more importantly, what factors drive progression along the spectrum? The results of our research suggest that not only do PD needs change with time spent teaching, but that teachers' expressed PD preferences might provide an indication of their perception of agency. In other words, beyond the specific value that a PD opportunity holds for professional learning, a progression in the PD mode goes hand-in-hand with an increased sense of competence and development of professional identity.

Additionally, while Kennedy infers that the shift towards transformative PD reflects an increase in professional and intellectual autonomy (2005) and teacher agency (2014), she does not relate this to a teacher's preference for more autonomous forms of PD that we think this shift entails. To bridge this gap, we have postulated that this shift towards greater professional/intellectual autonomy also involves a preference for engaging in self-directed learning pedagogies. More specifically, where developing an autonomous learner is a goal of the PD, we have elaborated on two factors, namely removing teacher–learner hierarchies and encouraging two-way information flow. These two factors may provide guidelines for practical applications for PD which can allow staff to move towards more autonomous modes of PD.

In regard to the second question, the research results indicate that OP's staff has diverse preferences when it comes to their preferred PD modes. While newer staff members prefer more transmissive modes of PD, it seems that the more experienced teachers prefer more autonomous modes, which are typically transitional or transformative. Not surprisingly, the more experienced teachers are, the more they are engaged in CoPs and the more likely they are to find them valuable in contributing to their teaching practice. The most common CoPs at OP revolve around Learning and Teaching issues (60 percent), with a few others that were classified as focussed on research (8 percent), professional or cultural identity (28 percent), and pastoral care and wellbeing (4 percent). These results provide a strong indication of the usefulness of CoPs as a means of Learning and Teaching-related PD. For this reason, the second phase of this research project will be dedicated to a closer examination of CoPs at OP.

Implications for Learning and Teaching Development

In Kennedy's original classification, she used the terms transmissive, transitional and transformative to define the intended purpose of the PD undertaken. For example, transformative forms of PD such as action research could be used to bring about a transformative change in teaching practices utilising a ground-up approach, whereas transmissive forms of PD could be used for actioning an organisation-wide directive, such as encouraging staff to adopt a new literacy strategy or classroom teaching practice across an institution. The purpose of the transitional category includes forms of PD that can straddle both transmissive and transformative modes and can transition from one to the other. For example, the CoP model of PD can be facilitated in a strongly directive fashion, or it can be staff-led and evolve with their changing learning needs and interests. In this paper, we have used the terms transmissive, transitional and transformative to define the mode of delivery of PD. In so doing, we have broadened Kennedy's classification to also include the delivery mode as well as the intended purpose of the PD. Nevertheless, delivery mode strongly aligns to purpose. From LTD's perspective, this has implications for the design of PD, where the choice of delivery mode should align with the pedagogy used to deliver PD offerings and its intended purpose.

From our data, we also see an emerging group which consists of our new teachers who have just come into teaching practice from their trades or professions; they show a preference for more transmissive modes of PD. For their academic induction, our new teachers have a need for just-in-time learning such as targeted face-to-face workshops. Furthermore, examining the learners' pathway through the GDTE from the perspective of increasing learners' autonomy may illuminate a progression towards self-directed learning. Specifically, learners start this programme by working through fully facilitated courses (for example, Fundamentals of Tertiary Teaching and Learning), then moving onto supervised courses (for example, Negotiated Learning and Work-Based Learning) and through to self-directed learning (Integration of Professional Practice). Thus, the GDTE journey, which new teachers at OP are required to take in their first few years of teaching, embodies this progression from transmissive to transitional to transformative modes of learning. Through the delivery of this programme, LTD hopes to promote an organisational culture of self-directed and autonomous learning.

Reflecting on the training and support offered by LTD to OP's staff, it is evident that much is offered in the space of transmissive PD in the form of the GDTE, online tutorials, face-to-face workshops and bespoke training; less is offered as transitional forms of PD, such as CoPs (for example, Educational Technology Champs or GDTE learners' hui); and very little if anything is offered as transformative PD. Considering the findings of our research, a major implication is that while support from LTD is mostly offered to newer staff members, the needs of more experienced staff should be given greater consideration and more emphasis by LTD.

Institutional implications

From an organisational perspective, an awareness of Kennedy's categorisation of PD models can inform decisions around staff development and support.

Support of OP teaching staff

The constraints on available resources need to be considered. For transmissive modes of PD staff need time, such as the discretionary leave available to academic staff engaged in the GDTE and time-release from normal teaching duties. However, transitional and transformative modes are more resource-intensive, requiring funding for launch events, visiting speakers, conferences, and so on. However, these activities are highly unlikely to be eligible for research funding. One recommendation would be to make a pool of funding available for transitional and transformative PD opportunities such as these.

Reward and recognition of staff

OP has some paths in place to recognise and incentivise transmissive PD: early-career teachers are awarded badges, OP's micro-credentials or "EduBits" and the GDTE qualification; mid-career teachers are awarded post-GDTE PD funding increases and eligibility to apply for senior lecturer status. However, we may lack forms of recognition for our mature-career teachers engaging in transitional and transformative modes of PD. There needs to be greater recognition for being part of institutional groups such as CoPs and research groups, which contribute to both one's own professional learning and that of colleagues.

Next steps

Viskovic's work indicates that vocational teachers value the informal learnings that are gained from within a CoP framework (Viskovic, 2005). A second reason to explore CoPs at OP is that CoPs represent a model of PD that empowers teaching staff to become self-directed in their learning (Hansman, 2008). Self-directed learning is the "holy grail" for staff developers who ideally want motivated, agentic and empowered staff members to identify areas for their own PD of interest to them as dual professionals, such as engaging in professional inquiry or research (Timperley et al., 2007).

In this first phase of the research project, questions on OP staff's PD preferences and needs were explored, CoPs were mapped and the perceived contribution of CoP to staff's PD was confirmed. However, there is still a need for an in-depth inquiry into why individuals participate in CoPs and the benefits for their teaching. Additionally, while a broad understanding of the areas covered by CoPs has been established, further research is required to learn about best practice in initiating and operating CoPs at OP. These two questions will be the focus of the second phase of our research project, using more qualitative tools and methodology. As a result, we hope to develop our understanding of how we can improve our support of CoPs as an organisation.

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CONSTRUCTIVISM AND REFLECTIVE PRACTICE: AN EVIDENCE-BASED APPROACH TO TERTIARY TEACHING

David Woodward, Shannon Booth, Elise Allen, Alexa Forbes, Cushla Donnelly and Jeremy Taylor

INTRODUCTION

A small group of Graduate Diploma in Tertiary Education (Level 7) learners and recent graduates, representing the taught Recognition of Prior Learning and Independent Learning Pathway programmes at Otago Polytechnic (OP), collaborated as a Community of Practice (CoP) to explore evidence-based teaching practice.

Examples of teaching philosophy statements employed and the process of preparing them were discussed at a professional practice symposium (Woodward et al., 2018). The audience was introduced to the use of metaphor and established frameworks, such as those developed by Chism (1998) and Schönwetter et al. (2002), for structuring teaching philosophy statements. A paper, "Developing a Teaching Philosophy for a Teaching Credential: Enablers, Challenges and Use of Metaphor" was presented at the 2019 Praxis Symposium (Woodward et al., 2019a) and published in *Scope* (Woodward et al., 2019b).

Subsequent research investigated key evidence-based (Cullen et al., 2017) theories and models that underpin pedagogical practice at OP; what drew teaching practitioners to particular theories; and how those theories link to teaching practice (Woodward et al., 2020b). A range of evidence-based pedagogy was identified (Woodward et al., 2020a), with the common denominator across all programmes – constructivism – investigated. Constructivist theories included the use of experiential learning (Knowles et al., 1998; Kolb, 2015) and reflection, scaffolding (Bruner, 1966) and social constructivism (Vygotsky, 1978). Each teacher was drawn to pedagogical theories depending on the 'fit' within their individual specialist areas (Woodward et al., 2020b). While constructivism is well documented as an evidence-based teaching theory, the use of constructivist pedagogy to more effectively engage learners, and to identify pedagogical tools using these frameworks for a more effective learning experience, across a range of teaching subjects, has not been widely explored.

Our CoP therefore set out to investigate which constructivist models/theories were employed in teaching practice and why they had been employed by teachers, and to identify the most effective constructivist pedagogical techniques used to engage learners across a range of subjects taught.

METHODOLOGY

Henry et al. (2020) identified Communities of Practice (CoP) as an effective social constructivist tool for building trust and a sense of belonging, sharing of enterprise and enhancing the reflectivity that is a precursor to independent learning. We therefore employed this social constructivist (Palincsar, 1998) approach to mine information from interviewees, all OP teachers/facilitators, using an autoethnographic (Maréchal, 2010) approach involving reflection on teaching experience. The CoP group met online on a regular (monthly) basis to explore the research questions, with all interviewees being members of the CoP and authors of the present article.

FINDINGS

1. What constructivist theories/models currently inform your teaching practice?

Jeremy, facilitating in business management, health and safety, and education, takes an approach grounded in constructivist theories and models. Reflecting on which of these models have had an impact on his practice, he highlighted scaffolding and the aligned framework of the zone of proximal development (ZPD) (Vygotsky, 1978). It is interesting to note that for many educators, including Jeremy, scaffolding is helpful because as Mercer (1994) argues, this approach resonates with what constitutes a successful learning intervention.

Wood et al. (1976) are regarded as the first to use the term scaffolding as a metaphor in the context of how learning – or, more specifically, how skill acquisition – could be improved in learners. Some key features associated with effective scaffolding include the aim of providing an appropriate level of assistance to help learners to achieve tasks and develop their understanding; by extension, if an educator gets their scaffolding approach just right, learners will be challenged and their abilities extended. There is a strong theoretical framework underpinning scaffolding, and its relationship with Vygotsky's (1978) theories of learning needs to be noted. It should be remembered, however, that although Vygotsky never used the term scaffolding, his ground-breaking work has been taken up in the work of others, like Bruner (1985), who have made the connections that learning is basically a social and cultural process, with educators having a role to promote effective shared learning experiences (Hammond & Gibbons, 1995). While Vygotsky's work is extensive, the most relevant aspect for discussion here is the ZPD, which Hammond and Gibbons (1995) argue provides the theoretical basis of scaffolding. In the context of education, the most significant feature of the ZPD is that the framework suggests the upper and lower limits of learning, or the zone within which new learning will take place.

Elise, working in the Bachelor of Information Technology (IT), has based her course design and delivery methods on several constructivist models, particularly in "Studio" courses where learners work in groups. Naturally, social constructivism (Vygotsky, 1978) fits this way of working, as group work encourages learners to learn from one another using collective scaffolding (Donato, 1994). The work undertaken in these courses is also largely experiential (Kolb, 1984), making use of cycles of doing and reflecting – including, importantly, allowing learners to make and learn from mistakes. However, experiential learning may not be effective in the IT context if the tasks set are too far outside the learners' ZPD (Vygotsky, 1978). In this case, scaffolding of learning (Wood et al., 1976), as described above, is central to the success of constructivism in the IT studio context throughout the three-year degree programme.

Shannon, working in the space of pregnancy, childbirth and early parenting education, believes that constructivist theory has significantly influenced her views on learning and teaching. Constructivist theorists share the overall philosophy that learning is an active, constructive process, whereby students construct their understanding and knowledge of the world based on their own unique experiences and their reflecting on those experiences. Learners build on their prior knowledge by comparing new ideas to the ones they already have and learn through the similarities and differences they discover (Bruner, 1966). Consequently, Shannon finds that constructivist models are a good fit for adult learners in her classes, who will often arrive with preconceived ideas and opinions about various pregnancy and parenting topics, based on things they have previously seen, heard, observed or maybe directly experienced already. Due to this collaborative nature of knowledge construction, expectant parents are embraced as active participants in the learning process and, as a result, Shannon steers her role away from a 'traditional teacher' model towards a facilitation role. She encourages her learners to explore, question, challenge and make their own informed decisions about pregnancy, birth and parenthood through experiential learning activities that require group interaction, problem solving, discussion, collaboration and reflection.

Cushla works with learners engaged in professional practice qualifications, at both undergraduate and postgraduate levels, across a variety of study areas. She believes that constructivist theories and models have strongly influenced her practice, further informed and underpinned by experiential learning and reflection. Although student

ownership of learning is not an idea that began with constructivism, the idea that the learner should play a primary role in determining their own learning needs and deciding how to best pursue these needs is a constructivist one (Driscoll, 2005). Both paradigms assume that learning begins with a personal desire to learn, and it is the instructor's initial responsibility to stimulate the learner's interest (Osterman, 1998). As a facilitator, Cushla uses constructivism and reflective practice to bridge the theory and practice gap for learners who, particularly in the undergraduate qualification, are often entering tertiary study later in life with little or no academic experience.

Alexa works in leadership for change, sustainable, and professional practice programmes, and brings a constructivist axiology to her work. This extends from an understanding that learning is a social activity (Dewey, 1963) and happens effortlessly within the ZPD. It recognises that oppression is built into the design of learning systems (Freire, 1993) and the power of education in reinforcing a dominant culture (Foucault, 1982). Completing a te reo Māori (Level 5) qualification has reinforced her constructivist approach with another base of evidence for her social and holistic facilitation style.

A narrative enquiry approach to research based in constructivism is a commonality among her learners. This approach centres on weaving together prior knowledge and new knowledge in relation to place, community, past and future. This supports a learner-centric practice that welcomes different perspectives and recognises whakapapa. It also supports CoPs that invite people to bring their whole selves into their learning environment. This approach recognises Mason Durie's (1998) Te Whare Tapa Whā model of Māori health which includes the spiritual, the mental/emotional, the physical and the social aspects of every participant's life. CoPs provide a richness and exchange that raises the repertoire of the entire group as explored in a series of narratives (Henry et al., 2020).

2. What does constructivist theory and reflective practice mean to you as a teacher?

In Alexa's practice, constructivism and reflective practice mean a genuine acceptance of and respect for the learner's own contextual and cultural position, including ways of knowing and thinking that may be different from or challenge her own. She is committed to honouring Te Tiriti o Waitangi, which manifests as ongoing Māori studies and challenging existing learning design. Her open facilitation style recognises that curriculum reinforces culture (Stucki, 2012) and supports the forming and unforming of CoPs as needed. She recognises everyone as expert in their own learning, which in practice means that everyone in the learning space is a learner with something to offer and something to receive. Her practice welcomes a Māori approach, with its concepts of ako and tuakana-teina and a recognition of the importance of whanaungatanga and manaaki, as well as other integral Māori concepts.

The whakapapa of all things continues to be a big learning area for Alexa, which she explores without wishing to appropriate. She does, however, encourage learners to explore the whakapapa of their thinking as they explore literature and evidence.

Jeremy has already established the importance of scaffolding and the ZPD for his teaching practice; it was also helpful to consider the impact that these frameworks have had on his learners. In the context of Jeremy's facilitation role, it is helpful to consider the difference between scaffolding and just general help. For example, in Jeremy's domain, a common situation occurs when a learner is unable to write from a reflective standpoint. Here, Jeremy 'helps' by providing the learner with a reflective approach as offered by Ker (2017). Alternatively, he most often will 'scaffold' his approach and help the learner to think about what constitutes reflective writing; this is achieved through encouraging learners to think about what reflective writing should look like and how reflective writing could be demonstrated in a learning task, most often through some form of modelling. The key benefit to leaners from receiving scaffolding, as compared to just general help, is that this approach is aimed at helping learners to tackle future tasks in different contexts. If scaffolding is delivered effectively, learners gain autonomy and agency and feel better equipped to tackle more challenging tasks (Hammond & Gibbons, 1995).

Elise, working in IT, uses constructivism to overcome the challenge of integrating soft skills – such as teamwork, communication and time management – into a technical programme where learner buy-in was low. Several iterations of a professional practice course led to the increasing use of experiential learning models (Kolb, 1984), to imitate workflows from industry, for example, applying technical skills in a team setting – the opposite to her previous strategy of applying soft skills in a technical setting. This approach could even be thought of as a form of internal 'work-based learning.' Suddenly, learners realise the importance of soft skills to their technical productivity and are more engaged.

In this work-based-like format ("Studio"), learners make mistakes in their group work which they self-identify, using reflective practice, as coming from a lack of soft skills; thus, they have more engagement with coaching in those skills. In order to imitate 'realistic' workflows when learners may have only been learning technical skills for a matter of weeks, it is important to calibrate the technical aspect of the work so that they make mistakes that they can learn from with effective coaching – the teacher must control for learner frustration (Wood et al., 1976). The calibration of project requirements for each year level is central to this scaffolding approach. A side-effect of the teamwork approach was that learners made marked progress in their technical proficiency, because team members would solve problems using their collective knowledge, passing it around the team in the process (Vygotsky, 1978).

Shannon's aim is to create opportunities for prospective parents to explore their current knowledge and pre-conceived feelings and attitudes about specific childbirth and parenting topics. She encourages them to be actively engaged in the construction of new knowledge by applying their understanding to new situations, and/or combining their understanding with other concepts they have learned, through interacting with a group of individuals currently experiencing a similar journey. As a result, experiential learning opportunities feature strongly in her antenatal teaching repertoire. Experiential education first immerses learners in an experience and then encourages reflection about that experience in order to develop new skills, new attitudes, or new ways of thinking. John Dewey (1963), one of the most significant educational thinkers of his era and the most famous proponent of experiential education, asserted that for learners to be invested in what they are learning, the content should be relevant to their lives.

In Shannon's eyes, this is one of the main benefits of experiential learning – its ability to create 'relevance' for her learners. Shannon says:

> Unlike traditional teaching and learning methods that focus on 'information transmission to passive learners,' utilising constructivist methods, such as experiential learning, creates the opportunity for emotional connection through carefully chosen activities. This is important to me, as when my learners are genuinely interested in the content I am encouraging them to explore, and they can see the relevance of it to their own lives and how it will benefit them, then they emotionally engage and invest, and that is when true learning happens.

Cushla's professional practice is grounded in practical, experiential learning, and it is in this context that both constructivism and reflective practice resonate with her. In the professional practice qualifications that she facilitates, learners undertake problem-based learning through either addressing an issue or improving performance within the work environment. Constructivism suggests cognitive processes that involve the testing of ideas against prior knowledge and experience, and the integration of new learning with pre-existing constructs (Cripps & McGilchrist, 1999, p. 47, as cited in Schofield, 2000, p. 2). Constructivism is enacted in the professional practice programmes, where learners make the connection from current practice to the next steps; in this way, the building blocks of constructivism theory are enacted. It is the language of Rolfe et al. (2001, as cited by the University of Cumbria) that Cushla introduces to her learners and uses with them in order to support the development of their reflective practice, closing the gap between theory and practice. What? So what? Now what? These questions prompt reflective and evaluative discussions of both organisational and learner performance.

As described by Rodgers (2002), critical reflection is a meaning-making process that moves a learner from one experience into another with a deeper understanding and a connection to other experiences and ideas. Rodgers further notes that reflection requires an attitude that values personal (and professional) growth – an attitude that is transformational for learners enrolling in the Capable NZ professional practice programmes.

3. What constructivist pedagogical practices are most effective in engaging student learning over a range of teaching subjects?

Stucki's (2012) weaving of relationships between learner-facilitator, learner-peers and learner-facilitator-peers, and creating a safe social space, is vital to constructivism in the Aotearoa New Zealand context. Alexa sees her role as facilitator as developing relationships and creating a safe place for people to interact and construct their narratives from their own cultural context.

Creating this constructivist learning environment on-line has its challenges, requiring a mind shift and use of tools to build relationships while accepting the constraints of those platforms. In practice, this plays out in ako groups and CoPs through special classes, vertical integration and small groups. Communities are formed and unformed as needed and are built according to need. When in place, rich conversations are achieved by a process of first checking in with learners to ensure that they can be fully present in the time together, and then asking everyone to clarify where they are in their learning process. This in turn leads to questions, topics and the emergence of discussions that are always relevant. Breakout rooms are employed, deep levels of listening are encouraged (Presencing Institute, n.d.–a), and groups report back on what they have heard (as opposed to what they think). This process allows a "leading from the future as it emerges" (Presencing Institute, n.d.–b) and values all contributions, offered from all perspectives and any level of learning.

Bruner (1966) states that a constructivist approach to instruction addresses a predisposition to learning pathways in which a body of knowledge can be structured so it may be grasped by a learner and in the most effective sequence in which to present material. Adult learners bring individual needs, motivations and goals to their learning. Cushla develops trust with her learners, listening to understand their aspirations and learning styles, providing a collaborative and facilitated approach for each learner where they can explore and find their own unique professional identity. A facilitator has many roles – coach, cheerleader and supervisor. The challenge is to understand when to be what (Ker, 2017); using these roles, Cushla assists the learners to attach new knowledge and advances to their framework of practice and supporting constructs.

In Elise's teaching practice and course design for the Studio courses in the Bachelor of IT, scaffolding is employed in the progression from Studio 1 (first semester) through to Studio 6 in the last semester of the degree. In Studio 1, most of the 16 weeks are teacher-directed learning, with formal instruction in technical workflow and soft skills. These skills are put into practice in a team project spanning the last quarter of the semester, in which learners are coached in the application of their skills in a work-based-like environment. In Studio 2, the proportion changes, with the coached project taking up nearly half of the semester. By now, support from the teacher can start to be gradually removed as the proportion of directed learning reduces and team project work increases. In Studio 3, learners continue to work on the same project, brought forward in order to minimise the technical "cognitive overhead," while they build yet new workflows into their practice. Learners are then ready to embark on a more technical project because they have been learning skills in their programming courses. This project is continued in Studio 4, where the final skills are layered onto previous learning. With this carefully scaffolded progression, layering soft skills and workflows onto increasingly technical project work and gradually reducing the teacher-directed portion of the semester, learners should be ready for their independent capstone project in Studios 5 and 6.

As a kinaesthetic learner herself, and an advocate for constructivist methods in adult education, Shannon highly values the "learning by doing" approach that experiential learning activities embrace. However, she claims that in

order to unlock the true potential of these learning methods, the foundations need to be laid beforehand to create an environment where learners feel comfortable enough to share their ideas during these activities:

> I place great emphasis on helping learners feel at ease in my classrooms through getting to know my class members, both before the class has even started and during, by highlighting shared interests and experiences between fellow learners, incorporating humour, bringing a positive energy, by calming the over-sharers and encouraging the quieter class members, by reducing all forms of judgment, and creating a sense of empathy and trust among classmates. I see relationships and connections as key to the success of constructivist methods.

Within the different programmes that Jeremy facilitates on for Capable NZ, he has reflected on the following practices as being highly effective with learners, regardless of the subject:

- Identifying what the learner already knows. This means getting learners to be willing to contribute to a negotiated learning experience and to become more comfortable sharing their previous experiences.

- Breaking up large tasks into smaller steps. Learners may often have difficulties remembering all the steps that they need to follow, so breaking up a large task into smaller steps can help learners get over the fear of starting a task and in due course to become more competent in their domain of practice.

- Modelling the expected output. Learners can often struggle to visualise what a successful learning task should look like, so on receiving an initial draft, Jeremy will often share with his learners sections of an exemplar, so that learners can understand what was missing in their own work and be in a better position to complete future tasks.

One of the most obvious challenges associated with a scaffolding approach is the need for trust to be formed early on in the relationship. Without having trust in the relationship, scaffolding is less likely to be successful (Hoy, 2002). Trust does not happen overnight, but as Daloz (1986) argues, for an educator to be effective a caring stance needs to be taken to build a bridge between what is known and what is still required to be learned. An additional challenge to be considered is that every learner is different, and this means a dynamic approach towards scaffolding should be considered, which in turn means making ongoing adjustments in a facilitator's approach. Developing such an approach takes time, but it will almost certainly lead to improved outcomes.

DISCUSSION AND SUMMARY

Employing a social constructivist, autoethnographic approach to reflect on current pedagogy, our CoP investigated (i) which constructivist theories and models inform practice, (ii) what they mean to our educators and (iii) what are the most effective pedagogical practices to engage learners.

Commonalities in evidence-based (Cullen et al., 2017) pedagogy, using constructivist theories and models, included scaffolding learners for skill acquisition using a socially and culturally sensitive Te Whare Tapa Whā framework. Educators employed a learner-centred approach, working in the ZPD (Vygotsky, 1978) to extend learners into previously unexplored learning by building on previous knowledge. Experiential learning cycles were employed, in a social, contextualised, problem-solving 'studio' or CoP environment, providing a richness of exchange and raising the repertoire of the entire group through cycles of doing and reflecting, making mistakes and refinement. This enabled learners to take ownership of their learning.

Educators found constructivism meaningful, as it enabled learners to test thoughts and ideas against prior knowledge and to make connections from current practice to build new knowledge in a problem-based learning environment,

as proposed by Piaget (1971) for cognitive constructivism. Exploring current knowledge, with pre-conceived ideas and through social engagement and emotional connection, enabled learners to construct new knowledge for new situations, providing significantly greater progress in technical proficiency by using collective knowledge passed within the group. Integrating soft skills, respecting the contribution of the learner's knowledge and cultural position, integrating ako and tuakana-teina models, all while scaffolding learners through their ZPD, were other benefits of social constructivism, as proposed by Vygotsky (1978). Closing the gap between theory and practice, such as using the "What? So what? Now what?" model to develop critical reflection and transformative learning (Mezirow, 1991), was also seen as beneficial to a constructivist pedagogy.

Tools pivotal to constructivist pedagogy which were used to unlock learner potential included the development of trust, to create a safe, supportive learning environment; building a bridge and a relationship with the learner; and sharing interests and experiences to determine what is known and what is still required to be learnt. While Kok (2008) has discussed "Moodle" as a social constructivist tool, our CoP found that the use of humour, positive energy, being dynamic, breaking up tasks into small chunks, modelling exemplars, coaching, moving from a teacher-centred to a learner-centred pedagogy, using on-line breakout rooms, listening and reporting back to groups in a work-based, andragogical, learning environment all enable constructivist pedagogy and promote learner empowerment.

In conclusion, OP teachers have employed a pedagogy reflective of the constructivist continuum from cognitive to social constructivist strategies. This has involved moving from teacher-centred to student-centred learning, where students are supported and develop meaningful ako-based relationships with their teacher. In this safe, inclusive environment, students can be scaffolded along a contextualised, situated cognitive (Brown, et al., 1989), real-life, problem-solving pathway that allows them to make mental and emotional connections, to integrate theory with practice, to move out of their comfort zone, to reflect, to transform and, through social interaction, to gain collective wisdom from their peers. Constructivism provides the vehicle for learner empowerment.

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ECLECTIC CRITICAL CONVERSATIONS AS A STRATEGY FOR LEARNING IN PROFESSIONAL CONTEXTS

Marcia Johnson, Martin Andrew and Glenys Ker

INTRODUCTION

This work is a collaborative effort to present the phenomenon of eclectic critical conversations (ECCs) within the context of mentoring within professional and vocational qualifications. The study uses an impressionistic, triune method of presentation, in that three different autoethnographic perspectives combine to form one holistic picture of the phenomenon. It is not meant to present one true picture – rather, one which can be interpreted by learners and mentors in a way which is meaningful to their own practices.

The authors contend that ECCs inform our understanding of professional learning within self-directed educational frameworks (Mann et al., 2017), responding conceptually and critically to the challenges of transdisciplinary enquiry and action- or project-based learning across disciplinary borders. Such person-centred media of vocational learning as ECCs, with negotiated enquiry at their core, involve an eclectic range of stakeholders. The authors contend that more closely exploring the ECC as a form of communication has the capacity to contribute to our understanding of the affordances of facilitation, mentoring, career counselling, coaching and professional development in professional practice programmes and vocational education more broadly.

BACKGROUND

The eclectic nature of critical conversations between mentors and learners derives from the unique internal connectedness which individuals are able to employ because of their unique choices to engage in experiences over time. These choices are eclectic, in that different interests at different times provide intrinsic motivation to engage on ever-deeper levels as internal connections are made. Habitual reflection-in-action (Eraut, 1995) enables individuals to contextualise knowledge, building on a known narrative (Horvath et al., 2019). In this way, individuals can learn socially through professional, workplace, peer or collegial narratives (Clark & Rossiter, 2018). McAdam and McLean's (2013) demonstration of the narrative identity's impact on adaption and development highlights the value of ECCs as learning opportunities for learners and mentors alike.

A post-constructivist perspective within the context of ECCs is one of connectedness rather than logical progression. In other words, the immediacy of the ECC dictates that there is a connection between the new information and existing information or knowledge. This is not necessarily in the sense of accumulating knowledge toward a context, but an overall connectedness toward understanding within the context. It follows, then, that the broader or more widely eclectic exposure there is to new concepts, information and experiences, the greater the odds that there will be a connection for the eclectic learner within a future context.

Ramachandrin and Blakeslee (2005) recognise the temporal impact on connectedness through the formula: "experiences lay dormant until …" (p. 25). This demonstrates the significance of time and how the subconscious is aware of more than that which can be articulated, until the individual comes to a purposeful, conscious awareness

(Roth, 2015). Because of this complex and unique internal connectedness experienced by both learners and mentors, effective facilitation and mentoring of independent learning is not a simple set of technical tasks that are easily obtained (Ker, 2017). Therefore, the criticality within reflections which underpin narratives becomes a vital aspect of the learning and mentoring process.

Mentors need to know how to exercise judgment and understand that mentoring is a relational role that requires empathy and understanding of the learner (Ker & Carpenter, 2018). The knowledge the learner acquires in their study is not handed down, but is co-constructed (Mann et al., 2017). It is the learner's knowledge, but comes about through the reflection and reflexivity experienced in the process of learning. Travelling with the learner and co-constructing knowledge is not a simple ask for the facilitator, but requires significant expertise and skill. Understanding the unique eclectic internal connectedness of learners enables mentors and facilitators to prompt opportunities for the learner to engage in ECCs.

METHODOLOGY

The methodology for this study is collaborative autoethnography, a small-scale form of community autoethnography, but similarly "a relationship-making activity among researchers who participate in and co-construct each other's existence" (Toyashi et al., 2009, p. 59). This type of methodology is "both academically rigorous and socially responsive" (Stringer, 1997, p. 17), enabling multiple stakeholder voices to create forms of textuality – in our case, narratives – to elucidate a single phenomenon.

Each individual – in this case, three members of one team – generated a textual response. The purpose was, to cite Richardson and St-Pierre (2005), to create writing that adapts "to the kind of political/social world we inhabit – a world of uncertainty" (p. 962). We argue that our phenomenon – the use of ECCs in such work-based practices as mentoring, coaching or performance management – is a tool for such super-complex times, since such conversations allow multiple viewpoints and afford fresh ways of examining shared dilemmas. While writing is seen as a site of discovery and hence a research method in itself (Richardson & St-Pierre, 2005), in collaborative autoethnography we produce a kaleidoscope of views – a chamber trio of perspectives. Collectively, we create a trivocal text made up of three independent yet emic insider accounts that understand and apply the phenomenon of ECCs.

The process involves each member of the team writing an experienced-based account of their understanding and application of ECCs. Each narrative is written in isolation from the others and is complete in itself. In the discussion that follows them, we employ a critical lens to consider similarities and examine differences, leading to a conclusion about the value of this strategy for such workplace contexts as those of the three writers. The narrative analysis does not confine itself to meet expectations of content, lexical or semantic analysis. Rather, relevant aspects are highlighted as they pertain to the overall effect of the eclectic internal connectedness of the team members within the ECC environment.

The three autoethnographers, narrating their understanding and experience of ECCs in educative and professional contexts, are Author A, Author B and Author C.

AUTHOR A: A LEARNER'S PERSPECTIVE OF ECLECTIC MENTORING

The following is written from my perspective as a DPP learner who has been investigating the essence of constructive critical conversations. My analysis within this project has given me a better understanding of the eclectic connectedness within the learning process. Therefore, I have not only been reflecting my own part in this DPP learning process, but I have also been purposefully aware of interactions with those around me, including my own mentors.

I believe eclectic mentoring is an attending to non-rational forces (Lyotard, 2004) within the learning process. My experience is that it is an affordance of opportunity to experience conversations, readings, and challenges to the learner's current thought processes. I have been particularly attentive to strategies my own mentors have utilised in the DPP process because I wanted to understand their part within my own experience. I wanted to know for sure that my learning was what I had achieved, not something my mentors have guided me toward. I was sensitive, particularly in the beginning of the process, because as an adult learner I wanted to build confidence in my own abilities rather than follow a well-trodden route of many before me.

In this sense, for me, eclectic mentoring is not a new style of guidance toward a prescribed outcome. It is a purposeful approach to encourage the learner to engage in new experiences, take note of new schools of thought, and experiment with one's own belief system while becoming aware of others'. The learner takes ownership and accountability of what happens in the light of those new experiences. The learner takes responsibility for the pursuit of transformation which is the end result of learning experiences (Mezirow, 1991).

The mentors cannot know the inner connectedness of the learner. The internal eclectic-ness of the learner is understood and accommodated because the mentor understands that there is an entirety of the individual which cannot be represented fully. This aligns with Lyotard's (2004) concept of an event not being able to be fully represented by language or symbol because of the human elements involved. In this case the events are learning moments.

It has been difficult to capture lightbulb moments and represent the learning until I attempted to describe my internal connectedness to my mentors. Many times this involved expressing emotions, or seemingly unrelated other experiences which I believed were relevant within the context of what I had found. Through ECCs they were able to come to a modicum of sharing the learning event with me. Through this process of sharing the learning moment, I was able to form a way of representing it in an accessible way to others. Similar to Clark and Rossiter's presentation of how narrative impacts on learning (2018), my narrative of what was occurring internally was instrumental to my adapting and developing through my new experiences.

Internal connectedness is unique to the individual learner. More importantly, there is no correct form of connectedness. The eclectic mentor understands this on a practical level and facilitates exposure to criticality and reflective practice early in the relationship (Moon, 1999).

The use of the phrase "eclectic learning" has been purposeful in my own work. It was my personal push back against a system I was in professionally. This was a system which purported to resolve problems through use of accepted rational processes. This was done so ineffectively, to the point that at times the process itself was a detriment to desired outcomes. In my own case, there were issues regarding a facility to engage with teaching and learning staff in a way which truly recognised the uniqueness of individual learners. A primary barrier to this was an economic rationale which overshadowed decisions and drove reporting expectations. This in turn impacted negatively on workplace motivation of those who perceived their role as directing the learning process toward statistical completion rates. To recognise each learner as an entity with unique connectedness through eclectic learning was a bridge too far.

From within my own eclectic connectedness, I ask myself whether it would be more effective, more efficient, more profitable even, to have an education system where learners chose where, when, and how they would engage in purposeful ways in their local community. Then I realise this has been the case for me because of eclectic mentors who were aware and responsive to the non-rational parts of my learning. I have wandered here and there, finding interesting things and relating it within my own contexts. Over this period I have learned far beyond what I anticipated. I was wanting to understand more about constructive critical conversations. What I have come to understand has been more about myself, my disciplines of quality and tertiary education, and the universal eclectic-ness of the internal connectedness of individuals. The conversations with my mentors became events where I felt I was in a state of flow as described by Csikszentmihalyi (1997), with my expertise beginning to match the challenge of what I had undertaken.

In my mind, as I write this, I can hear a musical piece similar to that of Disney's *Fantasia* where there is a crescendo of music with many different instruments adding their notes. The sounds come from different directions, building as the sounds grow and become insistent, striving to be heard in the cacophony of all the other sounds. Just when I believe there can be no more noise added it seems that all the sound collides and explodes into millions of shards like glass. Then, a single soft clarinet is joined by a gentle saxophone, inviting other instruments to join in again. A soothing melody emerges and other instruments appear to be chastened, joining in as if to admit that yes, there is another way to make this thing called music.

This is my perception of eclectic mentoring. The mentor introduces the learner to many different experiences with an ever-increasing chorus of more notes, more voices, more instruments until at last the learner has had enough. The inner connectedness of the learner finally has a voice. In the beginning it is soft. Over time the music of the learner begins to grow in volume and in chorus as the learner employs new instruments and invites other well-known voices to join in. An overture is produced for the world to appreciate in its own unique way.

AUTHOR B: AN ACADEMIC MENTOR'S UNDERSTANDING

ECCs play a massive role in my own work in mentoring, supervising, editing and more broadly as an educationalist involved perpetually in acts of communication. Operating in the spaces of coaching and professional development, ECCs function strategically in guiding such vocational learners as professional practice learners to new ways of thinking. The "critical" dimension consists in a continuous urge for intellectual independence, tolerance for divergent viewpoints and embracing of others' worldviews (Murray & Kujundzic, 2005), but there is implicit a perpetual reflective dimension in the sense of "an opportunity for discovery through dialogue," affording insights that teach us "new tactics, greater self-awareness and greater ability to manage oneself and others, and the establishment of clearer priorities" (Clutterbuck & Hirst, 2003, p. 104).

In my own reflections, which may also be self-dialogues, there are three core ways in which I understand ECCs: as an articulation of design philosophy; as the work of the bricoleur; and as a transdisiplinarily outcomes-oriented conversation that accommodates the real or imagined views of other stakeholders in the phenomnenon under discussion.

Firstly, as in a design thinking model (Simon, 1968), the pedagogy or professional development trajectory of such conversations begins with reflective and empathetic engagement with others and what matters to them. From a platform of built trust, it becomes possible to help learners to define their dilemmas ('problem' belongs to a different discourse) and align with their needs. Helping learners to generate and discover creative solutions – 'ideations' in design thinking-speak – affords imagination and engagement with the wild. From this stage of diverse brainstorming, practitioners of ECCs, in design logic, support others to make sense of, represent, map or model their ideas or potential solutions before tweaking and sharing the evolved and represented concept. Existing solutions become preferred ones. The complexity of our actions and behaviours reflect that of our contexts or environments. 'How' questions are a key strategy: "How do you understand what you wish to achieve?" "How do your imagined perceptions of stakeholders influence your actions?" It is clear that "design methods are a potential tool for transdisciplinary collaboration" (Mejía et al., 2018). This ability to think integratively in action characterises an eclectic critical conversation.

As an eclectic thinker, my mind is a magpie's nest filled with purloined emeralds with the kaleidescope of a Bosch painting. Experience, curiosity, empathy and being interested in worlds and their peoples collectively make an educator an asset. As a mentor or supervisor, an individual's experiential knowledge is diverse and wide-ranging – eclectic. The method we use to make sense of this intellectual collage might be called 'bricolage' though it is "far more complex than a simple eclectic approach" (Rogers, 2012, p. 1) as we investigate continually the hidden causes behind human meaning-making and listen out for the voices missing from the master narratives. In qualitative research, bricolage can be methodical, not merely random splatter; a bringing together of the existing

and the fresh (Wibberley, 2017). As a method, it employs diversity of thinking, transdisciplinary practices, and multi-textual communication and is critical, multi-perspectival, multi-theoretical, multi-vocal (Rogers, 2012). Bricoleurs understand people learn by encountering information in a range of modalities, each reinforcing and crystallising the other. Bricolage thinkers respond to the complexity of self-inquiry and the lived world, moving beyond the sets of rules associated with single ways of coming to know. This method celebrates the eclectic, and affords other possibilities – emergent ones – than those espoused by any single eclectic thinker. The bricoleur has a magpie's nest that keeps acquiring new emeralds and gaining new appraisals of already-collected ones.

ECCs are at the heart of transdisciplinary research transactions of any scale including those between a postgraduate academic mentor and a learner in a professional practice context. This is because transdisciplinary collaborations involve professionals with contrasting yet overlapping ways of knowing, including mentors well versed in thinking and living research who will probably not have the same *ur-discipline* or area of endeavour as the learner because they are purposive. The liminal spaces between are spaces for ECCs to flow (Csikszentmihalyi, 1997). It permits practical, local and personal knowledge, not merely scholarly (Bijl, 2018). In this eclectic space complex dilemmas or wicked problems specific to a learner's work environment are described and understandings are reached and shared.

Central to what happens here in a transdisciplinary sense, to paraphrase Pohl (2015), is that those in the flow of conversation grasp the complexity of the issue and consider diverse or even eclectic perspectives on an in issue or phenomenon. In their mutually participative flow, they might link abstract and case-specific knowledge, or place the practitioner–learner's situation in a broader professional or scholarly context. The eclectic knowledge of the mentor enables the conversation to progress in a way that enhances the insight of the learner. Finally, they develop practical knowledge, possibly in a descriptive or diagrammatic form, that promotes what is agreed/perceived to be the common good in the practitioner–learner's workplace or area of endeavour. Transdisciplinary principles are applied lightly here because our phenomenon is a two (or more)-way conversation rather than a complex multi-stakeholder intervention. However, the appropriateness of the eclectic critical conversation as a strategy for communication in transdisciplinary contexts is clear.

AUTHOR C: A FACILITATOR'S PERSPECTIVE

Eclectic conversations resonate with me, the eclectic facilitator or mentor – that is, one who pivots (hopefully elegantly) as one would do in a dance, hence the "dance of facilitation" (Ker, 2017). This occurs in the same way as the orchestra who so elegantly weave in their own chords with their choice of instrument, striving to hear in their own head the ways in which they will work together to make sense of the music. As does the magpie whose nest is filled with shiny objects, working to display the sparkling and defining moments of a learner's work as she attempts to make sense of her own story. I too add to this eclectic mix of learning, bringing with me the ability to 'dance' – to the music, to her orchestra, and to the bright shiny sparkling and defining moments that we all arrive at; always with the learner's best interests at heart.

As we each play a role, we observe and dip in and out of conversations, using our eclectic-ness to bring more sharply into focus that which she is trying to express. We wait as she navigates herself around her family and partner who are very important parts of her daily life, her work practices as she struggles with how she can weave her own expert-ness into supporting her practice. We listen and engage; we draw on a myriad of skills to elicit the uniqueness of her thinking … we use banter, we dance and pivot and explore and hold onto golden moments with her. What lights our way are the words she uses to tell their story, to say it out loud to make it seem more real. Language is fundamental to the construction of identity (McMahon & Patton, 2006). As she speaks so shall she go … word choices precede people down the highway of life (Savickas, 2005) … we wait and listen for the learner's self-organising processes; how she interprets events so as to author her writing that has sense, cohesion and viability. Then the trumpet blows and we ease back into another space as the learner navigates her thinking and as she speaks out loud, we hear how she has arranged and rearranged her thoughts into words and sentences that are just magic.

Facilitation/academic mentoring/learning as a professional activity – what are the skills, knowledge and attitudes needed to hold these roles? One who is skilled in walking with the learner, co-travelling the learning journey, experienced in the teaching and learning profession, and can adjust to the learner's needs and requirements, one who is learner-centred and wants to enable, empower and engage the learner to grow in their professional practice. Facilitators/mentors move from position of expert to that of interested enquirer.

Our wise learner coined this "eclectic learning" – i.e., being able to tweak the conversations according to the specific need at that time. Therefore are we also offering eclectic facilitation and academic mentoring into this learning relationship. There is a sense of ako amongst us as we all learn with and from each other. How we interpret the events of our lives in the pursuit of meaning; promoting self-awareness of the processes; underlying our thinking, developing our capacity to make sense of our learner's world – so shall the variety of experiences of the triangle strengthen. These eclectic conversations transform us all from a passive recipient of information to active participants of the learning process that we have all engaged in. This constructivist approach taps and triggers our innate curiosity about the world, the discussion and how things work (White, 2007). This is simply magical, rather like the unicorn, the mystical beast with a special set of characteristics; both big picture and detailed, difficult to put in a box; simultaneously kind, yet moving the needle and so on.

DISCUSSION

The tri-vocality of this presentation emphasises the transdisciplinarity of circumstances within the complex experiential learning situation. These narratives have emerged from a period of time which brought the three participants together to perform what could be perceived as a three-way waltz. The dancers interact, in the beginning stepping on toes as moves are learned and adjustments made; then progress is made toward a seamless production of a whirling, intertwining dance of complexity. This is a space where external observers will not know the moment when one dancer is leading or taking cues from the other dancers. Similarly, within the ECC learning environment each individual brings unique understanding and connectedness to the conversation. This is where transdisciplinarity, or a disregard for traditional disciplinary boundaries regarding learning expectations, adds value to the facilitation of experiential learning. The complexity of the situation is conveyed by the narratives in the form of metaphors which reinforce the internal transdisciplinarity of the perceptions and conceptions of each team member.

The criticality and reflectivity within the ECC require each individual to step up and lead as and when the dance requires their input. This was borne out in Ker's (2017) findings that a facilitator must encourage the narrative at the heart of the learner's work, yet always ensure that the work is lifted enough to meet the standards of the qualification.

These three autoethnographic narratives incorporate metaphors of a magpie, dancer and musical piece. The magpie exemplifies an individual who has been choosing and storing away the brightest, shiniest gems over many years of research. The dancer provides a concrete and physical connection with the concept of personal interactions within ECCs. The musical piece illustrates the perceptions of one in the middle of many activities, trying to make sense of it all.

METAPHORS

The three overriding metaphors, used to explain the complex topic of ECCs, are the same in that they are self-generated by the participant and meaningful within the context of the role of the participant. The metaphor chosen by each is a way of elucidating a complex topic within their role which may not be understood by others without some accessible way of thinking of the topic.

To bring the metaphor into the space of ECC is a natural part of the teaching and learning process. Work by Littlemore (2019) supports an argument for eclectic-ness of the metaphor within the ECC environment. This argument comes from the unconscious sensorimotor responses which are shown to be similar to those experienced during a physical event or observation.

A metaphor technique has been shown to be more impactful when generated by the learner than when generated by a coach (Sullivan and Rees, 2008). In this way, the ECC is providing opportunities for the learner to make sense of previous experiences in the light of new experiences.

Within the metaphors found in the three narratives, there were direct ties to each of the participants' lived experiences. Each was trying to express a unique internal connectedness in terms which could be understood or accessed by those not privy to their internal eclectic-ness. Notably, the different metaphors, which drew from experiences within a shared context, also reinforced the individuality of the connectedness, although the participants shared the environment or context and had a vested interest in shared goals.

The metaphors all reflect a flexible situation where participants are in motion and changing from one moment to the next. The narratives are highly personal in a space of interaction with others and converge on criticality and reflectivity as essential elements of ECCs.

Interestingly, the two mentors' perspectives differ from the learner's in that they have included metaphors which incorporate physical actions such as taking shiny things or dancing. This could reflect their broader experience and a mental connectedness favouring tangible action, as opposed to the learner's perspective of a singular focus on sound. It could also be indicative of higher level ECC skills in that the mentors have a connectedness which is deeper than the learner's, in the sense of previous outcomes from the research process (Littlemore, 2019). The learner has not yet had the experience of celebrating a final work and is missing the sensory connectedness between creative thoughts and final product.

IMPLICATIONS FOR PRACTICE

For the mentor

The mentoring process for a professional qualification recognises that while all participants are accountable for doing something, the learner is setting the tempo. Within this tempo, the mentors are constantly looking for hooks to latch onto what the learner requires. In the case of one mentor, this may be offering something shiny which has been collected. Another mentor may use some quick dance steps to cue the learner to an awareness within themselves that they are capable of moving in that direction.

In all cases, a facilitator must encourage the narrative at the heart of the learner's work, yet always ensure that the work is lifted enough to meet the standards of the qualification. This then was the essence of the rationale behind an effective learner-centred model for mentors which comprised four fundamental principles (Ker, 2017):

Fit – it is important that there is a close fit between the learner and the facilitator/mentor;

Relationship – it is important that the relationship between facilitator, mentor and learner is one that is bound by mutual respect, trust and empathy;

Skills, knowledge, attitudes – it is important that the facilitator and mentor has the aptitude and capabilities for the role;

Learners first – facilitators and mentors must be responsive to learners, available to meet learner needs and act in learners' interests.

With these principles and our exploration of ECCs in mind, we can build a picture of the facilitator or mentor – or, more broadly, the communicative vocational educator – who listens reflectively and positively, allowing the learner the space of the expert; shares their enthusiasm for learning; offers both on-the-spot and reflective feedback; shares resources, thoughts and serendipities; develops sensitivities to learners' fears and dark zones, and encourages integrity and trust to build resilience.

For the learner

The implications for learners within this type of experiential professional qualification comprise the eclectic gaining of skills as opportunities are presented. This is primarily offered in the guise of ECCs with mentors, where relationships impact on the learning and critical reflection of the learner. Having said that, self-accountability in relation to learning eclectically and the purposeful pursuit of critical reflection inform the learner's internal connectedness beyond what the mentor can observe. Therefore, a primary trait of the ideal learner is setting a tempo for the actions and interactions occurring within the learning process.

CONCLUSION

ECCs have the capacity to be a crucial tool for mentoring professional development coaching in times of uncertainty such as the present. Exploring the affordances of ECCs as modes of verbal communication couched in critical reflectivity allows us better to understand how professionals access and use their informational and human resources in high-stakes teaching and learning contexts, particularly those with a transdisciplinary border and heutagogical underpinnings. The flexibility of opportunities within the ECC means that both learners and mentors can adjust and meet new challenges without changing the music to which they are dancing.

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ECLECTIC LEARNING: TRANSDISCIPLINARY PREPARATION

Marcia Johnson

INTRODUCTION

This dual-method autoethnographic and hermeneutic phenomenological enquiry within the Aotearoa New Zealand environment provides evidence of how eclectic learning prepares individuals for transdisciplinary innovation. The article summarises the findings of an enquiry into the essence of constructive critical conversations (CCCs) and their impact in the workplace. A postconstructivist approach to discourse analysis of narrative data shows how transdisciplinary preparation occurs through eclectic learning through these kinds of conversations.

The aim of the study was to understand the essence of constructive CCCs in the workplace and how these impact strategic quality goals as defined by the organisation. The need for research comes from a recognition that robust quality policies and processes are not sufficient to realise quality outcomes at the point of agency. Individuals who are socially influenced are in a position to impact quality outcomes on behalf of the organisation. As a result, the professional development of these individuals must be considered an essential part of a quality approach.

Within the enquiry, eclectic learning was defined as the unique internal combination of connectedness which occurs across subconscious and conscious perceptions and conceptions. This connectedness can be drawn on through reflective practice to enable learning within new experiences. This connectedness is unique to each individual and occurs irrespective of disciplinary boundaries, thus contributing to the learner's ability to think in a transdisciplinary way.

In the same way, transdisciplinarity is defined as that which occurs within the blurred boundaries of traditionally defined subject disciplines – for example, tertiary education or cognitive science. Transdisciplinarity is not confined by any one discipline's rules or expectations. Rather, it draws on multiple disciplines as required to attend to a given subject, and without regard to where boundaries may exist from the perspective of specialist expertise within those disciplines. Given this definition of transdisciplinarity, the observer may not be able to separate the particular elements which have converged from the various disciplines.

FUTURE CHANGES

The anticipated needs of the unknown future, occurring within an environment of super-complexity (Barnett, 2000; 2017), require a rethink of workplace learning and therefore of professional development. Reflection in the workplace (Helyer, 2015) will play an important part in building flexibility and resilience within what have been described as three-dimensional changes unfolding within an unknown future (Chima & Gutman, 2020). This reflection will require a focus on learning and a deeper understanding than currently exists within reflective practices. Acknowledging this need forms the premise for arguing that organisations must become facilitators of the individual's eclectic learning. Utilising an understanding of eclectic learning within the workplace will support the transdisciplinary innovation which will be required in the future. The anticipated ever-increasing rates of change highlight an inevitable overlap of knowledge and skills which traditionally have been protected by boundaries. In

2003 Dervin described this kind of overlap on the edges of disciplines as research redundancy, which was simply archived. This luxury will not be possible in the future if organisations wish to not only keep up with a rapidly changing environment, but to be sustainable and thrive.

ECLECTIC LEARNING

Eclectic learning is a unique internal connectedness which occurs across the individual's subconscious and conscious. In the first instance, perceptions and conceptions impact this connectedness as lived events without a conscious directive from the individual. However, through conscious reflection on an event, perception or conception, the individual can consider the matter with criticality.

Part of the epistemology of how eclectic learning occurs is meta-cognitive, in that it is thinking about thinking. However, eclectic learning has at its disposal the entirety of the individual's connectedness. This is not confined to thinking processes. It includes every element which constitutes that unique individual, including emotions, perceptions, physical needs, or any other impact on the person's internal connectedness. To access the connections which have occurred at a subconscious level, reflection and purposeful connecting of new experiences through criticality is required so as to have the entirety of the individual's eclectic learning available to draw on and to reach a state of flow.

As presented by Csikszentmihalyi (1997), flow occurs where a high level of skills is matched by a high level of challenge. "In moments such as these what we feel, what we wish, and what we think are in harmony" (p. 29). Kahneman (2012) explains the deep concentration level achieved within a state of flow: "maintaining focused attention on these absorbing activities requires no exertion of self-control, thereby freeing resources to be directed to the task at hand" (p. 41).

In this state of flow, defined disciplinary boundaries are disregarded by the eclectic learner in the pursuit of understanding a new experience. The internal connectedness of perceptions and conceptions are not bounded by disciplinary expectations. Further, questions can be asked about a given subject drawn from the internal connectedness the individual has accumulated over time.

The act of choosing to engage in opportunities to learn eclectically aligns with the use of reflection as a way of seeking emancipation (Moon, 1999). Put another way, within the concept of eclectic learning, reflection is the recognition of an ability to make choices in the hope of shedding bias and the hegemony of socio-political circumstance. Freire's (1992/2017) description of his own transformation through reflection while working in Chile can be seen as an example of connectedness through the eclectic pursuit of personal interests.

In regarding the unconscious as an integral part of eclectic learning, personal interests become a primary element. This is because the unconscious mind determines many decisions for the individual, as demonstrated by Soon et al (2008). Participants in the enquiry identified opportunities to learn in the workplace as highly dependent on the individual's choices in genuinely engaging socially with a purposeful intent to learn.

THE WORKPLACE LEARNING ENVIRONMENT

Looking at the workplace as an environment which offers opportunities for self-directed learning through conversations, narratives and sharing within the organisation as a community of practice highlights the importance of connectedness of personal experiences and of criticality. Once a person is aware of connectedness and can engage criticality, the self-directed individual needs only to be able to recognise opportunities for learning to take advantage of eclectic learning toward preparing for an unknown future.

Considering the human individual and the complex social being which they constitute, many different disciplines would need to be called on to explain any one aspect of that individual's workplace learning, as demonstrated by such disciplines as cognitive science (Kahneman, 2012) and education (Helyer, 2015; Lave, 2019). Importantly, however, these disciplines can only explain or recognise certain aspects of workplace learning. They cannot dictate the combination of internal connectedness which becomes eclectic learning through individuals' unique ability to make sense of new experiences.

These disciplines have contributed to our understanding that the internal connectedness or sense-making of individuals is influenced socially. In the workplace, this social influence occurs primarily through conversations.

CONSTRUCTIVE CRITICAL CONVERSATIONS

CCCs are social interactions that provide an important opportunity for individuals to learn in the workplace environment. Data drawn from the enquiry supported use of the adjective "constructive," as it is not practical to expect learning to occur voluntarily in anything other than a positive and supportive environment, indicative of the culture of an organisation (Stahl et al., 2014). All participants in the study agreed that the culture of the organisation dictated whether or not a constructive environment existed for their conversations.

The term "constructive" also alludes to a culture of continual improvement (Chandrasekaran & Toussaint, 2019), and participants in the enquiry identified CCCs as opportunities for them to improve or grow personally. This points to an underpinning theory of constructivism – that individuals build on their prior knowledge and experiences, both cognitively and socially (Piaget, 1929/1990; Roth, 2015; Vygotsky, 1930/1978).

CCCs are "critical" in the sense that criticality is engaged, with participants asking pertinent questions until there is resolution or better understanding of the issue (Eales-Reynolds et al., 2013). Criticality assumes that there are unseen dimensions impacting on the moment, particularly underlying assumptions of power, as asserted by Freire (1973) on hegemony and by others on the power of the language used in such exchanges (Fairclough, 1989; Fatemi, 2019). Therefore, within these conversations, an appreciation of criticality is crucial for the individual's understanding of what is occurring in the moment. Participants in the study asserted that their own criticality determined whether or not CCCs became opportunities for learning that probed the boundaries of other disciplines. This included viewing quality as a discipline with its own defined boundaries of appropriateness and acceptability within specified contexts.

The fact that the CCC environment is a conversation introduces the concept of intersubjectivity, where relationships are important and allow for empathy in the give-and-take that occurs between participants (Stevanovic & Koski, 2018). Participants identified personal relationships as paramount in nurturing the ability to learn within a CCC. This was stated in terms of perceived trust and transparency, genuineness and empathy.

Finally, the CCC is all-inclusive. All participants in CCCs are in the same position regarding opportunities to learn, regardless of their current level of understanding or knowledge of a subject. This relates to communities of practice as defined by Clarke and Rossiter (2018), where there is shared interest, shared knowledge and active practitioners with varying levels of expertise. CCCs provide opportunities to learn for full members of the community of practice, as well as the peripheral members who may initially observe more than they participate. In doing so, they will be privy to narratives which they may not otherwise have the opportunity to hear. Participants in this enquiry differentiated their experiences when they were full members of a community of practice from those when they were given opportunities as peripheral members. Both perspectives were seen as strong positions from which to learn within the CCC.

COMMUNITY OF PRACTICE

Regarding the organisation as a community of practice allows narratives within conversations to be considered as opportunities to learn and supports the concept of CCCs as workplace learning opportunities (Clark & Rossiter, 2018). The individual who recognises CCCs as learning opportunities in the workplace will have multiple naturally occurring opportunities to take advantage of this, both as an active participant and as an observer.

The opportunity to engage in a CCC with intent to learn is distinctive for each individual because of the unique connectedness each individual brings to the conversation, and their unique perspective on what is occurring in the moment. In this sense, learning is opportunistic in that only the individuals themselves can recognise an opportunity to learn within the ambit of their own personal interests, knowledge and experience. The reflection required to make sense of experiences in the workplace implies this unique character of the experience for the individual. Part of this uniqueness lies in the individual's personal fulfilment through the learning (Barrow & Keeney, 2012). For this to occur, the environment within the CCC must be safe, in the sense that participants can be confident that their contribution will be accepted, without any punitive or disciplinary threats associated with voicing their thoughts (Anderson et al., 2008).

Participants in the study stated that their level of engagement in conversations was directly related to the level of trust they perceived within relationships in the CCC. If they did not feel their contribution was valued, or they felt that someone else was not being genuine, then they did not engage.

There was also an overt acknowledgement across the narratives that, in order to turn these conversations into learning moments, the CCCs need to go beyond what could be deemed to be surface communication. In other words, criticality must be a part of the conversations in order to question assumptions. Any aspect of the event may be questioned – the experience, concept or issue – as a part of criticality. For example, if someone is wanting to understand more about student completion rates, questions may be asked about the delivery in the classroom. However, within criticality, it is just as relevant to ask questions about the type of preparation the student received in earlier education prior to arriving, the recruitment process, the pastoral care offered to students, and many other aspects which could be considered irrelevant if the essence of the matter is not required or sought.

The context of CCCs is the space of reflection-in-action (Eraut, 1995; Lave, 2019). In other words, within the conversation there is consideration in real time of what the experience is offering, whether for the individual or for others in the conversation. Importantly, time is of the essence within the timeframe of the conversation, meaning that a self-determined practice of reflecting-in-action is required for the CCC to be realised as an opportunity to learn eclectically. According to participant responses, this skill takes time to acquire through deliberate practice.

Awareness to what is happening is an integral part of reflection. This awareness adds depth to the ability to reflect (Roth, 2015). Some would refer to this alertness or awareness as mindfulness (Burch & Irvin, 2016). Lave (2019) has built on the concept of reflection-in-action and explains in depth its connection with flow as developed by Csikszentmihalyi (1997).

Participants in the study revealed an increase in their ability to be aware of opportunities to learn within CCCs as their personal reflective practice developed. This awareness was stated by some as an ability to think from different perspectives.

The idea of eclectic learning accommodates the concept of reflection-in-action, as eclectic-ness is not bound by specific learning contexts or environments. Rather, reflection-in-action anticipates that the eclectic learner will be in a state of flow through unique internal connectedness and intent on learning within the CCC. In practical terms within the workplace, this means that CCCs are a link to transdisciplinary innovation.

TRANSDISCIPLINARY INNOVATION

The ability to learn eclectically and reflect-in-action does not imply that the learner is ready to innovate themselves in a transdisciplinary way. Rather, it suggests that the learner is prepared to collaborate in a transdisciplinary manner toward achieving innovation. Their prior eclectic learning has prepared their ability to reflect-in-action such that they can understand others' contributions to the collaboration and build on that from within their own connectedness.

Eclectic learning is prompted by the individual's unique combination of interests across multiple discipline spaces without regard to, or reverence for, existing boundaries. The eclectic-ness of the individual's learning has a theme which can only be truly known by the individual themself. The eclectic nature of their learning emerges from the connections of understanding which the individual makes across their unique combination of interests and experiences. The breadth of connections created by this eclectic-ness over time adds value to the individual's overall ability to connect new experiences within their existing knowledge. Thus, this uniqueness adds to their ability to innovate in a transdisciplinary way because the learning process itself has been transdisciplinary, irrespective of disciplinary boundaries.

AN EXAMPLE OF ECLECTIC CONNECTEDNESS

As an example of eclectic-ness as a concept within the learning context, and to distinguish this kind of learning from sets of skills or knowledge learned within defined, traditional disciplinary boundaries, an analogy can be drawn between eclectic learning and home decorations. A home which has a Victorian theme throughout is distinct from a home decorated with a mix of furniture from various periods. The latter contains an amalgam of furniture which is unique to that home. The overall theme is identified by stating that the home has an eclectic style of decoration – no other home has the same combination of styles of furniture. Of particular note, no other home owner has made the same combination of choices in their investment in furniture over a period of time.

Instead of eclectic home decorations, now consider the individual who is an expert in auto mechanics. This title in itself gives a snapshot of the individual's prior learning and experience because of the disciplinary boundaries involved in the field of auto mechanics. However, considering the mechanic as an eclectic learner who makes connections across disciplinary boundaries, albeit within their unique set of interests and lived experiences, there is much more to understand about this individual. For example, the auto mechanic may also have some theoretical understanding of the discipline of information technology through using computers at work and home. They may also have some knowledge of the physical and medical needs of a family member who is missing a limb. Here, their understanding will likely be more practical than theoretical – for example, receiving guidance to assist with movement in the first instance. Then, while assisting movement, the mechanic feels the family member's balance shifting. The mechanic moves and adjusts to accommodate the reality of what the family member requires through the sensation of feeling their balance shift. The mechanic is able to connect theories of physics with that sensation, and their own physical response to keep the family member safe. This connection happens without conscious thought as a result of the simultaneous inputs to various parts of the mechanic's brain. This learning is eclectic in the sense that no one disciplinary boundary could explain all the sensory and thought processes occurring uniquely within the mechanic's lived experience.

This example creates an entirely different picture of the individual who has crossed disciplinary boundaries in learning through self-directed interests. The choices that this individual has made over time to learn has enabled them to make unique connections which are meaningful within their lived experiences. As a result, they are likely someone who could contribute to innovation in technologically aided movement through physical devices, using new ideas or perspectives to influence new ways or means of achieving a desired outcome

To complete the analogy between eclectic choices in furniture purchases and eclectic learning where choices are made as opportunities for learning are recognised, time is considered as the investment. Time is purposefully

invested to procure knowledge, deeper understanding or skills. Further, this procurement is irrespective of the boundaries of any defined discipline or designed theme of learning.

PERTINENT QUESTIONS

The connectedness of understanding across disciplinary boundaries, albeit not necessarily at an expert level, enables the individual to ask pertinent questions within a new context. Those pertinent questions disregard disciplinary boundaries and, in so doing, help more expert participants in the conversation to consider new perspectives on creative innovation.

The fact that, at times, the individual asks these questions from a perspective of ignorance of a particular discipline does not matter. In fact, these kinds of questions may be more useful for considering new perspectives on a subject just because they are not bound by disciplinary expectations. Thus, the individual's preparation through habitual eclectic learning prepares them to contribute to transdisciplinary innovation, whether from a place of intuition or expertise.

In effect, the combined efforts of multiple participants who have arrived prepared to innovate in a transdisciplinary way match the rapidly changing environment. This ability for individuals to be in a state of flow, as a result of their eclectic preparation through previous connectedness, provides the possibility of group flow, where disciplinary boundaries are not relevant. Pertinent questions asked within this environment of flow enable the blurriness of the disciplines' boundaries to accommodate the shape of innovation which emerges.

THE ORGANISATION'S ROLE IN FACILITATION

In this sense, at a practical level an organisation cannot afford to leave individuals behind in a rapidly changing and expanding environment. Those individuals who occupy the point of agency on behalf of the organisation need to be able to deal with the same perpetual, pervasive and accelerating changes. Eclectic learning supports connectedness of understanding, enabling quicker adjustments for the individual within the 3-D change environment.

Wenger, McDermott and Snyder (2002) refer to the effectiveness of facilitating social interactions in engineering firms where meeting spaces and times were arranged. The learning which occurred was not dictated or designed. Here, the firms recognised the propensity for engineers to learn from each other during social interactions. That learning was anticipated as priming, or preparing the right environment for, innovation within their workplace.

Eclectic learning influences organisational flexibility in the sense that individuals are learning as built-in opportunities within a given context are presented to them. Individuals will be up-to-date with the latest ideas and technology because they are constantly engaged and learning eclectically in an environment of criticality. In this way, the organisation has an ever-improving collective human resource, increasing in knowledge and skills over time.

Participants in this study strongly indicated that a self-directed propensity to learn socially through CCCs was their primary way of developing professionally.

Individuals are unique, bringing their own distinctive packages of understanding and experience and connectedness to the environment within the organisation. Therefore, it would make sense for the organisation to find a way of facilitating eclectic learning. To state it differently, in the absence of utilising individuals' propensity through intrinsic motivation to learn eclectically, an organisation may be wasting resources which could be made available for innovation. One way of utilising this embedded resource is to adopt an educative approach, whereby the organisation facilitates eclectic learning.

An organisation which facilitates CCCs in the workplace will enhance individual team members' eclectic learning and thereby increase the organisation's internal resources for transdisciplinary innovation.

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THE LIMITATIONS OF TRANSFORMATIONAL LEADERSHIP

Trish Chaplin-Cheyne

Preamble

This literature review contributed in part to the author's Masters studies, with the aim of providing a critical review of transformational leadership – the preferred leadership mode in educational contexts.

INTRODUCTION

The original concept of transformational leadership was introduced in 1978 by James Macgregor Burns as a result of his research on political leaders (Lai, 2011; Sun & Henderson, 2017). Burns argued that transformational leaders look beyond themselves and towards organisational goals, while motivating their followers (subordinates) to perform above and beyond expectation, resulting in positive outcomes for team processes and performance (Eisenberg et al., 2019; Hay, 2006; Lai, 2011; Reza, 2019; Sun & Henderson, 2017). Eisenberg et al. (2019) described this model as the most desirable leadership style through its ability to be the "driver of change and creativity" (p. 351).

Interest in transformational leadership has grown over the past three decades, in part due to its use in organisational psychology and management (Hay, 2006; Odumeru & Ifeanyi, 2013). Modification of the original theory involves four factors, known as the Four I's: idealised influence (II), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC) (Alatawi, 2017; Bass, 1999; Dionne et al., 2004; Hay, 2006; Kark et al., 2003; Katene, 2010; Reza, 2019; Sun & Henderson, 2017). The Four I's have emerged as a means of quantitatively assessing transformational leadership, as they provide a measure of the guidance provided by a given leader and a gauge for the level of responsiveness from their followers (Bass, 1999; Reza, 2019).

Most authors agree on the positive impacts that transformational leaders have on their followers, including self-efficacy and the inculcation of attitudes and values (Abdulrahman & Amoush, 2020; Hay, 2006; Popper et al., 2000; Shepherd, 2017); however, others warn of boundaries to its effectiveness (Alatawi, 2017; Eisenberg et al., 2019; Hay, 2006).

The objective of this literature review is to explore the limitations associated with transformational leadership theory in educational settings. This review will examine the impact of situational or contextual factors, such as geographical dispersion and cultural values, on the effectiveness of transformational leadership, and will also discuss the impact of gender on leadership and explore whether gender determines a particular leadership style.

REVIEW OF THE LITERATURE

Limitations on transformational leadership – situational and contextual factors

Transformational leaders draw on motivating values such as justice and equality to inspire, empower and transform (Foster, 1989, Kark et al., 2003; Popper et al., 2000), as opposed to transactional leaders who influence behaviours through "conventional values such as honesty and loyalty" (Popper et al., 2000, p. 269). However, a key criticism of transformational leadership is the potential for power to be abused when motivation lacks moral responsibility (Hay, 2006). Hay (2006) argues that transformational leaders must assume moral responsibility to "avoid dictatorship and oppression of a minority by a majority" (p. 10). There is a risk that followers may develop an interdependent relationship with the leader and be encouraged to go beyond personal values in the interests of the organisation, possibly resulting in negative emotional responses (Eisenberg et al., 2019; Hay, 2006; Kark et al., 2003). What is not yet fully understood from the literature, and requires further investigation, are the effects that this interdependence has on individuals, and the impact that it might have on the group as a whole.

While the Four I's represent the four elements of transformational leadership, there is some debate as to how effectively they characterise this leadership style (Alatawi, 2017). Alatawi's (2017) study "proposes [that the Four I's] are not unique to transformational leadership" (p. 22), and that they may not fully characterise the influence of the transformational model due to correlations with other leadership styles, such as transactional (leaders retain most of the power and motivate other adults solely through the use of rewards or punishments) and laissez-faire (referred to as hands-off leadership). Pounder and Coleman (2002) state that transformational leadership builds on transactional leadership and that qualities derived from both models can be employed "at one and the same time" (p. 123). While the literature informs us that there is an association between these leadership styles, it is not clear where this association begins or ends, or how leaders utilise a blend of both. Another limitation is the paucity of theoretical evidence presented by researchers that would allow us to distinguish between the four factors, and little evidence for what leaders say or do to influence followers in relation to the Four I's (Alatawi, 2017; Pounder & Coleman, 2002).

Eisenberg et al.'s (2019) empirical study of 53 innovation teams assessed the relationship between geographically dispersed teams and team performance. They found that transformational leadership is less effective at improving performance when teams are dispersed. This is a result of team members doubting a leader's authenticity due to an inability to establish personal relationships with the leader. The researchers found that a leader's influence on communication decreases as geographical dispersion increases, resulting in lower team performance. According to the literature, in order to mitigate this limitation, the leader must consider alternative methods of providing direction and also monitor team communication among dispersed members. What the literature lacks are clear descriptions of these approaches or methods.

Another limitation on the effectiveness of transformational leadership relates to cultural ideals. Hay (2006) finds weaker links between people with "traditional cultural values" (p. 10) and leader effectiveness. Using an example from te ao Māori, Katene (2010) describes traditional leadership as multi-dimensional, where overlapping roles and responsibilities are shared among iwi, and originally based on transactional leadership values. In the nineteenth century, transformational leadership was utilised to deal with the impact of colonisation and to meet future needs of Māori (Katene, 2010). Katene argues that to be effective, the leader must be committed to social justice and there must be a focus "on the vision, rather than the leader" (p. 13). While the literature on leadership is extensive, there has been little research into Māori leadership, despite Katene's work.

In summary, while transformational leadership has been described as the more effective form of leadership (Hay, 2006; Reza, 2019) and has been lauded for its ability to transform organisations as well as employees, there remain limits to its effectiveness. The assumption that, as a result of innate processes and behaviours, transformational leadership theory can be applied in any context is incorrect and fails to consider situational influence. Eisenberg et al. (2019) discuss the importance of authentic transformational leadership on geographically dispersed teams;

Hay (2006) and Katene (2010) argue that effective transformational leadership is dependent on cultural values; and Hay (2006), Eisenberg et al. (2019) and Kark et al. (2003) all warn of the potential for leaders to abuse power. It is evident that further research is required into how situational or contextual factors impact transformational leadership, and whether these factors alter depending on the gender of the leader.

The gender gap in transformational leadership

There is a significant imbalance between male and female leaders in higher education that belies statistics showing higher numbers of women in education overall (Pounder and Coleman, 2002; Shepherd, 2017). On average, women account for less than 40 percent of leadership positions worldwide; this imbalance has the potential to impact women in leadership positions in all organisational areas in the future (Abdulrahman & Amoush, 2020; Lai, 2011). While these figures describe an unsurprising phenomenon, this situation should be mitigated in the future due to increasing numbers of women in employment and various initiatives aimed at increasing the numbers of women in leadership roles (Abdulrahman & Amoush, 2020; Shepherd, 2017).

While the literature (Blackmore & Sachs, 2007; Lai, 2011; Pounder & Coleman, 2002) tells us that there are differences in how males and females approach leadership, does gender determine a leadership style, or does this put us in danger of stereotyping? Women leaders are positioned to function simultaneously in domestic roles and in educational leadership, given that there is an expectation that they are to lead, to elicit change and manage organisational "housework" (Blackmore & Sachs, 2007, p. 15). This dual role has been described as an extension of a women's maternal instincts that include sharing, caring, relationship-building and emotional intelligence, attributes which have been collectively labelled as "what women are good at" (Blackmore & Sachs, 2007, p. 19). These 'feminine' characteristics have been found to positively influence a women's approach to leadership, addressing the many challenges associated with the traditional masculine autocratic leadership style (Abdulrahman & Amoush, 2020; Pounder & Coleman, 2002).

Women leaders tend to be more democratic; they typically develop unique relationships with individuals, foster collaboration, build consensual processes and are more likely to model practice and set examples, thus minimising the potential for power abuse (Bass, 1999; Kark et al., 2003; Kouzes & Posner, 2003; Lai, 2011; Pounder & Coleman, 2002). Feminine leadership has been described in terms of "not knowing the answers to everything," or being leader-focussed; in this way, it is less transactional and more transformational (Lai, 2011). The leadership literature argues that transformational leadership is dependent on building relationships, inspiring and developing others and emphasising the team approach – all of which are characteristics that are conventionally associated with femininity (Bass, 1999; Lai, 2011; Pounder & Coleman, 2002). This begs the question: Are women better leaders than men?

Women are seen as role models, and research shows that this has a positive effect on female learner retention (Abdulrahman & Amoush, 2020). Female leadership encourages greater diversity in recruitment and the development of employees, factors aligned with organisational success (Abdulrahman & Amoush, 2020). Lai (2011) suggests that female leaders enjoy a slight edge in performance over their male colleagues, due in part to a tendency toward a transformational leadership style. It is noteworthy that while there is obvious organisational advantage to having women in leadership positions, there remains a disincentive to women in senior management, where men are seen to be more capable (Lai, 2011; Shepherd, 2017).

This leads us to consider why women are underrepresented in leadership. We know that it is not about capability or ambition; rather, it appears to be the result of limited opportunities compared to the possibilities available to male colleagues, which suggests systemic gender bias (Blackmore & Sachs, 2007). Studies in schools (Blackmore & Sachs, 2007) and industry (Kark et al., 2003) have shown that males consider that women are treated equally; however, women do not agree with this assessment. There is a tension between how women see themselves and how they are seen by others. It appears that this perception of representation, coupled with women's leadership style, is highly gendered.

Analysing early research in her doctoral study, Shepherd (2017) refers to empirical data showing that female academics were less likely to apply for leadership roles in education without support or encouragement from others. Abdulrahman and Amoush (2020) take this a step further and argue women are limited from participating in senior leadership positions. This may be related to role incongruity between female and male leaders. Women in leadership positions are under pressure to meet the expectations of traditional leadership styles which exhibit the masculine characteristics of assertiveness, forcefully expressing disagreement, ambition, reward-seeking, and a readiness to hand out punishment (Blackmore & Sachs, 2007; Lai, 2011). However, if women demonstrate these dominant behaviours, they will be met with greater disapproval and rejection than would be the case for their male counterparts (Lai, 2011).

In summary, although the discrepancies in the positioning of women in educational leadership reflect gender differences and gender bias in leadership styles, there is little evidence to prove that gender determines a leadership style (Blackmore & Sachs, 2007; Lai, 2011). What has become increasingly obvious is gender stereotyping. Males do not have to prove leadership competency in the same way that women do, and men are seen as naturally "more capable of being leaders" (Lai, 2011, p. 5) – a position which is consistent with gender-based stereotyping.

CONCLUSION

Transformational leadership is rated highly by researchers in the field because of leaders' ability to empower their followers due to the creation of a shared vision. However, this theory does have its weaknesses, and the impact of situational or contextual factors cannot be ignored. One contextual factor in particular – women versus males in educational management – was explored in depth. However, questions still remain. Future studies should examine the similarities and differences between transformational leadership and other leadership styles to investigate how the weaknesses identified here can be minimised. Perhaps a modified theory would better meet the needs of all genders across all levels of leadership in education.

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