

The Impact of Technology and Collaborative Learning
Spaces on Learning Design and Teaching Practice in the
Faculty of Design and Creative Technologies

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A thesis submitted to Auckland University of Technology in
partial fulfilment of the requirements for
the degree of Master of Education (M.Ed.)

2017

Te Kura Mātauranga
School of Education

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Abstract

The aim of this research was to determine whether space and place impact the learning design and teaching practice in a contemporary tertiary university environment. The research examines the philosophies teachers hold about learning and their own teaching practice and delves into how these philosophies influence the way in which they design and facilitate the learning activity in their teaching. The question driving the research is: What is the impact of technology and collaborative learning spaces on learning design and teaching practice in the Faculty of Design and Creative Technologies? In addition, the research explores the opportunities and challenges the physical and networked spaces offer teachers in the design of the learning activities to prepare students to step into a highly technology-enabled networked world. In determining a methodological approach for this study, I first considered that a techno-ethnographical approach would allow me to investigate the interrelationships between people and technology and how these, combined, provided an environment where learning and innovation thrived. In considering the ethnographical element of the approach, culture, and in particular my own Māori culture through Kaupapa Māori, became a second critical lens within which to view these relationships. The third part of the approach was to engage a single site case study to provide a manageable sized environment to focus the study in. With these methodological approaches in mind, selecting methods that would reflect not only the teacher perspective but also the tika the teachers bring to their work, was important. The semi-structured interview provided a means of hearing the stories and focusing on the areas of interest for the study. Kaupapa Māori provided the impetus for finding a method that could draw together all the elements of the study. Using Pūrākau as a method provided the focal point needed to gather, sort and re-sow the seeds of knowledge through the narrative form of storytelling. Three key findings became apparent from this study. First, that teachers drew heavily on their experience from both their personal and work lives. Second, they all revealed a strong commitment to developing and improving their practice but felt that teaching was not valued within the institution, and finally, that engagement with technology in their practice was

often hampered by environmental factors particularly infrastructure and administrative barriers. The need to address the status of teaching through all stakeholders in the wider Aotearoa New Zealand tertiary sector will mean affecting change from both top-down and bottom-up. Addressing the systemic issues raised, would also alleviate some of the pressure teachers experience in their practice. Teachers, perhaps more than any other profession, will need to be agile and imaginative in order to anticipate what learning will look like in the future. In particular, the range of skills across the various disciplines and knowing what those disciplines will look like requires imagination.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.



Helena-Anne Mill

In accordance with Auckland University of Technology's Ethics Committee (AUTEK), the final ethics approval for this research project was granted on 21 November 2014, Ethics Approval Number 14/348 (see Appendix A).

Acknowledgements

Ko Horouta te waka, ko Hikurangi te maunga, ko Waiapu te awa, ko Ngāti Porou me Ngāti Kahungunu oku iwi, ko Porourangi te rangatira, ko Hinerupe te marae, ko Robert Bruce Mill raua ko Mere Matenga oku matua, ko Helena Mill ahau.

I would like to express my gratitude to the teachers Kerri, Chris, Jess, David and Jeff, who so graciously shared their Pūrākau. They all showed dedication to their practice and students, and a tenacity of spirit to meet the challenges of teaching and learning in the twenty first century. I thank them all for giving me their time and the patience and understanding they showed me as I began my research journey.

For her patience, wisdom, encouragement and guidance throughout this process, I would like to sincerely thank my supervisor Dr Chris Jenkin. It was only towards the end of this piece of work that I have been able to reflect on the guidance she had given me and how valuable it was to me. I also thank her for inspiring and provoking me to express my world view as tangata whenua, and as a Māori woman in New Zealand.

To my whānau, Callum and Maddy, my niece Te Rina and mokopuna Kaia, and my mother Mere, for sustaining my wairua on the many occasions I just wanted to stop. I dedicate this work to my father who passed away in 2015. I know he is proud of this achievement.

To my friends and colleagues, my wider whānau, I thank you all for your support. Tui O'Sullivan for your reassurance that I was capable of the task and proof reading effort. Dr Elisa Duder for your no-nonsense direction in how to pull it all together and wise academic counsel. Sophie Hayman for providing an environment where we are challenged and supported as women to develop and thrive. Anne Gordon for your friendship, support and fortification which provided that much needed life balance.

Chapter 1 Introduction

1.1 About this study

The aim of this study was to determine what factors influence teaching practice in a contemporary Aotearoa, New Zealand university setting, with a view to better understanding what support could be provided to enhance the teaching experience for teaching staff. The research question was: What is the impact of technology and collaborative learning spaces on learning design and teaching practice in the Faculty of Design and Creative Technologies? The study involved five academic staff members from the four disciplines, within the DCT a single faculty. The staff interviewed were all actively involved in teaching at the time.

The study came about as the result of trying to determine why there appeared to be some reticence by teachers, to engage more actively with the newly designed learning spaces and technologies AUT was developing through its building programme. At the time the study began, AUT was making considerable investment into researching both built learning spaces and learning technologies with a view to providing students with the most revolutionary learning opportunities possible. Although a greater focus was being placed on the design of learning spaces, the benefits that would be gained through accessibility to technology and flexible approaches were difficult to gauge. Evidence on how physical spaces contribute to the overall effectiveness of the learning experience continues to grow as a scholarly field of study (Wilson & Randall, 2012).

Learning spaces as a topic covers a broad spectrum of definitions and understandings. Savin-Baden (2008) for example, posits the absence of learning spaces in academic life, considering space not only in a physical sense but also in the abstract. Savin-Baden explores the places in between where ideas and possibilities form, but which are being eroded by the growing workload demands.

This study looked to understand how teachers within DCT viewed the new spaces and technologies, and whether or not their teaching practice was impacted by the availability of these innovations. I was particularly curious to determine whether teaching staff incorporated learning space and technology into their planning and learning design. I was also keen to understand what, if any, support the teachers felt they would need in order to use the spaces and technologies effectively in their teaching.

My personal observation at the outset was that, like many organisations implementing change, the faculty had a reasonably small number of teaching staff who championed the use of technology in their teaching. For the majority however, it appeared on the surface that there were a number of other pressures impacting their ability to implement these technologies and strategies into their practice. Given this position, the integration of technology into teaching practice was likely to be a challenge. It was, however, important to see what the teachers themselves identified as barriers. Moser (2007) mooted a model he called Faculty Educational Technology Adoption Cycle model, in which he identified behaviours and external factors that influence the teacher's capacity to change their current practice. Moser highlighted the need to take a strategic approach while also developing a culture of positive support within the environment.

My approach to this study was threefold. First, I planned to look at what influences underpinned the teachers' philosophy on teaching and learning. Secondly, I wanted to understand the organisational culture and what part it played, if any, in determining the practice of each teacher. Finally, as a Māori researcher I needed to be able to interpret the data in a way that was meaningful to me.

The study focused on a single case study site. All the participants taught within a single faculty in a range of disciplines. The intention of this study was to focus on the role of the teacher, or rather the range of roles the teacher fulfilled in these new technology rich, mediated spaces. The study explored the agility of teachers to adapt to an environment where change was constant and inevitable. I considered that each teacher's ability to be agile in this environment would be determined, to a large

extent, by their individual educational philosophy and their ability to see their role in the context of a bigger organisational strategic picture (Hansen, 2007).

Data was collected using a semi-structured interview approach which explored three key ideas:

- The teacher's own philosophy on teaching and learning,
- The teacher's reflection on their teaching environment, and
- The teacher's access to support to develop the skills they needed to effectively utilise the learning spaces and technologies available in their teaching practice.

Assumptions about the study conditions included:

- Prior to the start of teaching; a formal planning and learning design process took place,
- Teachers had a familiarity with the environment they would be teaching in,
- Teachers had prior experience and were familiar with the technologies available in the teaching spaces, and training was easily accessible to them.

The scope of the study provided the flexibility to engage each participant in dialogue around their own personal teaching philosophies. It also provided the opportunity to draw together the threads of difference and commonality in their experiences and to consider how they incorporated space and technology within their practice.

1.2 Developing a research methodology

Methodology: Principles that guide the research practices

As part of the master's programme the first course I took was Research Methods. I was totally overwhelmed by the vast range of methodologies we attempted to cover and the differences between them all. The language used to describe and define them, needed a thesaurus just to be able translate individual words let alone what they meant when put together. Figuring out what the rules were, what they meant and how they should be applied proved absolutely foreign. I realised I was looking at culture: two aspects of culture in particular, the culture of the individual participants within the teaching environment, and the organisational culture of the faculty. In

addition, I also anticipated that in interpreting the data I would be doing this through my own cultural lens.

I was also interested in whether the teachers in the case study site, intentionally occupied space as part of their teaching practice through their learning design. Using a Lefebvrian lens I considered that the following avenue of inquiry might be launched (Lefebvre, 1991). Is space given the same degree of importance as the human elements 'the student', 'the teacher'? Furthermore, are the protocols, systems or rules which direct how the space operates, in place to guide the teaching activity? How is the space inhabited? If a lens was placed over the case study site, what would we see? What does the everyday lived experience reveal in this landscape?

Building a methodology that would enable me to consider all these facets together in the same study was a challenge. Guided by Somekh and Lewin (2011), I began thinking about the types of approaches that were based around observation, as it was potentially possible to access the learning spaces and teaching staff from the case study site. This approach however, raised issues around consent for what could possibly have been a significant number of participants and the extensive ethical considerations around a large study. As my question looked to investigate human relationships to space and technology, it appeared that ethnography would fit the investigation of what could be considered the cultural aspects of my question, but I was not so sure that it would cover the technological aspects I was hoping to explore. In following this chain of thought I found an article that brought ethnography and technology together and described the framing of technography (Kien, 2008). Kien recounted his moment of clarity while pondering a methodology to fit his research, mentally tossing around the different concepts and eventually settling on technography. I had grappled with whether I should use ethnography, as I also was wanting to study the social and cultural relationships in the learning environment. However, ethnography only covered part of the study. I also wanted to know what the relationship between the people and the technology looked like. Kien describes technography as "technology in everyday social situations" (p. 1102). That resonated with me as I was planning to study what teachers did (teach students) in

the social context of a learning environment and how they engaged with the technology available in this interaction.

Technography addressed some of what I planned to do, but I also wanted to understand what influence or impact the faculty or school culture had on teaching practice. Case study appeared to lend itself to providing a focus for analysing this activity and understanding the complexity of the real-life situations that the participants experienced (Harland, 2014).

Anticipating that my methodology needed to include a way of representing not only the Māori participants in the study but also myself as a Māori researcher, meant finding an approach that incorporated this aspect as well. In addition, as the research was being conducted in the Aotearoa, New Zealand research context this also needed to be considered. I set about looking at how a kaupapa Māori approach might provide the focus required. Through the literature I discovered that kaupapa Māori had at its core a set of principles that formed the fundamental framework for thinking about a research study for Māori and by Māori. These principles spoke to a general sense of humanity and respect for one's self and others (Smith, 1997). Ironically, I found it difficult to find space in my thinking to apply this innate knowledge in the context of this study when I began this research.

The biggest challenge has been to think of myself as a Māori researcher and to allow myself to see my cultural perspective as valid and 'ordinary' (Barnes, 2000). My educational conditioning had me questioning whether it was appropriate in an academic context. Convinced by colleagues that it was indeed valid knowledge and should be applied in this context, I began to think more determinedly about how this could happen. The discovery of Pūrākau as method for reflecting a Māori world view provided the tool that would allow me to connect the people, the technology and the cultural perspectives in a way that was authentic and meaningful for me (Lee, 2009).

Methods: The tools used to collect and analyse the data

In determining the participant group I attempted to gather a representative sample from across the faculty. Through a third party I sent an email to 15 staff within the

faculty inviting them to participate in the study. Ideally the participant sample would have included the following mix of gender, ethnicity, academic discipline, and teaching experience. The timing of the invitation was possibly not ideal as many approached were too busy to accept. Three participants were recruited from this approach. Through a colleague, two further participants were approached and agreed to take part. Detailed participant characteristics are covered in chapter four.

The participants were informed through the invitation process of the purpose of the study and that I intended to use semi structured interviews and reflection journals to collect data. Although I had a set of indicative questions prepared, I was keen to allow the conversation to flow from the participants, so used general themes to keep the interviews on track. These included:

- Personal philosophy and experience
- The teaching and learning environment
- Teaching practice development and support, and
- Technical support.

In planning the data collection phase of the study, I had anticipated that there may have been an opportunity for the participants to reflect further on their practice after the initial interviews. Two of the participants did provide additional reflection data after the interviews which was analysed along with the interview data provided by those participants. A thematic analysis was conducted on the data collected. The analysis highlighted the seven broad themes:

1. Industry Experience
2. Teaching Style and Development
3. The Changing Role of teachers
4. Technology
5. Learning Spaces
6. Support and Barriers
7. Student Expectations

These are detailed further in chapter four.

Pūrākau was used as one of the methods for gathering and interpreting the data in study. Historically pūrākau recorded the tradition of Māori narratives that described Māori knowledge and understanding of the world they lived in. Pūrākau traditionally drew on metaphors from nature and Māori society's belief systems, values and customs in these narratives. The notion of whakapapa is also inherent in the building of knowledge through pūrākau. It offers Māori researchers like myself, a narrative inquiry method where we can express our experiences in a contemporary context through a kaupapa Māori methodology (Lee, 2009; Ware & Walsh-Tapiata, 2010).

1.3 Why Te Ara Auaha Faculty of Design and Creative Technologies?

Te Ara Auaha, Faculty of Design and Creative Technologies is a multi disciplinary faculty, comprised of four schools, which strive to anticipate the technical and technological demands of the respective industry disciplines they represent. The impact of these demands, and the expectations of the modern work environment, make it necessary to anticipate future workplace needs and prepare students who are agile enough to continue to learn and adapt as required. It is important therefore, that the teaching reflects and engages with the real world where possible. It must also anticipate what will be required by industry in the future.

As part of this rapid pace of change, AUT like many other tertiary institutions is trying to prepare students for a future we can only try to imagine, by looking at the present and past in order to predict what the societal needs will be. While the focus is on the provision of technology to meet students needs, it is assumed that teaching staff have the predilection around the adoption of new technologies and practices. They are therefore expected to, with the minimum of education in the area, effectively employ technology in their teaching. By focusing on the faculty as an environment or ecosystem that has the capacity to be agile due to its size and disciplinary make-up, the ability to monitor change is possible.

1.4 Definition of key terms

The language used to describe some of the key themes in this context may be unfamiliar. The definitions below reflect my understanding and use of the terms as a means describing contemporary learning environments or ecosystems.

Agile – to be able to adapt, move quickly and embrace the change

Ako - describes the reciprocal role the teacher and learner play in Māori pedagogy

Place – refers to attachment or sense of belonging one has to a place, community or culture

Space – refers to virtual (online) or physical spatial position or location

Teacher-Learner – the teacher-learner role describes the state where the teacher fulfils the role of a learner in order to develop his or her teaching expertise and practice.

Technology – resources and systems employed by teachers and institutions to enhance the learning experience, to simulate what is happening with the fields granduands will be entering and to stimulate the formation of ideas and understanding.

1.5 Who am I?

I have always felt that I've straddled two worlds: A Māori world, where tikanga was lived and practiced, and a mainstream Pākehā world where English was the dominant language spoken at home, throughout the education system and within the community we lived in.

I grew up in the small Maniapoto King Country town of Te Kuiti, in what might loosely be considered a middle-class family in an Aotearoa New Zealand context. I was the eldest of four siblings. My father, prior to becoming a police constable had trained and worked as teacher and my mother, had worked as a nurse before temporarily giving up work to raise us. Both grew up in predominantly Māori communities. My understanding from accounts of both my parents was that Te Reo Māori was the predominant first language spoken and the marae was central to the activities of their communities. My mother's educational experience was one common to Māori raised in rural communities at the time. She attended a native school where English was enforced as the national language and she experienced physical punishment for speaking Te Reo while at school. Despite this, my mother retained her language, however, in raising her own children, she was determined

that we would not incur the stigma she felt growing up. My siblings and I grew up with English as our first language. My father's account of his upbringing was one where Māori values of manaaki and whānau were lived however, his father deemed English to be of more value. Only learning Te Reo as a teenager at Te Aute College affected his fluency and he was always a little whakamā about his language skills.

When it came to raising their own family my parents provided a close and caring home environment which reflected their rural Māori community values which included aspects of tikanga Māori alongside Pākehā culture but English was our first language. While in Te Kuiti, we integrated into the local Māori community finding whānau connections through whakapapa and learned to navigate the different iwi tikanga practices under the guidance of our parents. We attended hui and tangihanga, both for our own whānau, and in our local community. Although our strong ties were to Ngāti Porou and the East Coast we found acceptance in the Maniapoto.

We learned how important our cultural rituals were in order for us to be spiritually and physically safe. However, when the tikanga was out of context, and particularly when my parents were not around to guide and mentor, my understanding of why things were done in a particular way was, and still is vague. As I am not a fluent native speaker of Te Reo I struggle to grasp the nuances expressed through a shared language understanding of the culture. Although today, I proudly identify as Māori and understand the uniqueness and value of my Māori heritage, I struggle to fully engage, as that critical component of cultural connection, the language, is still missing.

Acknowledging that part of my whakakpapa can be traced to other parts of the world but is most strongly connected to my Scottish tīpuna who immigrated and settled on the East Coast in the late 1800s, I have always experienced a sense of cultural conflict.

These two worlds have constantly been massaged to fit my world view. I experience the dilemma of feeling like I straddle the divide between the two. This is a position reflected in other researchers who have looked at how indigenous communities and

academia find space to forge a way forward (Addis, Hall, Higgins, & Higgins, 2011; Bishop & Glynn, 1999; Snepvangers, 2016; Styres, Zinga, Bennett, & Bomberry, 2010). Work carried out by Styres et al., (2010), in investigating the challenge posed by this cultural dilemma “My own graduate work has prompted me to reflect on my personal worldview, and I am, to my dismay, finding numerous parallels with mainstream systems” (p. 626) defines the position I also find myself in.

My interest in the study of education can be pinpointed to our family’s move from Te Kuiti back to Tairāwhiti Gisborne, where I found myself questioning why I was finding learning a lot more difficult and less engaging than I had previously. I recall questioning the reading materials in one English class and expressing to the teacher the fact that I struggled to find relevance in an assigned English text. His response was to give me the key to the book room to select something I would find more relevant and engaging. I think this was a pivotal point for me, highlighting the fact that as a learner, I had some choices and I had been given some responsibility for my learning by this teacher. Not all my teachers however, were as enlightened and my struggle then became a game of memorising enough to pass the exam. It made me consider that, although I liked learning, trying to guess what the teachers wanted from me and getting it wrong was frustrating.

During my time at High School in Gisborne, I experienced a form of soft racism (Brooks, 2013). The Government of the day was also promoting trade training opportunities to Māori school leavers. Special assemblies were held, and all Māori students were directed to attend. Representatives from government agencies such as the Department of Māori Affairs, Police and Social Welfare presented the opportunities available to school leavers. As a Youth Aid Officer with the Police at the time, my father would attend these assemblies and on one occasion queried why I had not attended one of the sessions he had recently been at. I explained that I believed I was as academically capable as any of my Pākehā peers and I thought I was being singled out because I was Māori and thought less capable. I think he was surprised that I had taken this stand, but he supported my position. He still felt the scheme offered opportunities to rangatahi who would otherwise have found access to these industries and training support difficult.

My world view therefore is strongly influenced by my bi-cultural upbringing. It is only now as I take this opportunity to reflect on the impact my upbringing has had and how it has influenced my thinking that I acknowledge the uniqueness and value of the experience. Using Kaupapa Māori as part of my research methodology reflects the cultural foundation upon which I now stand and therefore the way in which I process my understanding of the research data outlined in this thesis.

This world view has also been coloured by the experience of my generation. I have also grown up in a generation that has seen the introduction and rapid growth of computing technology: from computer hardware that filled rooms and smaller computers that had very limited functions in the 1980s, to devices carried by almost everyone, small enough to fit in a pocket or handbag. My first encounter with computers was as part of studying a Bachelor of Business Studies in 1980. I recall being required to programme a ball bouncing across a screen, although the relevance of this exercise at the time escaped me. Little did I realise at the time what impact this technology would have in my life.

Much of my working life has revolved around the application of technology within the business and education contexts. This has included establishing new business processes and teaching people to use these technologies. This field has often provided me with the opportunity to extend the capabilities of the technology beyond what it was design to do to try and solve problems or expand possibilities.

Throughout this study I have been challenged by almost every aspect of academic research from defining the question, choosing a methodology, to grappling with the data and explaining what it all means. I have, however, discovered the importance of giving voice to ideas and finding others' voices in the process.

1.6 Structure of this thesis

This thesis is presented in six chapters.

Chapter 1 – Introduction: This chapter sets the scene for the study. It outlines the rationale and focus for the study. It also provides an opportunity to introduce the

cultural context that framed this study providing the reader with some insight to who I am as the researcher and the kaupapa Māori lens I have used to express my research journey. In addition, understanding the organisational culture and the constantly changing learning and teaching landscape the participants are required to navigate and function within, provides a snapshot of the environment I chose to focus the study within.

Chapter 2 - Literature Review: This chapter provides the framework to this study. It explores what the academic community is thinking around the use of space in the social and cultural context of learning and learning institutions. In addition it investigates the impact of globalisation on learning, new technologies and the rate of technological change, and the ability of both learners and teachers to adapt and thrive in this environment.

Chapter 3 - Research Methodology: This chapter defines the three-fold research approach I have taken, which encompasses single site case study, kaupapa Māori, and technography. The case study site approach provided a locational focus for the study. Kaupapa Māori and technography allowed the exploration of culture, spaces and technology, grounding the study in Aotearoa New Zealand social/cultural context.

Chapter 4 - Context and Findings: This chapter describes the environment within which the study is set. The study within a single faculty at AUT, a large urban University located in Auckland, Aotearoa New Zealand provides a manageable study setting. The participants are all engaged as academic teaching staff and are drawn from each of the schools represented by the faculty.

The inclusion of a context description established a picture of the study site detailing the faculty and its composition which include the Schools of Art and Design, and Communication Studies, Engineering, Computer and Mathematical Sciences. The use of the semi-structured interview was used as the main instrument for collecting data. In this chapter I discuss how the teachers see their role within this context and what skills and knowledge they draw upon in their teaching practice.

Chapter 5 – Discussion: This chapter explores each of the themes described in chapter four weaving together the ideas expressed by the participants with literature of the field. The chapter aims to highlight the current thinking of teaching staff at the time of the study. This was achieved by analysing their philosophical positions as a means for determining future educational direction.

Chapter 6 – Conclusion: This chapter revisits the goals and the research question of the study and highlights the outcomes. It also suggests strategies for future direction and research. Moving forward, a cultural change in education driven by the demands of society is anticipated. The traditional models of education through information transmission and recall are no longer sufficient for providing graduates who will need to be ready to solve global problems. As students become more aware of the affordances of technology they will expect these to form part of their learning. Universities, therefore, must play a significant part in activating learning, by engaging the theory, technology, space and relevant activity into the learning environments.

Chapter 2 Literature Review

2.1 Introduction and overview

The intention of this study is to focus on the teacher role and to critically evaluate the range of roles a teacher is expected to play in technology rich, mediated learning spaces. I will also examine whether what is happening in our modern tertiary learning institutions is aligned to the body of contemporary learning research.

This study aims to explore the agility of teachers to adapt to an environment where change is constant and inevitable. Each teacher's ability to be agile and flexible in this environment will be explored through their individual educational philosophy and by their ability to see their role in the context of a bigger global learning picture. (Hansen, 2007).

In addition, this study will consider the relationships within the learning and teaching context and the potential these relationships have to drive the direction of learning design and teaching both positively or negatively.

2.2 Learning design and teaching practice

Learning design describes the process applied to creating a programme, curriculum or course of learning. It is a term that has been used to describe the broadest of learning developments or the smallest unit of learning so, it does become challenging to define. In the 1980s and 1990s, Robert Mager (1997) developed a model of learning and instructional design that influenced thinking around organisational training and development and introduced the criterion referenced design/instructional design framework.

Essentially, this framework used a systems design/development approach to training and development within the workplace. This approach provided the ability to look at the environmental factors that affected people within an organisational setting and focussed on providing the most effective solution. Importantly, it considered the difference between a process issue and a performance issue, by analysing whether these issues constituted an organisational dysfunction or required a change to the performance through skill development of the people involved.

In a university setting where the pursuit of knowledge and the skills for acquiring that

knowledge have had significant value to society in the past, the expectation now appears to be changing and, providing graduates who are resilient and work-ready, has become a priority. Universities are now also responsible for ensuring graduates not only have a broader range of knowledge, skills and abilities but can readily be employed. The idea of considering a much broader set of socio-cultural factors in the design of learning is becoming essential if universities are to remain relevant (Pană, 2015).

Education in Aotearoa New Zealand continues to promote a traditional western system of education that focuses on, and places significant value on cognitive aspects of learning and assessment (Morong & DesBiens, 2016). Learning design in this context, however, should provide a means of analysing the wider implications that impact a programme of learning, and therefore, construct learning that is broader than that of just testing knowledge. Considered learning design should provide a vehicle for critical and creative thinking, innovation, design, and creation. In a tertiary context however, influences from industry, government agencies and the societal influences of the day, impact the decisions made by institutions and learning design will potentially result in learning that will struggle to adequately meet the expectations of any of the stakeholders involved at any given point in time (Lipinski & Kosicek, 2016; McCuen, 2007; Pană, 2015).

Within the Aotearoa New Zealand tertiary educational context, we have been disappointingly lethargic in acknowledging that the Eurocentric western education system has its limitations, particularly when addressing the learning practices and needs of indigenous cultures, such as Māori. It is also limited in addressing the needs of any immigrant cultures that now reside in Aotearoa New Zealand (Morong & DesBiens, 2016). Morong and DesBiens approach learning design through a socio-cultural lens and emphasize the fact that they are also trying to add the complexities that spaces and places for learning, and technology bring to the conversation. They question in particular how this is effectively built into the design for virtual or online, and face to face learning.

What this suggests, is that our higher education learning design needs to embrace agile design. It needs to provide environments that have the ability to transform and

support evolving and changing practices. This includes understanding the needs of the (student) learners first and foremost, but also accommodating (teacher) learners and other stakeholders in the process. It also means ensuring that indigenous cultural understandings are integrated into the fabric of the institution and its practices and culture.

Kirkness and Barnhardt (2016) provide some guidance as to how an alternative cultural approach might provide some insight to spanning the divide between the Eurocentric western approach and one that incorporates the knowledge and values of other cultures. Kirkness and Barnhardt question the political rhetoric when talking about other cultural knowledge. As a result, they proposed a model which represents, an alternative world view based on the principles of respect; relevance; reciprocity; and responsibility.

In looking at approaches to design around learning technologies, Ellis, Hughes, Weyers, and Riding (2009) identified four key teaching characteristics that had some bearing on teachers' experience and engagement with learning technologies. These included conception of learning technologies; approaches to blended design; approaches to blended teaching and teachers approach to design. In investigating how teachers approached their teaching and what their experiences were, Ellis et al. (2009) considered that while technology was accepted as ubiquitous throughout education there were a variety of ways in which teachers thought about technology when it came to designing learning. Ellis et al. (2009) found that while some approached the technology as a way to provide efficiencies in content delivery and accessibility, others saw its potential to engage students in active learning opportunities and develop autonomy in student learning.

From a slightly broader perspective, Yong (2015) highlighted the expanding role of tertiary teachers to include not only the education and pastoral care of their students but to also encompass research, administration, and public or community involvement. The tensions of this expanding range of roles in a competitive education landscape presents a dilemma for teachers as service expectations grow and they are faced with conflicts between time, quality of both teaching and research outputs, remaining financially viable, and managing stakeholder

expectations.

2.3 Teaching Philosophy

In the context of this study, philosophy is defined as “a set of opinions or ideas held by an individual or group; a theory or attitude which acts as a guiding principle for behaviour; an outlook or world view.” (Oxford English Dictionary, 2017, 6a). In the context of this study, research individuals, group, theory and attitude can be replaced by teachers.

White-Fredette (2009) in her analysis of the teaching philosophy of mathematics teachers looked to gain a better understanding of the principles and concepts they held towards their field of mathematics education. White-Fredette’s study looked more specifically at reform which had the potential to influence the teaching philosophy of individual teachers involved. She questioned whether differences in the views or sets of opinions or ideas held by the mathematics teachers in her study, was due to pedagogy or philosophy. She concluded that each of the teachers brought with them their own history and relationship with mathematics as well as their broader beliefs around education, adding to their own ideas about how to teach mathematics. Whether this approach could be extrapolated across other disciplinary areas is one of the aims of this study.

The language used in the various discourses often reflects the discipline. Snepvangers and Bannon (2016) for example, use the language of ecologies connecting novice teachers to the learning environments in which they form understanding and perceptions about their own learning and personal teaching practices. Oldenburg (1999) uses the term habitat to describe the activity of a community in a spatial planning context, while Harrison and Dourish (1996) refer to collaborative systems to provide context for their discussion on place and space. Harrison and Dourish (1996) posit that place, in the sense that it anticipates a particular range of behaviours and ways of interpreting those behaviours provides a context for understanding culture as a phenomenon.

Taking into account teaching philosophy, from a cultural perspective, McMurchy-Pilkington (2013) explored the range of concepts and theories that appeared to

influence learning and teaching for Māori in particular. She found that the sense of connectedness had the biggest influence on both teachers and learners. Teaching was a shared activity that involved a community for it to be effective as learners and teachers required physical, emotional, and cultural connectedness. Although the focus was on Te Ao Māori, these same factors could also apply in other cultures represented in the Aotearoa New Zealand context.

2.4 Pūrākau: Weaving the data together

The discovery of Pūrākau as a way of weaving the data together provided a means of analysing the data threads exposed in this process, in a way that felt natural and authentic. It also provided a medium to express the views the participants shared within the kaupapa Māori framework (Lee, 2009).

Thematic analysis of the transcripts highlighted the following key themes:

- Background and experience
- Teacher styles
- Engagement with technology and learning spaces, and
- Support and barriers experienced.

2.5 The ideas of space and place

In considering the impact of technology and collaborative learning, the concept of space and place within this context also forms part of the conversation. From a cultural perspective place carries a sense of attachment and belonging (Barnes, 2000; Morrison, 1999). Morrison (1999) also links space for Māori, for example, to an understanding of both the physical places, marae, rivers, mountains, the spiritual spaces and connections through whakapapa to a space that exists beyond the physical. Morrison goes on to explain that within this perception of space, there also exist rules and values which provide order as to how space is perceived within a Māori world view.

At an institutional level, spatial design is now at the forefront of many of the new built learning spaces in tertiary institutions globally. Spaces are planned, depending on the intended use. Space for learning that encompasses the needs of learners as opposed to spaces designed to replicate or simulate industrial environments for mass

education that have been perpetuated over the decades, appears to be a relatively recent development (Robinson & Aronica, 2016). As a result, the concepts and language used to reflect the idea of space in a western educational context have been about the buildings, and how many people the built space needs to accommodate from an architectural/engineering perspective. A seminal text adopted and perhaps appropriated by researchers as a means of anchoring discussion on space and place is the work of Henri Lefebvre. Translated into English, Lefebvre's (1991) *The Production of Space* explores the concept of space in everyday life through the processes of urbanisation, industrialisation, and technocracy. The complexification of the modern world leads later to the idea of socially produced space (Stanek, 2011), which if considered in the context of learning in Aotearoa New Zealand should make us reassess why we continue to replicate a teaching system that no longer reflects how we live beyond the walls of the institution.

Lefebvre's theories (Middleton, 2013) on space and how these reflected his pedagogy and philosophy on education were analysed by Middleton. She described Lefebvre's transdisciplinary perspective, as a means of analysing a living scenario or ecosystem. In the context of this research study where a socio-cultural (Kaupapa Māori) lens is being applied, Lefebvre's (1991) notions of space provide an interesting juxtaposition between the indigenous concepts of space and a western European position.

As the discourse that takes place around space evolves, the use of terms such as habitats, landscapes, and ecosystems are being used in an attempt to describe the complex set of actors, relationships, and activities that exist in these spaces (Fenwick & Edwards, 2010). This context is used more specifically in relation to how humans inhabit a place, forming and creating communities through proximity or cultural ties and familiarities. These associations do not necessarily privilege the human actor over any of the other elements that impact the space. As an example of this, Oldenburg (1999) noted that the development of European culture formed around small communities, e.g. villages with public gathering spaces, while the design of many of the American cities in comparison was planned and laid out to enable industrial productivity by the inhabitants. In effect, commuter suburbs provided

accommodation for the working population who spent the majority of their time in a completely different community from the one in which they lived. In the context of this study, learning landscape refers not only to the human element but also to the spatial physical, metaphysical, and virtual elements and how they interact in the space.

Offering another perspective, Harrison and Dourish (1996) focus on the concepts and language drawn from architecture and urban and spatial design, to describe and define an understanding of space and place. They discuss the interpretation of the spaces around us and how these are arranged to meet particular needs. They argue that it is place rather than space that frames our understanding of the purpose and function of a space. Their principle “space is the opportunity; place is the understood reality” (p. 69) succinctly sums up this state. The question that arises in the case study site is, if the opportunity is provided what is the understood reality?

Again, using the metaphor of a landscape to describe the disruptive and evolutionary nature of change in contemporary tertiary organisations, Staley & Trinkle (2011) highlighted key areas of change that denoted the educational landscape identified here as, analysing the various global, societal, and internal factors that will affect the decisions we make as universities to achieving the goal of improving learner success. The idea of a landscape reflects the broader picture of what different learning institutions are doing and how they are adapting and managing change (Warger & Oblinger, 2011).

Warger and Dobbin (2009) and Willis and Cifuentes, (2005) describe the potential influences and impact of learning spaces on the learner. There appears to be an assumption that teachers have the capacity and the inclination to adapt their teaching and provide the technology-rich learning experience, learners are increasingly demanding. Determining to what extent this is the case, would provide valuable insight into the investments we make in the faculty in terms of technology and support.

As the need for adaptable and responsive space has grown within our public spaces, and cityscapes there is now greater awareness of the effect of culturally responsive spaces for learning throughout our institutions. Since the late 1970s and early 1980s

this awareness has seen the establishment of marae, fono, Christian and more recently Muslim prayer rooms on most Aotearoa New Zealand tertiary campuses (Penetito, 2010a; Smith, 2000).

2.6 Role of the teacher

The discussion to this point has provided some context around environmental factors. The other key factor in this study is the role of the teacher. Oblinger (2006) takes a particularly pragmatic approach recommending broadening our observations to look at how people behave in the social communities they interact with. She suggests looking beyond the formal tertiary setting, to establish a picture of what may influence the way an individual learns. Discussion on the impact of technology and in particular, social software on the perceived roles of the 21st century teacher is still emerging. There are, however, some familiar roles emerging from the need to adapt to the new conditions. Roles such as learning designers and learning technologists provide the link between the content or disciplinary expertise the teacher brings and the integration with technology, design, and infrastructure. In the meantime, some less familiar roles such as student educators and student co-designers are also beginning to evolve. These roles see students becoming an integral part of the learning process providing technology expertise and support to teaching staff in areas such as social media, online publishing, and remixing content and providing student perspectives to the design of the courses they are taking (Greenhow, Robelia, & Hughes, 2009; Heuer & King, 2004; Shailey Minocha, Schroeder, & Schneider, 2011).

Understanding what the student body of the near future will look like and what input teachers have or need to have in order to gain successful outcomes in their teaching can best be achieved through engaging with students in activity that is of value and relevant to them. Oblinger (2003) attempts to define the modern student in her descriptive analysis of the changing student profile.

The picture that emerges is of students who need to balance different aspects of their lives along with their knowledge acquisition. The student profile indicates that students come from wide a cross-section of society. In the past, the student body would have consisted predominantly of school leavers supported by family to

complete a course of study. The student body now reflects a range in age, ethnicity, background, life skills and experience (AUT, 2017). With a diverse student body come significantly different levels of knowledge, understanding, experiences, and meeting the learning needs of this student body becomes a challenge, teachers must learn to navigate (Jones, Ryan, & Eckersley, 2014). Ensuring the necessary support mechanisms are in place is critical to ensuring an effective response for both teachers and students.

Exploring the value perceived in the teaching role by teachers themselves and the wider community may provide some understanding of the degree to which teachers engage the curriculum and the environment (Díaz-Méndez & Gummesson, 2012). Engaging teaching faculty from the beginning of the learning environment design process is important to ensuring a sense of ownership and belonging according to Lippincott (2009). Lippincott posits that campuses that consider curriculum and their future needs as part of this process when designing new learning spaces will benefit from the results.

Another external influence on the teaching role that should be considered is teachers experience in their disciplinary field. Burns (2012) investigated whether the teacher's experience as a practitioner had any effect on their teaching practice. His research concluded that the type of content teacher practitioners draws upon differed from the content teacher non-practitioners chose to use. Teacher practitioners for instance, were likely to draw their content from their industry experience or relate the teaching concepts to examples from their industry. Those with little or no industry experience on the other hand, were more likely to use more traditional teaching delivery methods and take a more theoretical approach to content.

Adding to the discussion, Lipinski and Kosicek (2016) considered the advantages that leveraging industry experience might offer to universities. In investigating the trend to provide students with real-world experience, they questioned whether this could be achieved by recruiting teaching staff from industry. They found evidence that while experiential and service learning had a place in education its effectiveness was dependent on their discipline or industry currency of teaching staff to ensure projects were relevant. It was critical therefore, that teachers not only ensure that

their discipline skill set, and knowledge were current but also that they maintained their industry workplace and professional body connections. In addition, teachers also considered the value of actively encouraging university supported teacher-industry engagement and found merit in this for teaching practice.

2.7 A place in the cultural fabric of the organisation

As the shape and face of our urban environments have changed, the complexity of trying to accommodate the cultural needs and demands of a settler culture, and a growing immigrant culture has, appropriated the circumstances of Māori as the indigenous population, brought about by the treaty.

What this discourse begins to expose is a growing discord in the Aotearoa New Zealand tertiary landscape that realises that different pedagogies, in particular, indigenous pedagogies, come from rich lived experiences of a culture. Rather than seeing these as less significant learning experiences, the impact the acceptance of these pedagogies has as valid, valuable and equal to western pedagogy within tertiary education would mean a significant organisational cultural shift. This is still a challenging discourse in the Aotearoa New Zealand contemporary university context.

The case study site not only carries strong western education alignment, but is also located in a bi-cultural, multi-ethnic urban society. The distinction in the Aotearoa New Zealand context, is that Te Tiriti o Waitangi defines a legal and binding relationship between the Crown and the Tangata Whenua, (commonly referred to as Māori). As a contractual partner to Te Tiriti, the government has an obligation to recognise that Māori culture and practices hold a unique position that demands acceptance within the Aotearoa New Zealand educational framework. Ensuring Te Tiriti principles are accommodated within Aotearoa New Zealand at all levels of the educational landscape must be a priority. Providing space where these cultural understandings can be represented in discourse, negotiated, and where space is provided, as a critical part of the learning landscape, is still an uncomfortable and sensitive conversation (Keegan, 2012; Mahuika, 2008; Moewaka Barnes, 2000; Morrison, n.d.; Pihama, Smith, Taki, & Lee, 2004; Royal, 2012; Smith, 1997).

The space for Māori in many of Aotearoa New Zealand's tertiary institutions still

appears to reside in the Māori (studies) departments (Morrison, 1999). Although there has been much rhetoric over the years regarding the place Māori hold in society, the cultural principles have struggled, and continue to struggle, to permeate the dominant western eurocentric systems and customs that Aotearoa New Zealand universities operate under. This is particularly highlighted in the value placed on overseas publications for research ratings (Morrison, 1999; Smith, 2000).

The place for Māori in Māori departments has worked to undermine kaupapa Māori as a means of providing meaning to Māori that goes beyond the industrialised societal practices, and embracing the deeper and more meaningful social behaviours, values, and understandings of whānau. The teacher as student and the student as teacher is a fundamental aspect of Mātauranga Māori or Māori knowledge (Royal, 2007). As a Māori researcher I am aware that my world view is textured by my cultural understandings and experiences of separateness. How I navigate the different cultural settings I exist in as a result of trying to be sensitive to the fact that I whakapapa to Māori ancestors and the respect I hold for that privilege. However, I also whakapapa to Scottish settler ancestors and try to remain respectful to that privilege also. Making space for kaupapa Māori acknowledges not only me as a Māori researcher but, also those of my participants who whakapapa.

Pihama, Smith, Taki and Lee (2004) explore notions of Kaupapa Māori, by considering what it is to be Māori and view all human interactions from a Māori cultural perspective. Using an alternative world view provides the perspective that assimilation into the dominant culture although perceived as providing an equitable foundation, in fact has the opposite effect and proves detrimental to Māori.

Extending the concept of Kaupapa Māori to incorporate Mātauranga Māori focuses the idea of the lived experience, with Māori knowledge and learning (Durie, 2012; Te Ahukaramu Charles Royal, 2012). Applying a Kaupapa Māori - Mātauranga Māori lens to the exploration of teaching reflects a growing awareness of the impact of culture on behaviour.

The key aspects of a kaupapa Māori approach that apply to this study include the principles of ako, whānau, kaupapa and ata. These principles are interwoven into the cultural fabric of a Māori worldview and it becomes difficult to isolate the properties

of each, as the tenets are all encompassed within each.

To translate Ako simply as knowledge (Forsyth, 2011) is too simplistic as it relates to a much broader range of human qualities and ways of thinking, and communicating understanding of these qualities (Pohatu, 2010). Ako describes the relationship between the learner and the teacher. It is one in which the roles that each play in the relationship may change, seeing the learner able to teach and teacher able to learn. Ako encompasses within its tenet the qualities of respect, reflection and reciprocity. This relationship goes broader than the sharing of knowledge between the learner and teacher. It develops through a deeper engagement with the space where learner and teacher live and work together developing stronger emotional, and spiritual connections (Pere, 1994; Pihama et al., 2004; Pohatu, 2010).

In turn, the learning relationship cannot be described adequately without considering the principle of Whānau. The term Whānau, although more commonly used to refer to familial relationships, also refers to other wider community connections between people. Like Ako, Whānau also sits upon the qualities of respect and reciprocity and provides a safe environment for those within this environment (Barnes, 2000; Kennedy & Cram, 2010; Metge, 1995; Smith, 1997).

Finally, the principle of Ata reflects the beliefs and values of individuals, in this case teachers. Engaging in these qualities, teachers offer a window into their world view that is reflected in the learning relationship. Again this principle is underpinned by respect and reciprocity. It has at its core a need to establish a place where all those participating in the kaupapa are able to negotiate their working boundaries and ensure that each person feels safe in engaging in the learning anticipated (Forsyth & Kung, 2007; Pohatu, 2004).

2.8 Technology

Placing a focus on technology highlights the pace of change we have encountered and what this means for teaching and learning. Information technology is progressively changing modern learning environments from spaces that focused on the teacher, to spaces that encourage inquiry but also make the learning content more accessible to learners (Warger & Dobbin 2009). Warger and Dobbin (2009)

argue that this had the effect of moving beyond the confines of the traditional learning spaces, lecture theatres and classrooms, to spaces that provided context and experience to the learning. They found the idea of learning space ignored some of the key aspects that enabled learning to happen in the wider social environment. They preferred instead to use a definition that included the range of factors that influenced learning positively such as technology, human factors and resources. For effective learning to occur, they posited that like an ecosystem, these factors are all present together and as such the term environment provides a better conceptual description of conglomeration all these factors. They acknowledged that learning can still happen effectively with little or no technology. The challenge is ensuring that when technology is considered as part of the learning environment, the decisions around its use and implementation are informed and the necessary supports are in place.

The learning environment conceived by Warger & Dobbin (2009) incorporates discussion around a learning culture which develops through the activity the human engagement. They recommend exploring how the different stakeholders, students, administrators, technologists and teaching staff, view the space and determine the ways in which it can be used. As an example of stakeholder influence, IT departments might consider the financial implications of equipping a space for a particular use. Whereas, room scheduling administrators may argue that the space must be available to schedule classes in, no matter what the technology or facilities available.

Kiel (2009) focuses on the relationships involved in the system, describing the learning environment as a complex social system of relationships, much like that of an eco-system that impacts and changes depending on the various participants, factors or elements. These relationships combine to produce a unique context within which to consider learning and teaching. An example of this may be described by considering the different possible relationship permeations that might be viewed within the context of a learning environment and how they interact. These relationships (learner-teacher, teacher-technology, learner-technology, teacher-space, and learner-space) indicate the need for agility by tertiary institutions to accommodate this new landscape.

Exploring the idea of using technography as a means of investigating the interaction between the teacher and the technology means considering whether this interaction had any significant bearing on the teachers' philosophy and in turn how this impacts their practice.

The nature of education has evolved with the introduction of technology. Laurillard (2012) makes the point that "typically, education does not drive technological invention. Instead we appropriate the useful inventions of the business and leisure industries" (p. 2). What these industries do, is demonstrate the capacity and agility to develop and test innovations and technologies and, provide critical data for education to then adapt to meet both student and industry skill needs. This shared awareness of negotiated interactions and social rules provides a cultural structure, in the same way kaupapa Māori does, for social engagement. Clear & Zhang (2013) describe a need for organisational structure within these virtual spaces, particularly where the participants lack the social norms ordinarily associated with expected behaviour in physical spaces. As technology has evolved in this space, keeping pace with best practice systems and process is a difficult task.

The challenge of planning in an environment of uncertainty where there are variables such as technology, social structures, and accessibility, which must be taken into consideration. This study will explore the range of stakeholders, relationships, technologies, and activities that interact within the learning environment of AUT and in particular, within DCT.

Engaging in dialogue from the fields of teacher education, consumer culture, online learning, and cyber studies, Saltmarsh, Sutherland-Smith, and Kitto (2008) argue that technology influences the learning environment in a variety of ways. Defining their own application of technography, they view it as a way of providing an opportunity to compare process and practice, by being able to analyse the socio-technical interactions and practices within the learning environment. They make the point that educational technologies should not be separated from the social contexts, as each informs the other. This approach may be particularly useful in identifying the potential problems and implications tertiary institutions like AUT might face in the future. As a result, this research highlights the importance of studying a broad range

of elements that impact an environment rather than looking at individual elements in isolation (Staley & Trinkle, 2011).

In further framing the study, I turned my attention to the contemporary Aotearoa New Zealand tertiary setting, and considered how the knowledge and understanding of learning spaces, technologies, and society, influences the education and the learning landscape we have today. There needs to be more consideration given to the use of acquired knowledge and the ability to think differently about how we teach. Laszlo, Rowland, Johnston, and Taylor (2012) argue that for many, education is the passing on of knowledge and suggest that rather than just acquiring new knowledge to become expert as “knowers” it is more important that the learning serves a greater purpose, for “learning to become learning oriented” (p. 576). This perspective enables learners to use the knowledge in a productive way within the wider environment.

Ways of thinking of learning more as a connected activity that exists as part of a social system rather than an individual pursuit was another aspect that I was keen to investigate. Laszlo et al. (2012) proposed the idea of thriving education which “draws on contemporary insights from the sciences of complexity, the life sciences...and an embracing spirituality that re-instills a sense of the sacred in the universe” (p. 580).

In the initial scoping for this work I considered what a democratic learning environment might look like in a contemporary university setting. As part of this discussion, Laszlo et al. (2012) offer some insight, questioning whether the dissonance in the tertiary landscape might be considered from a revolutionary or evolutionary perspective. This view is also expressed in the work of Bhabha (2003) as he laments our understanding of democracy as a means of gaining universal cultural consciousness. From this position, all the systems have elements of creative potential but also face limitations. In the Aotearoa New Zealand context, it also exposes the dilemma between the different democratic political systems that form our distinctive Aotearoa New Zealand tertiary landscape.

A move in thinking from focussing on space as a central catalyst to exploring the

possible development of a cultural framework to explain this environment, may provide the insight required to establish a sustainable innovation culture within the tertiary landscape. Churchill (2010) describes the artefacts, tools, signs, and systems (beliefs and practices) that underpin effective communication and learning, in particular, how we influence a move from transitional engagement to transformative engagement amongst individual teachers. Churchill employs activity theory in this case and extrapolates out from the individual level to the institutional level.

Within the context of DCT, looking at whether or not the organisational culture provides the social protocols and workplace support that encourages, and nurtures innovation and personal development will provide important insight into how teaching is valued.

The literature reviewed indicates that although there is research in the field of teaching philosophy, technology and culture, the methodology I intend to use will provide a unique lens within which to study teaching practice within the AUT.

2.9 Summary

The role of the teacher stands at centre of this study. Understanding of the place of the teacher in a contemporary tertiary educational setting was prompted by the need to explore the approach teaching staff had to their learning design, particularly when considering learning spaces and how they integrate learning technologies into their design. Looking at whether teachers have a teaching philosophy that is open to change and inspires adaptability will help to determine the mechanisms required to support and develop teaching practice.

By investigating the current trends and ideas around learning design and teaching practice I look to determine whether the approaches disclosed by the participants are consistent with what other institutions are experiencing.

In investigating the elements of space (the physical environment) and place (the sense of belonging), I find the need to move beyond educational literature to develop a better understanding these elements. Although the writings of Lefebvre (1991) and Oldenburg (1999) provide a starting point for thinking about space and its

use, turning to Māori philosophy and research to develop a context for the concept of place within the tertiary education environment provides additional context.

The literature of noted Māori academics (Kāretu, 2010; Penetito, 2010b; Pihama, Cram, & Walker, 2002; Smith, 2000), who over the past 40 years have worked to raise the awareness of a world view that is particular to Māori and that can also be applied in an academic context to describe the unique cultural perspective, has been invaluable in raising my own personal awareness of the place of innate Māori knowledge. This research adds another leaf to the rākau of knowledge in this field.

Another key focus for this study was technology, and how teachers engage with technologies within their teaching to guide and enhance their teaching and develop the learning culture in the process.

In the next chapter I will outline the research methodology employed in this study in more detail and discuss the research methods used to gather the data.

Chapter 3 : Methodology

3.1 Introduction

This chapter discusses the rationale behind the research design decisions made in this study. I also describe my own understanding of the theoretical perspectives that underpin my approach to qualitative research and outline the research context, assumptions, data collection and analysis process.

3.2 Context of the study

The initial concept of space and place has provided a broad platform from which to refine the research topic and determine how teachers engage with space and whether place offers them a sense of belonging within a space. By examining the concept of space through a variety of lenses including; physical space, Kaupapa Māori, social space, technology, architectural and urban design, the common theme through all these lenses is that the creation of space and place both have a significant impact on the culture of a society (Adds, Hall, Higgins, & Higgins, 2011b; Aoki & Tang, 2009; Harrison & Dourish, 1996; Herz, 2005; Lefebvre, 1991).

As a faculty, DCT could be described as unique in that it would be difficult to find the same combinations of disciplines grouped together. This mix of 'hard' science and 'soft' creative disciplines make it difficult to establish cultural approaches that work across the faculty. Studying the behavioural patterns and processes would be one way of mapping what Peterson and Spencer (1990) refer to as the social architecture of the organisation. Peterson and Spencer describe these patterns and processes as "manifest behaviours" (p. 11) which can be observed, and their meaning and effect interpreted. This provides insight as to how embedded the contemporary culture espoused through the university's planning and performance structures exist, or whether the more traditional western university culture persists.

Another unique feature of the faculty is that it sits within an Aotearoa New Zealand bicultural context in a multi-ethnic society. However, for all its cultural and academic modernity, the faculty struggles to reflect and respond effectively in this particular cultural environment (Diamond & Adam, 2004; Hudson, Milne, Reynolds, Russell, &

Smith, 2010; Cohen, Manion, & Morrison, 2000; Ka'ai, Moorfield, Reilly, & Mosley, 2004). It is an area that, although AUT is critically aware that it should be embracing and developing as part of our organisational culture, is tenuous in terms of fit. Understanding why this is the case and what needs to be done to change the situation will provide an important point of difference for this study.

3.3 My own understandings of the theories

As an educator, much of my professional development in the field has been based around a constructivist paradigm which recognises that each learner has a conceptual framework upon which to build their knowledge. For me, the idea that all learners bring with them some experience of the world and that engaging in 'learning' adds or builds onto what they already know or have experienced, sits at the heart of constructivism (Biggs & Tang, 2011).

This understanding and acknowledgement of an individual's own world view is also present were one to take a phenomenological approach. However the emphasis changes slightly to focus "on changing the learner's perspective, or the way the learner sees the world and how learners represent knowledge" (Biggs & Tang, 2011, p. 23). Having come from a background in adult training, this was the approach I am perhaps more familiar with, as many of the learners I worked with came with very different world views and a wide range of educational experiences.

3.4 Decision on methodology and methods

My interest lay in discovering teachers' perspectives on how different learning spaces and technologies provided in the University setting, influenced their teaching practice. I believed a qualitative approach would provide the most appropriate framework within which to form my methodology. Thinking about my constructivist and phenomenological leanings, finding approaches and methods that would clarify my understanding of what the current tertiary learning landscape actually looked like, meant identifying key aspects of my research question for further investigation. To refine this process I decided that looking at a single case site would provide a study with sufficient scope to gather data, and what, if any, impact technology and space had on how teachers planned and carried out their teaching. I suspected that

there might be some quite strong organisational and social cultural influences that also affected how teachers engaged and interacted within this environment.

The methodology for this study consisted of a combined approach which included case study, technography and kaupapa Māori theory.

3.4.1 Kaupapa Māori

As I began to connect the different facets of the study, what resonated strongly was the emergence of a cultural context (Krause, 2014; Sutherland-Smith, Kitto, & Saltmarsh, 2008; Wilhelm, 2010). Applying a Kaupapa Māori theoretical approach therefore, would not only reflect my own cultural framework but also an approach that is grounded in an Aotearoa New Zealand cultural setting. Under this approach the principles of Ako, Whānau, Kaupapa and Ata would inform understandings of self; of complex social structures; of the shared philosophies of communities and of the ways to develop healthy relationships (Pihama, Cram, & Walker, 2002).

3.4.2 Pūrākau

A traditional Māori narrative form, Pūrākau, provided a means to communicate the foundations for cultural values, practices and behaviours within Māori society and, through oral tradition, transmitting these shared understandings intergenerationally (Ware, 2009). In a contemporary context where societal values and perspectives continue to evolve, understanding the purpose of Pūrākau and how I could use it to provide a framework that allowed ideas and values within this contemporary setting to be expressed and explored in an authentic way, appeared applicable (Lee, 2009; Ware, 2009). In this study Pūrākau offered a way of narrating the lived experiences of the teachers and transmitting the understandings gained through their teaching and learning values, practices and behaviours.

3.4.3 Interviews

As a data gathering tool, the interview provided me with a range of conversation options for collecting an information snapshot on a particular theme or topic. The structured interview provided the most directive form of questioning, allowing the predetermined question format that would elicit specific information. The semi-structured interview, on the other hand, gave the interviewee greater scope to lead

the conversation within a particular informational theme (Skinner, 2012). The semi-structured interview tool used in this study allowed for subtle direction to be given through the conversation in order to remain focused, but for the participants to be able to lead the conversation in a way that allowed each of them to express their responses in an authentic way (Bryman, 2012; Somekh & Lewin, 2011; Walliman, 2011).

3.4.4 Case Study

The case study approach provided the ability to study the professional practice of teaching as a lived experience within a single organisational context (Braun & Clarke, 2013). Chadderton and Torrence (2011) saw the potential of case study as “an ‘approach’ to research which seeks to engage with and report the complexity of social and educational activity, in order to represent the meanings that individual social actors bring to those settings and manufacture in them” (p. 53). This study was set in a single faculty designed to provide a central hub for a unique mix of schools including, Art and Design, Communication Studies, Engineering, Computer and Mathematical Sciences. Participants were drawn from each of these schools with the intention of studying teaching practice amongst different disciplines represented within these schools within a single faculty.

3.4.5 Technography

In addition to using case study, I felt that this study also leaned towards ethnography as it focused on cultural behavioural aspects of teachers in a social setting. I wanted to look at the connections and cultural relationships not only between the teachers but also the connection teachers had with their environment and the influence of space and technology. Technography, a melding of ethnography, the study of people and culture and the study of how technology has influenced connections between people both locally and globally, brought these elements together. From a technographic perspective, the research studied the connectedness between technology networks and the human or social networks (Fenwick & Edwards, 2010).

3.5 Participant selection and data collection

As discussed earlier in this chapter, the research was based within a single faculty at the university. The Faculty was formed in 2005 and was established by combining the School of Art and Design, School of Communication Studies, School of Engineering and the School of Computer and Mathematical Sciences. In 2016 the School of Engineering and School of Computer and Mathematical Sciences merged but remained part of the faculty. Each school offers both undergraduate and postgraduate qualifications. Although the majority of the faculty's programmes were offered on the main city campus, programmes were also offered at the university's South campus, centred in a growing urban and culturally diverse catchment. The faculty office where I am based acts as conduit between the activities of the schools and the regulatory requirements of the university, providing guidance and advice to schools on how to navigate the university's plans and policies.

In 2013, one of the major new building developments was completed on the city campus to house the School of Communication Studies. The building was designed to accommodate a multitude of innovative and flexible learning spaces and technologies. It was envisioned that teachers and students would co-habit this space and create spaces that would foster learning in different and more productive ways. Preparing to move into this space was the initial impetus for this study. I was curious about whether teachers would embrace the opportunity to explore what the spaces and technologies might offer in terms of learning and teaching or whether they would continue to use the methods and tools they were familiar with regardless of what the space and technology had to offer.

Going into this work, I made the following assumptions about the basic conditions I believed my participants to work within. These included:

- That all teachers actively participated in, or had some input into the learning design of the course they teach.
- That all teachers had some degree of flexibility in the spaces within which they taught

- That all teachers had some input into the tools and technologies they use to teach

These assumptions provided a baseline upon which to test the reality as it emerged.

3.6 Data collection methods

In determining what data collection methods would best suit my qualitative research approach I considered methods that would encourage open dialogue from participants and would provide the information I was looking for. I wanted to provide enough space for each participant to be able to tell their story but I also knew I needed to provide some guidance through the process in order to be able to extract the data that would answer my research question. As my sample was small this afforded me the opportunity to use semi-structured interviews as my primary data gathering method.

Indicative interview questions (see Appendix B) were prepared as part of the research proposal. The questions were broadly grouped into three main themes: the teachers' own philosophy on teaching and learning; reflecting on the teaching and learning environment; and skill development. These questions provided the basis for the interview format, and the process gave participants the ability to lead the conversation through their own particular story.

Prior to conducting the interviews with participants, I ran a practice interview with a colleague. This gave me the opportunity to test my interview technique and check that the questions elicited sufficient data. Each interview was arranged at a venue and time convenient to the participant. The interviews were carried out in meeting rooms on the Main Campus site and were an hour long. At each interview, I reacquainted participants with ethical conditions set out in the Consent form (see Appendix C) and confirmed that they were happy to have the interview recorded. The interview process allowed the participants to speak about what was important to each of them personally through their personal teaching philosophy and practice.

3.7 Selection Criteria of Participants

Participants for the study were selected from a combination of purposive and volunteer sampling (Burton, Brundrett, & Jones, 2014). In terms of purposive

sampling, I was keen to ensure that the participant group covered had a balance of the following characteristics:

- Mix of disciplines, departments, and schools
- Gender balance
- Age range
- Teaching experience range
- Industry or work experience
- Academic appointment, lecturers, tutors, teaching assistants

As this was an Aotearoa New Zealand study in an Aotearoa New Zealand tertiary institution I was also keen to ensure there was Māori representation amongst the participant group.

3.8 Research ethics and rigour

I was conscious that, as a member of staff within the faculty office, my research might have been seen to have had some power-relationship implications. For this reason recruitment invitations (see Appendix D) were sent out by a third party and those interested were asked to respond to this third party.

Of the eleven invitations sent to a selection of teaching staff that might provide a good cross section of the characteristics, I felt representative of the urban Aotearoa New Zealand society and the university, only two teachers agreed to participate. In explaining the situation to a work colleague, she offered to contact three more staff who also agreed to participate in the study. The demographic breakdown for this group of participants is discussed in more detail in Chapter 4.

As part of the ethics process, a proposal for this study was presented to the AUT Ethics Committee (AUTEK) for approval to proceed as the primary source of data collection came from academic teaching staff working within the Faculty of Design and Creative Technologies AUTEK reference number 14/348 6 November 2014 (See Appendix A)

Participants contacted by email invitation were provided with an information sheet about the study I intended to conduct. The Information sheet (see Appendix E) explained that I was planning to investigate teaching philosophies within the context of a single faculty with a view to gaining insight into how their understandings,

beliefs, and practices informed their own practice and could potentially inform future planning and support provided by the faculty. The information to participants also indicated how the study would be run, what commitment would be required and ways in which the personal information they disclose would be protected. I was mindful that those who had volunteered needed to balance their teaching loads with their own research activities, so their availability was a factor. For this reason, the scheduling of interviews was flexible and worked around individuals' timeframes and schedules. At the beginning of each interview I outlined the study purpose once again to reacquaint the participants with purpose and process of the study and consent forms were signed (see Appendix C).

Throughout the supervision process I became aware of the rigour the research required.

3.9 Analysis

I found transcribing the interviews a valuable process. It gave me the opportunity to concentrate and reflect on each individual and their story. This was something that was difficult to do while conducting the interview as the need to be in the role of interviewer meant focussing on questioning, trying to understand where the stories were going, and what this might mean in the context of the study. The transcribing process also allowed me to immerse myself in their lived experience as they told it before analysing the 'data' as part of the more systematic research process.

3.10 Significance of the study

The significance of this study will be in determining whether investment in the design of learning spaces and technology makes a compelling difference to teaching practice at a tertiary level. This study adds to the body of research considering the innovations to the learning environment, and the support required at university, faculty, and school levels (Watson, 2007).

By including a Kaupapa Māori approach an Aotearoa New Zealand cultural dimension is added to the study. This approach considers the sense of belonging to a space, that brings with it, the emotional and spiritual connections with the ability to connect or ground learning while still allowing it to evolve (Durie, 2012). By viewing

the unique cultural perspectives embodied in Kaupapa Māori it allows for a learning experience that has significance to the Aotearoa New Zealand educational context.

3.11 Summary

This chapter described my own philosophical position in undertaking this study. I also outlined my research design rationale for the selection of my methodology and the methods used to gather and analyse the data.

The use of semi-structured interviews as a data collection tool was to provide some broad parameters for discussion, and to allow the interviewees to express themselves with as much or as little detail as they wished to share. Reflecting back, I think perhaps my expectations of how the interview process would pan out were somewhat naïve. Although I had a list of questions I thought would elicit the information that would answer my research question, I was also conscious of the need to allow the conversation to flow. I found it difficult to remain an unbiased researcher. However, I felt that to engage the interviewee in sharing in an authentic way I needed to contribute a little of my own understanding in the conversation. Nevertheless, the stories which evolved from this process, were unique and insightful.

Finding a way of weaving together the data gathered in a meaningful way then became the challenge. A serendipitous encounter with a colleague on a retreat who introduced me to Pūrākau as a possible way of telling the research story became a turning point. Pūrākau provided a way of culturally connecting each story in a way that reflected learning and teaching from the individual stories.

By considering the personal teaching and learning philosophies of individual teachers within the case study site, particularly around technology, space, and social and cultural factors within the organisation, this study offers insight for future investment in technology and infrastructure to support these learning cultures.

In the next chapter I discuss the context of the study and consider the findings highlighted through the data analysis.

Chapter 4 Context and Findings

4.1 Context

This chapter outlines the context and environment within which this research was situated. As discussed in chapter 3, a case study approach was used to describe the working environment to which the participants belong. By defining the case study site context, the aim of this chapter is to describe the influences this environment has on participant teaching practices and, how the participants influence the environment with what they bring to it.

The findings in this chapter stem from the semi-structured interviews carried out with the participants. The use of the semi-structured interview for data gathering, meant that participants were able to guide the interview process and expand on their responses to the initial question, where they felt comfortable to do so or, where they felt their response required more context. Although each narrative described the unique journey of the participant, there were key themes that ran through all the narratives.

The main themes discussed in this chapter are:

- Background and experience
- Teaching styles
- Use of technology and space
- Support and barriers experienced.

4.2 Case study site and context

This study was undertaken in Aotearoa New Zealand at AUT, which offers a range of campus-based tertiary programmes through its five faculties. This study focused on a single faculty within the university, which consists of four schools. The case study site can be described as a conglomerate of disciplinary areas that might not ordinarily be considered an easy alliance, as it combines technical and hard science subjects with the creative arts and design.

A breakdown of the discipline and specialist areas within the case study site is provided in the Table 4.1 below.

Table 4-1 Discipline and Specialist Areas

School	Specialist Areas
Design	Graphic Design, Digital Design, Fashion Design, Product Design, Spatial Design, Textile Design and Visual Arts
Communication	Communication Studies, Journalism, Public Relations, Radio, Television and Screen Production, Advertising Creativity, Creative Industries.
Engineering	Engineering, Engineering Technology
Computing and Mathematics	Computer Science, Information Management, Mathematical Science

In 2015, at the outset of the study approximately 300 Academic Staff were employed in the case study site and a total of around 6,000 equivalent full-time students (EFTS) were enrolled in programmes of study across the site.

A total of 11 potential participants from across the 4 discipline areas within the case study site were invited to participate in this research study. Those contacted met one or more of the following selection criteria:

- Gender mix
- Cultural/Ethnic diversity
- Teaching experience
- Each discipline area was represented

Although a larger participant sample would have been preferable, in order to be able to extrapolate trends across the faculty, the scope of this study as an initial investigation ensured the project was manageable. Of the 11 academic staff invited to participate in this study three staff agreed to participate. A work colleague offered to approach two additional academic staff in her network on my behalf who also agreed to join the study.

The case study site has a diverse cultural mix of academic staff. However, of a total academic staff employed at the faculty, approximately 300, only 16 full time academic staff identify as Māori. Due to the nature of the kaupapa Māori methodological approach being used, and the location of the study, I felt it was important to ensure that Māori were represented in the study as this study is focused in the Aotearoa New Zealand context. It was fortunate that three of the five respondents identified as Aotearoa New Zealand Māori. Coincidentally, the two Pākehā respondents had both immigrated to Aotearoa New Zealand from the United Kingdom.

In addition, ensuring the study had a reasonable gender balance was also important. In the case study site, discipline areas tended to reflect a particular gender bias. The faculty has approximately 20 senior female academics. Fortunately, those who responded provided a gender balance across the major discipline areas. Table 4.2 shows a breakdown of the participant characteristics against the selection criteria described above.

Table 4-2 Participant Selection Characteristics.

Identifier	Ethnicity	Gender	Specialist Area	Teaching role
Kerri	Māori (NZ)	Female	Mathematical Science	Lecturer
Jess	Māori (NZ)	Female	Public Relations and Film	Lecturer
Jeff	Māori (NZ)	Male	Computer Science	Lecturer/Teaching Assistant
David	Pākehā (UK)	Male	Graphic Design	Senior lecturer
Chris	Pākehā (UK)	Male	Engineering	Senior lecturer

4.3 Participant profiles

In addition to the participant information outlined above, a brief description of each participant will add to this contextual picture.

Kerri from a Māori/Pākehā family where, although the influences from the Pākehā side of her family seemed dominant in her upbringing, her father's (also

Māori/Pākehā dual heritage) influence on her world view was strong. Kerri was the only participant who had completed a formal qualification in the discipline of teaching. Kerri trained as secondary school teacher. In her first year out of training Kerri was offered the opportunity to teach science and mathematics. By the end of the first year Kerri decided her preference was math education. A teaching fellowship provided the opportunity to work as a teacher in the maths unit for a year at the University of Auckland. Kerri also took the opportunity to work with a major Aotearoa New Zealand manufacturer investigating the use of math in the workplace. Working with other researchers in this area Kerri was able to explore other applications for math education in the work environment. Returning to university to complete a master's degree, Kerri decided the university environment would provide her with both the opportunity to continue teaching and to research.

Jess came to the university as a mature undergraduate student with an interest in both Te Reo Māori and media communications. She successfully completed a foundation programme before going on to successfully complete an undergraduate and postgraduate master's programme. Jess acknowledged the amount of support she received from peer mentors, teaching and support staff in her undergraduate journey. She made particular mention of Māori staff members who provided support from a kaupapa Māori perspective which she found both familiar and encouraging. While studying at postgraduate level she was invited to take on a student mentoring role herself and was keen to be able to use her experience to "give back" (Int Jess 19/10/2015). This experience led to being offered a teaching assistant role and eventually securing a lecturing position.

Jeff completed a New Zealand Certificate of Engineering in 1985. This qualification at the time, required students to complete 5000 hours of work experience and two years in paid work. Having met the work experience criteria, he decided to remain in the workforce. Over the years he added a wide range of industry related skills to his repertoire including computer and management skills. Jeff returned to the university 2 years ago to study a master's degree in computer and information science with a view to moving on to study a doctoral degree. Like Jess, Jeff began his tertiary

teaching experience as a teaching assistant before moving into a lecturing role and pursuing his doctoral studies.

David a Pākehā male, grew up in North London. His upbringing in this part of a London community meant he identified strongly with a working social class. Particularly highlighting the expectations and limitations perceived of those from this British social class, he explained that for many in this class, tertiary education was not necessarily something many were encouraged to aspire to. With support of his mother, David was encouraged to complete a final year of secondary schooling. It was at this point that David discovered a talent for art and decided a career in this field was something he wanted to pursue. He began his working life as a draughtsman but convinced by his art teacher that he should extend himself in the field, he made the decision to attend university to study graphic design. Completing a qualification in print media put him on a design and typography career pathway. Working in agencies provided the experience he needed before moving on to set up his own agency, developing his business and employing a team of designers. David's experience as an Art Director influences his teaching practice. His experience as part of a creative industry enabled him to be open minded and flexible in his teaching practice.

Chris, also a Pākehā male and from the United Kingdom, began his journey by completing a qualification in tool making and started his adult working life as a tool making apprentice. These skills allowed Chris to move on to jobs that required greater design capability. Chris described his decision to pursue further educational opportunities. *"I decided all the better jobs you needed a degree for, so I took myself off and did a mechanical engineering degree"* (Int Chris, 07/05/2016). Having completed the degree, Chris worked in a number different roles, which included senior management roles. Seeing a global move to digital technology, Chris secured his first role in a computer aided design working for a manufacturing company as the product manager. In this role Chris travelled extensively and provided training support for the products with which he worked. Maintaining a connection with tertiary education in the United Kingdom Chris taught Marketing Strategy at Derby

University. Chris has been teaching in the case study site now for six years and teaches across the Engineering discipline area.

4.4 Revealing philosophy through Pūrākau

The interview questions allowed the participants to reflect on their own beliefs, attributes and contributions to their teaching practice. The semi-structured nature of the interview conducted, meant that participants were given the opportunity to develop the connections between their personal and professional beliefs and backgrounds. This provided an opportunity to explore what brought them to teaching, their attitudes to the discipline areas they chose to follow, and their broader philosophies around teaching and learning.

The interview questions were structured around three general topic areas. Participants were asked to think about their own philosophy of teaching and learning; reflect on the teaching and learning environment; and consider their own professional development within the teaching context. Throughout the interview process, all the participants provided additional contextual information that allowed a more vibrant picture to be drawn around each participant and their specific teaching environments.

In trying to make sense of the data gathered through the interview process and reflecting the way that would respect the personal accounts each teacher shared without deconstructing and depersonalising the information to sheer data, I decided that a narrative type format would provide a means of achieving this outcome (Hegde & Tungesh, 2016). Pūrākau was suggested as a possible narrative form that would fit with my research methodology as it was based in Kaupapa Māori theory. Lee (2009) explained “pūrākau was reconceptualised as a culturally responsive construct for narrative inquiry into Māori teachers’ work” (p. 1). The re-thinking and re-presenting of the Māori narratives enables Māori to re-focus their narratives on contemporary issues. From Lee’s discussion it appeared that there was scope for me to present the interview conversations within this narrative format. Unlike the narrative structure described by Hegde and Tungesh (2016), I had conducted semi-structured interviews that required more interpretation.

4.5 Findings

4.5.1 Introduction

At the outset, the intention of this research was to focus on the roles of the teacher and how they managed the different facets and expectations of teaching. I anticipated that by examining the teaching philosophies of each teacher, some insight into the strategies they employed to facilitate the demands of academic teaching would be revealed. As a university, one of the key drivers is to provide access to resources, particularly the technologies used in industry settings. I had anticipated finding evidence that staff would all be engaged with developing and applying innovative ways in which to use technology to teach. I also expected to see teachers using technology to demonstrate and simulate disciplinary skills and knowledge. The literature reviewed at the outset of this project had indicated that a growing body of work was developing around learning environments. Kiel (2009) in defining this concept of learning spaces, likened it to an eco-system that provided a unique context within which learning and teaching exist.

The stories or ngā pūrākau which follow describe the journey that each person is on and how their teaching philosophies are woven from their lived experiences.

4.5.2 The Stories | Ngā Pūrākau

David's story

David teaches communication design, a mixed discipline, which sits within the School of Art and Design and draws from a wide range of media to communicate with people. In talking to David, you hear his enthusiasm for the discipline but along with this he exudes an excitement about engaging others (colleagues, students, and clients) passing on the ideas, skills and knowledge he had acquired in design activity through his industry experience.

“What’s really interesting with what we teach...we’re very visual. See in design we produce things that look good, but that’s just one side of it, there’s always meaning behind it, a purpose behind why we are actually doing something.” (Int David, 14/05/2015)

Influences in the direction David took to becoming a teacher were clearly marked from decisions made towards the end of his secondary schooling. Having expressed

an unremarkable schooling career to that point, the encouragement of family, in particular his mother to complete a final year, meant selecting subject choices that he believed would be valuable in securing him a job. These included math, physics, and science. As an additional subject to meet the study requirements David chose to take art and discovered he had a talent in this area.

Breaking through those stereotypical cultural messages he received growing up from family and community were difficult to put aside as David explained,

“At the back of my mind I knew I wanted to get a job drawing but coming from my background, a poor background you know working class are not artists because you can’t earn money. Only if you’ve got money and you can support yourself can you be an artist. Or you know people who have galleries who can sell your art, it doesn’t happen to working-class people.” (Int. David, 14/05/2015)

A conversation with his art teacher provided the impetus David needed to consider higher education in the field. David reflected on how alien the concept of higher education was. David’s reaction to the suggestion was *“No one my family had ever been to university or college”* (Int. David, 14/05/2015). O’Shea, May, Stone, and Delahunty (2017) discuss the different social, historical and political factors that impact students who are ‘first in family’ to attend higher education and the influence this has on the people in their immediate circle but also those they come into contact with through other areas of their lives.

In David’s case, a higher education opened him to opportunities as a graphic designer. It also allowed him to go on and develop not only his design skills in the process but leadership, management, and business skills within the design industry, eventually running his own small business. This broadened his view on scholarship and teaching as he pointed out *“I actually think that you could go to teacher training college and learn to do things like that, but I think equally you’re either a teacher or you’re not.”* Similar sentiment was expressed in a study carried out by Viskovic (2006) who commented that *“All teachers said that, on reflection, they believed most of their current expertise and understanding of teaching had developed through informal, experiential learning.”* (p.329).

For David, his commitment to teaching was evident from the way he talked about the preparation that went into his teaching, acknowledging the challenges he faced in maintaining his own design expertise in order to provide his students with a rich learning experience.

“Most of my teaching skill has come through my experience of being an art director.” (Int David, 07/05/2015)

A large part of this ethic, he attributes to his industry experience and the need to be fresh and innovative. He expressed this saying, *“we need to be looking to push and not just sit back on our laurels”* (Int. David, 14/05/2015).

David’s view of the world is probably best seen in his approach to teaching through engaging his students with the community they are part of, if only temporarily for some. David challenged his students to look within the community “Place” for design inspiration in order to tell a graphic story that would connect with people and communities. He wanted them to look beyond the attractive and explore the alleys, vacant lots, and forgotten places growing their ability to tell a range of stories. In addition to this, David acknowledged the reciprocal nature of the relationship with the community in which they were interacting. As part of the process he wanted them to be able to give back to the community. His engagement with his students and the wider community are possibly more aligned at AUT South Campus, where the University is part of a more localised community.

Although not Māori, David’s teaching practice aligns with many aspects of a kaupapa Māori approach. He develops a relationship that connects the learners to a place, establishing relationships within that space with expectations of shared reciprocity (Barnes, 2000).

David draws strongly from his own family, education, and broader industry experiences. These are reflected in his philosophical approach to teaching and the commitment he revealed when talking about the experience he wanted for his students. He uses his own experience to develop and model the types of relationships his students will encounter in their own journeys. David expressed the importance of community in providing a sense of belonging. As an emigrant from the

United Kingdom, establishing a place to belong by developing robust community relationships is significant.

Chris' Story

Chris' teaching approach is strongly aligned with his real-world professional experiences. He drew from this experience in his teaching to provide his students with a real-world context around the theoretical academic content they require.

"So, I think that my previous real-world experience with being a practicing engineer has been hugely beneficial, in the breadth and depth of my knowledge, in that the students relate to you better when you can say this is the application... This is when it [engineering concept or application] should be used, and this is why we do it like this. I think that having had that practical experience, sits well with the students." (Int, Chris 07/06/2015)

As a teacher, Chris acknowledged the importance of professional development. His career path prior to his current role also reflected this awareness of the need to learn and continue to develop discipline skills. Beginning his working career as a tool maker, Chris then studied and gained his first qualification in tool making which allowed him to diversify and take on design roles. Recognising the growing requirement for degree level qualifications, Chris studied a bachelor's degree in mechanical engineering as a mature student. Gaining the qualification allowed Chris to take advantage of further opportunities in the mechanical engineering field. A growing digital trend provided the impetus for Chris' move in this direction and eventually prompted a move to Aotearoa New Zealand.

Throughout his career, Chris reflected on a strong involvement with, and commitment to education.

"...being a practicing engineer has been hugely beneficial in the breadth and depth of my knowledge in that the students relate to you better when you can say this is the application, this is when it should be used, and this is why we do it like this." (Int Chris, 07/06/2015)

Chris approaches his teaching role in the same way he approaches his role as an engineer. They are both roles that require commitment to ongoing skill maintenance

and development. He regards teaching professional development as a critical part of his role as a lecturer.

“So, I think I’ve taken so much out of the [Tertiary Teaching Diploma] course, that I sure I’m a better lecturer now than I was 5 years ago.” (Int, Chris 07/06/2015)

Chris also reflected on teaching and learning development opportunities initiated within the faculty as providing a positive environment for teaching staff.

“I find I’m among like-minded people there [Faculty Learning and Teaching Committee]. They’re there because they’re wanting to do the best for their students, the university and themselves as well. They want to be in that kind of environment, so I’m encouraged by that.” (Int, Chris 07/06/2015)

However, Chris was discouraged by what he saw as a lack of engagement in teaching as a profession overall, and what he felt was a greater emphasis within the institution on the importance of discipline focused research, to the detriment of teaching practice and student learning. He described the importance of professional development within the engineering field.

“All the large firms are pretty hot on professional development so if you wanted to keep your engineering certificate you had to prove that you were up to date with your professional development.” (Int, Chris 07/06/2015)

From a teaching perspective, however, Chris’ preferred teaching style is practice based. Chris relies on collaborative interactive teaching that involves the students in the learning and where the teaching mentors and guides the learning process rather than directs it. In preference to compartmentalising aspects of learning into specialist tasks, and teaching these in isolation, Chris’ approach is to bring these aspects together and teach them as they would be performed in the ‘real-world’. Studying the connections between teaching and the influences of industry engagement in the field of engineering Holmén and Ljungberg (2015) found a correlation between engagement in societal interaction and teaching practice. However, the degree to which this influenced teaching practice depended on the type of engagement they had.

“No one operates in isolation anymore whether you’re a designer, accountant, marketer whatever, all good companies now throw these guys together.” (Int, Chris 07/06/2015)

In keeping with his ‘real-world’ practice approach, Chris looked to provide opportunities for his students to be involved in real-world projects from the start of their learning journey. Ensuring they have the opportunities to work on projects that involve dealing with group dynamics, moral, legal and ethical dilemmas, alongside practicing key engineering skills, concept design and overall project management through engagement with industry was of critical concern for Chris.

“There’s quite a good learning curve in that one of the first projects they do is the Engineering without Borders project which is an excellent vehicle for all these ‘soft skills’ all in one semester.” (Int, 07/06/2015)

When asked about the logistics of teaching in a university environment, Chris described the environment he would ideally like to be teaching in by reflecting on his preference for facilitating small group inquiry. He was pragmatic about what could and needed to be provided to meet the needs of the majority of students in a university context.

As an engineer practitioner and an experienced teacher Chris was able to draw on strategies from both industry and teaching practices, to adapt the learning environment or his teaching content to focus on meeting the needs of his students. Chris’ philosophy reflects his pragmatic approach to teaching and asserts a commitment to developing practical real-world experience.

Kerri’s Story

Kerri leads a team of teaching staff in a pre-degree programme based within the Computer and Mathematical Sciences department. The programme is designed to provide access to students wanting to enter computing, design technologies, engineering or mathematics degree programmes with the math and technology qualifications needed to gain entry.

Kerri was the only participant who had completed a formal teaching qualification and taught at secondary school level prior to moving to tertiary teaching.

“My journey started in a bit of a strange way. I went to tell my maths teachers that I was planning to leave school at the end of 6th form and I was planning to go straight to university. And she talked me into applying for teacher’s college at the same time, so I started off teaching in a programme where you went out at the beginning of the year and did a section and then went out again at the end of the year and did another section. By the time you had finished there was already a place there for you.” (Int Kerri, 14/06/2015)

With a sound secondary background in maths and science she followed this path graduating with a teaching qualification in Mathematics and Outdoor Education. It was this science background that provided her first teaching opportunity. However, Kerri explained how teaching mathematics was a more natural fit for her. As part of her ongoing professional engagement, becoming involved with the University of Auckland’s Maths Education Unit (MEU) was an opportunity to participate in Math Education development. It also enabled her to maintain her professional knowledge in the discipline through ongoing access to current research in the field. A teaching fellowship enabled Kerri to focus on mathematics teaching in the MEU. She also took the opportunity to work within an industry conducting research on mathematics application and teamwork in the workplace.

Receiving a Royal Society Fellowship in 2011 spurred Kerri into completing a Master’s degree and teaching at a tertiary level was a natural progression. Kerri’s experience in the secondary schools provided her with a clearer understanding of the qualification system. An awareness of how prepared the students she taught were and what support they might need when they reach tertiary level, provided direction for her teaching.

“I’ve been involved with the Massey Education Research Unit and that keeps you involved with what’s researched and what’s happening on the other edge of it [math learning and teaching] on the coal face there, and it’s so nice to be teaching here in the classroom where you can pull all those things together and put them into practice. You can do it at secondary school but about 50% or your time is in management whereas here the management [systems] are already there and you can concentrate and play, and you’ve got a receptive audience.” (Int, Kerri 21/05/2015)

When asked about other factors that influenced her teaching philosophy, Kerri reflected on her upbringing in a Māori-Pākehā dual heritage family. Kerri

commented on the influence her father who was of Māori descent, had on her attitude to education. Kerri talked about being able to make the connection between the Māori values she was raised with, and how she approached different situations in her practice, in particular, the importance of people and relationships. This idea of the importance of people and relationships sits at the core of the Kaupapa Māori philosophy (Barnes, 2000; Kennedy & Cram, 2010). The rewards to this approach she believed, came not in form of financial or material gain, but in her own learning, understanding, and growth. Kerri explained that although her father's influence was subtle, it had a significant impact on how she viewed the world.

[Kerri] and her siblings were raised understanding that they were all capable of achieving what they wanted to. There were no gender or ethnic differences in this respect. (Int. Kerri 24/08/2016)

The culmination of Kerri's philosophy comes together in her approach to building a course that has a positive impact on both students and staff involved. In this leadership role she drew on her knowledge and understanding of mathematics education pedagogy to understand what was currently happening in the course, what the teaching team wanted to achieve, and then determining how they would go about making this happen. The development happened over a period of time giving the team the opportunity to observe and become familiar with the course.

We wanted the students to gain mathematical confidence, we wanted them to be okay with making mistakes. We developed some core philosophies that we wanted on the course and then that started to drive the way people were delivering and teaching. And then it was about resource development.

...it [establishing the philosophy] was something that from years and years of teaching you develop and pick up on your way I think. I mean every time you do something and experience something, you learn something new along the way. We're looking at revamping a paper now, and it's not bad, but what is missing is the backbone. What is the common philosophy to go with and having everything plugging into it." (Int, Kerri 25/05/2015)

Kerri's teaching philosophy reflected a methodical approach to learning design. Kerri was the only teacher interviewed who engaged in a formal team teaching/learning design process. As the only formally trained teacher, Kerri's philosophy and practice demonstrated a structured approach to learning design and course development.

Jess' Story

Jess grew up within a Māori whānau and was familiar with tikanga practiced in her whānau. Jess enrolled at AUT initially to study Te Reo beginning at pre-degree level and progressed through to study media communications at postgraduate master's level. With study interests in both Te Reo Māori and media communications Jess experienced the cultures of two different faculties on coming to AUT. Jess' undergraduate study involved working with both Te Ara Poutama (TAP) and the School of Communications Studies. While studying, Jess accepted the opportunity to mentor other students. Progressing to a teaching role while studying a postgraduate degree allowed Jess to share her knowledge. Jess had no formal teaching education, particularly for teaching at a tertiary level and was aware that she needed more formal education in this area. Through a contact in her AUT Māori network, Jess was advised to complete the Certificate in Tertiary Teaching, in order to gain the skills required for teaching in an academic setting.

Jess reflected that learning design in the courses she taught in was relatively flexible. It was based at the educational level at which the students in the class were presenting. Having taken the class herself as an ungraduated student she had the advantage of knowing what needed to be achieved.

"When they come in, some have had experience, but some haven't got a clue whatsoever, and they have to complete each and every component to complete the course. It gives them a really good introduction as to what area they might want to go into further down the track. Because having done that particular course myself, I was already interested in visual communication, but it solidified that for me going forward because I knew how to do all of the things, but I really liked to focus on that aspect." (Int, Jess 19/10/2015)

The experience of teaching between two faculties highlighted cultural differences between the student cohorts that were unexpected. Jess experienced the students' presence in each cohort in different ways (Mika, 2015). Jess described the difficulty in engaging students from different world views and attempted to address the student cohorts with learning examples each would more easily relate to. The predominantly Pākehā cohort referenced Eurocentric ideas and behaviours of

individuality whereas her Māori cohort were more likely to reference kaupapa Māori practices of learning collaboration through whānau, Ata and Ako.

“It’s hugely different because not only do the students have a different focus of what they deem is important to look at, it’s also very different. So, for example, if I’m getting the students to write for my creative media paper here in Communication studies, like a story for example, and their coverage is to draw on their own perspective, quite often with my [Pākehā] students, they will tell you universal stories, but it’s things like, going on holiday or family outing to the beach, or something that happened at school. Whereas if you ask your Māori students to produce the same thing, without fail it will be about whakapapa or where they are from.” (Int, Jess 19/10/2015)

Gauging the cognisance of each class was a skill Jess had begun to develop as part of her teaching practice. Working in the field of media exposed both Jess and her students to a wide range of social commentary. Jess found there were some topics she felt safer to explore with the different cohorts she taught.

“Last semester for example, I had a class in communications that was predominantly Māori and Pacific Island. So, I felt safe enough to cover those topics, because we do look at social issues, and try and talk about, or if we’re doing the academic writing class, we try to take a social issue and talk about that. And the same with creative media writing based on story telling. So, I gauge what the class is like and I will choose my content to fit into how I feel about how the class will receive it. With my Māori classes...because their courses are designed with a Māori perspective in mind the students know what to expect.” (Int, Jess 19/10/2015)

This comment also highlighted Jess’ awareness of her own cultural safety within the classroom context. Within a kaupapa Māori context Jess considered there was a cultural understanding amongst students and teacher about what was acceptable behaviour. She felt kaupapa Māori provided an ideology that the student reflections on societal activity, throughout their coursework, could be measured against.

“if you have an ideology like kaupapa Māori to work from, I could say that this [situation] is demeaning of women and kaupapa Māori says we need to be respectful of each other and everyone, so the interpretation then is that this is inappropriate.” (Int, Jess 19/10/2015)

As cultural rules and protocols are lived and understood within different cultural contexts it can depend on how strong an individual’s connection is with that culture

and this can determine the degree to which they feel bound by these. Navigating between cultural understandings will always remain a challenge for teachers in this growing global context (Clear, 2011; Morrison, 1999).

What the equivalent of kaupapa Māori is in the western educational context is more difficult for students and teachers alike to comprehend. Jess expressed how difficult it was, as a new teacher, to find the appropriate support and guidance within the school environment. This was particularly so when faced with broadening social and cultural boundaries, to feel a sense of workplace safety which although is covered in the University's Code of Conduct principles proved difficult to enact when required. This is an area that is not covered in the scope of this thesis but requires further investigation.

Jess expressed how much her teaching practice benefited from what she learned through formal teaching education. Completing the Certificate in Tertiary Teaching consolidated much of what she had practiced instinctively in her teaching to date but, provided the foundation for her to develop her own practice philosophy in the process.

"I was able to identify and consider what my own pedagogical approach was and establish better processes. Things like learning outcomes. So, I was clear from the start what our learning outcomes were, working on the learning outcomes and checking the outcomes. Whereas, before I would have still worked out what needed to be learned in class, but I guess there was possibly less emphasis placed on this, but I would often get lost in telling them about a particular concept or idea.... after having some education around it, I had a better idea of what a learning concept was and how to tie it into what needed to be achieved through the learning outcomes... it just reinforced the basic framework that I work to. I didn't really do things that differently, just knowing that there are those markers that need to be there to ensure that, to the best of my ability, I get students to engage. But the teaching method, as such, hasn't really changed." (Int, Jess 19/10/2015)

Although Jess felt that technology was an important part of the learning process, she found that within her own teaching practice it proved to be more of a distraction for students as she tried to engage with them in the classroom. Like the other teachers in this study, one of the prime philosophical tenets is kanohi ki te kanohi, the face to

face social interaction and engagement and the feeling that this relationship requires the respect of both parties to effectively engage.

“I find technology more of a distraction to be honest. The students use it for things other than what is intended as part of the expected learning. Even technology such as Word, they find can be a distraction to the classroom learning. So I try to use the board as much as I can and I try to engage them in discussion as much as I can. I find that’s the only way I can get them to engage with me. If I try to get them to do something on the computer, they just go onto Facebook, they message or email each other...The students don’t use the technology for research. Although the course did offer lab time where students could use the computers for assignments, we find we end up teaching all the time because they can’t sit there and do their assignments.” (Int, Jess 19/10/2015)

In exploring the use of technology further, Jess also reflected on the different exposure the two cohorts from Te Ara Poutama and the School of Communication Studies] had to technology. In the Te Ara Poutama cohort, the technology was a new part of the learning and necessary to creating the work being assessed, the students engaged with it for that purpose. In the School of Communication Studies cohort, where the students had been exposed to technology throughout much of their secondary school education, she felt they had a tendency to use the technology, such as mobile phones and laptops, as a distraction during class time.

Jess was able to compare the difference between teaching with a kaupapa Māori teaching philosophy and a western teaching philosophy. Kaupapa Māori, for Jess, provided the cultural protocols she understood and that allowed her a sense of negotiated respect and safety within the university environment. Jess described her experience within a western philosophical teaching context as quite different and one in which she felt vulnerable and uninformed about the expectations and protocols of the school. Identifying her lack of teaching experience within the tertiary sector, Jess took steps to gain the skills necessary to provide a professional learning experience to her students as a means to bridge that cognitive dissonance.

Jeff's Story

Jeff returned to university to begin postgraduate studies having worked for many years in the engineering industry. This return to university coincided with the beginning of his journey to discover more about his Māori whakapapa.

Jeff's formal education in engineering followed a traditional tertiary qualification pathway. Having entered the engineering field to complete the required work experience component of his qualification as a paid employee, he was not inclined to return to formal study as a student.

"I studied a New Zealand Certificate of Engineering here at AIT in 1985. I had intended to do further study but in those days, you had to have 5000 hours work experience to get your certificate of engineering and then once you'd done your time you had to have 2 years in paid work." (Int Jeff, 22/12/2015)

His experience led him to being approached to take on the role of teaching assistant within the School of Computer and Mathematical Sciences.

Having made the decision to return to university as a student, Jeff found his motivation and approach to learning had matured significantly. He saw the value in learning and what a postgraduate qualification might offer him in terms of life and career opportunities. Like Chris, Jeff also felt moved to 'give back' and looked for opportunities to do this within his teaching practice. Although Jeff had no previous formal tertiary teaching education he had been responsible for the professional education of employees in his industry roles.

As a teaching assistant, Jeff's role was to provide mentoring and guidance to consolidate the student's understanding of information that was delivered by the lecturer. The labs and tutorials were expected to cover all the content delivered in the lecture and the teaching assistants needed to be well versed in the topics covered in the lecture and able to develop alongside the students a deeper understanding of the topic. In most cases, Jeff was able to draw on his experience in the field to complement the information delivered through the lectures.

It [teacher assistant's role] is quite different in the sense that students have been to the lecture. They've had the slides. They may

have had a bit of interaction with the lecturer depending ... Then they come along to the lab and they are generally given a sheet of things that they need to do. But as TAs we need to be able to [connect with students] which in some ways [means] we [teaching assistant's] have a harder job then the lecturers because the student can ask anything [covered in the lecture] and we need to be able to respond to it. There are [also] practical's, so if we haven't done a practical (if we haven't done it practically I mean), how can you give the students good guidance. (Int, Jeff 19/10/2015)

New to the expectations of the school and the protocols for teaching within AUT, Jeff was still in the process of establishing his place as a teacher. Jeff was fortunate to have a mentor to guide him through some of the challenges faced by new teachers, however, there were aspects of the teaching assistant role that were of concern and he believed needed review to work more effectively for both teaching staff and students. Although industry experience went some way to filling any gaps in the learning design the expectations of the school administration, he felt, as a TA were significantly greater than were acknowledged by the school administration.

"...in some ways we have a harder job then the lecturers because the student can ask anything...in the range of the lecture, and we need to be able to respond to it, and there are practical's, so if we haven't done a practical (if we haven't done it practically I mean), how can you give the students good guidance?" (Int, Jeff 19/10/2015)

Jeff's experience highlights the fact that teaching, although a skilled profession is often treated as an activity that requires little professional preparation to undertake.

"There's a disconnect, that I can fill in through my extensive work experience in subject areas I know...I can wing the management part but the programing part, I needed to go to the lectures. I did end up going to the lectures. As a TA you get prep time and I decided my prep time was going to the lectures, but it didn't leave you any other time to prep (for the labs). Ideally you do need time to do this prep (in order to test the learning content for the lab to be delivered)." (Int, Jeff 19/10/2015)

Jeff reflected on his experience of working as both TA and lecturer within his discipline. He explained that he believed the TA role focused on small class teaching whereas the role of the lecturer appeared to encompass a broader and often less hands on educational scope.

“As a TA you get access [to the lecturer’s teaching content] but only at the same time the students get access. Most of the electronic resources posted for the student lack the detail. The expectation of the lecturer is that the students will take notes as they speak and embellish the points made. So, it would be good to have the lecturer’s full notes, but you can only get these by going to the lecture and taking the notes yourself.” (Int, Jeff 19/10/2015)

With his background in engineering, Jeff’s teaching philosophy was analytical and pragmatic. This reflected his own learning experience of the National Certificate qualification and, the difference at the time between vocational education and research-based study.

“I have lots of work stories that I can intersperse the content with, which describe the learning content in a real-world context” (Int. Jeff, 22/12/2015)

Teaching presented a range of options, available resources, and a variety of ways in which to engage students in the learning process. Jeff’s distinction between vocational education and university education highlights his industry experience and applying a pragmatic approach teaching and learning.

“Essentially they [students] need to understand that AUT is an academic institution and not a hands-on vocational training institution for vendor products. Students do come here with an expectation of learning certain direct skills and at a postgraduate level we’re not teaching hands-on skills per se, we’re teaching them how to research and think.” (Int, Jeff 19/10/2015)

Much of Jeff’s teaching was done at postgraduate master’s level, where the majority of his students were returning to postgraduate studies after having had experience in industry. As a result, the class was a diverse mix of experience, knowledge and capability. This student cohort was also made up of both domestic and international students. As a recent student himself, Jeff reflected on his own experience as a student. He found that returning to study as a mature student with family commitments he was a lot more focused on what he wanted to achieve and became frustrated at the delivery of the learning content as, trying to cater to different learning needs slowed his own progress through the learning.

As much of his teaching centred on information technology and programming, he questioned the effectiveness of the current resourcing. Learning spaces also posed a

dilemma as they did not always suit the type of learning activity the teaching was attempting to simulate.

“...when the students were given challenges, it was always awkward for them to gather around away from the computers at tables. You really needed a desk that allowed multiple people to sit around one computer with one or two big screens.” (Int, Jeff 19/10/2015)

Jeff was aware of the impact resourcing a course had on the learning experience and what resources students were able to access. In terms of physical environment Jeff could see the potential for effective technology use in the learning environment. In his current roles, however, implementing new initiatives would have required a mind-set change in his department.

Jeff approached learning as an extension of the professional development he had been expected to maintain throughout his professional career. This included his approach to discovering more about his whakapapa by engaging with other Māori research students in the faculty and participating in their research projects. There was an end goal to be reached, it was time bound, he sought expert advice where necessary and developed the relationships required to achieve what he needed to. As an extension of his learning he accepted additional responsibility for assisting others in their learning journey acquiring some insight at the same time, into the role of the teacher. While he acknowledged the challenges of the role he was also optimistic about the potential robust technological infrastructure and technology had to play in teaching and learning.

4.6 Summary

The case study site in this research is a dynamic organisation that brings together a range of creative disciplines under one umbrella. Students are not only encouraged to become immersed in their chosen discipline, but to explore the opportunities that working across disciplines can add to their understanding. This is of particular relevance, in the highly technology mediated world they are a part of. This becomes a challenging scenario for teaching staff as they grapple to remain current with technological developments in their own disciplines and consider exactly how they convey this knowledge and skill to a new generation of students at a tertiary level. As

the university attempts to keep pace with new technologies and current thinking in teaching and learning, teachers constantly face the difficult prospect of how to manage the demands of keeping their own skills and practices current. In addition, integrating the technology in the teaching spaces effectively into the teaching when contending with other institutional demands, makes prioritising factors such as technology and space into any formal design process challenging.

At the outset of this research I had anticipated that as teachers of a large formal learning institution, the participants would have all have been exposed to and participated in a formal learning design process and this would allow me to see how they integrated technology and space into their teaching practice. This was not typically the case, although the courses they taught were part of a formal programme development and approval process, to ensure that they fulfilled the Tertiary Education Commission (TEC) criteria, the detail of how these courses are delivered is left in large part to the teaching staff.

Kerri was the only teacher who discussed any detailed planning and learning design as part of her practice and her role as programme leader. The other teachers all took a more organic approach to their teaching practice. Drawing heavily from their own experiences, they applied a range of approaches to their teaching and adapted these when they felt that the needs of the students were better served by doing something differently. Although adaptability for most, was seen as a normal part of their teaching philosophy they also expressed the fact that this, in some instances, necessitated by the limitations placed on them by the university systems and infrastructure. The room scheduling system was a particular point of contention for those interviewed.

Kerri and Jess related their educational philosophies to the Māori values they were raised with, which reflected strong whānau ties and influences of a distinctive Māori perspective to their teaching. They spoke particularly about respect for, and care of the relationships and students and colleagues they engaged with.

The next chapter considers the themes covered in this chapter and discusses how these are being addressed in other academic contexts.

Chapter 5 Cross Story Themes

5.1 Introduction

In this chapter I analyse the pūrākau for themes that are common across the stories and consider the conditions that might have influenced the teachers thinking and behaviour. I look at the information they share about their backgrounds and experience, in order to get a sense of who they are, where they come from and what brought them here to AUT. From a kaupapa Māori perspective where connections are important, I pondered whether this was also the case for my Pākehā participants and how this was achieved. Being familiar with the importance of whakapapa in making these connections in a Māori context I wanted to know how these were established for Pākehā. What the study revealed was that the process is similar however where Māori will use wider whānau or familial ties Pākehā will tend to focus their connection within their wider external and disciplinary network.

The teachers' philosophies reflected the areas of their own life experience. They drew on both personal and discipline related experiences, building these into their practice where they felt appropriate and adapted their practice as the teaching conditions changed. This was particularly evident when talking about space and technology, where the need for flexibility was critical. In preparing to teach technology and space had limited priority in their planning as they felt they had limited control over these aspects of their teaching.

The key themes that emerged were:

- Background and experience – the life and work experiences teachers drew on within their philosophy and practice
- Teaching philosophy and practice – how teaching practice developed and evolved due to their experiences and philosophy
- Use of technology and space – the implications of technology and space on learning design and teaching practice.

From the pūrākau of the individual teachers, they revealed that they drew heavily from their lived experiences and used these, to adapt to their environments and teaching practice depending on the conditions they were presented.

The following common themes emerged despite the teachers' stories which indicate the versatility of those interviewed and allowed a more in-depth analysis of the teaching philosophies and practice.

Within the pūrākau, the following themes surfaced:

1. **Adaptability:** The importance of experience and how teachers drew on this experience to develop their teaching practice and deliver the learning experience
2. **Evolving teaching role:** The teaching role, evolved in design, as teachers and students construct learning in an iterative process of continuous improvement
3. **Technology:** The use of technology in teaching practice depended on availability rather than what was needed or utilised within the discipline.
4. **Spaces:** spaces and places were about relationships, and the value placed on a shared sense of engaged learning.
5. **Support:** What the teachers saw as supporting their teaching practice, and what appeared to be a barrier to student learning.

These themes will be discussed in relation to the connections that can be drawn between these and the literature reviewed as part of this study.

5.2 Cross story themes

The thematic analysis of the data revealed both commonalities and differences in the experiences of the teachers in this study. Exploring the responses of the teachers across the main themes will add depth to this snapshot. The key themes discussed further in this section are Background and experience; Teaching philosophy and practice; and the use of technology and space.

5.2.1 Background and experience

As this study is representative of the four main disciplines located within the DCT it was important to explore what attracted each participant to teach their chosen disciplines at a tertiary level. It was evident that not all participants followed a typical academic pathway into their current teaching roles.

Participants indicated that their experiences were broader than the disciplinary areas in which they now teach. Some, like Chris, took a very pragmatic approach and determined the value in an academic degree would provide better opportunities. Predicting a change in his work environment, from mechanical to digital, Chris decided to upskill to be prepared for ongoing opportunities that would facilitate a move into this area.

“I decided all the better jobs you needed a degree for, so I took myself off and did a mechanical engineering degree and after that I worked in a number of roles and some fairly senior roles in the end with a pneumatics company” (Int Chris, 07/05/2015)

“I then decided I’d done all I could in pneumatics and the world was going digital, so I secured a role in a computer aided design and manufacturing company as the product manager for their software world-wide, so I travelled extensively world-wide” (Int Chris, 07/05/2015)

Chris also reflected on the fact that most people would have more than one career in their lifetime and saw the role of learning institutions, such as universities, needing to change to accommodate the development of new skills as the work environment developed and evolved.

“Most of us now have 4 or 5 careers at least in your lifetime. I think that the key thing we should be providing here as a university is a base for people to come back to. It’s unlikely that graduates will continue to work in the same field for their entire working lifetime.” (Int Chris, 07/05/2015)

David, by comparison described a more organic process to his journey.

“I picked physics, science, maths. Stuff that I thought would get me a job... I went to the art classes and started painting and drawing... it just seemed to fit.” (Int David, 07/05/2015)

David for instance, spoke about the dilemmas encountered through the challenges of a societal class structure, and in not knowing the extent of new career openings available for those particularly with an artistic inclination.

“coming from my background, ... you know working class are not artists” (Int David, 07/05/2015)

“I got a job for a couple of agencies and worked on some good designs and did this for about 3 years...I started my own company... Got some nice clients and one thing lead to another and I started hiring people” (Int David, 07/05/2015)

Kerri, who had graduated in mathematics and outdoor education, reflected on how a broader knowledge base lead to unexpected opportunities. She was given the opportunity to begin her teaching career as a science teacher due to her selection of stage three papers in bio chemistry and pharmacology. Being awarded a teaching fellowship allowed Kerri to focus on mathematics.

“I had the opportunity to work as a teacher in the maths unit for a year...I also worked with Fisher and Paykel looking at maths in the workplace and teamwork.” (Int Kerri, 14/06/2015)

Both Jess and Jeff came to university as mature students. While studying Jess undertook additional student roles as Māori Liaison and Student Mentor and described how this enabled a move into teaching.

“I think because I’d had the time at Maori Liaison and mentoring students I probably felt as though it was like a natural progression” (Int Jess, 19/10/2015)

With a solid vocational background behind him, Jeff saw the function of teaching and learning within a university context as the acquisition of research skills. His focus was less on the skills required at a vocational level and more about the extending of understanding behind the thinking.

“...at a postgraduate level we’re not teaching hands-on skills per se, we’re teaching them how to research and think.” (Int Jeff, 22/12/2015)

5.2.2 Teaching Philosophy and Practice

The teachers interviewed were specifically asked to comment on their teaching philosophy and practice. Their responses varied due, in part, to their disciplinary

areas and provided insight into their decision to teach. The responses were also characterised by the determination of each teacher to expand their own learning, and to participate and guide ongoing professional education in their academic departments. For Kerri, with a formal teaching background, understanding her own teaching philosophy was a considered part of her teaching practice. For the other teachers however, this was a more organic process for them and reflected their own level of understanding of the discipline of teaching.

Those teachers who came to the academy with industry experience behind them, described how this experience informed their approach to teaching. They discussed how they drew on the skills and experience acquired from the roles to form a common-sense, managerial approach to teaching.

Jess for example, described how parenting instinct and personal communication skills provided a means of managing the learning environment and defined her personal teaching style. Jess expressed that the adoption of this familial role, within her practice, was a natural way of understanding and guiding her students.

"I think it has been my mothering skills that have got me through. Nurturing with a bit of tough love discipline." (Int Jess, 19/10/2015)

Kerri described her experience of taking on the leadership of a programme. The first hurdle she faced was to work with the teaching team to move the thinking, by as she put it *"flipping of attitude to I teach students mathematics rather than I teach mathematics."* As a programme leader, Kerri worked closely with her teaching team to ensure they had a shared understanding of how the programme should be taught. Kerri, apart from being the only programme leader participating in the study, was the only one with a formal learning design process in place. Placing the student at the centre drove the learning design process for Kerri's teaching team.

"We developed some core philosophies that we wanted on the course and then that started to drive the way people were delivering and teaching." (Int Kerri, 14/06/2015)

Placing the student at the centre of his teaching philosophy, Chris explained his position by considering the development of students as independent learners who were able to take responsibility for their own learning stating, *"We need to get them*

[students] in, build their confidence in the subject and their own learning abilities before we can expect them to direct their own learning.” Chris also described adapting his teaching style by combining the disciplinary theory with the practical application as a means of facilitating deeper engagement by students with the learning content.

“... major change is the introduction of ‘lectorials’. These are a combination of formal input for part of the session, but the bulk of the time is spent by the students working in groups on real life problems”. (Int Chris, 07/05/2015)

Both Kerri and Chris would be considered experienced teachers. Jeff on the other hand, came fairly recently to the academic teaching role transitioning from being a student to a role as a teaching assistant before taking on the role of lecturer at postgraduate level. From his experience in both these roles, he identified the need for all those involved teaching a subject, to work more cohesively and collaboratively. He understood that the teaching assistant role was expected to provide the practical application and practice to the theory given in the lecture. However, having not been allocated teaching time to attend lectures himself due to the nature of his contract (paid for a specific number of hours) he had to rely on the PowerPoint lecture notes the lecturer provided to the students to plan and develop his tutorial material around these.

“There are practical’s, so if we haven’t done a practical (if we haven’t done it practically I mean), how can you give the students good guidance? I talked about it with the other TAs, really, the TAs need to be in the lectures as well, so that they know what is taught and they can listen to some of the interactions between students, identifying a common problem, confusion or something that needed to be clarified so that in the lab, if it comes up, you know what you’re talking about.” (Int Jeff, 22/12/2015)

Finding this untenable, Jeff attended some of the lectures in his own time so that he was well prepared. Jeff saw this as a particular limitation to what was additional value he was able to offer students.

Jess, also relatively new to the role of academic teacher, spoke about a gradual move into teaching. Having been invited as a student to mentor other students, she then took on a teaching role. In this early career stage Jess described applying a Kaupapa

Māori approach to her teaching, particularly in a predominantly Māori teaching context. Jess grew up close to her whanau marae. Her relationship with the concepts of kaupapa Māori guided her teaching. These are: whānau (her familial relationships and the structure of these roles in the formal function of the marae); tikanga (the protocols, values and correct practices) kaupapa (correct behaviours expected within different meeting and learning contexts) and, aroha (the compassion and respect that, as members of a community, we treat each other with). As an example, Jess explained that her Māori students understood and shared this kaupapa instinctively whereas, her Pākehā students coming from a range of 'other' cultures, required explanation of the behavioural expectations within the context of Jess' learning space. For Jess the concept of kanohi ki te kanohi or face to face philosophy were an important part of her teaching practice.

"... the guidelines because they've got to fit within Kaupapa Māori [tikanga], they are much tighter... there are set guidelines like treating everyone with kindness and respect" (Int Jess, 19/10/2015)

The concepts of Ako and Ata also form part of the Kaupapa Māori approach that Jess works within. These express an approach to learning within a Māori world view. Ako describing the interchangeable nature of learning and teaching and the movement between the roles of teacher and learner (Forsyth & Kung, 2007). Ata on the other hand, describing the care and mastery of what is taught and learned (Pohatu, 2010).

Although participants reflected that the teaching and learning of discipline skills was a priority for them, they also described the importance of a much wider range of attributes they felt students would require if they were to successfully transition from the tertiary environment to future employment. The challenge of changing a teacher centred philosophical approach and mind-set to teaching, within a traditional university environment, was a situation that all have found themselves facing in their current roles.

Communications skills featured strongly with all participants as a means of establishing and maintaining good working relationships with their students and engaging them in a way that allowed for more effective outcomes for both parties.

“Being a good teacher, it's being able to talk to people, students, communicate with them at the same level.” (Int David, 07/05/2015)

“Any good deliverer will think about how they connect... simply getting them to learn the students' names, getting that personal thing and all of a sudden, things became more open between students and teachers.” (Int Kerri, 14/06/2015)

All participants expressed a serious commitment to providing effective learning opportunities for their students when talking about their individual philosophies to teaching.

5.2.3 Use of technology and space

The impact of technology on teaching practice

All participants described the growing expectations placed upon them in their teaching roles, to prepare students for a highly volatile technology mediated world. Although the participants were all highly computer literate and proficient users of technologies specific to their own disciplines, the use of the university's classroom technologies in a teaching context meant ensuring that they had a considerable degree of competence with these technologies as well. Kerri's experience on joining the university was positive and allowed her time to explore and upskill in some of the new technology she would be using. However, she acknowledged that this was not the experience for most new academic staff.

“I had time to learn to use it [PC and OneNote]. In my previous teaching roles, I had no time whatsoever to learn.” (Int Kerri, 14/06/2015)

When asked what impact technology had on her teaching practice, Kerri revealed that one of the benefits it afforded her was to develop more of a focus on the teaching of mathematical concepts. Employing technology to teach mathematical skills enabled students to develop, practice, and review their knowledge and competence of these skills and, therefore, allowing the limited class contact hours in a course to focus on the teaching and learning of the more complex mathematical concepts.

The impact of technology for me is about moving away from skills-based teaching to concept teaching. For me technology opens up the opportunity for being able to build concepts and look at how things really are. (Int Kerri, 14/06/2015)

Technology provided Kerri with the opportunity to focus on teaching mathematics in a way that was meaningful and relevant to students. Teaching mathematical concepts, the how and why mathematics can be used in society, rather than the application of mathematical skills means that students are better able to create solutions using a mathematical approach.

On the other hand, those whose disciplines required the use of industry specific technology expressed frustration around the resourcing of these technologies within their schools. Staff resorted to finding their own means and strategies, for resourcing their teaching with the necessary technologies. They wanted to provide students with the practical hands on experience they needed, to become proficient with the technologies they would be expected to use in the industries where they would eventually go.

I've started to establish toolkits – collections of resources that are available to the community for use. 3D printers etc. To produce the wide range of creative designs in a range of mediums. (Int David, 07/05/2015)

Others expressed frustration with the technological infrastructure within which they were being asked to teach.

The wireless or networked infrastructure here at the moment is not stable enough to maintain an effective enough technology teaching environment, it fades in and out and you cannot afford for that to be happening while you are trying to teach a class. So, when I turn up to class now I literally bring my lecture in 2-3 different formats. It's on AUTonline, on my tablet and on a USB stick. (Int Chris, 07/05/2015)

Some of the newer teaching spaces provided a reasonably high standard of computer hardware, internet and Wi-Fi connectivity and flexibility for configuring the teaching space to accommodate different teaching modalities. Other teaching spaces around the university however, lacked this resourcing and flexibility of these

new spaces. The teachers acknowledged the situation was largely due to the ongoing growth and development of the university's built infrastructure.

Usability and reliability of technology needs to be effective but it's currently not perfect but with each enhancement it gets progressively better but currently is still frustrating. (Int Jeff, 22/12/2015)

The introduction of tablet PCs for teaching particularly in the areas of engineering and mathematical sciences had brought with it challenges and advantages, but for teachers like Chris it has provided a teaching platform that encourages the opportunity for more engaged communication between teacher and students.

I'm certainly a tablet user...I'm pretty computer literate. I'm very careful particularly in the use of tablet to use it very simply. I use OneNote and Power Shape...I tend to keep it simple because if you're in front of a class room full of students and you lose your way for 30 seconds you've lost the whole flow and the connection with the group and with these things if you start off-roading and trying other things and they don't quite work your credibility can suffer. (Int Chris, 07/05/2016)

Chris saw the use of tablets in the class, when used expertly and effectively, as a means of enhancing his engagement with the students. Chris wanted to be able to engage with his students on a one to one basis. The use of a tablet allowed Chris to teach facing his students. This way he was able to visually gauge their understanding and address questions as they arose. Chris' philosophy valued engagement with his students but also engaging his students in real-world problem solving with the concepts and skills they learned from him.

This does not necessarily alter the material that you are covering but is a much more inclusive way of communicating with the class. (Int Chris, 07/05/2015)

Teachers like Chris and Jeff saw providing students with practical examples, activities and resources, was a strength in their teaching practice and found real value in developing these resources for student learning.

I would use a screencast to do a voiced over learning example, this would generally be similar to the one done in class. I post screencasts on AUTonline. Sometimes I'll post YouTube videos of someone else

working through an example which may be better than an example I might be able to produce. (Int Chris, 07/05/2015)

In a similar vein, Jeff expressed the need to be able to use more interactive resources. Jeff saw that the use of didactic methods of content delivery limited the way he taught. Like Chris, he wanted students to be able to demonstrate and develop their understanding in active and practical ways and he saw the advantages of a broad range of technological teaching innovations as a means of achieving this.

In the lab I'd love to have something more interactive than PowerPoint. If I had time I'd prefer to use videos or online interactive resources but most of the labs aren't well supported for audio, split-screens etcetera. (Int Jeff, 22/12/2015)

Although Jess also saw the need to provide students with practical examples and activities she was more reticent about using technology in the classroom teaching setting. Her preference, from a teaching perspective, was to maintain engagement with students on a *kanohi ki te kanohi* or personal level and being selective about where and when technology was introduced as part of the learning.

Impressions of Space

With many of the more traditional tertiary institutions in Aotearoa New Zealand being designed to cater to the education of the masses, ideas for effective education is today, have begun to change (Thomas, Warger & Oblinger, 2011). Although there are still some that would argue that the traditional lecture and lecture theatre space provide completely adequate learning for all students who want to learn, it is debatable as to who exactly benefits in that environment. All the teachers in this research reflected on the fact that their students profited from environments where they were able to engage directly with the teacher and other students and exchange authentic ideas and views. They described how important the sense of being part of a community was and the need to create that community within the context of the university environment.

"What I mean by that is it's about communication, you need to be able to show people what you're thinking, get feedback from people on different perspectives, operate in a real world. It's all learning. It's building a community in the studio area and that's as important as building a community outside of AUT." (Int David, 07/05/2015)

The ideal type of space requirement differed depending on the discipline. In those disciplines that require specialist teaching spaces, the participants acknowledged the efforts the university had made to try to accommodate these requirements. Design students for example, required studio space for optimal learning to happen. This requirement has a considerable impact on the university's spatial decision making. To function effectively, the space needed for creative disciplines such as art and design has to be able to be adapted by each student using that space, to fit the size and dimensions of the work they create. Fitting these spaces out with the necessary equipment and tools is also a constant challenge as everyone is vying for resources.

"Our students need space where they can work on their projects before and after content is delivered...They need to be able to spread out and pin things on the wall. Design work also continues in teams. It doesn't happen in isolation. We took over the old library which was a big L-shaped open space. And it's building up from nothing." (Int David, 07/05/2015)

This highlighted the need for the spaces within a university context to be designed with adaptability in mind as the needs of the people who use this space change (Bennett, 2011; Warger & Dobbin, 2009).

There was consensus from those that, as teachers, felt they had little control over the spaces in which they were assigned to teach. In response to the limitations they faced in how space was allocated, they had learned to adapt their teaching to work within the spaces as well as adapting the space where they could.

"I have very little control over that. There are certain rooms that are ideally suited to my way of teaching. [The flexible learning space] is ideal for the type of lectures I want to give. When it comes to trying to do the same style of teaching in a lecture theatre where the conditions are not ideal, it is not impossible to adapt the teaching style slightly, so rather than students working in groups of 6-8 around a table they may have to work in pairs or groups of 4 with the one pair working with another pair sitting behind them. As the teacher, this poses the problem of not being able to get to all the groups to gauge where they're at. Yes, it's not as good, so the geography of the room does impact the quality of the teaching able to be provided for modern type teaching. (Int Chris, 07/05/2015)

Although the teachers in the study expressed frustrations with being allocated spaces that may not be the best for the type of teaching they would ideally prefer to

undertake, they have developed strategies for utilising the space to achieve their teaching and learning goals.

Participants also expressed some frustration due to the inflexibility of administrative systems, in particular, the room assignment system which provided them with teaching spaces that didn't always fit the needs of the teachers or the students.

Timetabling sees these as empty rooms or classrooms. They are able to be timetabled in time slots so should be able to be used by different classes requiring space. It doesn't work that way. One: we're building a programme, so we need that space. Two: we're running a studio scenario so it's not like a classroom where you just turn up and teach at the front. (Int David, 07/05/2015)

As the university engages more technology to manage the general operational function there is a danger that the needs of the people, the teachers, and students, may be neglected in favour of the efficiencies gained by the organisation in some respects. This is a difficult tension to navigate but one that is central to this thesis.

5.3 Theme One: Adaptability of teaching practice

The importance of experience, and how teachers drew on this experience not only to deliver learning content, but also to construct their teaching.

Experience was not limited to disciplinary or industry experience, but also included the socio-cultural experience that each teacher-learner brought with them to a space. The teacher's contribution may be his or her technical expertise but what engages the learners is the lived experience. The stories of how they applied that knowledge and expertise to solve problems, create and innovate, or play and invent in ways that changed the state of the environment to some extent are important to understanding the way they perceive teaching and learning. From a socio-cultural perspective Kirkness and Barnhardt (2016) and Morong and DesBiens (2016) consider the complexities of designing learning that is transformative, in an environment that was constantly changing and evolving.

Most of us now have four or five careers at least in your lifetime. I think that the key thing we should be providing here as a university is a base for people to come back to. It's unlikely that graduates will continue to work in the same field for their entire working lifetime. We can't really afford to be sending them out into the world so

specialised that that is all they know how to do. It means when things change they would potentially need to start again from scratch to re-skill and work their way back up again. (Int. Chris, 07/05/2015)

From a discipline perspective, while the impact of outside stakeholders such as national and international professional bodies, academic colleagues, and industry contacts added to the complexity of the design process, they also provided additional experience, guidance and rigour (Reid, 2011).

While Lipinski & Kosicek (2016) found that the focus for learning and knowledge acquisition in a higher education setting has been on the student, they make the point that teaching staff need to remain current in their discipline area so that they are able to expose their students to the broadest range of possibilities in the field. They also highlighted a weakness of university curricula that the most current industry practices were not always reflected. Chris expressed the importance of industry and academia remaining closely aligned.

Our degrees are accredited by IPENZ...we need to give a lot more thought to the majors and minors and what we are trying to achieve. (Int. Chris, 05/07/2015)

Lipinski and Kosicek (2016) recommended that universities address weaknesses they identified as impediments to effective teaching practice. These included establishing a flexible staffing regime and encouraging a mix of part time faculty with industry experience; closer working ties with industry connections; and creating an executive programme. These initiatives would provide practitioners with the opportunity not only to continue their own professional education but also to establish and maintain closer working ties within the university setting.

Discipline areas such as medicine, have a requirement for their instructors to maintain a certain professional standard of practical experience and expertise (Burns, 2012). Chris suggests this practice is a way of maintaining standards and relationships within his industry. Although all the participants acknowledged the importance of industry experience in their teaching practice they were not compelled by the university to maintain these connections and those who did, did so for their own interests.

“...when I was graduating, there was a thing called the engineering society...we had to sit engineering society exams, which talked about morals, it talked legal obligations, ethical obligations, sustainability.” (Int. Chris, 05/07/2015)

Further investigation may yield additional information in the faculty context however, this was not covered as part of the scope of this project.

5.4 Theme Two: Evolving teaching role

The teaching role for all five teachers had not so much changed but had begun to evolve in its design. There was a shifting of the power balance from “teacher as expert” to the point where teachers and learners were constructing both learning and teaching in an iterative process of continuous improvement (Arpetti, Baranauskas, & Leo, 2013; Baroutian, Kensington-Miller, Wicaksana, & Young, 2016).

The teachers revealed that their teaching practice was influenced by a range of factors, which included their own knowledge and expertise in their fields, their research interests, the needs and abilities of their students, and the political and administrative operations of the institution. Some of the teachers drew their practice from leadership roles within their industry practice. David, for example, adapted his teaching role from his industry experience as an Art Director.

“...you have to wear multiple hats you can’t just be a programme leader, you can’t just be a teacher particularly when you have limited access to support.” (Int. David, 14/05/2015)

On the other hand, Jess drew on her social or cultural learnings, and her knowledge and practice of kaupapa Māori.

“...there are set [kaupapa Māori] guidelines. like treating everyone with kindness and respect” (Int. Jess, 19/10/2015)

In both examples these teachers constructed their courses by taking into account that their learners contributed to the experience. They also contributed to creating a unique learning experience for each learner encounter.

Within a Kaupapa Māori context the concepts of Ako and Āta together provide an educational philosophy that draws on a broader relational context. Rather than making a distinction between teacher and learner in the way traditional western pedagogies do, the roles change enabling the ‘teacher’ to become ‘learner’ as they

encounter the different knowledges, perspectives, world views of the 'learner' and vice versa (Addis et al., 2011b; Barnes, 2000; Forsyth & Kung, 2007; Pihama et al., 2004; Smith, 1997)

Within a western educational context, however, some of the ideals of Ako (Pohatu, 2010) and Ata (Forsyth & Kung, 2007) are emerging through the co-design, co-creation initiatives to learning design, providing greater involvement of stakeholders and encouraging participation through an iterative design process which works to develop both learners and teachers abilities (Haraldseid, Friberg, & Aase, 2016).

5.5 Theme Three: The use of technology

The use of technology in teaching practice depended on availability rather than what was needed or utilised within the discipline. Surprisingly, technology, for the purpose of teaching large part, held much less importance for the teachers in this study. All participants expressed an affinity with the technologies in common use in their individual disciplines. Where possible, the teachers would employ industry technologies as part of their teaching however, this was dependent on the availability of these technologies especially within the teaching spaces. This proves to be an ongoing challenge for teachers, particularly as the infrastructure provided varied from room to room. As teaching space is not dedicated to particular disciplines, planning to use technology as part of a learning design was problematic. Chris reflected

"I tend to keep it simple because if you're in front of a class room full of students and you lose your way for 30 seconds you've lost the whole flow and the connection with the group and with these things if you start off-roading and trying other things and they don't quite work your credibility can suffer." (Int. Chris, 05/07/2015)

Early adopters of technology also struggled with a mismatch in expectations when it came to implement new technologies into their teaching.

"The wireless or networked infrastructure here at the moment is not stable enough to maintain an effective enough technology teaching environment, it fades in and out and you cannot afford for that to be happening while you are trying to teach a class. So, when I turn up to class now I literally bring my lecture in two or three different formats." (Int. Chris, 05/07/2015)

Support for the use of learning technologies, for the most part, came from those working in learning advisory roles. At AUT this came from the central learning support unit as well as support roles from within DCT, rather than from within the school communities. Studio teaching, for example, offered students in the design fields greater flexibility to engage with the technologies they would be expected to use in a work environment. David describes his experience,

“I actually think our degree is more flexible in that realm because we’re in an industry that is continually involved in a changing you know we’ve gone from prem, to web and now to moving image and we do all sorts of things and the different knowledge you have to have” (Int. David, 14/05/2015).

Providing students with access to these resources was still an issue but by pooling resources meant providing an effective means of making technology resources available to the students.

“I’ve been thinking outside the box on that. We’ve got students who need to be really creative and what tools can we or do we need to provide them with to enable them to do what they need to do. I’ve started to establish toolkits – collections of resources that are available to the community for use. 3D printers etc. To produce the wide range of creative designs in a range of mediums.” (Int. David, 14/05/2015)

Although teaching in the School of Engineering, Computing, and Mathematics followed a more traditional classroom teaching format, teachers were beginning to embrace technology to teaching.

“I’m quite old school but these guys are constantly on mobiles, tablets etc, so we need to be tapping into these places where they’re going to engage with they’re learning in a way, place and time that suits them” (Int. Chris, 05/07/2015)

While some of the teaching staff encouraged the use of technology for research and enquiry, classroom teaching remained quite didactic. In exploring the use of learning technologies and approaches to teaching, Ellis et al. (2009) understood that:

In terms of the teachers’ experience, the quality of the approach to teaching adopted is related to their perceptions of the context, the conceptions of learning which they bring to the experience, the situation they find themselves in and the outcomes they are able to achieve. (p. 110)

While the faculty encouraged the use of the Blackboard learning management system, this technology remains predominantly a content delivery mechanism for the majority of teaching staff. In terms of being a planned and integrated part of the learning design, in the main, it is considered a peripheral application for basic communication functions, such as class announcements, distribution of content once the teaching has happened, and a facility for managing and scrutinising student written assessments.

“I think the course template would obviously be useful and maybe that’s the process that is meant to happen but that hasn’t been my experience for whatever reason.” (Int. Jess, 19/10/2015)

There was consensus amongst the teachers that a blended mix of learning content delivery, using Blackboard to deliver the products of their course content, and face-to-face classroom teaching offered them flexibility to engage with students and to develop their teaching to accommodate the space and technology available. Understandably, integrating online teaching components effectively, means a greater emphasis on the part of the teacher plan the online component of the teaching.

“A typical example would be that I would use a screencast to do a voiced over learning example, this would generally be similar to the one done in class. I post screencasts on AUTonline. Sometimes I’ll post youtube videos of someone else working through an example which may be better than an example I might be able to produce. I have student consultation times but I’m typically more approachable and available to students.” (Int. Chris, 05/07/2017)

Lee (2008) supports this position affirming that online teaching can become all-consuming as teachers come to terms with how the technology works, how students access what they need, and meaningfully engage with the content.

Along similar lines of thought, Ellis et al. (2009) voice concern that “uninformed approaches to design and teaching using technologies could result in impoverished experiences” (p. 116) and highlight the need for further research in how teachers think and experience learning technologies. Reflecting somewhat on the lack of vision traditional universities have in exploring and implementing the learning models and opportunities technology might offer, Bates (2010) reflects:

Thus, traditional universities seek ways to integrate new technology within the parameters of the traditional model, and look for changes at the margins, in a slow and incremental manner, that sustain the existing goals and values of the organization. Thus, radical change is unlikely to come from traditional universities. (p. 23)

5.6 Theme Four: Spaces and places

This theme considers how teachers adapt their teaching, to fit the learning spaces and provide a place within that space for engaged learning. The research was initially prompted by a feeling of disconnect between the physical environment of the university and its real impact on teaching and learning. At the time, there was much publicity about the benefits new learning spaces would have for students however, the practical and beneficial implications for the teachers, was not as evident (Lippincott, 2009; Oblinger, 2006; Savin-Baden, 2008). Communication sessions delivered to staff prior to the opening of one of the new building developments showcased the design features of the furniture and the technologies and reviewed how the spaces could be adapted to form different configurations depending on the teacher's style and preference. Determining the impact of these innovations on student learning will require further research.

What was of interest was whether, without a complete pedagogical revolution, tertiary education would continue to perpetuate the traditional (western) classroom teaching style, with the teacher as the focal point for the classroom and dabbling with technology on the side (Sutton & DeSantis, 2017). I believe there was some impetus to actively embrace the potential opportunity these spaces and technologies offered but in the current environment motivating a mass movement would require incentivising staff.

Also, of interest, was how much autonomy teachers had over all the facets of their teaching in terms of content, time, technology and the ability to use and adapt space for learning. As Arpetti, Baranauskas and Leo, (2013) assert, "Learning Design involves the definition and articulation of times, spaces and resources to organize educational activities that involve specific actors in specific acts" (p. 283). Without some degree of autonomy and consciousness of learning design, the potential

outcomes from the learning experienced by students, could vary significantly between cohorts, disciplines and teachers.

Space was not necessarily given serious consideration by teaching staff in their learning design as they felt they had little control over the spaces they would be allocated.

“There are those times we need to break up into groups, or I can set up activities that can do using the space and various technologies like recording themselves on their phones performing a script. Just having the ability to move outside the classroom to complete the task is good. At TAP [Te Ara Poutama] we have great labs but there isn’t the space to do the same thing as such. So it is noticeable.” (Int. Jess, 19/10/2015)

Of more importance to them was being sufficiently prepared and flexible enough to teach in whatever space they were given.

There has been a move in higher education to expand the notion of learning spaces. The idea of learning spaces only representing a particular type of space, for instance, a classroom or lecture theatre, is being superseded by the view that learning can and will take place in a range of different types of venues and will engage not only teachers and students but potentially a much broader range of different stakeholders in the learning process.

“one of the first projects they do is the Engineering without Borders project which is an excellent vehicle for all these soft skills all in one semester” (Int. Chris, 05/07/2015)

This sense of ‘community for learning’ means that what may begin in a classroom type venue has potential to develop beyond the confines of this space and that there is not only value but validity in this expansion (Bennett, 2011; Oblinger, 2006).

5.7 Theme Five: Support and Barriers

When it came to thinking about support, there was a sense that the role of teaching is a solitary activity. The teachers spoke about their attempts to engage the support of others within their schools with limited success. For some, while they were keen to get greater input from their colleagues and particularly those in school management roles, they still felt accessing this support took significant effort. This

was a luxury few could afford, particularly when trying to balance the pressures of time and other work-life commitments.

“I need the support of the school management, I need to build the programme. I need people who are going to be committed to the programme. At the moment, the staffing is shared with other programmes, so the level of commitment isn’t available.” (Int. David, 10/05/2015)

Support for both Jeff and Jess for example, who were relatively new to their academic teaching roles, was provided by colleagues in a co-teaching situation and by more experienced teachers who fulfilled an informal supervisory and mentoring role.

“Creating a computing paper and watching him mark everything, he’s got 20 years’ worth of efficiency behind him and you absolutely need that in order to survive. I don’t think I could do it in that amount of time.” (Int. Jeff, 08/12/2015)

The new teachers reflected that while these colleagues provided wise guidance they also allowed the teachers the freedom to develop the teaching in a way which best suited their personal styles.

At TAP they were very supportive because they teach in teams for Māori Media and there are always two of you and they try to draw on your specific interests and expertise to teach a particular module because they’re learning about music, short film, research, so if you have a particular strength, like I really enjoyed visual communications, visual art and research so they tried to get me teach those particular components of the course. One of the other teachers there, her strengths were sound and music so, she focussed on that particular area so that’s how it worked. It’s like a team effort over there that I found it very supportive. (Int. Jess, 19/01/2015)

Relationships with colleagues who often shared similar views on teaching due to their shared discipline and learning experience, influenced the thinking and teaching practice of the teachers who were interviewed. However, when extrapolated out beyond the immediate working relationships, trying to gain wider understanding about support and what the barriers to teaching are amongst colleagues from within the wider school environment, proved more of a challenge. Kerri addressed this by working collaboratively with other teaching staff and developing core philosophies around delivering content and teaching practice.

“We developed some core philosophies that we wanted on the course and then that started to drive the way people were delivering and teaching.” (Int. Kerri, 21/05/2015)

While much of the feedback around support was focused more locally at school level, support from the wider university community was also discussed more generally. Expectations on teaching staff and physical infrastructure were the cause of much frustration for all those interviewed. Of particular concern was the limitations imposed by the university room allocation system, and the processes surrounding this activity. All the teachers felt this aspect of their environment was a major barrier to their teaching practice. It particularly hindered their ability to effectively consider a design and plan for their teaching without having to prepare contingencies as a matter of course rather than as exceptions.

“There are certain rooms that are ideally suited to my way of teaching... When it comes to trying to do the same style of teaching in a tiered lecture theatre where the conditions are not ideal [but] it is not impossible to adapt the teaching style slightly.” (Int. Chris, 05/07/2015)

Mitten and Ross (2016) lament the effects that the demands universities are under by increased student numbers, restrictive funding and greater accountability to a growing list of stakeholders, has meant employing strategies that in the long run prove detrimental to the teachers and the students. Mitten and Ross attempted to identify what highly effective and award-winning teachers did, what they think, and how they behave. They considered that this research would provide some insight into the type of support that should be built around all teaching staff to encourage and maintain instructional ethos. They also found that teachers felt that the evaluation systems used to provide information on the effectiveness of their teaching put pressure on them to maintain high scores. In addition, the attempt to standardise the student experience meant that they lacked the autonomy to determine how they teach in order to best meet their students needs. In the DCT context, the standardisation of teaching space allocations reflects similar reactions for teachers.

One of the reasons I was keen to research space and technology was because I wanted to understand what ‘teaching’ meant to the lecturers and what impacted

their teaching both positively and negatively in order to be able to determine critical areas for support. This was so that investment, resources and effort could be more effectively directed.

5.8 Summary

This chapter provided an opportunity to systematically consider and discuss the themes brought out in the research findings and consider the relative positions of other research undertaken in the field, that provided richness to the emerging picture. The following chapter draws together the threads of ideas, thoughts and possibilities for future direction.

Chapter 6 Conclusion

6.1 Introduction

This chapter discusses the challenges faced in carrying out the research and coming to terms with an academic approach to the writing that felt authentic to me.

The intent of this research at the outset of this project was to study how the role of teacher was influenced by the introduction of educational technologies. There was also consideration as to whether this had any significant impact on the teaching philosophy of the individual teachers and the way they designed the learning for their students. Given the small size of the study it was always going to be difficult to draw any compelling conclusions from the data. Rather, the study adds another perspective to the growing knowledge currently being compiled in the field and encourages further investigation in the field from a uniquely, Aotearoa New Zealand viewpoint.

As tertiary education has become more accessible, a growing expectation that it is the measure of quality and capability for employment has emerged (Le Pla, 2013; Sonal, Minocha, Hristov, & Reynolds, 2017). This places a large amount of responsibility on tertiary institutions to ensure that the graduates venturing out from these institutions have the skills and knowledge required to be able to competently perform the roles for which they are employed. It also places greater responsibility on those teaching these students to ensure that they indeed have not only learned what has been taught but, have been effectively assessed to claim this competency in order to assure employers that the qualifications they claim are valid.

The faculty could be considered a microcosm representing disciplines in both Arts and Sciences. As the lines between these disciplines blur, and the need to work in the spaces and places across and between these boundaries becomes more evident, the place of the teacher becomes more and more difficult to define. Layer this with a growing population and a unique social, cultural, and political environment, maintaining an educational landscape that is adaptable and meets the needs of all the stakeholders is going to be a challenge for any institution.

As we invest more in buildings, new technologies, and the infrastructure required to support a large organisation so that the students get a quality learning experience, it is questionable as to whether the teacher is getting the same quality experience in the process (Krause, 2014; Oblinger, 2004; Staley & Trinkle, 2011; Warger & Oblinger, 2011; Warger & Dobbin, 2009).

This thesis has been about the place of teachers and identifying whether they are equipped to be able to fulfil their role within a consistently volatile social context (Black, 2009). The idea of trying to integrate technological trends into teaching practice seriously needs to be considered. A revolutionary change to the traditional western educational model predominantly practiced throughout tertiary institutions is needed. This opens the opportunities to investigate alternative educational models, and other cultural ecologies in order to be able to expand the teaching and learning ideologies (Snepvangers & Bannon, 2016).

To begin what is essentially a cultural change in this research, I considered the impact of technology and collaborative spaces on learning design and teaching practice when placed within the context of a faculty. The study highlighted room for improvement in some key areas including the current approach to learning design strategies, processes and practices, the administrative and reporting requirements, and infrastructure provisions for 21st century teaching and learning.

6.2 Research goals, questions and outcomes revisited

The main goal of the study was to begin to understand why, with the vast amount of research on pedagogies, world class spaces and facilities, and an ever-increasing number of technologies available, the dominant teaching pedagogy practiced remained mainly didactic and transmissive. The exploration of educational philosophies and practices with the teachers in this study, provided the scope to examine the approaches, beliefs, and values they brought to their teaching practice.

For the study to be manageable, the research question; *What impact does technology and collaborative learning space have on learning design and teaching practice?* was investigated under three broad areas:

1. Each teacher's teaching and learning philosophy,

2. Their reflection of the teaching and learning environment, both physical and virtual, and its impact on their teaching practice, and
3. Their access to appropriate support to be able to develop and implement different teaching pedagogies into their learning design and teaching practice.

The questions under each of these areas were designed to focus firstly on what influences shaped their practice, such as their discipline choice, experiences prior to coming to teaching, and since becoming teachers. It was also important to know what they thought about the environment and what factors supported or hindered their ability to be effective as teachers. What emerged from the data were the five key themes as discussed in chapter five and summarised below.

Theme one: Adaptability of teaching practice. This theme considered socio-cultural factors that contributed to the teaching philosophy and in turn, the effect these had on teaching practice. This included looking at the effect industry or work experience had on how these teachers interacted with learners. In addition, it explored the wider cultural experiences of the teachers and how these were expressed intuitively and spontaneously rather than consciously designed into the teaching.

Theme two: Evolving teaching role. Shifting the power balance from “teacher as expert” to the point where teachers and learners were constructing both learning and teaching in an iterative process of continuous improvement, highlighted the commitment to improving the learning experience of each of those interviewed. This theme explored the teaching experience and how each individual applied their different knowledge and broader lived experience in order to express themselves authentically in their teaching. As this study was small it is difficult to know whether this is a general trend for all teachers.

Theme three: The use of technology. This theme looked at the place of technology in teaching and learning. Of those interviewed, for most, technology was not seen as a critical part of their teaching practice. Teachers for whom it was important, talked about the challenges they faced and strategies they employed to ensure student learning was not compromised.

Theme four: Spaces and places. This theme reflected on whether space and place influenced the way teachers taught. It considered the ability teachers had to design and arrange the environment to fit their teaching practice and style. It also looked at the aspects of the environment that hindered the way they would prefer to practice and how the contingencies they employed to provide the most seamless learning experience for their learners.

Theme five: Supporting and Barriers. This theme reviewed support in terms of the relationships the teachers had within their school environments, with the faculty and the wider university services that affected their teaching practice. The teachers expressed that although they were keen to work more collaboratively with colleagues, this was often difficult to coordinate due mainly to the work pressures and expectations of their academic roles.

6.3 Strategies for future practice

The interdisciplinary nature of the faculty provides scope to explore different teaching practices and employ different pedagogies. The challenge is providing space within the eco-system of the university to value, nurture, and extend what each stakeholder has to offer. With a dominant educational regime that encourages a bias towards a system that values efficiency, productivity, and results, it is difficult to imagine other effective scenarios in this space that would satisfy all stakeholder needs.

Other world views and cultural approaches

In formulating the methodology for this study, I overlaid kaupapa Māori principles as part of the conceptual framework. I was conscious throughout of trying to give these principles space in my thought process. What I did discover by using this world view, was that it made me aware of the implications for the different stakeholders. By gaining greater understanding of other world views and cultural practices we may begin to find space within tertiary institutions in order to do more than just acknowledge 'other' cultures and world views but makes room for them as a valid and valuable development of the organisational culture of the institution. A cultural shift within the faculty would require the alignment of the organisation to recognise

the value of such a shift, and whether this reflects positively in the university's overall performance.

Researching teaching practice

There remains a critical gap in the value of researching teaching practice outside the discipline of education. Within a system that rewards research through the Performance-Based Research Fund (Tertiary Education Commission, n.d.) there is a perception that research takes precedence over teaching and learning. Future research could consider the place of greater acknowledgement and recognition of research into teaching practice to raise the status of teaching and teaching research within the faculty.

6.4 Research contribution

The contribution this study makes is in investigating the learning environment, through the use of space and technology as part of the toolset teachers have available to them in designing learning for their students. The kaupapa Māori approach used to analyse the pūrākau shared also provides a distinctive Māori perspective to the literature available in this field of study.

6.5 Significant findings

When I began this study I naïvely believed we had a shared understanding about the meaning of learning design. However, this was not the case. Although some teachers had input into a higher-level design/planning processes at the programme level, this was not consistent for all teachers in this study. I discovered there was a sense of isolation in the teaching role and teachers expressed a sense of frustration around many management aspects that influenced their teaching practice but, were beyond their control. As a result, the design of learning was seen as an individual activity focused on what they were able to control within their own environments.

In addition, the study highlighted a growing movement of practitioners who were committed to providing a learning environment that not only drew from the lived experiences of the teachers, but also demonstrated the practical challenges learners would face in the workplace. They were also challenging and resisting the status quo.

Finally, applying a kaupapa Māori approach to the study enabled me to consider the experiences and philosophies in a way that was based on my own values and view of the world as a Māori researcher.

6.6 Implications

This research provided valuable insights into the beliefs and attitudes of the teachers in this study. The most significant insight was that in comparison with research, teaching was not valued highly by the institution. For those interviewed, this was a disappointing position as they were all committed to providing a learning experience that reflected the best of their skills, knowledge, and abilities. This perceived devaluing of teaching has the potential to affect the quality of teaching, as academic staff consider the potential for greater recognition and rewards in other areas of their academic careers (Warger & Dobbin, 2009).

6.7 Recommendations and directions for future research

Possible areas for further research revealed through this study include the following:

- Investigation into the processes around learning design that provides teachers with sufficient release time to focus on the task of effective learning design. Under the current system learning design is carried out at a more senior academic level that has the effect of removing the teacher from the learning design process.
- To what extent is the role of teaching evolving? Shifting the power balance from “teacher as expert” to teachers and learners as “co-constructors” of learning and teaching in an iterative process of continuous improvement.
- Consider support strategies that could influence an institutional commitment to raising the perceived value and status of teaching.
- Determine how teachers ensure that they are able to teach across cultures and have a sense that they are culturally safe within the teaching environment and how industry and life experience influence teaching practice.

6.8 Strengths and challenges of this study

The normalising of alternative approaches to learning and teaching, particularly indigenous approaches such as kaupapa Māori, and situating these within the university context will begin to address the disparity that has gripped Aotearoa New Zealand education by raising awareness of these issues. The potential to address this then becomes a greater possibility.

In addition, the educational investment decisions made, need to value all learning engagement rather than privileging a particular segment. Consequently, ensuring equitability between teaching and research in terms of recognition and value would go some way to improving outcomes for staff and learners alike (Mitten & Ross, 2016).

This was a small sample study so, it is difficult to draw conclusions from the data presented here. Using the semi-structured interview process provided some flexibility for the teachers to reveal what was important to them without being limited to just answering the range of questions I had proposed. This provided a greater sense of their personal beliefs and understandings around learning and their teaching practice. My inexperience in research techniques however, particularly my interviewing skills, highlighted shortcomings particularly when it came to ensure that the data I had gathered had sufficient depth and breadth.

6.9 Concluding comments

In reflecting on my research journey there have been many learnings along the way. I have encountered others at various stages of their own journeys who have challenged my thinking, provided guidance or were just fascinating people to have conversations with about a range of research topics and experiences.

As my research skills have developed, finding meaning in the literature produced by other researchers has become easier and more meaningful. I have also found that sharing these skills with others has been not only been fulfilling in an altruistic way but consolidated these learnings as part of my own research practice.

This journey however was not always exhilarating and fun. There were many points throughout the journey where I was literally lost for words. Times when I would sit at

my computer for hours while what appeared to be random thoughts and ideas danced around my brain but would not be formed into any coherent, organised written work. I can now see that this was an important part of the process and the learning I take from this experience is significant. It has also made me think about what or how I can teach from what I learned in order to encourage and help others who are beginning or about to embark on a research journey. This research has reinforced the value of kaupapa Māori and the tenets of whanaungatanga, ata and ako. In writing these concluding comments I realise that this is not the end.

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He kupu taka - Glossary of terms

Ako	To learn, study, instruct, teach, advise
Aotearoa	Māori name for Aotearoa New Zealand
Aroha	Compassion, empathy, caring, love
Āta	To work with care and thoroughness
Fono	Meeting place (Pacific)
He kupu taka	Glossary of terms
Kaupapa Māori	Māori philisophical approach to learning and teaching
Kaumātua	Elder
Ko wai au	Who am I?
Maniapoto	Māori Tribal area located in the central North island of Aotearoa
Manukau	Area located in South Auckland
Marae	Māori customary meeting place used for formal greetings and discussion
Māori	Term used to refer to Aotearoa New Zealand indigenous population
Mātauranga	Knowledge, wisdom, understanding, skill, Education
Mauri	Life force
Ngā	Plural, to take breath
Ngā Patapatai	To enquire, challenge, interview
Ngā Pūrākau	Stories
Ngāti Porou	Name of the indigenous people located on the East Coast of the North Island of Aotearoa
Pākehā	Generally refers to Aotearoa New Zealander of European descent, however in this thesis is also used to describe any other ethnicity introduced from a foreign country
Rākau	Tree, stick
Rangatahi	Younger generation
Tairāwhiti	Māori tribal area located on the East Coast of Aotearoa
Tangata whenua	Indigenous people of the land
Tangihanga	Customary protocols around death and funerary practices

Te Ao Māori	Māori world view
Te Ara Auaha	Faculty of Design and Creative Technologies (AUT)
Te Ara Poutama	Faculty of Māori and Indigenous Development (AUT)
Te Kuiti	Town located in the Maniapoto district, central North Island, Aotearoa
Te Reo Maori	Indigenous language of Aotearoa New Zealand
Tika	Integrity
Tikanga	Protocols, customary system of values and practices
Tīpuna	Ancestors
Whakama	To be ashamed, embarrassed
Whakapapa	Geneology
Whānau	Family, community



APPENDIX A: ETHICS APPROVAL

A U T E C
S E C R E T A R I A T

21 November 2014

Chris Jenkin
Faculty of Culture and Society

Dear Chris

Re Ethics Application: **14/348 The impact of technology and collaborative learning spaces on learning design and teaching practice in the Faculty of Design and Creative Technologies.**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 20 November 2017.

As part of the ethics approval process, you are required to submit the following to AUTEC:

- A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/researchethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 20 November 2017;
- A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/researchethics>. This report is to be submitted either when the approval expires on 20 November 2017 or on completion of the project.

It is a condition of approval that AUTEC is notified of any adverse events or if the research does not commence. AUTEC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this.

To enable us to provide you with efficient service, please use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at ethics@aut.ac.nz.

All the very best with your research,

A handwritten signature in black ink, appearing to read 'K O'Connor'.

Kate O'Connor

Executive Secretary

Auckland University of Technology Ethics Committee

Cc: Helena Mill hmill@aut.ac.nz

APPENDIX B: Indicative Interview Questions.

Project title: ***The impact of technology and collaborative learning spaces on learning design and teaching practice in the Faculty of Design and Creative Technologies***

Project Supervisor: ***Dr Chris Jenkin***

Researcher: ***Helena Mill***

Thinking about your own philosophy on teaching and learning

1. Can you tell me about your professional background?
2. What influenced your decision to teach your discipline at AUT?
3. What influences your current teaching approach and style?
4. What do you consider are your key teaching attributes? What do you feel makes you effective in your teaching practice?
5. What pedagogical approaches have influenced your current teaching practice?
6. Can you describe your use technology in your teaching practice?

Reflecting on the teaching and learning environment

1. Can you describe the learning/curriculum design process you use in developing courses and course content?
2. What consideration do you give specifically to space in your teaching and learning design?
3. What are the affordances and barriers the current AUT learning spaces, and particularly, the spaces you teach in allow you in your teaching?
4. What degree of importance do you place on technology in teaching practice in the design of learning activity?
5. Can you describe your experience in engaging with technology in your teaching situation?

Skill development

1. How have you developed your technology skills?
2. What would assist you in your teaching and the utilisation of technologies?

Consent Form

For use when interviews are involved.



Project title: ***The impact of technology and collaborative learning spaces on learning design and teaching practice in the Faculty of Design and Creative Technologies***

Project Supervisor: ***Dr Chris Jenkin***

Researcher: ***Helena Mill***

- I have read and understood the information provided about this research project in the Information Sheet dated 17/ November 2014.
- I have had an opportunity to ask questions and to have them answered.
- I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- I agree to take part in this research.
- I wish to receive a copy of the report from the research (please tick one):
Yes No

Participant's signature:

.....

Participant's name:

.....

Participant's Contact Details (if appropriate):

.....

.....

.....

.....

Date:

***Approved by the Auckland University of Technology Ethics Committee on 6
November, 2014 AUTEK Reference number 14/348***

Note: The Participant should retain a copy of this form.

APPENDIX D: Recruitment Email

Dear

Helena Mill is seeking participants for a qualitative research study she is planning to undertake within the faculty as part of her Master of Education degree programme. The study will investigate the impact of technology and collaborative learning spaces on learning design and the teaching practice of individual teachers.

An information sheet outlining how the study will be run, including the time commitment required, is attached. If you are interested in participating in this research, please complete the Consent form attached and return it to Helena. Emailed responses are preferred, however if you would prefer to send a printed copy through the internal mail please mark as private and confidential and send to: Helena Mill (D-73).

Participant Information Sheet



Date Information Sheet Produced: 29 September 2014

Project Title

The impact of technology and collaborative learning spaces on learning design and teaching practice in the Faculty of Design and Creative Technologies

An Invitation

Tēnā koe

Thank you for taking the time to read this information sheet, which outlines the purpose and direction of my research project. My name is Helena Mill and I am a postgraduate student with the Faculty of Culture and Society completing a Master of Education thesis. I am also an AUT staff member employed as the Digital Media Coordinator in the Faculty of Design and Creative Technologies' (DCT) faculty office.

I am planning to undertake a qualitative case study of the impact technology and collaborative learning spaces can have on teaching practice within DCT. I would like to invite teachers from each of the schools within DCT, who would be happy to share their educational philosophies, to participate in this small study. I believe these philosophies will provide valuable insight to the support the faculty provides to teachers as the pace of change in the educational arena continues to accelerate. Although the sample size I am be working with is small, I would like to be able to achieve a representative cross-section of gender, ethnicity, and experience.

Participation in the study is voluntary and you may withdraw from the study at any time prior to the completion of the data collection process. I will work with you to establish the level of openness you are comfortable with and implement a strategy to provide confidentiality e.g. assigning pseudonyms.

What is the purpose of this research?

The aim of this research is to determine whether space and place impact on the learning design and teaching practice in a contemporary tertiary university environment. The research examines the philosophies teachers hold about learning and their own teaching practice and delves into how these philosophies influence the way in which they design and facilitate the learning activity in their teaching. In addition the research will explore what opportunities and challenges the physical and networked spaces offer teachers in the design of the learning activities to prepare students to step into a highly technology-enabled networked world.

How was I identified and why am I being invited to participate in this research?

You were identified for this research through my professional networks and have received this invitation to participate through Lynne McSweeney, Faculty Office Receptionist. I have consulted the DCT Equity Portfolio Holder to identify active teaching staff who meet the equity criteria, (gender, ethnicity and experience). My aim is to recruit at least one staff member from each school and Colab. I require only five participants' in total.

Should I receive interest from more than the five participants required, I will select participants that provide a cross section representation of the teaching staff population. All volunteers will be notified in writing regarding their participation.

What will happen in this research?

The project is a case study of teaching practice within DCT. It looks specifically at the synthesis of space and technology into course design and teaching practice.

Data will be collected through two semi-structured, face-to-face interviews and a weekly journal post. The first interview will explore your own philosophy on education and your current teaching practice in terms of technology and space and

how this influences your course design. Ideally, this interview will be scheduled just prior to the start of semester one, 2015 and will take approximately one hour. I will contact you to arrange a time to suit you.

The second interview will be conducted during the mid-semester break. Again I will contact you closer to the time and arrange a time to suit you. In this interview you will be asked again to reflect on your approach to education and teaching practice. Again it is anticipated that this interview will take approximately one hour. In the intervening 6-week period, between the two interviews, I will prompt you weekly with a reflective question and ask you to post a personal reflection via email. I anticipate this will take about 10 minutes.

Once all the data has been collected and transcribed, you will be given an opportunity to check the transcript for accuracy before it is analysed. I will allow time to discuss any issues that you may feel unclear or uneasy about to ensure that where possible, these can be resolved before the analysis begins. At the conclusion of the analysis, should you wish to receive a copy of the summary of findings I will arrange for this to be forwarded to you.

What are the discomforts and risks?

I understand that there is always a possibility that you may find in disclosing information personal to you that you may feel some discomfort or potential risk. If this situation does occur I will be happy to discuss this with you and stop the interview at any time. Should you feel it necessary, I can also provide access to an intermediary, such as my supervisor, to ensure appropriate advice is provided.

What are the benefits?

As stated above, this research forms part of my Master of Education qualification but I believe it will also benefit the faculty by understanding further what it is that our teaching staff do to prepare the learning environment, what issues they face and what support they require from the faculty to provide a quality learning experience for students.

How will my privacy be protected?

Pseudonyms will be assigned to participants who elect to remain anonymous. However, other factors such as AUT being named and the sample size may reveal participant identity.

All physical data gathered (hardcopy) will adhere to the AUTECH protocol and be stored in a locked cabinet for the required minimum of 6 years at which point it will be destroyed. Electronic data will be password protected on a personal hard drive.

What are the costs of participating in this research?

There will be no monetary costs involved although it will require approximately 3 hours of your time. I understand that the participation in this research will place additional pressure on your time. I will undertake to ensure that you are inconvenienced as little as possible and that you are kept informed throughout the process. I am happy to arrange and travel to a suitable interview location and envisage that this will be on or in the vicinity of either the AUT City or South campuses.

What opportunity do I have to consider this invitation?

I would really appreciate it if you were able to email me your decision within seven days. If you are able to participate please provide your preferred contact details in the return email message.

How do I agree to participate in this research?

To indicate your agreement to participate please complete the attached Consent Form. You may either email an electronic copy of the completed form to hmill@aut.ac.nz or if you prefer, post the form to me marked Private & Confidential at D-73. I will then contact you in person via telephone to arrange a suitable time for our first interview.

Will I receive feedback on the results of this research?

Yes. If you would like to receive feedback on the results I will send you a summary of the research. The thesis will be available in the AUT Library's Scholarly Commons and I will notify you by email once I confirm its availability.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Chris Jenkin, email: cjenkin@aut.ac.nz or phone +64 9 921 9999 ext 7911.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext 6038.

Whom do I contact for further information about this research?

Research Contact Details:

Helena Mill, Physical location: WA610, email: hmill@aut.ac.nz, phone: +64 9 921 9999 ext 6647

Project Supervisor Contact Details:

Dr Chris Jenkin, email: cjenkin@aut.ac.nz or phone +64 9 921 9999 ext 7911.

**Approved by the Auckland University of Technology Ethics Committee on 20/11/2015 AUTEK
Reference number 14/348**