Embedding employability in the curriculum:
The perceptions of staff in tertiary education

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Future Ready
Graduates

Contents

1 Introduction

As part of an Ako Aotearoa national funded project, representatives from several tertiary institutions and the New Zealand Association of Graduate Employers have collaborated in an action research project. The aim is to collaboratively discover, trial and disseminate effective and efficient means of embedding employability in the curriculum.

The project aims to:

- build understanding of effective curriculum-based and co-curricula pedagogies for developing and evidencing employability attributes;
- build understanding of the mechanisms and assessment techniques for incorporating and recognising co-curricula, life and employment experiences within degree programmes;
- trial and evaluate effective practices across settings;
- build and disseminate a guiding framework and tools for lecturers, programme designers and leaders in learning and teaching.

As part of the project, interviews were held with 20 staff from four New Zealand tertiary institutions from April to August 2017. Participants were invited to share their views on employability.

2 Methods

Participants either expressed an interest in the project or were referred by others. Their participation was evaluated against the following criteria:

- Organisation
- Faculty
- Positions held – past and present
- Experience in years, type and location
- Research and scholarly interests
- Courses taught – past and present
- Employability connection

20 interviews were completed and staff held the following roles:

- 1 Dean
- 1 Professor
- 5 Associate Professors
- 3 Lecturers
- 5 Professional Teaching Staff
- 5 Careers / Course Design Support Staff

A summary of their backgrounds and experience is given below:

Criteria	Brief summary
Organisation	Auckland University of Technology, University of Canterbury, University of Auckland, University of Otago
Faculty	Arts, Business, Creative Industries, Central Support, Engineering, Math, Medical, Science
Positions held – past and present	Predominantly teaching roles though some have moved into senior leadership roles.
Experience in years, type and location	Experience ranged from 5 to 29 years. Experience gained in NZ, US, EU, UK.
Research and scholarly interests	Included academic disciplines, Academic Development, Student support, Careers and Professional Development.
Courses taught – past and present	Ranged from stage 1 UG to PG courses.
Employability connection	Participants were involved in employability capability development in some way either directly through courses they teach or at a departmental / institutional level. The sample reflects a range of levels of immersion and familiarity with the scholarly literature.

Semi-structured interviews were held at the participant's chosen location and lasted between 30 – 60 minutes. Virtual interviews were held with participants based outside of Auckland. Interviews were recorded and transcribed and were guided by the following questions:

- What capabilities do you believe students need to be successful in their post-tertiary careers?
- Which of these capabilities do we develop effectively within our courses?
- What are the principles and practices that underpin effective capability development?
- What challenges might teaching staff, faculties and / or institutions experience as they consider embedding employability in the curriculum?
- What, how and for whom could we do better?
- What mechanisms could be put in place to facilitate embedding employability in the curriculum?
- How do you as a teaching staff member currently support employability skill development?
- Reflecting on your practice what do you do well, how do you know, what would you like to do more of or better?
- What support / learning / theories have you drawn on to embed employability into programmes / courses that you teach on?
- Do you know of any examples of excellence in embedding employability in curricula?

3   Data analysis

Interview transcripts were analysed using thematic analysis techniques (Braun & Clarke, 2006). Identifiable information was removed from transcripts and participants were assigned codes to protect participant confidentiality. Transcripts were read multiple times to ascertain a general picture and were then analysed in detail to generate themes. Four main themes emerged:

1. Capabilities that participants believe graduates require
2. Examples of observed practices that develop employability
3. Barriers to employability development in tertiary education
4. Desired practices to support employability development

4 Findings

4.1 Capabilities that participants believe graduates require

Participants identified capabilities that graduates require based on feedback received from industry and / or through their observations as staff members in tertiary education. Participants thought that graduates required these capabilities for successful careers and that graduates needed to observe these capabilities with an appreciation of the local and wider contexts in which they operate as students and members of society. The capabilities identified have been categorised into the Literacies for Life framework that derives from an Australian Government Office for Learning and Teaching Fellowship for developing employability[1]. This framework has been chosen as it proposes a broad range of literacies that graduates need for successful lives and careers and a description of some of the literacies is given below. The framework also provides a means to organise capabilities identified in this project rather than providing an exhaustive list. While it does provide an organised framework, it is important to note that capabilities may overlap.

Basic literacy	Rhetorical literacy
Includes the development of disciplinary knowledge and skills, communicating with others, teamwork and basic research and information analysis skills.	Includes the ability to pre-empt and solve problems, the ability to motivate others, self-management skills and informed decision making.
Personal and critical literacy	Emotional literacy
Includes the ability to apply theory to practice, to exercise critical thinking, to develop self-belief and to develop self-regulated learning behaviours.	Includes the ability to manage emotions in stressful situations and to be aware of the emotional states of others.
Occupational literacy	Ethical, cultural and social literacy
Includes the ability to align career options with skills, values and interests, and the ability to make informed career decisions.	Includes the ability to act ethically and responsibly, the ability to communicate across cultures, global citizenship and cultural awareness.

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[1] http://student.developingemployability.edu.au/literacies-for-life/

4.1.1 Basic literacy capabilities

Understanding of disciplinary knowledge

Participants believed that graduates required a firm understanding of disciplinary skills and knowledge to ensure that institutions are developing graduates who are fit for purpose. However, participants did express difficulties in developing disciplinary knowledge given the unknown future of work in some disciplines and misalignment between institutional and industry goals (see 4.3.3 p.26). Nevertheless, participants thought that graduates required at the very least a solid understanding of disciplinary skills and knowledge.

Communication skills

Communication skills, both written and verbal, were considered highly important. Participants believed that graduates required interpersonal and networking skills to develop relationships and communicate effectively with others. Participants considered these skills necessary to communicate with a wide range of people through multiple mediums:

> "[Graduates need to] communicate effectively across a range of mediums and range of audiences for different purposes" (11)

The ability to take part in informal conversations was also considered highly important as was the ability to observe functional aspects of communication particularly for workplace socialisation:

> "It's really important to be able to speak enough English that you can conduct a conversation in front of the water cooler, small talk […] turn taking, how to interrupt, how to ask for... To make a request, how to apologise, how to accept an apology, all those kind of functional skills. […] Understanding the Kiwi sense of humour which is very sarcastic often, and it's often misinterpreted" (5)

In addition to functional aspects of verbal communication, participants believed that students required functional writing skills appropriate for the workplace such as report writing.

> "They [graduates] need workplace skills such as short, succinct report writing, which are very different to standard academic writing, so that's the first thing" (13)

> "Communication skills – the ability to write not just an essay which is what the students focus on but on writing a report" (2)

Although participants considered workplace writing important, they also acknowledged the mismatch between academic and functional forms of writing and that academic writing outputs such as essays are rarely practiced in workplace settings.

Teamwork skills

Closely related to communication skills was the ability to work in teams. Participants thought that individual work projects are rare and that graduates required skills to work with others who may have different perspectives to their own.

Technological skills

Several participants believed that due to automisation of some disciplines, that graduates would require technological skills to work with information systems. These skills were explicitly stated to handle technological aspects of information systems:

> "People need to be equipping themselves with technological skills, in particular computer skills because the automation is done by computers" (8)

Analytical skills

Closely related to technological skills was the ability to analyse, interpret and present information and data. Again due to automisation, several participants considered these skills necessary given the changing nature of work. One participant in particular highlighted the importance of numeracy capabilities as a key requirement for analytical skills:

> "Because they have to do a lot of analytics, they have to analyse a lot of the problems in that way, some of them really haven't had the grounding in basic numeracy" (5)

4.1.2 Rhetorical literacy capabilities

Self-managing and reliable

Participants believed that self-management skills such as time management and reliability were highly important for the workplace. Several participants thought these skills were mostly lacking but considered self-management skills as core capabilities for any profession:

> "Time management I think its lacking in today's generation they seem to be doing everything last minute and in a great big rush" (3)

Cognitive skills

Participants thought that graduates needed to be proactive in identifying opportunities and to also pre-empt problems that might occur. They believed that graduates would need to be independent, adaptable and agile to be able to work in flexible environments and in uncertain situations. Participants thought that graduates need to be able to identify potential problems before they occur, and thus be solution seeking, innovative and creative to be able to solve ill-defined problems:

> "[Graduates need] abilities to solve complex problems and do that without knowing what the solutions are to those complex problems into the future" (11)

Additionally, participants believed that graduates needed to be able to transfer knowledge to different contexts:

> "[Graduates need] transferability, that ability to take learning from one place and really apply it in a novel place, I think, is a really important competency into the future" (17)

4.1.3 Personal and critical literacy capabilities

Critical thinking

Participants overall suggested that graduates require critical thinking skills to critique information and come to their own conclusions. To develop critical thinking, several participants believed that graduates need to be inquisitive and curious so they develop a wider understanding of themselves and their environments:

"Critique the world around you, critique why things happen and why am I reacting or responding to the broader community. Why do we react that way" (12)

Lifelong and lifewide learners

Several participants believed that graduates need to be lifelong learners due to the changing future of work and the flexible and ill-defined environments they might find themselves in as a result. Lifelong learning skills were considered important so graduates are continuously learning in ever changing environments:

"General agility, so learning agility, so that kind of relates to openness to ideas but also just the ability to learn new things, that things will be uncertain, that they won't all be the same way" (19)

Related to lifelong learning was the need to be lifewide learners in the sense that graduates require the skills to identify learning opportunities that exist beyond the classroom, within their communities and industry for example:

"One principle that kind of comes to mind is the notion of learning, so lifelong learning, lifewide learning" (12)

"I'd say that's another capability to be developed is thinking you know what communities can I belong to outside of university study" (1)

4.1.4   Emotional literacy capabilities

Participants did not specify emotional literacy capabilities such as managing emotions and awareness of the emotions of others, however, cognitive skills described in 4.1.2 (see p.9) could be considered emotional literacy capabilities particularly in regards to how students cope and manage emotions in flexible and uncertain work environments. Awareness of the emotions of others could also be considered as ethical, cultural and social literacy capabilities described in 4.1.6 (see p.11).

4.1.5 Occupational literacy capabilities

Participants (n=2) who worked in career development positions were more inclined to comment on career-oriented goals such as students having a clear understanding of their future career and how they might get there:

> "So if capabilities are developing opportunities it's knowing where to look, knowing where people who have done [discipline] in the past where do they end up working five years down the line" (1)

While not directly related to occupational literacy, most participants thought that graduates needed awareness and understanding of how their chosen study fits within the wider environment, industry included. Participants' feedback suggests that institutions have a key role in facilitating relationships with industry through teaching.

4.1.6 Ethical, cultural and social literacy capabilities

The ability to communicate across cultures was considered an important capability and, as alluded to in the previous section, participants believed that graduates needed to have a wider appreciation of their environments. For international students who then go on to work in New Zealand, one participant who had previously worked as an interpreter, believed that international graduates needed to develop an awareness and understanding of the New Zealand culture and landscape:

> "Because I was involved in interpreting, and some of the things that the employer talked about was, "Please, can we have somebody in our workplace who knows where places are in Auckland, who knows the name, who knows the name of the suburb, who can pronounce it, who can spell it, who doesn't have to have it repeated three times, as well as telephone numbers really quick […]. So, even though they are fluent in English, the local context is unfamiliar to them, and that can be, for an employer, something that they put as one of the, not a top priority, but it's a strong value, a strong demand for them to be familiar with the community" (5)

The participant, along with two others, also highlighted the importance of understanding the history of New Zealand and the Treaty of Waitangi, particularly if graduates were to work in the public sector:

> "They need to have an understanding of Māori. They need to have an understanding, if it's in the public sector particularly, how the Treaty of Waitangi fits into the workplace, what kind of values

that that means and having an understanding of those cross-cultural values and bicultural values, language in Māori protocol, how you do things in Māori, I think that's really important and I don't think that's embedded in the programme we do anyway" (5)

These comments were not to suggest that graduates needed to be fluent in Māori rather that graduates needed to be familiar with how New Zealand organisations, particularly public organisations, might engage with and communicate with Māori.

In regards to Māori and Pacific students, three participants believed that these students required high levels of self-awareness so they are confident in their cultural identity particularly in environments that might privilege majority groups:

"I would add capability around what it means to be Māori, a lot more than that, I mean, more than that. A sense of the significance of being Māori too in New Zealand and globally, being able to articulate that and having a sense of curiosity around how that's developed, how that can be enhanced" (12)

Participants (n=3) who worked specifically with Māori and Pacific students mentioned how they tend to thrive more in culturally responsive environments. These students also tend to respond well to role models who were of the same culture:

"Māori students or Pacific students involved in a work related learning activity or a you know capability development activity where it's all mixed which is the kind of the standard thing we would see but I've also seen Māori and Pacific together with employers where the employees have also been Māori / Pacific offer that perspective and I've seen those Māori / Pacific students thriving in that environment" (1)

While self-awareness and self-identity were considered important, participants (n=3) who worked specifically with Māori and Pacific students believed that culturally responsive environments were more conducive for underrepresented students in respect to developing cultural awareness capabilities. Their comments suggest that students who are a minority culture may find it difficult to develop cultural awareness capabilities within a dominant culture.

In summary, participants believed that graduates require at the very least a solid understanding of disciplinary skills and knowledge. Communication skills were considered highly important though participants identified that these needed to be relevant to workplace settings, such as the ability to write business reports. Participants acknowledged that graduates will be entering ever-changing environments and therefore required capabilities such as agility, lifelong learning, problem-solving and solution-seeking to cope in these environments. Participants also believed that graduates need to take advantage of opportunities that might develop their employability though some participants acknowledged that this requires a level of self-awareness. In this regard, culturally responsive environments are viewed as more conducive to learning for underrepresented groups. Although participants believed that graduates need to have an understanding of their wider environment to be able to work across cultures, few participants acknowledged the Treaty of Waitangi and the influence this might have on New Zealand organisations. Participants who acknowledged the Treaty believed that graduates need to have an understanding of the Treaty particularly if they go on to work in the public sector.

4.2 Examples of observed practices that develop employability

Participants shared examples of employability development that they or their colleagues had implemented in their respective institutions. Examples included course and curriculum design practices, learning and teaching activities, assessments and support mechanisms for students.

4.2.1 Curriculum and course design practices

Examples of effective curriculum and course design practices were founded on holistic, whole-of-programme approaches that included collaborations between departments, disciplines and industry. Effective practices adhered to principles of constructive alignment with courses showing clear links to industry requirements, programme learning outcomes and course learning outcomes. In such examples, design and development began with identifying what industry required from graduates given the changing nature of professional roles:

> "They [teaching staff] really have deep relationships with their sector and they saw the signals from the sector quite a while ago that, 'Look, the future role of [professional role], it's radically altering for many numbers of reasons, so rather than just try to tweak and tweak and tweak, we're going to reconceptualise from scratch what the role of a future [professional role] is about and therefore what that means for our curriculum'. They've completely redesigned their curriculum so it's got now 10 weeks across their whole programme, where students are interacting, going out into the sector and whether it be across a week or across a set of days or for a two-week placement" (17)

The redevelopment mobilised input from students, industry, accreditors and teaching and academic development staff to develop a programme that integrated theory and practice over the duration of the course. Teaching staff would co-teach and formative feedback was gathered from students throughout the course to allow for iterative improvements.

The participant who shared the example above was an academic development staff member who guided and supported staff in the redevelopment. To enable staff to conceptualise employability in their discipline, the participant encouraged staff to consider threshold concepts that students would require as a pre-cursor to identifying employability capabilities:

"I found, for example, things like Meyer and Land's Threshold Concepts [2] are a helpful notion. And for a lot of programmes, when I'm working at a programme level, that's a very useful starting point for us to even see: do people have a sense of what the core threshold learning across their programme needs to be? And that often then relates to conversations about what capabilities or competencies or whatever their language is. And that's often really revolutionary for staff who have been working in a very disciplinary specific way [...] Then asking people to step outside of that and think about a big umbrella picture is not something they are normally in their discipline asked to do [...] Threshold Concepts allows them to take a more macro global umbrella view of where they are in relation to the other people in their discreet disciplinary areas and how those dots are maybe connected a bit" (17)

Key to engaging industry in the process was the appointment of teaching staff who were well-connected in industry. While the participant considered the example a success, they mentioned that the redevelopment was resource intensive and required commitment and involvement from key stakeholders.

4.2.2 Learning and teaching activities

Several participants shared examples of learning and teaching activities that drew on active learning pedagogies such as problem-, project-, scenario- and team-based learning. Several participants would also invite guest speakers from industry and alumni into the classroom. Examples tended to move away from didactic lectures to open-ended inquiry where students work in more practical settings:

"I think I am good at getting them to think a bit more widely, and a bit less regularly. And I know this because I've moved from very prescriptive, detailed sets of instructions for labs or for exam questions, into more open-ended assessments. And that's being appreciated, actually, I've had good student feedback on that" (11)

Two participants also used novel ways to develop students' creativity and analytical skills which was well-received by students:

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[2] Meyer and Land's Theory of Threshold Concepts (2005) suggests that core disciplinary 'threshold' concepts need to be understood to transform the perception of a given subject.

"We believe that puzzle-based learning is the way to approach this. So, in the middle of my lectures now, in the middle, when they're tired and they need a break, instead of entertaining them with some nonsense and some video from YouTube, I give them a puzzle to solve that is content unrelated. It's not related to the content of the course, whatsoever. It's just a puzzle. And they absolutely love it" (6)

Participants who used team-based learning believed it was effective as it allowed students to bring real-world artefacts into the classroom which made learning more relevant:

"TBL [team-based learning] definitely I love as a mode of delivering the link between and focusing a lot on what's happening in the media and pulling up articles newspaper articles as recent as this week we spoke about this last week it's in the news this week therefore we can talk about its relevance and how does it impact you etc" (2)

Participants also believed that team-based learning allowed students to develop teamwork and communication skills. However, participants mentioned that team-based and flipped learning requires students to come prepared to class which does not always happen.

Participants who were in professional teaching roles believed that they could effectively bridge theory with practice based on their professional experience and their specific focus on teaching:

"The role of PTF [Professional Teaching Fellow] added with the TBL [Team Based Learning] creates an environment where we want to expose them to what real life is like and what to expect and what is relevant and what not and I think that is to my mind the specific onus on the PTF as such because we are meant to bring in that whole link with more practice if you want because we are not a hundred percent research focused" (2)

Furthermore, professional teaching staff may be able to bridge gaps having worked in industry:

"I think I have an advantage in that I have come to this job from industry so that's a huge advantage when you compare to some, a lot of teaching staff have that but quite a few don't and I think if you don't have that background you are making assumptions about what industry want, if you have the industry background you can see the gap quite clearly about which

students will be employable and which wouldn't and start to think about well how do we raise the ability across that" (3)

Where teaching staff had a range of professional experience, students seemed to respond positively as teaching staff were able to draw on their breadth of experience:

"I think just 'cause of my background, 'cause I've been a teacher, a musician and also a tertiary educator, and a whole lot of things all around that in the [discipline] world, quite varied, so I can give students quite a varied and interesting series of classes. That they seem to be really sort of attentive and occupied and interested. I think there's a good level of engagement there. So, I think I do that well" (15)

While several participants were able to effectively bridge theory and practice based on their own professional experience, there were few examples of specific work-related projects. In one example given, students would work on industry projects:

"I think it's 200 hours of work in a company and then they have 100 hours to write a report and reflect on their experience. For [department name], for example, what we did is for the first two projects with the students, so, we had a real client and so we had a close link between the students and the client […] they were building some software or a website in this case, which were learning instructions for school kids. So they tried it with the school kids. So they had a pretty close to real world experience" (18)

Other examples of industry exposure included industry and / or alumni guest lectures. Participants thought this was an effective way to expose students to industry and prospective careers:

"I got two practitioners, market researchers, to come in and give a two-hour session on doing market research and being a market researcher. Including one who was a former student so they could see that connection. They actually learned about it in practice and saw the career, and saw how it works in detail and got some training on how it works in detail" (19)

The participant linked the guest lectures with assessments by having students analyse an organisation and write a report based on some of the content covered in guest lectures.

4.2.3 Assessments

Participants overall believed that authentic and contextualised assessments were required to expose students to real-world settings. As such, project- and scenario-based learning pedagogies were used in the given examples. Several participants shared examples where students prepare artefacts that might be used in the workplace or practice scenarios they might observe in the workplace. This required participants to be aware of workplace practices within their disciplines as described in the following comment:

"In terms of principles, the connection with the real world, some kind of applied context. So I get my students to do, an advisory memo for a minister, for example. And do workplace writing that's been informed by talking to people in the workplace and what kind of writing they tend to do, which is not what we normally do as academics, we normally look at the academic textbooks or the academic research" (19)

In addition to the example above, the participant developed an assessment that bridged theory with practices that students might experience in the workplace:

"So graduate level I get them to... They review all the literature and learn all the theories and talk about past practice and using academic empirical research. Then they apply it to a current case, and they create a memo with advice for a minister or the Prime Minister on what they should do in a particular area. And they're using academic theories and knowledge and concepts and all the standard stuff. But they're actually generating actual usable, doable advice for a politician in a current case, so they're much more applying it. And they're also learning the style of workplace writing at the same time" (19)

The participant received positive feedback from students as they were able to draw on their assessment examples during job interviews:

"So I've had a number of students stop me or e-mail me or contact me to, after they've graduated to say how useful, like the [course name] was. You know the interview questions that they were asked, they were able to answer easily because they had done workplace writing. They knew how to answer things in the interview, they knew what their skills were, they knew what working in politics was like" (19)

In addition to the artefacts described above, the participant also had students prepare CVs and worked with central career development staff to develop and support this assessment task.

Other assessment examples had students practice scenarios that they might encounter in the workplace. In a Business course for example, students were required to pitch an idea to investors under pressure:

> "We recently did an exercise where we got people in, students had to do a PowerPoint presentation then we told them that their boss didn't have time to listen to it and they had two minutes in the lift and they had to summarise it all in two minutes and they had these presentations. Which was great and it was a great design and very workplace realistic" (3)

Another participant shared an example of a project-based assessment where students were required to plan and run a community event. The participant believed that the assessment was effective as students were working on real community projects:

> "I developed this course on leadership and [discipline] and where they had to... It was really successful, actually. It was in their third year so their final undergraduate year, and they had to design projects, but they had to actually be convinced they could actually put it into action after graduation. So it couldn't be just some fantasy project. But it had to be something, in reality, to do with their community. And it was amazing what they did 'cause they never had time to reflect on that during their degree and what they were coming up with" (15)

Although the participant considered the assessment a success, she mentioned it was resource intensive and may not be scalable to larger groups of students.

4.2.4 Support mechanisms for students

Three participants provided targeted career support and academic support to students. To reach a wider proportion of students, one participant from a central careers team would collaborate with other departments who provided targeted support to priority groups, specifically Māori and Pacific students who have entered tertiary through targeted admission schemes:

> "Working with [department name] so they might have a careers event on so we might offer workshops around that event" (1)

While the participant considered collaboration necessary to reach priority groups, there was limited uptake as some students give priority to academic commitments and tend not to engage with targeted career services. However, in relation to Māori and Pacific students who might be underrepresented in their disciplines, alumni of the same culture can serve as effective role models:

> "So the graduates that are at these different firms that we work with or the organisations, to come back and give their story to the other students. And especially the ones who didn't think they were going to be in there, now they're in there, and those are the best students that come back and feed back to the new up and coming students" (7)

The participant who shared the example above believed that student-led associations and events were more engaging for students. Though uptake of such events was minimal at times, the participant believed that students valued alumni testimonials.

Another targeted support mechanism focused on developing students' business communication skills. Students were exposed to writing for the workplace and the participant also worked closely with teaching staff around assessment and course design:

> "Because we are embedded, we work together with the lecturers on their assignments, so we can suggest a practical outcome for them, with them, and sort of try and make it as authentic as possible. And I think that the [faculty] is moving in that direction really well. Because one of our roles is to work with the lecturer to think through, "What would be the real life outcome for this particular assessment and how can we assess them on that?" Like the elevator pitch I was telling you about" (5)

The participant believed that embedded support was effective though it was also resource-intensive.

In summary, participants drew on real-world industry experiences to bridge theory with practice. This required participants to have an appreciation of wider industry and community factors and how these could be incorporated into the classroom. Active learning pedagogies such as project-, problem-, scenario- and team-based learning were predominantly used and teaching staff had a key role in

facilitating learning. Professional teaching staff in particular were able to effectively bridge gaps between theory and practice drawing on their own professional experience. Although teaching and learning appeared to move away from traditional, didactic lecture based formats, participants believed in some cases that active learning pedagogies were resource-intensive and because it puts an onus on students to come prepared to class, where such preparation does not occur it is less successful. Nevertheless, active learning pedagogies were considered more effective in developing students' employability capabilities.

4.3 Barriers to employability development in tertiary education

Participants identified challenges that act as barriers to employability development in tertiary education. Participants either experienced these challenges themselves or observed challenges that colleagues and / or students experienced. Participants believed there was an overall lack of direction, support and guidance from central management and administration which in turn had an effect on understanding and awareness of employability, staff capability, and resourcing within their respective institutions. The following section describes these challenges in detail.

4.3.1 Lack of strategic direction, support and guidance

Without adequate support and guidance, participants experienced significant resourcing issues and found it difficult to find time to design appropriate courses and / or upskill in employability learning and teaching practices. Their comments suggest that strategic direction, guidance and support is required as contemporary teaching differs significantly to traditional modes of teaching that predominate university courses and programmes:

> "[…] some [lecturers] are very stuck in a mode of, still, exit tests or multiple choice tests and essay style formats and literature review stuff and that's a fairly narrow set of communication capabilities that then are being developed and assessed versus other programmes where they're involved in very dynamic group work where they have oral and visual presentations" (17)

> "So, knowledge and training about how to teach employability. Examples of how to teach it. Along with maybe some one-on-one champions or advocates who can provide advice for anybody who wants to do this, because it's always helpful to talk to somebody who's done it. Yeah, a resource list of exemplars of the ways that employability has been taught. Sharing advice on how important it is but also some of the challenges, prepare people for the challenges" (19)

While participants viewed strategic direction, support and guidance as lacking, they were mindful that strategic approaches to employability development needed careful consideration so they are not perceived as top-down compliance exercises and / or trending initiatives:

> "And then, you end up with box-ticking exercises where people go through the motions but don't really have skin in the game because it doesn't really affect them. And they just tick a box, "Yes we've covered this." But you get compliance behaviour from the teaching staff rather than engagement" (4)

"[…] things tend to roll-over and perpetuate year, after year, after year. Like you might have something similar to employability and people might start rolling their eyes thinking, "What's this got to do with what I do? Here's another kind of university exercise" (15)

If employability is viewed as a compliance exercise, several participants believed that staff would take a surface approach to employability development which in turn would reduce meaningful engagement from both staff and students. However, participants overall believed that direction and guidance from central departments was necessary to nurture a place for employability in the curriculum.

4.3.2   Lack of understanding and awareness of employability

Participants believed there was no unifying description of employability. There appeared to be polarising views of employability within their respective institutions with some participants highlighting vocational aspects of employability and others highlighting whole person aspects of identity, career and life aspirations.

Given the mixed perceptions of employability, participants believed they themselves or their colleagues found it difficult to understand what employability is let alone how it can be embedded within the curriculum:

"I'd say one challenge we already... We faced from the beginning for this new programme is, what does employability really mean? Really, I guess you have to have maybe an industry panel, or you as an educator, you really go out and talk to people and get your head around what is required" (18)

"And also sometimes there's actually employability in the course anyway, it's just we don't know because people haven't talked about it before" (19)

Additionally several participants thought that students might be expected to demonstrate employability capabilities – presentation skills for example – without being explicitly taught how to develop these skills.

Although participants considered understanding and awareness of employability as lacking, they believed it was easier to make links to employability in professional disciplines such as Science, Engineering and Business for example. However, in professional disciplines with external accreditation bodies, participants believed it was difficult to balance institutional, accreditation and industry demands:

"So you get all these layers and which ones do you give precedence to? Well, you give precedence always to the one that's going to be your accrediting body, actually, over the university and the NZQA, thank you very much. So there's tensions there, and I've seen that at play in a few instances in the last couple of years" (17)

Where employability was viewed as a holistic construct, there were concerns that employability is focused on preparing students for jobs with little regard for students' personal interests and goals:

"I'm thinking employability can be quite polarising as a concept, as a term. I think some people see employability as linked to what employers say they need or want or what graduates should have. I imagine, 'cause I think this myself, I imagine some of our postgraduate staff would find that a bit like, "Well, but hang on a minute, what about the person, what about the student, what about the communities," that kind of thing. So I think some people might see employability linked a little bit to the whole Neo-liberal policies, it's all about that. It's all about numbers and the tertiary institute getting their stats right or good because they've got people in employment, but is that the kind of employment that they choose or that they want? I think it would be contentious, but I think that it's worthy of a conversation" (12)

In regards to Māori and other ethnic groups, three participants described the relevance of communal goals and believed that vocational constructs of employability did not take these goals into account:

"I would like to introduce them to the idea of employability and careers just because I think that careers concept, even if they don't want to use that definition, but I think there's more space there for identity development, whereas employability, feels a little bit like a matching kind of process, whereas careers, I think just gives you that scope to look a bit more broadly, to look at the sense of being Māori and how that influences what you do, where you go, you know the choices you've made in your degree, those kind of things" (12)

Although most participants thought that employability needed to be considered from a holistic perspective, several participants believed that students themselves view employability as a vocational construct that focuses on finding employment. They also believed that students perceive employability as something that occurs towards the end of their degrees and therefore students take a fairly surface level approach to their employability and career development. Participants believed this contributed to poor uptake of targeted career development services.

> "So it's an extra on top of the curriculum they do, so it's not like compulsory. So it's up to them but the only problem is, is that a lot of the third year students that haven't done an internship or any work experience beforehand will come in their final year and try and get all of that done and try and finish, which is kind of not ideal" (7)

Additionally, one participant who provided targeted career support for Māori and Pacific students believed that some students find it difficult to keep up with academic demands and do not have the time or capacity to think about employability:

> "We'd have the events but first years were kind of, just focus on your academic stuff and get your grades up […] But it's kind of you've got to do half and half, you've got to get the grades and see that. But especially for the Māori and Pacific students 'cause some of them haven't even been down into these big buildings down in the viaduct or in the city" (7)

Several participants felt that if employability became too vocationally oriented that there would be resistance from staff as there are perceptions in their respective institutions that vocational education was mostly relevant to the Institutes of Technology and Polytechnics (ITP) sector:

> "So there are a number of conversations I've had with people where that's like a dirty, dirty concept, to even think that we should be thinking that our programmes need to be aligning to employability (17)"

> "And because the university's, or the history of the university has that sort of, "It's about knowledge, and it's about research, and it's about all these other things." Whereas, a polytechnic is probably more directly, "If you want to be a builder, you go and do that course. If you want to be a hairdresser, you go and do that course." […] So, I think there needs to be a bit more critical thinking about employability in that area" (15)

While participants acknowledged the value of developing employable graduates, they expressed concerns about how employability would change the tertiary education landscape and whether staff had the time or capability to adapt to these changes. Participants mentioned that traditionally most teaching staff are focused on developing disciplinary skills and knowledge and may perceive employability as something that sits outside of the curriculum. As the following comments demonstrate, the curriculum was perceived as too full to include employability:

"First thing that came to mind is an overcrowded curriculum […] I hear my colleagues saying, 'Oh, we can't fit anything else and the curriculum's already full'" (19)

"Well, we think we should be delivering content knowledge, discipline knowledge, but yet new learning and teaching strategies tell us that there's other soft skills that we need to develop as well. So I think there's an argument, 'Well, when do I do my content knowledge?' That's sort of slipping further and further behind" (12)

Overall participants believed that employability needed to encompass all aspects of the individual which takes into consideration graduates' interests and goals. However, with limited understanding and awareness of what employability is, participants found it difficult to identify employability let alone consider how they might develop the employability capabilities of students.

4.3.3 Lack of resourcing and staff capability

Lack of time, resource and capability were significant challenges for participants. As there was limited understanding and awareness of employability, participants felt that they themselves and their colleagues needed time and resource to develop their capability in employability development, and to review and design programmes and courses. In cases where participants embedded employability in their courses, this was often implemented ad hoc with limited support and guidance:

"Just to visualise it, just to get my head around what it meant, what it would be, how would... Particularly assessment. I'm used to it now, but when I started I was, 'How on earth do I assess whether they're reflected on their motivations in relation to job skills. How do I teach reflection? I've never done that, how do I'... It's just so different" (19)

Additionally, participants expressed concerns about how staff were expected to teach employability when it is an area that many staff may not have been exposed to:

"[..]many of them [teaching staff] have never worked outside of academia, they have no understanding of the real workplace at all. So how can they educate somebody to work in an environment that they've never actually experienced themselves? Academics, are in their roles not because of their teaching, they're there because of their research" (13)

Participants also believed that staff are most comfortable teaching their own disciplinary areas and that new ways of teaching would require significant changes to teaching practices. Additionally, participants believed that staff find it difficult to balance teaching and research objectives particularly in research intensive institutions. Although this may lead to staff resistance, participants suggested that some staff are willing to change in their respective institutions however time, resource and capability is seriously lacking. Participants overall commented on workload issues and one in particular believed that junior staff were impacted significantly more so than other staff:

"I think the main challenge is simply workload, and the way that a lot of that workload gets dumped onto junior teaching staff. I'd say the senior faculty are pretty busy, but the junior faculty just get hammered. Teaching assistants and those kind of people, in my opinion gets farmed out. And I think that's a huge issue, is that everybody agrees with these things in principle, but people don't have time to do that job well. That would be the single biggest problem. And I don't think anybody deliberately teaches badly, it's just there's only so many hours in a day, and teaching well is quite difficult" (8)

In addition to lack of time, some participants considered practices such as work-related learning, resource-intensive which could not be scaled up when teaching large groups of students. Work-related learning required staff to build connections with industry and to also manage industry and student relationships which could be particularly difficult if industry and institutions had different priorities:

"It's hard. It's always sticky, it's always tricky because the school has its agenda. And the training institution has its agenda. And they're not exactly the same. And the students are often caught in the middle, 'cause the school wants to just use them, really, as another teacher. But they're training, and all this kind of thing" (15)

Several participants commented on increased student numbers in their classes though resourcing remained the same. These participants believed this impacted their ability to provide more experiential learning opportunities and scale practices to larger class sizes.

In summary, participants believed there was a general lack of understanding and awareness of employability which had an impact on resourcing and support within their respective institutions. Given this, participants believed it is difficult to embed employability without understanding how employability capabilities can be taught. Employability in some cases is viewed as a job matching exercise and most participants did not agree with such views and believed that employability needs to be broader and consider the goals, values and interests of students. Participants believed that new ways of teaching and learning would require significant changes to traditional teaching practices and that staff need time and space to develop their understanding of how they might embed employability in the curriculum, however this would require strategic direction and guidance and support in time and resources.

4.4 Desired practices to support employability development

4.4.1 Strategic direction, guidance and support

Participants believed the biggest barrier to developing employability in tertiary education was the lack of strategic direction, guidance and support from institutional management. As described in section 4.3.1 (see p.22), this had a significant impact on resourcing and therefore direction, guidance and support was considered necessary for employability development. Several participants thought that staff required general strategic guidance and that programmes would need space to tailor capabilities to their specific disciplines:

> "You're much better off saying, 'These are the skills that we want to develop. And you, individual programme, go sort out how that will be most effective, given your discipline.' Rather than a one-size-fits-nobody approach where you have sort of a generic module that is not particularly well aligned to any particular discipline" (4)

Participants believed that institutional management had a key role in developing understanding and awareness of employability and resourcing employability efforts. Participants considered guidance and support necessary to facilitate cross-disciplinary, cross-faculty and industry partnerships and although participants had partnerships in some cases, these were often resource intensive requiring time and effort from both staff and industry partners. Several participants also considered whole-of-programme approaches necessary to ensure students develop capabilities across levels:

> "To be honest, I think some of the skills are taught too late. They're taught after the undergraduate years. And I think some of the important research skills that teach students critical thinking and problem-solving could be done earlier and little research projects in undergrad, second or maybe third year. I'm teaching a post-graduate class now so they're in their fifth year of and they're struggling immensely with the literature review. That tells me, they haven't really been taught the writing skills towards a certain attribute, which is analysing and synthesizing" (9).

Participants believed there was a clear need for practical guidance on how employability might be embedded in the curriculum. Participants overall understood the importance of incorporating real-world and industry experience in their courses however when this was done, it was often done ad hoc with minimal guidance.

"One is a very clear steer from senior leadership at universities that this is important and that they want to see that. But for that leadership then also to provide resources to set up these types of joint ventures that I just described to make that happen. Often, what you see is that there is definitely strategic intent to do that, but no resources are provided, and no expertise is brought in, so people are making it up as they go along" (4)

Participants who work in academic development roles (n=4) were able to clearly articulate effective course design principles such as constructive alignment however, most participants did not and it was apparent that clear guidance was required. Participants overall believed that courses needed to be future-focused and that collaboration between industry, alumni, careers staff, academic development staff and other teaching staff was necessary to broaden the range of experiences that students are exposed to.

4.4.2   Professional development

Participants mentioned that they themselves and their colleagues required access to professional development resources and events to develop their teaching capabilities. Teaching for employability was considered very different to traditional teaching practices that predominate university courses and staff would require upskilling in these practices:

"The main comment that has been made to me is that people couldn't do it without having that outside input. So if it was just up to certain academic staff to be doing all of that themselves, some of them just don't feel that's their strength or their capability to do that" (17)

Most participants either practiced elements of or observed others practicing elements of employability development in their teaching. Participants believed that mechanisms were required to share and disseminate exemplar practices through conferences, workshops and communities of practice.

4.4.3   General education courses

Several participants believed that more general education courses should be offered to students as a way to expose them to multi-disciplinary skills. General education courses were considered necessary to provide students opportunities to develop a wider skillset which could be highly valuable in most professional roles:

"Why not modify the general education idea to have something to do... But it would have to be a really good well-constructed course. Perhaps related to the discipline but also to have an understanding of transferability in related areas" (15)

General education offerings tended to be limited in their respective institutions which further necessitated the need for cross-disciplinary and cross-faculty collaborations.

4.4.4   Active and authentic learning and teaching

Participants believed that links to industry, alumni and communities needed to be explicit in learning and teaching activities and assessments:

"We're constantly exchanging information between organisations, people, contacts, and so forth and I think that's what has to happen in our teaching contexts. So just a transmissive style in huge lecture theatres, I think they need to incorporate some activities so that they learn from each other" (9)

Again this required time and effort from all parties and participants commented on the need to make industry benefits and incentives quite clear. Without adequate resourcing, participants believed it was difficult to develop and maintain partnerships however they were considered necessary to develop employability capabilities.

Participants considered work-related learning necessary though such learning would require dedicated resources to manage activities and the interests of students, industry and institutions:

"So I see it again in our school, they've started to resource some part role positions to be the conduit who can go out and source placement experiences and develop policy and process and liaise with students in the sector and across the staff and that's worked really effectively. So, I think acknowledging that this takes resourcing academic staff and professional staff, who I think already feel their roles are full. And so, it's actually, it's a new space that maybe needs to be carved out for some defined roles across the university […] some of that is about ensuring that students are safe going off into those placements, they're not being put in compromising positions, likewise that the university is not being damaged because we send our students maybe who aren't prepared, and that the sector is feeling that they're not being abused and used" (17)

Participants believed that students require higher levels of personalised feedback to develop their employability capabilities. With larger class sizes, some participants expressed difficulties in providing higher levels of personalised feedback and that current practices would need to be reconsidered:

> "One thing is to try and create the time, and this is a challenge, so it's to create the time to review draft work and give them more one-on-one feedback. And the challenge with that is there is not that much time, and we're losing resources for teaching" (19)

4.4.5   Targeted support mechanisms

Participants believed that targeted career support mechanisms were necessary however, given the poor uptake of such services by priority learners, participants (n=3) who worked specifically with Māori and Pacific students believed that support mechanisms need to be more inclusive:

> "Rather than separate Māori and Pacific students out... And that's what students, well, my students tell me, 'Why do we have to go to a Pacific event, why can't we just go to every other event?' But why can't they have Pacific or Māori speakers or whatever they call them? And I'm thinking, 'Yeah, hell yes, why can't they?' So I think that would be another mechanism just to look at the... Not what the content is but who's facilitating" (12)

It was suggested that mainstream careers events need to be more culturally diverse as Māori and Pacific students tend to respond well to alumni and industry of the same culture.

In summary, the need for clear strategic direction, guidance and support was considered necessary to support employability development in tertiary education. Participants believed that employability efforts would be better resourced as a result. Teaching for employability was considered mostly new territory in their respective institutions and participants believed that staff required access to professional development opportunities and exemplar practices to develop their capability. Participants recommended cross-disciplinary, cross-faculty, alumni and industry partnerships to expose students to a wide range of activities and experiences that they might encounter in the workplace. Furthermore, to reach a wider range of students, several participants believed that targeted support mechanisms need to be more culturally inclusive as students tend to respond well to role models and alumni who are of similar cultures.

5 Discussion

Participants described employability capabilities that graduates need and they themselves or their colleagues developed elements of these capabilities in their practices. In most cases, employability development is implemented ad hoc and participants who championed employability in their respective institutions found the experience difficult and time consuming due to limited direction, guidance and support in their respective institutions.

Lack of strategic direction, guidance and support appears to be a major barrier to employability development as there is limited understanding and awareness of employability amongst staff and students. Staff appear to struggle with the concept of teaching and assessing employability capabilities and participants acknowledged that teaching for employability requires a move away from traditional teaching approaches. Participants also believed that the majority of teaching staff are not familiar with contemporary forms of teaching. Teaching staff may not have experienced such teaching themselves or may have had limited exposure to industry which complicates the transition from traditional to contemporary forms of teaching. Furthermore, there are perceptions that teaching for employability is largely vocationally-oriented and more relevant to the ITP sector. However, participants acknowledged the changing nature of work and that graduates require wider skillsets that will be relevant to these new work environments. It was apparent that employability initiatives need to consider individual aspects such as the student's identity, goals, interests and aspirations to ensure that employability is not merely a job-matching exercise.

Lack of understanding tended to affect how students perceive employability as well. Participants who worked in targeted career services believed that students perceive employability as something that is only relevant in their final year and / or immediately before graduation. Careers services tend to see most students towards the end of their degrees when it is often too late. Most participants believed that employability capabilities could be developed through teaching and, given student perceptions of employability, embedded approaches are necessary so students have opportunities to develop their employability capabilities throughout their entire study programme. Furthermore, inclusive practices need to be considered to appeal to a wider group of students who might not take advantage of extra- and co-curricular services. It might be that frameworks such as the Literacies for Life framework[3] may be reflective of a Western orientation which does not recognise a significant dimension for indigenous peoples and possibly less advantaged students from a range of ethnicities.

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[3] http://student.developingemployability.edu.au/literacies-for-life/

Further research is warranted to understand how these students develop an awareness of self and culture as a minority in a dominant cultural group.

While most participants believed that employability capabilities could be developed through teaching, several accounts assume that the curriculum is too full which suggests that employability is very much viewed as something that sits outside of the curriculum. It is apparent that staff require adequate time and resourcing to firstly develop their understanding of what employability means in their particular disciplines and secondly how they might revise their practices to develop employability capabilities. Staff also require resources and support to develop their capabilities to integrate employability in the curriculum itself.

The most effective examples of employability development tended to include input from industry, alumni, teaching and academic development staff as each stakeholder was able to bring multiple perspectives to be addressed in the curriculum. Participants also believed that collaboration was necessary, however resources are required to develop and maintain partnerships, particularly industry partnerships.

Based on participant feedback, it appears that employability is recognised in tertiary education however, what this means for their respective institutions and disciplines is unclear. Participants recognise that collaborative efforts with industry are required as are contemporary forms of teaching which represents a significant cultural shift in research intensive institutions. Without adequate direction, guidance and support, it will be difficult for staff to transition. Participant feedback suggests that institutions may need to at least develop common understanding of employability and ensure that staff are guided and supported with their employability development efforts.

6 Conclusion

Participants believed that tertiary institutions have a key role in developing graduates for successful lives and careers, however this requires a significant shift in culture within their respective institutions. Without adequate understanding and awareness of employability, it is difficult to understand what employability is let alone how it can be embedded in the curriculum. To facilitate change in tertiary institutions, staff need to be adequately guided and supported.

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