

Engaging the Māori E-Learner:
Instructional Technology, Design, & Delivery

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A thesis submitted in partial fulfilment of the requirements
for the degree of Master of Education
Unitec New Zealand, 2008

Abstract

Engagement is paramount to the academic success on a Māori tertiary student studying in an e-learning environment. Using an interpretive framework, this research explores the varied ways of engaging the Māori e-learner by drawing on narrative data collected during in-depth, semi-structured interviews. Eight Māori professionals with a preference toward e-learning were invited to participate in this research as they were seen as being academically prepared, technically competent, and capable of finding their way around a virtual learning environment.

With the influence of technology infused into the education system, finding ways to engage the Maori e-learner was viewed as being both complex and challenging, due to the diversity, attitude and belief of Māori professionals. It was anticipated that data gathered in this research could be used to provide new pedagogical strategies and methods to engage the Maori e-learner. Additionally, and significantly such approaches are a reflection of innovative and motivational concepts as perceived by Māori professionals and have the potential to assist tutors online engagement. Overall, it was found that Māori professionals have identified a number of factors that may help academic staff to engage their students. For example, culturally responsive e-learning environments that value Māori ways of learning may be deemed as invaluable for the Māori e-learner.

Acknowledgements

To all who cared.

Dedication

To my mum.

Declaration

I declare that this thesis represents my own work, and that it has not been previously submitted for a degree or masters at any other tertiary institution. To the best of my knowledge and belief, the thesis no material previously published or written by another person except where the due reference is made in the thesis itself.

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Chapter 1

Introduction

Rationale

This research highlights the resounding impact technology has had on the education system in Aotearoa New Zealand and looks at ways of engagement for Māori e-learner who chooses to study this way. As web-enabled communication, collaboration, and presentation technologies continue to enhance the ability to integrate different teaching and learning styles, engaging the Māori e-learner through instructional technology, design, and delivery is both challenging yet rewarding for academic staff, and institutions that incorporate e-learning programmes into their curriculum. E-learning programmes generally reflect many features of the traditional classroom-based environment forcing staff to rethink and redesign new learning spaces for Māori students to engage online. Online engagement within the classroom environment fosters creativity and develops independent thinking and enables e-learners enriches their understanding of this innovative learning process.

It is Mason, Chesemore & Noord (2006) who depict e-learning as an effective means of addressing the issues of increasing student demands, student finances, and rapid technological change however, the opportunity to study in isolation, away from the rest of the group does not always appeal to Māori. For this reason, the researcher will investigate the e-learning environment in its context.

It should be noted that, at the outset of this study, the concern to blend technology effectively with the course content can empower students to develop a critical and reflective way of thinking. For instance, empowerment needed to be given to the varied strategies and methods used to engage Māori professionals in this research. This view is endorsed by Anderson (2002, p. 38) who notes that, *'it is important for students to feel they can interact with the course content and feel that their lives are in some way touched or mirrored in the content.'*

This research evolved out of my interest for instructional design. As an academic learning development advisor for Māori tertiary students and with a computing background my passion to one day establish my own e-learning centre was the force behind this thesis.

This thesis takes an in-depth look at published literature that focus on the challenges and issues e-learning has made on the education system in Aotearoa New Zealand and compares this with the perspectives of the Māori professionals in this research. Following, the strategies and application of instructional technology into the design, and delivery used to motivate and engage the Māori e-learner will also be critically examined. More importantly, Mead (1996) and Smith (1999) state significant influences face-to-face (kanohi-ki-te-kanohi) contact has on the academic achievements of the Māori learner. Therefore, we may begin to question whether Māori believe that they can only succeed in a face-to-face e-learning environment.

Furthermore, the changing role and practices of the tutor is a key element to improving the performance of Māori students (The Ministry of Education, 2005). Therefore, as McSporrán (2004) found it is essential that academic staff up-skill themselves with technology, design and delivery if they are to engage the e-learner of which this also applies to the Māori e-learner. As recognised by Māori professionals, engagement is empowerment. According to Anderson (2002), to engage oneself in the learning process, is to find a connection exclusive to the learner. For Māori e-learners, finding a connection and building a relationship right from the start is very important. Knowing that they are not alone, and have the support (tautoko) and relationship (whanaungatanga) of their whānau, friends, tutor, and peers plays an integral role in the participation, retention and success of the Māori e-learner (Pere, 1994). In addition, Porima (n.d.) argues that Māori are now beginning to recognise the true economic and social value of technology, the World Wide Web and the Internet. On that note, as technology evolves, so too does learning, our language, and passion to learn.

For this reason, we will investigate e-learning in its context, the Māori learner, and how to engage the Māori e-learner. Furthermore, to engage the Māori e-learner one must identify who the Māori learner is to begin with and how they differ in attitude, values, and beliefs.

The Study

The intent of this research will generate guidelines for better design and facilitation of a culturally responsive e-learning programme that can effectively engage the Māori e-learner in the learning process. This research contributed to the current body of knowledge about designing effective e-learning courses and about practicing culturally responsive teaching in an e-learning context.

The researcher will investigate multiple forms of evidence to examine the commonalities, differences, interests, beliefs and attitudes of the Māori professional.

The eight Māori professionals in this research were chosen based on their academic achievements and experiences, and driving ambition to succeed. They were invited to participate in this research to examine what would motivate and engage them in an e-learning programme. More importantly, their ability to move freely and comfortably within an e-learning environment, with limited distractions fits the purpose of this research. Moreover, feedback received from participants and information taken from the literature review in this study will help in the design of a culturally responsive course. Furthermore, the researcher designed a two week online tutorial based on the feedback received from the Māori professionals in their individual interviews.

The tutorial was created in Moodle, (Learning Management System) and Māori participants were invited to participate in the online activities and comment on the website.

The Māori professionals were invited back at the end of the two week course to evaluate the programme, and their experiences. Findings from this forum were gathered and analysed by the researcher.

Finally, an analysis of the findings provided some clear guidelines for the utilisation of on-line teaching and learning and a valuable insight for all those using and interested in using online technologies for the delivery of course materials. These findings will be presented in detail in the final chapter of this thesis.

My preliminary search for information found that little had been written about the Māori e-learner. In addition, there were a number of benefits associated with this research project. Firstly, Māori participants in this study will contribute to the knowledge base of important yet unexplored areas of a culturally responsive learning environment. Secondly, the findings in this research may emphasise issues or gaps which tutors must be aware of.

The researcher recognises the common factors that continue to surface for Māori choosing to study in an e-learning environment, for instance computer literacy, limited internet access, and isolation issues. For this reason, Māori professionals currently working in fulltime employment, who have graduated with a tertiary qualification, and who are interested in learning online were formerly invited to participate in this research.

Statement of purpose

This thesis investigates the perceptions of engaging the Māori e-learner in a culturally responsive learning environment. Māori pedagogical strategies that engage and motivate the Māori e-learner are also investigated.

The purpose of this research is to specifically focus on investigating elements of a culturally responsive e-learning environment that will engage the Māori e-learner by identifying (a) issues, challenges and needs (b) appropriate pedagogical strategies and methods that engage the Māori e-learner (c) suggestions on how to design, develop, deliver and evaluate this learning environment (d) elements that will contribute to the participation, retention and success of the Māori e-learner.

Description of the research

The context described above provides the rationale that underpins this research project to investigate engagement in e-learning.

Aim and Research Questions of this Study

The aim of this research is to provide an insight into the engagement of the Māori learner in an e-learning environment based on the perspectives of eight Māori professionals.

To critically examine what engages the Māori learner in e-learning the research objectives will determine:

1. What are the Māori professionals prefer to learn?
2. What are the issues, challenges and needs of the Māori e-learner?
3. What are the pedagogical strategies and methods that can enhance learning for Māori?
4. What elements of technology can be used to engage the Māori e-learner?

As Māori are the focal group, this qualitative research will be conducted by Māori, for Māori. Relevant to the methodology adopted within this research, the Māori researcher will focus on indigenous practices, attitudes, and beliefs significant to the Māori learner.

Values and Benefits of the Research

Amid the many issues and challenges faced within the e-learning environment, the opportunities for Māori to engage in the learning process will be researched.

As little is written about the Māori e-learner, this project will help to fulfil significant gaps for Māori research by undertaking an in-depth look at what elements of tikanga Māori, instructional technology, design and delivery engage the Māori e-learner. Moreover, the values, attitudes, and preferences of Māori participants will also be considered to support further research and development in the progression towards on going success for the Māori e-learner.

The research will contribute to a comprehensive understanding of research which focuses on the engagement of the Māori e-learner. Furthermore, it will also add value to the limited literature found on the Māori e-learner, and will be of value to other indigenous cultures. The following overview of the chapters will provide a plan for this thesis.

Organisation of the Research

This thesis is organised into the following seven chapters.

Chapter One - Introduction

This chapter outlines the reasons for taking up this research. It provides a brief overview of the topic; aims and objectives that led to the research questions; and reflects on the value of the research and how it will benefit Māori in education.

Chapter Two – Literature Review

This chapter presents a review of literature associated with the Māori learner to expose the gaps that exist in the knowledge and research base of this important area of study. The chapter concludes with a statement problem.

Chapter Three - Methodology

This chapter outlines the research problem and justifies a research methodology used to collect the data. The methods used for data gathering are outlined and ethical considerations explained.

Chapter Four - Vignettes

This chapter illustrates a series of vignettes which gives insight into the lives of the eight Māori professionals who participated in this research.

Chapter Five – Findings and Data Analysis

This chapter outlines the research, presenting an in-depth critical analysis of the results and findings from Māori professionals. Where appropriate links are made to the literature and integrated within the analysis.

Chapter Six - Discussions

This chapter presents identified themes that emerged in the literature review, and the findings. The findings are substantiated through literature and direct quotes from participants. Discussion of the relevant literature, the analysis developed and the results provides valuable elements of engagement.

Chapter Seven – Conclusions and Recommendations

This chapter concludes with the main findings, limitations and future research also a summary of the themes that emerged through the research process and recommendations.

Conclusion

The following chapter contains a comprehensive examination of e-learning, the Māori learner, and instructional technology, design, and delivery within an e-learning environment will be discussed.

Chapter 2
Literature Review

Introduction

This review begins by critically examining e-learning (a ‘technology-rich’ learning environment) in tertiary education in Aotearoa New Zealand; the Māori learner; and more explicitly the e-learning environment. Furthermore, this literature will examine aspects of instructional technology, design, and delivery used in an e-learning environment.

The creation of new technology has influenced society at large and in particular means of teaching and learning. As Khine & Fisher (2003) have stated, with the advent of the microcomputer in the 1980s, the creation of the Internet, and the development of the World Wide Web (www) have influenced all aspects of modern society including learning. Moreover, this new paradigm of learning is used to deliver new teaching and learning opportunities for tertiary institutions, tutors and tertiary students. More importantly, this process of learning provides flexible learning alternatives for Maori tertiary e-learner (Porima, n.d).

E-learning in New Zealand

In a digital age when the Internet has become the primary source of communication, e-learning (*e* – electronic) is arguably in modern times the first teaching and learning delivery medium to challenge all forms of tertiary education (Nichols, 2007). Moreover, with a shift from the traditional classroom to a ‘technology-rich’ learning environment, e-learning has become a global phenomenon that delivers education electronically (Roblyer, 2003), and one which provides flexible learning alternatives and opportunities for tertiary students to study where, and when they like; in a self-paced manner; and in a self-directed way.

In the past, the term e-learning referred to any method of learning that used electronic delivery methods, now with the advent of the Internet, e-learning has evolved and the term is now most commonly used to refer to online courses (The Ministry of Education, 2005). Arguably, this epistemological shift in paradigms of learning has prompted tertiary institutions throughout Aotearoa New Zealand to look at how e-learning programmes are designed and delivered to tertiary students.

Accordingly, a report by the Ministry of Education (2003) supports this view by revealing the need to change the delivery and practices within the education system by integrating technology into their programmes in order to cater to the diverse needs of diverse students. Moreover, it is essential to examine how technology and teaching practices are designed and applied to enhance and engage learning (Pagan, 2005).

Value of Education for Māori

Opportunities to learn in this new paradigm have increased the potential to provide education to tertiary institutions on a global scale, and more importantly it has given Māori the opportunity to advance exponentially within an educational and technological context.

A report released by the Ministry of Education (2004) showed a significant increase in the number of Māori students participating in tertiary institutions however more importantly results revealed that the Māori participation in e-learning programmes are very low. This is an indication that some Māori learners have welcomed technology into their learning experience, whilst others have resisted its introduction. Porima (n.d.) reminds us that tertiary institutions need to promote Māori involvement in e-learning, and design e-learning programmes that are conducive to the needs of the Māori e-learner, if there is any chance of increasing Māori interest.

Significant opportunities for learning offer the promise of extending the role of lecturers, and improving learning outcomes for diverse groups of learners by tapping into the powerful tool of the Internet (Holsapple and Lee-Post, 2006). As convenience, flexibility, and adaptability constitute an e-learning environment, we must consider how instructional technology, design, and delivery can enhance learning for Māori. Therefore, we must determine whether or not the influence of tikanga (Māori values and principles) can have a positive influence on the engagement of Māori professionals in the learning process.

Bridging the gap between tikanga Māori and technology can be a simple process that can go unnoticed by those involved in the teaching and learning process. A report released by Porima (2004) for the Institutes of Technology and Polytechnics of New Zealand (ITPNZ) identified the need to merge Māori epistemology and tikanga with technology for the purpose of engaging more Māori in e-learning. Engaging Māori in e-learning will allow them to attain technical skills and knowledge and provide a myriad of opportunities. On that note, Pallof & Pratt (2003) state that no matter how difficult a programme may be tertiary students are of the belief that they are all in this together. This does not exclude Māori who live as a collective (whānau); share experiences; respect and support others; and learn together as a group (Mead, 1996).

The Māori Learner

We may begin by asking, who is Māori? Is it one that is fluent in Te Reo Māori, born and raised on the marae (ceremonial meeting place), immersed in tikanga Māori, or one who was born in the city, and raised without knowing their language, or cultural heritage? Therefore, to gain an understanding of how to engage the Māori e-learner, it is necessary to examine the Māori learner.

Māori, the indigenous people of Aotearoa New Zealand are unique in history, dialect and peculiarities yet differ from individual to individual and from context to context. “No two are exactly alike” (Purnell, 2006). Therefore, to engage the Māori e-learner, one must define the Māori learner in his or her context. Accordingly, a report released by Maharey (2002) classified the Māori learners into four typographies based on their “*disposition to and feelings about being Māori.*”

Maori Typology

Each group is identified as (1) cultural inheritor; (2) cultural seeker; (3) cultural dissenter; and (4) cultural rejector as displayed in the following diagram below.

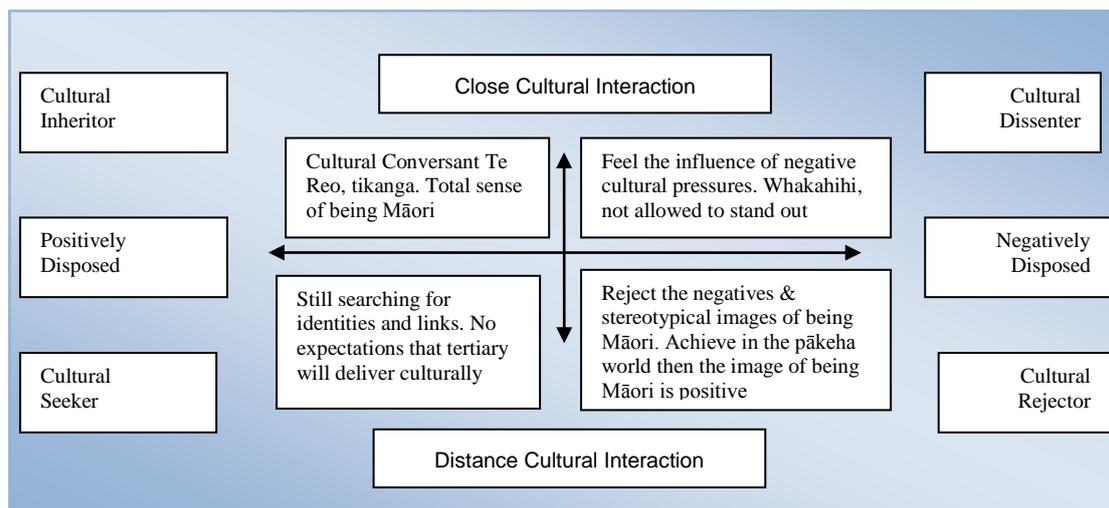


FIGURE 2.1 A classification of the four Māori typographies based on their disposition to and feelings of being Māori (Maharey, 2002).

This diagram illustrates the cultural inheritor, who is conversant in Te Reo and tikanga Māori, and one who embraces Māori culture; a cultural seeker continues to search for their identity and links; a culture dissenter feels the influence of negative cultural pressures; and a cultural rejector, reject the negative and stereotypical images of being Māori (Maharey, 2002). As Māori differ in belief and attitude, then so too must their learning preferences and styles differ.

The Māori E-learner

Little has been written about the Māori e-learner. For the Māori learner who finds their way to tertiary education, there are many opportunities to pursue individual interests and to extend learning to a higher level however to engage in a learning environment which separates them from the tutor and peers is unnatural for them.

Accordingly, Prensky (2001) states that Māori need a good reason to get online. Therefore, by making sense of e-learning and understanding its value, Māori can move forward and succeed in this environment.

Face-to-face teaching is far more collaborative and empowering for students (Roblyer, 2003). For Māori tertiary students enrolled in an e-learning environment, being isolated from the rest of the class can create much stress and anxiety especially for Māori who prefer to learn and interact in a face-to-face (kanohi ki te kanohi) environment. Furthermore, Smith (1999) concurs that this is a more preferred approach that is most suitable to Māori students also. Therefore, to learn with a purpose and a context and to promote e-learning as a successful avenue to enhance learning for the Māori e-learner, it is important to maintain face-to-face contact with their peers (Mead, 1996; Smith; 1999) anyway possible.

These seemingly diverse views of what constitutes success in e-learning prove to be a step forward for the digital Māori. Arguably, the convenience, flexibility, and adaptability of e-learning offer a lot of potential for the Māori e-learner to excel in this environment.

Whether they are fluent in technology (digital native) or speak with an accent (digital immigrant) the Māori e-learner must recognise the true value of engagement by taking ownership of their own learning, if they are to survive in an isolated environment, alienated from their peers (Prensky, 2001).

Moreover, to encourage group discussions on a regular basis, and to develop a rapport with other group members, and to share knowledge and resources freely helps generate a culturally responsive community (Bishop, and Berryman, 2006). In effect, it assumes that students are fully supported academically, pastorally and culturally throughout their term of study. Moreover, Porima (n.d.) argues that the e-learning environment is foreign to Māori as they prefer to learn with their peers and their tutor at the front of the classroom, so therefore much dedication, commitment and pride is required by Māori students to engage in this isolated context.

Communities of Learning

Engagement in a collaborative learning process forms the foundation of a learning community (Roblyer, 2003). In addition, e-learning communities mirror traditional classrooms and welcome an understanding and respect for cultural diversity (hooks, 1994) which are an essential component of an online course. Moreover, structured learning communities that facilitate activities and interaction provide a socially and academically engaging experience for tertiary students. Furthermore, it can be stated that communities of learning are integral to the engagement of students which thrive on differences. Therefore, this seems logical within e-learning environments that change must take place, by finding appropriate ways of meeting the diverse needs of indigenous students, by allowing them to participate freely and confidently (hooks, 2000). Finally, even the appreciation of diversity, which binds people together, is all part of creating a culturally responsive atmosphere.

Culturally Responsive Environment

“Māori have a way of looking at the world, talking about the world, and making sense of the world that is uniquely their own” (Porima, n.d, p.2). To design a culturally responsive e-learning environment for Māori is to know Māori. Moreover, to know how they live and more importantly how they prefer to learn, is needful if the tutor is to reflect the richness and diversity of tikanga into the design and delivery of a course in order to create a learning environment that is safe, supportive and familiar to them. For the Māori e-learner, being immersed in a culturally diverse community is essential to feeling that they can fit in to the environment comfortably (Smith, 1999).

To have empathy and understanding toward things Māori and to incorporate aspects of culture must be considered in the design and delivery of a programme, if a tutor is to capture the attention and respect of their students (Skills New Zealand, 2001). Therefore, it is evident that the tutor plays a significant role and responsibility in creating a room of inclusiveness, where the cultural background of Māori are considered and respected.

In spite of the many distractions or challenges experienced by Māori tertiary students for many Māori who choose to study online and in isolation can be a frightening experience. The fear of being separated from the rest of the group is always apparent, and can generate anxiety, discouragement, boredom, and frustration (Bishop & Berryman, 2006). However, Porima (n.d) argues that it is essential that the Māori e-learner remains focused on his or her goals, if they are to overcome these anxious moments. More importantly, they must learn to take appropriate measures to address any distractions, and focus on incentives that are encouraging and interesting, otherwise the temptation to give up and walk away or to attend to a whānau crisis or personal issue, can easily take precedence.

Values and Principles of Tikanga Māori

Pallof (2005) suggests that learning environments are formed around issues of identity and shared values, and like any environment there must be values and principles which underpin such a cultural context.

In support of this evidence Mead (2003) argues that Māori values and principles (tikanga) such as whakawhanaungatanga (establishing relationships), manaakitanga (hospitality, caring) should be embraced and upheld respectfully. Therefore, we can only assume that Māori tertiary learners do not come to university with an empty school bag but instead they bring with them their kete of knowledge, aroha (love), and tautoko (support) of their whānau, whereby integrating their home-life with their school-life.

The influence of whānau may be the driving force behind the participation, retention and success of a Māori e-learner. If this is so, then the support of whānau should be encouraged in their learning especially during times when they are isolated from the rest of the group (as cited in King, 1992). More importantly, it is the principle of whanaungatanga which is made up of the Māori term for a family (whānau), ngā (extended) and tanga (everything about relationships) that bonds and strengthens the kinship ties of a whānau (Ritchie, 1992; Pere, 1994). Moreover, Mead (2003, p. 34) extends this principle to include “*classmates and colleagues.*”

Therefore, learning in a collaborative context is a natural process for the Māori e-learner and for this reason establishing relationships via the Internet can be an engaging experience (Tapine and Waiti, 1997).

Instructional Technology, Design and Delivery

The miracles of modern technology have brought efficiency into our lives in ways not dreamed of a generation ago. Moreover, it is Selinger (2004) who describes technology as a catalyst which delivers education on a global scale and in particular to tertiary institutions. Furthermore, Selzer & Schefe (2006) suggest that technology can create flexible and confident learners to enrich their lives and learning experiences in ways that are familiar to them.

The Internet is the primary source of communication which brings a new wave of rich multimedia applications and digital tools to deliver education over computer networks (Roblyer, 2003).

On that note, it is critical for the Māori learner to have a certain level of competency and confidence working with computers or to have technical support close at hand just like non-Māori. As McSporrán (2004) and Roblyer (2003) point out that students enrolling on an e-learning course with limited computer skills need to up-skill themselves or they will invariably struggle.

Knowing how Māori learners think and how they prefer to learn gives insight into the way a tutor should deliver their courses. In all disciplines tutors need to expand their teaching repertoire and expertise, by engaging in innovative activities, using a wide range of technology tools, in a variety of contexts in order to cater to the diverse needs of students (hooks, 1994). It is for this reason that tutors must be open to change, be caring and be sympathetic toward students and be prepared to go the extra mile, if they are to make a difference.

Constant changes to the learning environment have significant implications on tutors as well to up-skill themselves with technology (McSporrán (2004). Moreover, Sheets (2005) argues that tutors will require adequate training online if they are to create a positive, equitable, and democratic learning environment. However, the pressure and expectations placed on teaching staff to adapt to change and up-skill themselves with new technology-based tools is not always favourable. As McSporrán (2004) points out some may resist or even reject the idea of having to learn new skills, or implement technology into their course work. For this reason, it must be said that a tutor must be willing and prepared to teach in this manner if they are to make a positive influence on the Māori e-learner.

The pressure to integrate new teaching strategies and methods into the teaching process poses many challenges and sometimes results in “staff becoming resistant to change and dynamically conservative, especially in diverse environments” (McSporrán, 2004, p.3). In contrast, technology can provide tutors with a whole range of tools and applications that can enhance students understanding and engagement, and improve the quality of the learning experience for the e-learner (Roblyer, 2003).

In addition, there are many factors that guide or motivate tutors to engage Māori e-learners. Instructional technology of a course alone will not change teacher’s attitudes. As Gay (2000) suggests culturally responsive teaching which includes teacher caring; teacher attitudes and expectations; and culturally informed classroom discourse are all important features that tutors must acquire and need to practice, if they are to engage their students. However, it takes more than just the qualities, attributes and practices of the tutor to engage Māori. As Tapine and Waiti (1997) mention that tutors must be seen to be practicing these principles, if they are to support them and help them to achieve their goals, especially within the learning environment in which they live and learn.

E-learning is directed by pedagogy, and empowered by technology to support different styles of learning (Nichols, 2007). Implicit in this, is the notion that traditional teaching styles, pedagogical strategies and methods will need to change to comply with e-learning. Ako, a reciprocal relationship in the teaching and learning process is described by Pere (1994) as the culturally preferred pedagogy or a way to promote teaching and learning practices that are unique to a Māori.

e-Ako is a pedagogical philosophy which underlies an online teaching and learning environment, and enables Māori to follow a similar concept by using technology. Accordingly, Webber (1996), it is an acceptable practice for the learner to shift roles and become the teacher and for the teacher to become the learner” (p. 113). This Māori pedagogy is an active process which encourages class interaction within a group, inviting participants to share their own personal knowledge. Therefore, it is important for the tutor to marry the collective responsibility with the individual responsibility, so that everyone participates fully in group dialogue, and is not excluded from the e-learning whānau (Ritchie, 1992).

As technically advanced people become enriched by the knowledge they create, there is the need to provide pedagogical strategies and adequate support mechanisms to help students improve their academic performance (Ryder, 2008).

Supporting evidence from Porima (n.d.) who argues that, Māori can succeed in an e-learning environment, as long as there are adequate support mechanisms in place for them to access. With this in mind, the struggle for Māori who are unaccustomed to this way of learning must find ways to overcome their fear and anxiety of studying in isolation and focus on activities that they believe may engage and motivate them to learn.

“Learning is best accomplished when the learner is actively engaged in the process” (Klemm, 1998, p.62).

A report released by McFarlane (2004) defines learning as a social and cognitive process, and unless this sociability is guaranteed by online materials, only the most motivated students will persist.

For this reason, McSporrán (2004) strongly encourages tutors to use motivational learner-centred methods; be socially inclusive; enthusiastic; positive; and communicate regularly, if they are to engage them in their learning.

In addition, it is the tutor who is responsible for ensuring that they facilitate teaching effectively (de la Harpe and Radloff, 2006). Moreover, from a traditional Māori perspective, Vasil (1990) argues that the Māori holds a guide or facilitator in high regard, and shows them the same respect as they would their elders (kaumatua or kuia). Notably, a tutor is seen as a facilitator in an e-learning environment and could therefore be looked upon with the same respect. Furthermore, it is essential that e-learners receive positive and sufficient feedback by the tutor. It is with this understanding that Weimer (2005) states having immediate feedback from tutors and other class members motivates students to continue with their studies.

In addition, Porima (n.d.) agrees with this notion that Māori students believed getting feedback from their tutors straight away was good because they were able to get on with their work straight away. It is evident that personal attention, informative feedback, and praise are examples of techniques that increase participant satisfaction and engagement. Therefore, the greater the interactivity in an online course, the more likely students will remain on the course. Accordingly, Wanstreet (2006) argues that researchers and practitioners are in general agreement that interaction is a key variable in learning and satisfaction with e-learning courses.

Active learning generates excitement and enthusiasm within the class and generates an in-depth level of understanding of the course content. In addition, it is important e-learning courses must be exciting, stimulating and motivating if they are to capture the enthusiasm and interest of the Māori e-learner and engage them in their learning. It is therefore important to encourage students to participate in learning activities more frequently.

Constructivist e-learning

Learners construct knowledge by understanding new information, engaging in social activity, and building on their current understanding and expertise (Anderson, 2002). As Porima (n.d.) reminds us, Māori come with their kete (basket) of knowledge, and with that knowledge they can begin to construct new meaning as they develop new skills individually and socially. Constructivism is an active process which Smith (1999) states suits the Māori learner as it allows students and tutors to build meaning, understanding, and relevant practice together.

Social Learning Spaces

Learning is a social activity as well as a cognitive one, and unless this “sociability is guaranteed by online materials only the most motivated students will persist. According to Karabenick and Collins-Eaglin (1997) developing self-regulation is a significant aspect of student engagement and places a high value on understanding; self-efficacy; and uses cognitive strategies such as organisation, elaboration and critical thinking.

The space in which learning takes place is no longer just physical but it is virtual as well. The virtual space is an entirely new environment where people can meet using networked digital devices. Virtual learning space refers not just to synchronous, highly interactive functions (such as chat rooms, discussion forums, blogs, and wiki's) but also to asynchronous functions such as email and discussion thread (Dickey, 2004).

As more people are now being drawn to the Internet, informal learning spaces are conducive to working spontaneously and deliberately. More importantly by building spaces for learning has always involved collaboration among a variety of groups, including students of which whanaungatanga is most suitable to the Māori e-learner.

However, to create powerful learning environments based on space Māori professionals believed that features of social networking is becoming more and more prevalent and useful for people to communicate globally.

Conclusion

This chapter shed light on the epistemological shift in paradigms which have changed the way we teach and learn today. There was an understanding throughout the literature that effective teaching blended with technology could play a significant part in engaging the Māori e-learner. Furthermore, the literature indicated that there was a clear indication that a tutor's presence in the classroom was preferred. Students from all backgrounds were faced with the difficulty of having to study in an environment where their peers were not physically close at hand. For Māori tertiary students it was said that they perform better in a face-to-face environment or in the Māori term, *kanohi-ki-te-kanohi* where the tutor was more accepted and appreciated by students.

Chapter 3

Methodology and Methods

Introduction

The central aim of the research is to investigate what engages the Māori e-learner using a qualitative approach to examine perceptions on how to engage Māori in e-learning. As has been shown in the previous chapter, little has been written about the Māori e-learner. For this reason, this research seeks to reveal the trustworthiness about what engage Māori in an e-learning environment.

This chapter introduces and outlines the methodology used to explore the various approaches to gathering and analysing data in this research. It then presents a number of reasons for using a qualitative research paradigm to extract rich data. The process for selecting interviews and focus groups in this research was outlined and the limitations of qualitative design were thoroughly examined. Finally, the data gathering methods adopted for the research will be explained and justified and consideration was given to any ethical considerations.

Research Methodology

Action Research

Action research is an individualistic focus, on teachers' investigating academic reflective practice to enhance and improve the quality of higher education (McNiff, 1998). It is a form of self-reflective investigation that will be used as an effective step-by-step process to explore areas of practice; identify a problem; gain a better understanding of a problem; and make a difference.

The researcher chose an action research approach to observe the behaviour of the participants.

The relevance of action research is to identify and examine the problem in its context. The novice researcher attempted to find ways to engage the Māori e-learner by taking an action research approach to understand the complex process in a practical way and bring about change through self-reflective investigation.

The fundamental principle of this approach is to gain an understanding into the underlying values and practices of Māori participants' preference when engaging in an e-learning environment.

The Sample Size

Recruiting participants for this research project heavily relied on the researcher using her own networks to draw in participants. The sample size determined by this qualitative study was judged adequate by the researcher. Eight participants were invited to participate in this research are Māori and were born and raised in both rural and urban areas of Aotearoa New Zealand. They were invited to participate on the basis of four readiness measures: academic preparedness, cultural competence, sharing Māori information knowledge and their learning preference toward engagement. Their driving ambition to succeed in higher education was also acknowledged.

It was expected that these Māori professionals would provide valuable input suitable and appropriate for this research, by bringing with them their personal views and epistemologies that differ from that of the traditional Westernised view of higher learning of which McLoughlin and Oliver (2000) discuss. Notably, this research was used to gain an in-depth knowledge into the thoughts, attitudes, beliefs and experiences of Māori professionals through the interviews and group interviews sessions. As Māori are the focal group, this qualitative research will be conducted by Māori, for Māori. Relevant to the methodology adopted within this research, the Māori researcher will focus on indigenous practices, attitudes, and beliefs significant to the Māori learner.

The philosophy and practice of being and acting Māori epitomises a true meaning of whakawhanaungatanga. The values and principles of the Māori researcher acknowledges this practice as a research strategy bringing together three elements, (1) establishing and maintaining relationships (2) establishing relationships in a Māori context, (3) researching values and principles; physical and spiritual beliefs; and ethical conduct, all of which are contextually and historically grounded (Ritchie, 1992).

With these strategies in place, it is the intention of the researcher to ensure the Māori participants are all treated fairly and respectfully throughout the entirety of this study. This philosophical approach is both qualitative and interpretive, and will be used to marry this research and action together (Cardno, 2003).

Following the spirit of action research, the researcher will adhere to an iterative process involving three phases to gain a better understanding of what constitutes success in an e-learning initiative: reconnaissance, intervention, and evaluation.

Research Design

Action Research Model

Cardno and Piggot-Irvine's Model of Action Research was used as a framework for this research. The interest of this research lays in constructing accounts of Māori professionals personal views on how to engage them in an e-learning context and their reaction towards studying in a culturally responsive e-learning environment. Qualitative data gathering techniques will be used as a visual overview of the data collecting methods aligned to the PRAR model (Piggot-Irvine, 2002).

The Action Research process

Action research involves critical inquiry into the practice of individuals or groups and is built on the assumption that complex social systems cannot be reduced for meaningful study. In essence, the goal of action research is to focus on resolving a problem and understanding a complex process rather than prescribe a universal law. The spirit of action research, this study adheres to an iterative process involving three cycles to gain a better understanding of what constitutes success in learning initiatives. Action research is a unified process comprised of three main cycles; 1) Reconnaissance to examine a problem, 2) Intervention as the implementation of change, and 3) Evaluation of the implementation of change, all of which provide a unique approach to expose, examine and improve a problem.

The research design applied and executed throughout this study is the Problem-Resolving Action Research (PRAR) model (Piggot-Irvine, 2002). This model allows the researcher to; 1) critically examine the current e-learning environment as well as draw upon current literature relevant to the Māori e-learner; the e-learning environment; tikanga Māori and engagement. (Cycle 1: Examining an existing problem, 2) propose and implement an intervention to improve the sustainability of engaging the Māori e-learner, (Cycle 2: Intervention and Implementation), 3) critically evaluate how effective the interventions of the e-learning programme will be, (Cycle 3: Evaluation and implementation of change).

The PRAR model will provide the framework for collecting and analysing rich data (Bryman, 2004); addressing key objectives, specific aims and research questions of this research project.

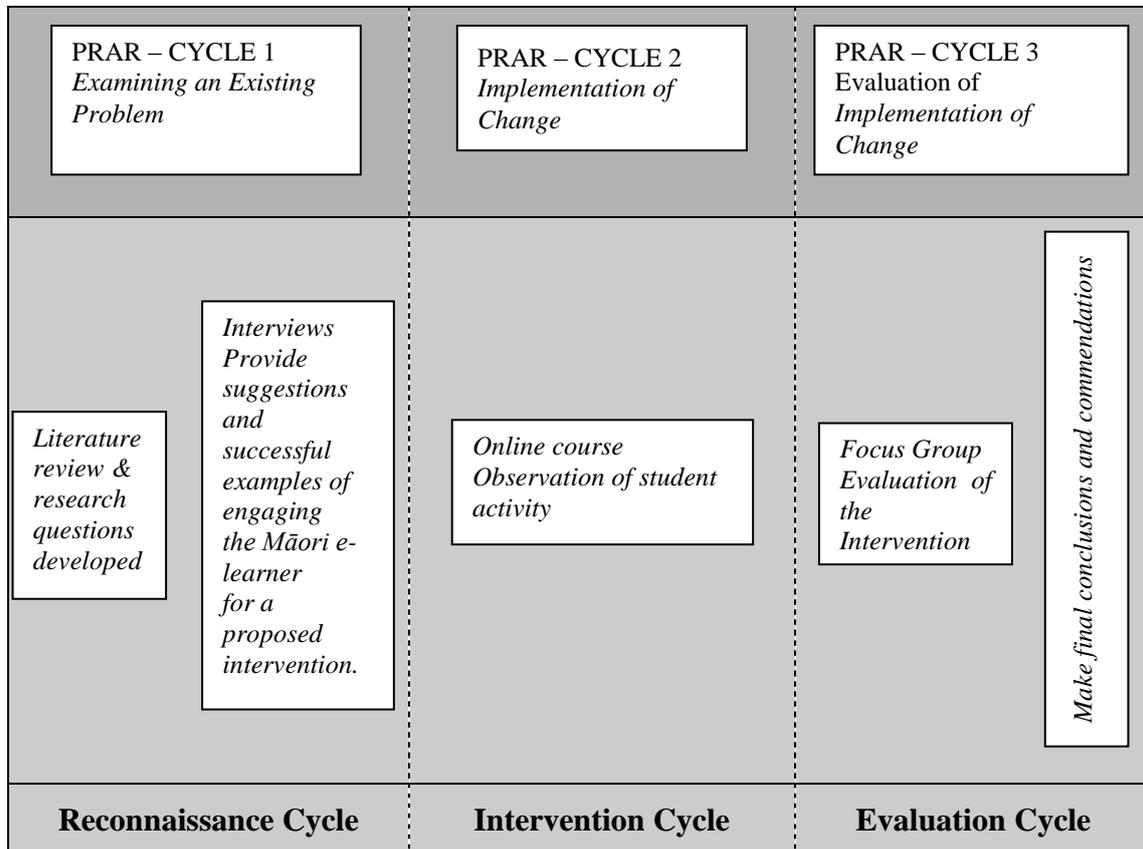


Figure 3.1 Data Collection Method – Aligned to PRAR model.

Cycle One: Reconnaissance – Examining an existing problem

The first action research cycle was launched with a special focus on identifying the problem, implementing change and improvement. This phase involved gathering data and checking the validity and appropriateness of that data in order to establish and explore what actions were taken. Once the problem was identified, a full reconnaissance followed. During the reconnaissance stage the researcher collected valid data by conducting personal interviews with each Māori professional. To follow, a summary of the data gathered was collated to formulate informed decisions prior to the intervention cycle. Furthermore, sufficient time was allocated for self-reflection regarding each situation. Details of a description and explanation were also recorded at this phase.

Cycle Two: Intervention – Implementation of Change

Intervention and change was where the most ‘action’ occurred. This phase was carried out by conducting a two week online tutorial during which the researcher was able to gather “live data from live situations” (Cohen, Manion, & Morrison, 2000, p. 305). During the intervention stage the researcher monitored the behaviour of the participants over a two week period. This was to enable the researcher sufficient time to observe and reflect on what will take place, and to discover things that participants may not have freely talked about in their interviews that might otherwise be unconsciously missed.

Cycle Three: Evaluation – Evaluation of Implementation of change

The evaluation phase determined whether or not the desired improvements were met and to what extent. The researcher re-examined and reflected on the data and concepts simultaneously and interactively (Neuman, 2003). From this point, the researcher looked at ways to measure the data based on the outcome, and then developed and implemented a plan of action.

Two group interview sessions generated a wide range of personal views and experiences from eight Māori participants. Feedback received was articulated into achievable plans of action. Additionally, the need for triangulation of the data was important at this point to identify regularities in the data by comparing and identifying recurring results Gay (2000). The researcher observed, questioned, and participated in this session, and the participants' responses were recorded. The data were collected during the tutorial through verbal feedback from participants, observation of online participation and activity, and student evaluations. Findings of these procedures were recorded.

Research Methods

The Approach

A holistic approach is sought (Keeves, 1997) where there is no one right approach to doing research. Instead, the researcher was aware that each subsequent methodology had its strengths and weaknesses and with this understanding, selected the most appropriate one for a particular purpose and context (Johnson & Onweugbuzie, 2004).

A pragmatic approach began with the research questions and hence research methods were chosen which were most likely to provide useful data for each unique context. For this reason, the researcher chose to move between a Westernised and Māori environment underpinned by strong values and principles.

Integral to Māori practice and protocols, it was the intention of the researcher to establish a warm, friendly relationship within a natural, relaxed, and secure setting suitable for each Māori professional to enable them to speak freely and comfortably within their respective surroundings and to embrace rich data unique to Māori. Additionally, Māori professionals who were invited to participate in this research were primarily drawn from working in health, or tertiary sectors.

The researcher considered blending a kaupapa Māori methodology approach to this research. However, it was Smith (1996) who stated that for any Māori researcher who does not think Māori should therefore not use kaupapa Māori methodology.

For this reason, and having critically examined this paradigm, an action research approach was found to be more useful to the researcher's purpose.

Research Process

Methods of Data Collection

Selecting the appropriate research methods of gathering rich and valid data that was suitable and appropriate within this methodology was crucial to generating honest feedback from participants in this research.

An important aspect of this research was to understand how participants' perceptions of incorporating tikanga Māori into an e-learning environment could engage them in the learning process. The researcher discussed and negotiated the terms of the research, built a rapport, sought full participation, conducted individual interviews, observed the online involvement and interaction of participants during the intervention cycle, conducted focus groups, and evaluated the whole process.

Māori professionals were keen to support this research having expressed the potential benefits of working and studying in an e-learning environment. Upon written consent, Māori professionals were interviewed with the length of each interview ranging between one to two hours.

Research Design

The aim of this action research project is to examine the problem, gather appropriate data related to the problem, analyse the specified data through critical reflection, and then provide possible changes and improved solutions to the problem.

Sample demographics

| | | | | |
|-------------------------|---------|---------|-------|----------|
| Māori professionals n=8 | Urban 1 | Urban 2 | Rural | Gender |
| | 2 | 4 | 2 | 2 Male |
| | | | | 6 Female |

Urban 1 refers to cities with a population of 30, 000+.

Urban 2 refers to cities with a population of 1000 – 3000.

Rural refers to towns with a population of -3000.

Semi-Structured Interview Analysis

These individual interviews were conducted during the reconnaissance phase of this research and used as a key method to provide a flexible framework in order for Māori professionals to be able to define their own experiences (Cohen et al, 2000).

Multiple perspectives were sought using a face to face semi-structured interview approach with Māori professionals to determine the expectations, experiences, and perceptions to gain a deeper understanding on e-learning and what engages their learning.

As the purpose in interviewing Māori professionals was to gather rich data about the perceptions of engagement within the e-learning context, the features of these interviews particularly featured included open-ended questions within an open interview schedule.

Open-ended questions used in the interviews were discussed appropriately sequenced, and asked in many different ways to extract as much information from individuals. Both structured and unstructured questions were used to extract each individual's thoughts, feelings and experiences of engaging in an e-learning process. Sufficient time was given for participants to reflect and respond to questions. As each session drew to an end, close-ended questions were used to round up the interview (Krueger, 1994). Details of these interviews were captured on tape to ensure that no data would be lost.

Observation

The first initial intent of the researcher was to create a two-week Te Reo tutorial using the learning management system, Moodle.

Three weeks was spent on the design, development, and implementation of the online tutorial. Participants were required to participate in the online tutorial for fifteen minutes a day, however, due to unforeseen circumstances, the Te Reo lecturer who the researcher had met on several occasions to discuss how this could be done and who had agreed to provide resource materials and advice on what Te Reo lessons to implement, resigned from his position during the data collection process.

Due to time restraints and the resignation of the Te Reo lecturer, failure to come through with relevant course material proved problematic for the researcher who instead created a site to inform people on how to engage the Māori activities developed from feedback received from each individual interview and literature described in the previous chapter.

Feedback received from each individual interview was included in the tutorial. Five of the eight Māori professionals' were invited to participate in the online forum. The remaining three excused themselves as they were unable to put in the time.

The researcher employed explicitly formulated rules for the observation and recording of behavioural themes. These rules informed observers about what they should look for and how they should record behaviour. Participants' accessed and read comments, participated in online discussion, and participated in activities, however due to their busy schedule some chose only to critique the design of the site and activities. Responses to the site were well received. Findings from the online forum were gathered and analysed by the researcher. Finally, an analysis of the findings provided some clear guidelines and valuable insight into the design and presentation of an online course.

Focus Group/Group Interviews

Focus groups were designed to clarify and build on data collected from previous interviews. Krueger (1994, p.139) claims that “a focus group analysis is guided by certain principles surrounding the nature of analysis, what it is, and how it is conducted.” For this reason, the group interview sessions were used to elicit a range of views within an action research methodology. Similarly, questions were well thought out and open-ended questions were used to allow participants to ponder and establish the context of the question in order to allow participants within each forum time to respond.

Due to the difficulty of trying to bring all eight participants together at one given time, two focus group sessions were held at different locations.

The fundamental requirement for the group interview session was to establish an open, non-threatening environment and to extract rich and valid data from each Māori participant. The researcher recognised the success of these focus groups was heavily dependent on the quality of the questions. With this in mind, each session began with an introduction and an overview of the purpose of the hui. As each session drew to an end, close-ended questions were used to round up the session (Krueger, 1994).

The first hui (meeting) took place on a Friday night, at an Auckland restaurant. This environment proved most favourable for participants. The maximum time for this session was two hours. The second group interview session followed a few days later and was carried out at a tertiary institution.

Tikanga (protocols of respect) were observed both formally and informally during each group interview for the purpose of creating a responsive atmosphere, establish ground rules, and to set the tone for discussion. Much of the success of group interviewing can be attributed to the introduction. Notably Smith (1999) argues that the first few moments in the group interview discussion are critical in establishing a close relationship with Māori at the start of the session.

The Māori researcher brought all participants together in the spirit of 'wānanga' to discuss and reinforce their views and preferences to e-learning. A verbal evaluation from each individual was conducted to gain a clearer insight into their interpretation and preference to participate and engage in an e-learning environment. This part of the process took place at the end of each group interview. Kruegar (1994, p. 53) argues that, "quality answers are directly related to quality questions", and all questions will be well thought out, and appropriately sequenced. The researcher examined and reflected on the data and concepts simultaneously and interactively (Neuman, 2003).

From this point, the researcher gathered, examined, and analysed the rich data collected from each individual interview and group interview session to establish what emerged from the data analysis. Cardno (2003) refers to this investigation and analysis phase as a way to shape a strategy for change.

An examination and analysis of the feedback received from the participants was gathered and collated and sorted, then examined to detect themes of association. Tape-based analysis approach will be used to develop an abridged transcript of the relevant and useful portions of the discussion. Note-based analysis was applied as the researcher used audio as a backup.

Data was then collated to extract key themes to form the basis of the data analysis and each was read through thoroughly to gain a sense of the interview as a whole. Following the Māori participants' interview during the first phase of the research, an initial list of common sub-themes emerged. The individual interviews and group interview sessions were transcribed, read, and analysed several times to gain some initial impressions and comparisons within and across each of the interviews (Bryman, 2004).

A fluid process of selective or focused coding followed, which required frequent revision (Bryman, 2004) where codes were mapped and connections were made within and across the categories, and combined to form new codes.

This coding system enabled the data from the original transcripts to be cut and pasted under headings within the broad emerging themes. Key phrases from the interview transcripts were cut and pasted and sorted within these categories using a word processing programme. Finally, transcripts were emailed to each participant for verification, to ensure that each interview was correctly transcribed.

Following each focus group session, the researcher reflected and analysed the data gathered, from which the commonalities and differences were examined. Following this, an audio tape was used in the individual interviews and focus group sessions, whereby rich and valid data was collected, transcribed and recorded yielding a large corpus of qualitative data (Bryman, 2001). All questions were carefully considered in accordance with the tertiary institution’s code of ethical conduct where the researcher studies.

Data Collection Tools

To critically examine what engages the Māori e-learner during the reconnaissance stage of this research eight participants were selected.

Table 3.2 Action research stages and data collection tools used at each research stage.

| Action Research Stages | Data Collection Tools |
|------------------------|---|
| Reconnaissance | Interview Analysis – Taped based Ask questions to individual participants Group Interview |
| Intervention | Online Tutorial - Moodle Observe online Ask kanohi-ki-te-kanohi online Group Interview |
| Evaluation | Group Interviews - Taped interviews Evaluation of the instructional technology, design, and delivery of e-learning course. |

The relationship these groups have to the nature of e-learning will be further discussed in the discussions chapter of this thesis.

Data collection procedures

Looking through the lens as a Māori researcher, mutual respect, mutual benefit and integrity was upheld during this process and transparent intentions toward Māori participants is appreciated and acknowledged throughout the data collection process.

Data processing and analysis strategies

Data analysis is best conducted as an early and ongoing research activity to allow the research design to emerge over time, suggesting the direction for subsequent data collection efforts.

To organise, manage, and retrieve data in this research was most important which is highly dependent on the way the data was coded. As mentioned by Bryman (2001), coding encompasses a variety of approaches to and ways of organising qualitative data. Attaching codes to data and generating concepts have important functions in enabling the researcher to rigorously review what was articulated in the data. Although this research was about uncovering and discovering each Māori professional's preference of engagement online, the process of analysis based on a research problem emerged from the role of the researcher.

The analytical procedures in this research underpin the coding procedures which established links of various sorts. Accordingly, coding was used as an approach to organise, retrieve, and interpret the qualitative data Coffey & Atkinson (1996, p. 27). Moreover, they represented the links between the "original raw data such as transcripts, and the researcher's theoretical concepts." Furthermore, it was the segmenting and coding of data that was used to uncover various aspects of data that enabled the researcher to reflect and generate ideas. Important analytic work lay in the management of the data.

A computer-aided data analysis program, N7 was used to analyse themes, code data and categorise results, then organised, categorised. This programme brought together the rich and valid data retrieved from the research and allowed the researcher to nest codes, (Krueger & Casey, 2000).

The researcher formulated the ideas, and assembled these concepts in order to develop theoretical ideas (Coffey & Atkinson, 1996) as mentioned above.

Working within an action research methodology, the researcher was able to conceptualise the data, raising questions, and providing answers about the relationships among and within the data. Finally, at the end of the phase, the data was gathered and securely locked away in a filing cabinet for five years. The researcher is the only person with a key, and the only one who has access this information.

Trustworthiness and Authentication

One of the key principles of this research was to acknowledge and validate the Māori was given to the way of life experiences and cultural beliefs which substantiate the agency of a Māori voice. Additionally, it was important to establish integrity and trustworthiness based on data that was authentic; credible; transferable; dependable; auditable; reliable.

Cultural trustworthiness shaped this study in a culturally sensitive way (Cohen et al, 2000). As the researcher knew most of the Māori participants a relationship of trust was already established.

Careful attention to the way in which the data was collected, analysed, interpreted, and more importantly how these findings were presented was made. To validate this information and to ensure the integrity of the research method, participants were able to look over the evidence collected from the qualitative research, and were able to make changes to the data before the final report was written up. As mentioned earlier in this study, a variety of techniques were used in this research to record data consistently. This process was be used to assess qualitative research against the specific theories and methods. The researcher ensured that the same results were be consistent under the same conditions.

Triangulation

Cohen et al (2000) define triangulation “as the use of two or more methods of data collection used in the research of some aspect of human behaviour” (p. 112). The triangulation of data sources was used to demonstrate concurrent validity and to check the consistency of information received at different times and using different means. This involved comparing observational data with interview data; checking the consistency of what people in a situation say about the situation over time; and comparing the perspectives of people from different points of view. The researcher used the multiple-method approach through individual interviews with Māori participants, observation, and group interviews to triangulate as much data in order to check the reliability of the findings and furthermore, to enhance the accuracy and validity of any discrepancies between data sources was investigated. This triangulation was used to enhance the trustworthiness and authentication of the data.

Ethical considerations

Ethical conduct drove the design and processes of this research. Confidentiality and anonymity took precedence throughout the action research cycles. Moreover, practical and ethical considerations were conducted to ensure the safety of Māori participants, the researcher, and the institution. The participants in this research were informed about the research, and formal written consent was attained. The principle of anonymity was applied to the organisations and all individual participants. Participants involved in this research were identified using pseudonyms (Cohen et al, 2000).

Holistic in understanding is the need to uphold the integrity and mana of each individual in this research. Therefore, it was intent of the researcher to ensure the privacy of each participant was upheld and maintained. Furthermore, respect for the underlying values, attitudes, beliefs, and practices of Māori professionals, and careful attention were considered based on the code of ethics enforced by the Unitec Research Ethics Committee to protect all eight participants in this research. The Māori advisory consultation was sought to ensure the mana and protocols were upheld throughout the research process.

Finally, the findings gathered from this research were included in chapter five, to allow each Māori professional to speak for themselves.

To ensure compliance with all ethical issues, prior to the data collection, the Māori professional were informed of the purpose of the research, the procedures, risks and discomforts, the right to withdraw without penalty, at any time. It was obligatory that the Māori professionals signed a written consent form, to ensure full informed consent.

Consent by Māori professionals was required prior to participate in the qualitative research to show evidence their willingness to participate in this project, and that all personal information remained anonymous. If any elected to withdraw, their part in the research would cease and their data would not be used.

The proposed time frame for this research took approximately three months and a final report of the findings was recorded on the completion. This research would be made available to any tutor wishing to design their own e-learning programmes for Māori e-learners.

Conclusion

Interviews and focus groups were valuable methods for gathering rich and detailed descriptions of the perceptions of Māori professionals. The research proposed focused closely on the engagement of the Māori e-learner studying in a culturally responsive learning environment and aimed to identify ways to engage the Māori professional in an e-learning programme. In addition, this research confirmed that the validity of using an action research methodology was an impetus for success. The research methodology was particularly useful in studying an issue as complex as the one attempted here. Rather than attacking the research issued in its entirety at the outset, action research encouraged organising the issue into manageable cycles. Findings from these cycles then converged on a full understanding of the issue itself and how it was addressed.

Chapter 4

Vignettes

Introduction

This chapter provides an illustration of eight Māori professionals who participated in this research. The data was written as a series of vignettes which provided views on the educational and cultural background of each individual. The identity and work of each participant was obscured from this study. Each vignette provided a clear insight into the lives of each individual, who they are, where they come from, what they have achieved, and where they are today. Moreover, this chapter also highlighted how they differ in values, and beliefs, religious and tribal affiliation, Māori knowledge and practice of Māori culture.

Seven of the eight Māori professionals reflected on their experiences and perceptions as tutors as well as the learner. They draw on their own resistance to using this mode of teaching and discuss their students' and whānau experiences to illustrate their examples.

Maori Typology

Māori professionals were placed into one of the four Māori typographies based on their disposition to and feelings about being Māori. Namely (1) Cultural inheritor; (2) cultural seeker; (3) cultural dissenter; and (4) cultural rejecter (Maharey, 2002). Two Māori professionals identified themselves as inheritors conversant in Te Reo and tikanga Māori; three expressed their concern for their knowledge, interest and participation in things Māori and who continue to search for their Māori identity and links; three believe the influence of negative cultural pressures they have experienced categorises them as dissenters; the rejector who has negative and stereotypical images of being Māori (Maharey, 2002) was not represented in this research as they choose not to associate with Māori.

First study: Manasseh

Iwi: Ngati Kahungunu

Māori Typology: Cultural Dissenter (CD, as discussed in the literature review)

Role: Lecturer

Area: Urban 2

Experience online: Has studied a Masters paper online.

Manasseh (CD) was born in a small town in the Wairarapa, and raised a Ratana. He was not taught in the language of his forefathers. Excited about what technology had to offer, his passion for higher learning in structural design and architecture, reflects in his mahi (work) and love for people.

He is currently working as a lecturer in architecture. His passion for architecture has allowed him to work on assignments for the United Nations, whilst holding down a fulltime position as a lecturer in architecture at an urban tertiary institution. A high achiever in his area, he draws on his creative knowledge, skills, and talents when undertaking projects on both small and large scales.

His beliefs and attitude of what is tikanga differs from other Māori, and he is sceptical of what tikanga Māori really means. For this reason he chose not to comment on the inclusion of tikanga Māori into e-learning programmes. He shares his thoughts on what he believes tikanga is:

“You are more likely to get a lot more soul out of a Māori or Polynesian student in their building than you would ever get out of another ethnic person in a course. Why, I think that’s the tikanga. I don’t quite know how that impacts on learning in an e-learning environment.”

Manasseh (CD) is keen on what technology has to offer especially in his programme. The opportunity to create 3D animated video as a resource to engage his Māori students is something he looks forward to.

Second study: Kaavis

Iwi: Ngati Ranginui, Ngati Pikiaio, Ngati Tamanuhiri

Māori Typology: Cultural Seeker (CS)

Role: Academic Learning Advisor

Area: Urban 1 and urban 2

Experience in online learning: Downloading information from the library

Kaavis (CS) is a family man, who values education. Born in the city, at the age of 10 years he and his whānau moved to a town in eastern Bay of Plenty. He describes his whānau as being pro-activist Māori. Since 2000, Kaavis (CS) has worked as a Māori academic advisor at a New Zealand urban University. He is passionate about his work and finds it challenging and demanding, yet rewarding.

He has recently completed a Masters thesis in Māori Studies and has an interest in the development of Māori knowledge ranging from theoretical frameworks to new and old Māori paradigms. Kaavis considers himself to be an abstract, open ended learner which allows him to think outside the square and discuss things kanohi ki te kanohi (face-to-face), as opposed to sending or receiving electronic text messages. Moreover, he remains close to his heritage having learnt the ways of Ngāhere and Moana, who he defines as his ancestral heritage. He was not brought up to speak Te Reo but says he is able to write and understand it. Kaavis (CS) believes tikanga plays an important part in determining how an online course is going to pan out. He believes those who have knowledge of tikanga Māori need to have some influence in the design of the site.

Kaavis (CS) is self-directed in his own learning having studied at university for several years and now working as an academic advisor. He believes he has acquired the tools to study in an isolated environment and is quite capable to learn this way. He is not attracted to learning online, and is not sure how effective e-learning would be for Maori, as mentioned in his comment below;

“How do you capture the spiritual side of learning? Experiencing karakia online? How do you capture that? You can’t!”

Third study: Tiana

Iwi: Te Whānau a Apanui

Māori Typology: Cultural Inheritor (CI)

Role: Receptionist/Te Reo Tutor

Area: Rural

Experience in online learning: Has studied online.

Tiana (CI) was born and raised on the marae. She was raised by her old people, and paid tribute to those who have gone before her and taught her much. She acknowledges her kuia and kaumātua (elders) whose knowledge over the years has helped her greatly in her mahi. She believed a lot of what is incorporated into her mahi is her cultural obligations to the tertiary institution.

Furthermore, Tiana (CI) delivers tikanga Māori workshops to tertiary students and is highly valued and appreciated by her peers and students for the mahi she performs. She is currently studying a Graduate Diploma in Higher Education (GDipHE) and is keen to attain a teaching qualification that will allow her to do what she loves best, and that is to teach Te Reo.

Tiana (CI) is not threatened by the thought of blending tikanga with technology. Passionate about Te Reo, she was keen and willing to deliver her Te Reo course online. Having studied online once before, she admits the only thing that attracted her to learning online was receiving a free computer. Now her thoughts have changed and she is very keen to give anything a go if it means putting Te Reo Māori online. She believes that social networking sites such as Bebo is what entices Māori to technology and engages them in learning online. The availability of more and social networking sites which allow them to take ownership of their work is exciting and new. Now, that in it-self would entice her to learn online. She believes the people we least expect will be interested.

My cousins are all on bebo. They have a shabby house, a sky dish, and the Internet.” Today the world is evolving. We need to evolve with it! That doesn’t mean our reo needs to change.

Fourth study: Alicia

Iwi: Ngati Kahungunu, Nga Puhi

Māori Typology: Cultural Dissenter (CD)

Role: Lecturer and Sole Trader

Area: Urban 2

Experience in online learning: Nil

Alicia (CD) was born and raised in a small town, before she and her whānau moved to the city. The oldest of four siblings and now a single mother, her struggle to succeed proved fruitful upon the completion of a bachelor in computing. Since then she has not looked back. Employed as a lecturer in hardware technology at an urban tertiary institution, and is also running her own IT business, Alicia expressed her passion for teaching and working in the IT (Information Technology) industry.

She believes that having taken up the option to study computing at a local tertiary institution, having achieved her masters in computing has prepared her to lecture in hardware technology and establish her own business in IT.

Alicia (CD) has had little contact with her Māori side. Over the years she claims her whānau have ‘moved away from everything Māori.’ Her limited knowledge of tikanga Māori has put her in a position to ask questions. She added that her respect for things Māori, stem from her early childhood. Furthermore, Alicia (CD) shares her thoughts and her experiences of working in the IT industry.

“I have a foundation of how I’ve been brought up and I find that it contradicts what I’ve learnt in the city and in the IT degree. I struggle between being Māori and being in the IT world.”

Alicia (CD) says she was not ready to use the computer as a tool in her hardware technology class, and was not sure how e-learning would help in her delivery. She stated that: *“My students build computers. My tools which are face to face, really work well. I don’t know. I think maybe if I saw it.”*

Fifth study: Schvaria

Iwi: Te Rarawa, Ngati Hine

Typology: Cultural Inheritor (CI)

Role: Lecturer

Area: Urban 1

Experience in online learning: Has studied online.

Born and raised in Auckland, Schvaria (CI) is a mature, Māori woman currently studying for a doctorate. She believes that her maturity, knowledge and experiences in education have prepared her for online learning. Having moved north with her husband, it was her wish to serve her people. Schvaria returned home to educate her hapu by teaching strategic management workshops to marae Trustees. Her intention was to equip them with the knowledge to recognise why a strategic plan was essential within a governance role. More importantly, Schvaria had a great desire to implement the ‘ten step strategy change cycle’; how to manage change with the new charities commission requirements and so forth; how to recognise blockages and supporters of change, and understanding what these changes are.

Computer literate, Schvaria (CI) is currently teaching young mothers who have had to leave school early. She has worked as a secondary teacher, and a lecturer in a tertiary institution. Having attained her Masters in Education whilst lecturing in Education, she is now currently working toward a doctorate at an indigenous institution.

She is very familiar with Nga Puhi tikanga, and acknowledges her reason for moving north was to work with her people. Schvaria is very confident about studying online and in isolation. As a mature student, her interest and extensive knowledge of tikanga Māori has led her to study a doctorate at a Wānanga (Māori tertiary institution) She states that she prefers to work alone, without the support of her tutor or peers. Her thoughts follow:

“I don’t want a tutor to empower me, only to facilitate my learning in its pure sense.”

Sixth study: Leiken

Iwi: Taranaki

Māori Typology: Cultural Seeker (CS)

Role: Academic Learning Advisor

Area: Urban 2

Experience in online learning: Has studied online.

Leiken (CS) was born and raised in a small town, and has a loving mother, and her two siblings. She values her relationship with her whanau and always looks forward to spending time with them.

Leiken is currently working as a learning development lecturer in a tertiary institution. She enjoys her role in learning development. In her role as an Academic Development Advisor at a learning support centre, she works with the aim of making the tertiary environment less foreign for students and provides support them to be successful in their learning journeys. She has undertaken a range of cross-disciplinary study which includes an undergraduate degree in law and a Masters degree in library and information studies. Much of the study towards the Masters was through distance learning which included online courses. She was one of the first members of her whanau to attend university and she remembers how challenging and unfamiliar the environment can be. She believes valuable things can come out of working with Māori information, in an appropriate way and in an electronic environment. She is concerned about putting up Māori information knowledge online. “Blend has some negative connotations. It’s a difficult territory.” Leiken (CS) acknowledges the principles she draws on and underlies her work such as awahi, manaakitanga, and aroha. Leiken is highly respected by her colleagues and friends, and is always willing to lend a helping hand. Leiken (CS) believes this is what makes up a culturally responsive environment. She loves being Māori, and would like to learn more about her Māori heritage. Leiken (CS) is not keen on studying online. *“It’s not the way that I really like to learn, however I believe its serves it purpose.”* She believes really valuable things that can come out of working with Māori information and in an appropriate way and in an electronic environment.

Seventh study: Darice

Iwi: Te Arawa/Ngati Whatua

Māori Typology: Cultural Dissenter

Role: Registered Nurse

Area: Urban 1 and Urban 2

Experience in online learning: Has studied online.

Born in the city, and raised in a small town. Darice (CD) left secondary school at the age of 18 and enrolled in a Foundation course. Her ultimate goal was to obtain a tertiary qualification and graduate with a bachelor's degree in Nursing.

Darice (CD) acknowledges her parents for the ongoing support throughout her studies. Her mother returned to tertiary study alongside her, now she too has graduated with a degree in Social Practice. She has always felt that she had to compete with her cousins, and because of this she believes helped motivate her throughout her studies.

She is the only Māori nurse on her ward and upholds cultural safety where needed, and ensures other colleagues follow the same practice.

Darice (CD) was brought up in a predominately European society and stated that a culturally responsive environment meant little to her. She emphasised that an inclusive environment that meets the demands and interests of all students, age, gender, race, culture, was more important!

She believes that mainstream education and culture is not a good mix as it creates more problems than it's worth. *"If it were a Māori programme then absolutely, otherwise little or none at all works best for me."* While still in her twenty's, Darice (CD) acknowledged that her five years in higher education has prepared her to study without the support of her peers. She shares the following comment:

I know how to study. I have my little ways of learning. My set ways.

Eighth study: Rayna

Iwi: Ngati Maniapoto

Māori Typology: Cultural Seeker (CS)

Role: Kaiāwhina

Area: Rural

Experience in online learning: Novice

Rayna (CS) was brought up in a rural area on the West Coast of New Zealand, nurtured and loved by her grandparents. She was acknowledged by her old people as being a gifted child. She was raised in a protected environment by her kaumatua (elders), which allowed her to experience a happy and wholesome childhood. Moving to the city, she worked several part time jobs whilst rearing her 4 young children. Her profession moved into auditing financial reports, annual budgets nation-wide, and liaison on a global scale with other external organisations.

She is currently working as a Kaiāwhina (pastoral support person) for a Māori mentoring programme in support of rangatahi (youth).

Her interest and passion for science was her first initial move towards studying in a tertiary environment. This move has proven favourable by providing part time employment. She was raised around tikanga Māori and says she was not taught Te Reo. Protected by her kaumātua cherished a tāonga.

She is keen to learn something new. The opportunity to study online proves to be a challenge for her, however she likens studying online to a maze, to be able to find her way out and get through and finish will be her big reward at the end.

If I were doing things Māori then that would be important to me.

Conclusion

This series of vignettes provides an overview of each Māori Professional who participated in this research. Their thoughts and feelings of being Māori, and studying in online and in isolation are expressed in each profile. These profiles are used to introduce the following chapter of my findings.

Chapter 5

Findings and Data Analysis

Introduction

This chapter presented and analysed the findings gathered from interviews and observations generated by this research. The three data collection methods employed in this research were individual interviews, observation, and group interview sessions. The purpose of this chapter was to introduce four themes that were generated from the literature review and coding process, and to highlight where in the learning cycle engagement most needs to be directed. The chapter was then organised through its sub-headings to follow the remaining four themes generated from the coding process.

The Māori e-Learner

In this section the Māori e-learner, a theme generated from the literature review portrayed Māori as being a diverse people, unique in culture (Purnell, 2006). Moreover, the Māori professionals in this research shared their personal experiences as an e-learner, and as a teacher's perception.

The analysis of the Māori typographies found in this research as mentioned in chapter two, is indicative of the degree of differences of Māori and is best described by Ngatai (2006, p. 240) as, 'no single solution to the way Māori people think. Each one is different; there is no one type of individual.' If this is so, then their learning preferences and learning styles must differ also.

Maori Typography

Table: 5.1: Classification of Māori Typographies (Maharey, 2002).

| Typography | Māori Professional | Description |
|-------------------------|------------------------------|--|
| Cultural Inheritor (CI) | Tiana Schvaria | Māori students who embrace Māori culture and who are conversant in Te Reo and tikanga Māori. |
| Cultural Seeker (CS) | Kaavis Leiken Rayna | Māori students who were not raised with Māori culture. They are concerned for their knowledge, interest and participation in things Māori and who continue to search for their Māori identity and links. |
| Cultural Dissenter (CD) | Alicia Darice Manasseh | Māori students who feel that culture has little meaning in their learning. |
| Cultural Rejector (CR) | Nil | Māori students who have negative and stereotypical images of being Māori were not represented in this study, as they would not to be interested talking about being Māori. |

Value of e-learning

In this section cultural inheritors, cultural seekers and cultural dissenters were forthcoming in their accounts toward how they valued e-learning.

Evidence suggested that a distinct lack of interest in e-learning exists with some Māori professionals who found e-learning courses to be dull and boring. A similar view from Leiken (CS) who expressed her thoughts and feelings about this issue of concern:

I think there are negative messages about face to face. I've done online courses. I didn't like it. It was convenient; it got me where I wanted to go. That was the way I could manage to do my studies. But certainly, Māori can succeed in an electronic environment. Can Māori succeed more with face to face than electronic, I'd probably argue that. (Leiken, CS)

The most consistent feedback received by six out of eight Māori professionals was that a blended learning environment was the preferred approach as it involved various tools and applications which are now commonly used in many institutions around the world. Moreover, all eight Māori professionals stated that it was important to design an interactive and stimulating course which captured the attention of its users by initiating many tools such as Face book, e-portfolio's, and social networking tools. Additionally, Tiana (CI) and Darice (CD) highlighted that they were attracted to social networking tools such as Face book and bebo which allowed them to create their own personalised web page, and presenting their work in a variety of ways.

Netiquette at all times

Another factor to arise in this research was the concern that online chat rooms were found to be a 'cold place' and for this reason, three Māori professionals were reluctant to participate in the online tutorial. Their reasons were simple it lacked face to face contact. Cultural Inheritors stated that tikanga is all about being respectful to others at all times, and therefore how Māori choose to conduct themselves online is very important if they are to value one another.

Tikanga and Technology

In this section links to tikanga Māori and instructional technology, design, and delivery which form the basis of this thesis, begin to develop. The following data analysis shows that Māori professionals were divided in thought about blending tikanga with technology.

The overall impression of incorporating tikanga Māori into programmes to engage the learning of Māori professionals was divided. Four Māori professionals expressed their interest in wanting to study in a culturally responsive learning environment exclusive to Māori. Tiana (CI) and Schvaria (CI) welcomed the cultural view and practice of tikanga Māori incepted into the e-learning environment and were excited by the notion of bringing the two together to engage them in their learning as expressed in the following comment from Tiana (CI):

Tikanga is not even complicated, it's just about common sense, and if you follow it as your guide then it would be good to see. (Tiana, CI)

On the contrary, some Māori professionals questioned the relevance of tikanga infused into a programme and questioned its existence. Discrepancies between three cultural dissenters and the other Māori professionals about the inclusion of tikanga Māori (customary protocols) such as karakia, powhiri, whakapapa, or Māori graphics etched into the design of a course had little relevance on their motivation and engagement online as suggested in Manasseh's comment below.

Being Māori is not important to me, because I am Māori. (Darice, CD)

I don't know how Māori fits with technology. I struggle between being Māori and being in the IT world. I tried to implement my culture ... in the context of an IT world. I don't go the Māori way anymore. (Alicia, CD)

To augment these feelings, Manasseh revealed that the inclusion of tikanga blended into technology made a positive impact on the interest, enthusiasm, and engagement of his learning.

People will use tikanga as a platform for their own achievements.
(Manasseh, CD)

It was Leiken (CS) and Kaavis (CS) in particular, who had strong views about using Māori images displayed on a website just to capture the attention, interest, and engagement of Māori tertiary students. Moreover, they strongly emphasised that graphics must be conveyed in a respectful manner. In Leiken's words:

There are really valuable things that can come out of working with Māori information, in an appropriate way, and in an electronic environment. However, there are negative connotations. (Leiken, CS)

A similar response from Kaavis seemed to sum up their concerns:

It takes more than image to engage me. When I see that I'm more concerned about the protection of these images. There are layers to this. I worry as I am not an expert on tikanga. People might do things inappropriately or blend it. The whole blending is a concern, but on the other hand it's about doing the basic things right. It's complicated and in other ways it doesn't have to be. That's hard! How do you advise someone like me who doesn't have a great deal of knowledge about tikanga but has an idea. How do you advise people who have no connection or idea to think Māori? It's a big topic. (Kaavis, CS)

To augment these feelings, Tiana (CI) a cultural inheritor welcomed the idea of creating a culture of her own and infusing tikanga into e-learning programmes. This she believed is a simple process, which she could easily be incorporated into the course content without fuss.

Of the eight Māori professionals only two Māori professionals ranked the values, principles, and protocols of tikanga Māori high priority. Manasseh (CD) questioned what tikanga really meant to Māori as they all differ in attitude and belief, questioned its relevance. He added that every classroom creates a culture of its own and for this reason he questioned whose culture. His response follows:

Empathy, respect and integrity must be embraced and practiced, if this is to be a positive learning outcome for the Māori learner. (Manasseh, CD)

Manasseh spoke of his architecture students and how they express themselves in their work. He stated that his Māori students express themselves as Māori in their work. This he believes is what is really meant to be Māori as stated in the following comment.

You are more likely to get a lot more soul out of a Māori student in the design of their buildings than you would ever get out of another ethnic person in a course... why, I believe that is tikanga. (Manasseh, CD)

Kaavis expressed his concern for capturing the spiritual side of learning online by regrets is one thing that can never be replaced.

“If you prefer karakia A, B, or C.” Does that now mean you’ve now developed the spiritual aspect because you know the karakia. (Kaavis, CS)

Traditional Māori Knowledge

An appreciation of the value and extent of traditional Māori knowledge by cultural inheritors and cultural seekers was apparent. Moreover, cultural seekers looked upon the preservation of traditional knowledge and cultural values as integral to their own existence as Māori. Furthermore, Alicia (CD) voiced her concern about the pressures and challenges she experienced working in the computer industry while at the same time trying to infuse her cultural identity and experiences within a Western environment. She identified the issues and challenges while working with Western technology and Western cultural values, and having to convert to their ways.

All eight Māori professionals agreed that engagement begins prior to the start of a course and that the nature of a pre-orientation is to prepare them well for an e-learning course. They applauded opportunities to participate in a two day wananga which brings all students together in a face-to-face environment, to develop friendships, engage in waiata and kapa haka. They believed that by introducing technology right

into the wananga could address many issues for Māori and be of great valuable to students and tutors.

All eight Māori professionals made a point that it was important to respect and value Māori and Māori knowledge. They raised issues surrounding the care and attention into how a programme is presented and delivered online.

Values and principles (tikanga) must be honoured and upheld to ensure the safety and protection of Māori students and Māori information. According to Rayna (CS) instituting tikanga into an e-learning programme helps set the ground rules of behaviour and personal conduct for the Māori e-learner. It is these values and principles which epitomise characteristics of a culturally responsive learning environment.

A detailed account of the relevance and influence that the values and principles mentioned will be discussed more fully in the following chapter.

Isolation – Can Māori succeed working in an isolated environment

All Māori professionals in this study have been exposed to some form of online interaction with others and discussed in length their experiences of studying in isolation. A major factor of concern for Māori professionals was the idea of having to study in an isolated environment, one which they admitted was difficult for them and their students to begin with however, in light of these differences they indicated that their years of study at tertiary level had prepared them for study and that learning in isolation away from the rest of their peers and tutor was no longer an issue. Moreover, Rayna (CS) stated that Māori students can also get over the fear of isolation in time if they believe in themselves and focus on their goals and their whānau.

Another interesting point was raised by Schvaria (CI) who indicated that too often Māori are taught that they can only survive in a face-to-face environment. Māori need to move away from dependency and learn to work independently and to take

ownership of their own learning and learn to adapt quickly to in this isolated environment. She expressed the following comment:

We all need to work independently on our own at some stage. That's what it means to take ownership of your own learning. We Māori need to start teaching our people that it's okay to step outside of our comfort zone. Perhaps working with technology can close that gap for us. Schvaria (CI)

Alicia (CD) summed up her thoughts and feelings about this issue of concern as noted in the following comment:

Māori can succeed in any environment, no matter what circumstances or environment they study in. (Alicia, CD)

Believed that tutors should be well informed of the Māori life and more importantly “*let Māori students be Māori and allow them to achieve their goals and aspirations in their own way.*”

Holistic Online Academic Support

Academic support was rated high priority by all Māori professionals. The data showed that they recognised the need to integrate and formulate a holistic and comprehensive model of support. Tiana (CI) who works in an indigenous centre for Māori which provides holistic support to Māori tertiary students welcomed the idea of having academic, pastoral and cultural support available online at various times. It is within this centre for Māori excellence that she mentions the need to bring Māori students together, and to provide them with the academic support, pastoral guidance, and cultural support.

Kanohi ki te Kanohi or Personal Contact

An important feature to come out of this research was the need to maintain personal contact with their lecturers. Maintaining a high degree of interactivity, “*immediacy, immediate interaction, immediate responses*”, they believe would lead to engagement.

Kanohi ki te kanohi pedagogy is highly rated in this research. Collectively, seven Māori professionals stated that they preferred to learn kanohi ki te kanohi (face to face) situation as opposed to being separated from their tutor and peers. Additionally, Kaavis (CS) indicated that it was the personal contact that really mattered to him more so than kanohi ki te kanohi. As noted, he shared his view as follows:

Image! Face is not important. It's the personal contact. The personalisation of it! The dynamics is very different. You can do everything at a distance. You stay within protective spaces. You don't actually get to challenge ... everybody has had a teacher that they have liked, and everybody has had a teacher that they didn't like. So there's that conflict that goes on, which can teach you that socialisation, how to deal with it, how not to deal with it. When it's online you don't have to worry about that. You don't feel threatened. Your space can feel comfortable all the time. (Kaavis, CS)

Using the Senses – Technology, Design, and Delivery

Using the senses was a theme generated from the findings which refers to the instructional technology such as text, audio, movie, and image, the design of an e-learning programme, and the pedagogical strategies and methods applied by tutors in the delivery of the programme.

Most Māori professionals insisted that much consideration and attention must be taken into the instructional technology, design, and delivery of e-learning courses, if a tutor is to engage them in their learning. As stated by Manasseh (CD):

It's more about the technology rather than the e-learning... how it's used, or created. (Manasseh, CD)

Tiana added that building Māori pedagogies into programmes such as powhiri and mihimihi as a formal way of introduction and expression is all about establishing relationships with her peers. Manasseh (CD) added that, it was more about the technology rather than the e-learning and how he can use technology to engage and interact with his Māori architecture students.

Data gathered from Māori professionals revealed that a high degree of engagement and motivation came from emerging tools such as Flickr, an online photo management and sharing application; YouTube, a video sharing website where users can upload, view and share video clips that have enticed three Māori professionals, their friends, and whānau to the Internet. Moreover, they wanted the freedom and option to choose a variety of ways, to do their assignments and presentations.

Design – What matters to the Māori e-learner?

It is important to design an environment where learners are able to construct their own meaning, and participate in an e-learning programme designed specifically to the needs of the students.

Results gathered from three Māori professionals in this research, indicated that personal attention into the integrity and design of the course was important. More importantly, in the context of designing an e-learning programme for Māori, it is advised that a tutor should take a pragmatic approach in the design of an e-learning programme by drawing upon the indigenous knowledge of their students, and the pedagogical and epistemological factors that influence their learning and communication.

Making it visual is making it real. (Darice, CD)

Design

Personalisation was a factor which emerged from the data. Tiana (CD) spoke about how keen she was to personalise the course website by being greeted with her name in each time she opens the web page. Additionally, it was Rayna who commented that, “*it is all part of the kiwi experience now, being greeted with kia ora.*” (Rayna, CS)

Both cultural inheritors, Schvaria and Tiana emphasised the importance of incorporating teacher responsive learning into the design of the programme to capture her interest and engagement. Tiana (CI) added that:

Tutors need to be creative in their design of a course, and more importantly in the design of the website and produce materials of high quality. (Tiana, CI)

A similar view from Kaavis (CS) an academic advisor for Māori tertiary students follows:

It comes down to the uniqueness. Personalisation! It is the personal contact that is most important as opposed to face to face contact. That's what makes a culturally responsive learning environment (Kaavis, CS).

This response is an indication that technology can not replace everything whereby highlighting the challenges. Furthermore, Tiana (CI) believed that a part of learning in a culturally responsive environment can reclaim and revitalise traditional knowledge. Therefore, she stated that precautions to ensure that appropriate measures are put in place to protect and safeguard Māori knowledge uploaded onto the Internet must be maintained.

Protection and safety of Māori knowledge

Darice (CD), Rayna (CS), and Kaavis (CS) questioned the use of Māori graphics, and Māori language in the design of the website. Kaavis (CS) did not see any relevance in the use of Māori graphics in the website.

Leiken (CS) agreed that things identifiable to “*Māori, Māori art, Māori design and background images were seen as a surface thing.*” Kaavis responded:

I'm not attracted to sites because there is a tekoteko sitting in the middle of it. (Kaavis, CS)

He added that the ultimate aim is for the Māori e-learner is to connect with the content more so than the web pages and how a course is designed and presented may attract or detract the Māori e-learner to the content.

Delivery of an e-learning programme

To support the design of the curriculum and website the way in which a course is delivered amounts to the pedagogical strategies and methods used by the tutor to engage the Māori e-learner in the delivery of an e-learning programme.

The Māori professionals emphasised that the freedom to use a variety of tools, in a variety of ways, to learn from and to teach others would engage them in their learning. This approach not only brings everyone together but it also generates respect amongst the group. Rayna expressed her thoughts and feelings about this concept:

“Often at times we Māori can be prideful, and choose to separate ourselves from others, not just physically but emotionally too. For whatever dumb reason, we will only listen to the advice from our tutors. As a lecturer myself, I have worked with lecturers who shun their students opinions. For ako, or e-ako to work people must be prepared to teach and learn from each other.” (Rayna, CS)

Thus this issue concern highlights the importance of respect and reciprocity that a tutor must have for their students. More importantly, seven Māori professionals acknowledged the demanding role and expectations of the tutors and how developing strong pedagogical strategies and methods were all important in building on these strengths (Maharey, 2002).

You have to think about the context, what knowledge you’re delivering. (Kaavis, CS)

Frequent reference from Schvaria (CS) was made to the way in which she prefers to engage in her learning and was upset by the notion of having to conform to a tutor. She remained adamant that she preferred to learn on her own, and in isolation rather than within a collective group. Her comment follows:

Why do Māori need to be empowered? I don’t want a tutor to empower me, only to facilitate my learning. Students need to move away from dependency. Māori need to stop telling Māori that they can only succeed in a face to face environment! (Schvaria, CS)

Seven Māori professionals stated that they were keen to collaborate and communicate regularly with their peers and tutor, except Schvaria (CI) was noted that she was reluctant to do so. According to Schvaria (CI), who emphasised that she did not need a tutor to empower her, only to facilitate her learning. She mentioned, *“if the programme were Māori then absolutely!”*

Moreover, Māori professionals believed that a key aspect to improving their learning experience was to promote active learning; provide greater flexibility; and empower them to think and more importantly, as Māori it is important to share this knowledge with others.

Assessments

Feedback received by Tiana highlighted the importance of using a wide range of effective assessment strategies to assess learning. She added that it must be entertaining too and that using innovative tools or strategies to assess her work can be engaging also.

At the end of each assessment there must be some sort of assessment i.e. online quiz. Who's taken the quiz or who hasn't? Pop-up in two days time. This is what's going to cover. Send out handouts. (Tiana, CI)

Furthermore, it was Manasseh (CI) who added that a standard course evaluation should be given out half way through the semester and at the end of the semester. In addition, Rayna believed that holding a small group instructional diagnosis to evaluate an e-learning programme (Baker, 1995). She recommended that this session could also take place online and the results could be posted to the course website.

Seduced by Culture

The results of these findings reveal that space is a major link which leads to engagement. Interactive technology can improve teaching and student learning. Darice was of the view that, texting is the best. It's much easier to text someone, especially if you are at work.

This viewpoint was reflected in a comment made by Tiana who spoke about her attraction to the Internet and Bebo, a social networking site:

My cousins are all on bebo. They have a shabby house, a sky dish, and the Internet. (Tiana, CI)

Darice emphasised that space in any e-learning programme would keep her motivated and engaged. Her commented follows:

Tuning in on time, creating your own web page for free, communicating with friends, blogging, sharing pictures and video's at any given place just make things so much easier. (Darice, CD)

Manasseh mentioned that interaction, digital tools are engaging.

Try to make it sexy! 2D plan drawings are not sexy. 3D fly through visualisations are sexy. We're trying as much as we can to move towards that end of the spectrum. We'd like to be able to create virtual 3D rooms, and 3D scanning. 3D carvings would be a very interesting learning experience. 3D would actually secure the job. It is becoming almost a defacto or standard requirement. (Manasseh, CD)

While the use of digital tools was clearly designed to gather interest and motivation, the nature of this technology was primarily, in the Maori professionals' view, an opportunity to be creative in their assessments. In this game of truth the tutor, knowing more than the student facilitates their learning.

Simulation, Games and Quizzes

Two Māori professionals interviewed for this research reported that rewards and games, and simulations used as incentives placed the Māori e-learner in challenging situations to capture the interest and motivation. Interestingly, Oliver (n.d) refers to this process as problem-based learning where students seek to develop solutions to problems on their own. However, both Kaavis (CS) and Rayna (CD), two mature professionals expressed a cynical and critical view of this approach. Both professionals who had experienced of with online quizzes and games expressed more cynical views. Kaavis expressed them forcibly. For example, on the restriction of using an online quiz to engage his learning

I don't respond to being rewarded by answering something correct. That's why I'd be reluctant to do the question/answer. (Kaavis, CS)

While these reservations were probably more strongly stated by Rayna and Kaavis, all Māori professionals were concerned about when and how often these games would be integrated into the course.

Conclusion

Contributing factors transpired from these findings based on the perceptions of Māori professionals preference to engage in a culturally responsive learning environment. Findings in this research suggest that a problem-based teaching approach delivered using blended learning involving Web-based tools and direct instruction within a culturally responsive learning environment are all major factors that would engage Māori professionals. A primary contribution of this research is in furthering our understanding of how to define, assess, and promote e-learning engagement for Māori tertiary students. The next chapter will discuss these findings in more detail.

Chapter 6

Discussions

Introduction

The aim of this chapter was to bring together the findings from the research and compare this with the major factors referred to in the literature; in order to find effective and efficient ways to capture the engagement of the Māori e-learner at tertiary level and within an e-learning environment.

To determine what approaches generated engagement the results from this research were discussed in relation to the four themes which form the framework of this study. The discussion was presented in four themes, as follows:

TABLE 6.1 Shows the themes generated from the research.

| Themes | Definitions |
|---------------------|---|
| The Māori e-learner | The Māori learner study in on an e-learning programme. |
| Shifts from Within | Changes to the learning environment. |
| Using the Senses | Digital media such as text, audio, video. Design of the course. Delivery of the course content. |
| Seduced by Culture | Engrossed with technology and the course content. |

Being Māori

Questions were raised concerning ‘*being Māori*’ and how those feelings sat within a culturally responsive learning environment, and whether or not ‘*doing things in a Māori*’ way generated engagement for Māori in this research? Secondly, changes within the learning environment were examined to identify ways of accommodating the diverse needs of diverse students? Moreover, Māori professionals wanted to know whether the integration of instructional technology coupled with the influence of tikanga Māori enhanced and stimulated engagement and if so, in what ways?

Results from this research revealed that, the challenge for Māori professionals to engage online lies within their thoughts and feelings of being Māori. As mentioned in the literature review Prensky (2001) states, Māori need a good reason to get online. Making sense of e-learning, and understanding its value, and how they can incorporate their culture and background, was very important if they were to participate and engage in this learning process.

TABLE 6.2 Shows Māori professionals and their attitudes toward e-learning.

| Typography | Māori Professional | Similarities in attitudes to e-learning |
|-------------------------|------------------------|--|
| Cultural Inheritor (CI) | Tiana Schvaria | <ul style="list-style-type: none"> • Tikanga blended with technology • Interest in social networking • Content mattered • Conducive for Māori • Visual graphics preferred • Holistic support |
| Cultural Seeker (CS) | Kaavis Leiken Rayna | <ul style="list-style-type: none"> • Reluctant to participate at first • Concern for Māori knowledge online • Concern for Māori graphics online • Personal contact preferred |
| Cultural Dissenter (CD) | Alicia Darice Manasseh | <ul style="list-style-type: none"> • Issues with tikanga in a programme • Values and principles • Mixed views – 1 very keen, 1 not keen, 1 didn't care. |
| Cultural Rejector (CR) | 0 | Nil |

E-learning

In light of the many differences and preferences to education in Aoteroa New Zealand, research gathered from earlier literature looked at e-learning as an opportunity for Māori to move forward and engage the learning process. Therefore, it must be that by making people feel a sense of belonging right from the start is integral and conducive to good learning. As reported by ITPNZ (2004, p.3), 'if we turn our back on e-learning, we turn our back on the future.'

The attitude of Māori professionals revealed that the way they were raised has made a significant impact on how they prefer to learn and engage in a responsive environment, as shown in the table above. This was a clear reflection that all Māori differ in many ways and are not a single homogenous group?

Stimulating and exciting courses

As mentioned earlier in the literature review, Māori professionals believed that in order to promote Māori involvement and engagement in the transforming power of the Internet, the programme must be stimulating, challenging and interactive. Therefore, it would appear from the responses found in this research show that Māori professionals were strongly supportive of studying in a collaborative manner by promoting creativity and critical thinking (Pallof and Pratt, 2005).

What is revealing from this research was the call from Tiana (CI) to design, develop and deliver more exciting courses that would motivate and engage her learning. Having identified the need to design a culturally responsive learning environment for Māori to be able to relax and enjoy a comfortable atmosphere. It was therefore important to create a nurturing and supportive environment where Māori felt comfortable and were able to bring humour into the classroom and be themselves. Supporting evidence from Tapine and Waiti (1997) revealed that for Māori to achieve their best potential they must participate in a learning environment that is conducive to good learning, exciting and stimulating.

The attitude that making people feel a sense of belonging right from the start is integral to being accepted and welcomed into a learning environment as revealed in earlier literature. It was the view of the Māori professionals that Māori need to be comfortable and confident within a culturally responsive learning environment and seek to take advantage of e-learning if they are to move forward, therefore it is written that *'if we turn our back on e-learning, we turn our back on the future'* (ITPNZ, 2004, p. 3).

Engaging in a Culturally Responsive E-learning Environment

How Māori professionals position themselves in a culturally responsive learning environment constitutes attention to the varied ways they learn to communicate and engage with the rest of the group. This viewpoint is supported by Smith's (1999) perspective in earlier literature that tutors need to be empathetic towards the Māori students and understand the cultural context from where they come from. The belief and attitude toward the inclusion of tikanga Māori into e-learning programmes differed amongst Māori professionals and their preference to learn. Cultural dissenters were slow to react to the idea of integrating tikanga Māori with technology. They stated that it was the content of a course which deemed most favourable for most Māori professionals who opted to focus more on the purpose of their study and the course content (tasks, assignments, presentations).

The attitude of some Māori professionals were keen to integrate tikanga Māori into a responsive e-learning environment in order to capture their interest, respect, and engage them in an environment that is most favourable and familiar to them. Furthermore, they strongly advised that it was the tutors and students who had a significant role to play in ensuring that these values and practices were upheld at all times throughout the duration of the course.

As a culture dissenter, Manasseh professed that he was 'not from a Māori background' and frowned upon the inclusion of tikanga into programmes. However with tikanga Māori comes kawa (Māori protocols or practices) which does not always align with other Māori. Tapine and Waiti (1997) base this point of difference on the disparity between the values, in which our tupuna (ancestors) lived by in the past. One example of this was reflected in Tiana's interest to have tikanga Māori infused into their programmes recognised the need to engage in Māori pedagogical practices and strategies.

Tikanga Maori

Beyond the boundaries that shape an inclusive environment, the results from this research revealed that Māori professionals found altruistic values and principles of tikanga Māori most favourable and more importantly critical in establishing and maintaining a cohesive and unified community of learning. To learn and to study in a culturally responsive learning environment should be a natural practice for Māori, according to Kaavis (CS) a father of five who stated that, “*it’s all about whānau.*” As whānau are important to Māori, many aspects which bind them together such as whanaungatanga, tautoko, and respect are the same principles which make up a culturally responsive learning environment.

Respect, that’s what’s missing. That’s engagement I think. Respect sets precedence over everything else. Without it, you’ll lose your audience.
(Darice, CD)

This response is an indication that values and principles are high priority in the design and delivery of a culturally responsive learning environment. The participating professionals in this research viewed unity and friendships as all important for Māori students and rated building a good rapport (whanaungatanga) with staff and students within an e-learning environment as high priority. The principle of whanaungatanga when placed into a pedagogical framework compels learners to accept responsibility for themselves and each other in the learning process so that the entire whānau may flourish (Ngatai, 2006, p. 239). However, it takes more than just relationship building to get Maori onside. These professionals recognised that whanaungatanga and manaakitanga (caring) together go hand in hand with each other, and when nurtured can generate a classroom responsive.

Giving students a voice

From a personal view, many Māori tertiary students will not ask for help, unlike their peers from other cultures. When the going gets tough they tend to slip away ‘silently’ and without a word.

As an academic advisor working in a Māori development centre, it was important to stay in touch with Māori tertiary students in order to read the signs, and hear their 'silent cries' for help. Fletcher, Parkhill, Fa'afai and Taleni (2008) identify similar experiences and challenges they have with Pasifika students. The Māori professionals said it was important to give students a voice; to allow them to express themselves openly and freely; to share their views; and to provide time to reflect on past learning experiences, empowers them to engage in the learning. As a result, to recognise the significance of preparing our youth for the future by nurturing their wairua of our rangatahi from start to finish and giving them the confidence and pride to succeed in this sometimes isolated and foreign environment (Tapine & Waiti, 1997, p. 26).

Holistic Online Academic Support

To increase the ownership and control over Māori learning includes an integrated approach so that learning can be carried out within the context of whānau (Skills New Zealand, 2001). Moreso, the issue of maintaining high quality tuition in an e-learning environment is highly dependent on the medium used to deliver these programmes. More importantly, Tiana recognised the importance of maintaining face-to-face contact with students and emphasised the need to create a high quality video and interactive lessons to maintain the interest and engagement of her student. Moreover, Māori professionals stressed the importance of being actively engaged in the stimulating visualisations and activities. *"Learning is also a social practice that is not bounded by space or time* (Oblinger and Hawkins (2006, p. 15).

Ako

The idea of ako is a term defined by Pere (1994) used for reciprocal sharing of learning and teaching, either in a face-to-face situation or e-learning community of learning. The Māori professionals were true believers of the concept of 'ako' (reciprocal online communication) adopted into the programme. Thus, to teach and learn online as a whānau, and to share their skills, and knowledge through the use of learning technologies was exciting and engaging.

Protection and safety of Māori Graphics

Comments were made about the use of Māori graphics being used on course web pages caused debate between Māori respondents. Protection and safety of Māori graphics highlighted issues of concern from Māori professionals.’ Results from this research revealed that all three of cultural seekers voiced their concern for the safety and protection of Māori graphics and Māori knowledge embedded into websites to attract and engage Māori.

Māori professionals recognise that the instructional design of a web page can be socially and culturally structured to meet the diverse needs of diverse students, however a critical factor that emerged from this research was the influence of Māori graphics and images implemented into course materials and web pages to capture the interest, attention and engagement of Māori.

Research from these findings indicated that Kaavis (CS) and Leiken (CS) both cultural seekers felt strongly about the misappropriation of indigenous knowledge (Māori graphics, waiata, whakapapa) which they felt most precious about being uploaded onto the Internet for others to access. As culture seekers who are still searching for their Māori identity strongly expressed their feelings toward non-Māori tutors to seek advice from Māori staff or a kaumatua if they are to have some influence in the design of the site. They stated that tikanga Māori must be conveyed in the right way, and a respectful manner.

As a result, they felt that, tutors must understand the sacredness and sensitive issues of Māori information knowledge and forewarned anyone opting to upload sensitive information to seek appropriate advice from a ‘Māori advisor or a kaumatua.’ Kaavis (CS), an academic learning development advisor made the following comment:

Embedded in a website you certainly need to get guidance from kaumatua and kuia who know a lot about sensitivities that would be onscreen.
(Kaavis, CS)

Contrary to these views, Tiana (CI) was excited by the thought of sharing Māori knowledge with others especially online. It appeared that Alicia (CD) was also of the same mindset to begin with however her attitude changed over time having reflected on this thought. Her comment follows:

Sharing information, I could see how it could work. It's quite simple to me. (Alicia, CD)

Furthermore, the protection and safety of Māori information knowledge is clearly a major concern to the Māori professionals in this research and therefore much attention to the way information is relayed. Kaavis (CS) noted that, having an appreciation and respect for Māori graphics was crucial for critically responsive teaching, and forewarned non-Māori tutors to take necessary precautions and seek advice from Māori leaders or academic staff. As Darice pointed out, the availability and easy access to Māori knowledge and resources is just one aspect of the processes that is changing the Māori e-learner position from a novice learner to a designer of knowledge. Tiana's passion to one day deliver Te Reo online and provide holistic support would be exciting and an engaging experience for her. However acquiring information off the Internet may be a simple process yet for some Māori professionals returning the favour by sharing personal information online did not appeal to all three the cultural seekers.

Māori are orators. We were born to talk, and to express ourselves openly. To communicate with others is a way of life for us. It's exciting to know that our voice can be heard and expressed online, in video, or text. (Darice, CD).

Trying to maintain her Māoriness proved difficult because many of her colleagues were culturally insensitive towards her beliefs. It is for this reason she states that it is important to be sensitive towards the needs of the Māori e-learner when designing and delivering any course, especially when it's online. In support of this evidence, Ritchie argues that the intrinsic value of traditional knowledge that has been observed and passed down by ancestors is tapu (sacred) (1992), and therefore must be handled appropriately. Efforts to seek, interpret, and understand this knowledge can be extended and exist alongside Western knowledge.

Tradition Maori Knowledge

Traditional knowledge is 'tapu' (sacred) and should be shared amongst the whole group and not just the individual (Bishop, 1996; Mead, 2003). Supporting evidence suggests that Māori have a cultural obligation to contribute and share their knowledge with others (Durie, 1998; Bishop & Glynn, 1999). More importantly, King (1992) reminds us that knowledge is tāpu and must be held in high esteem and more importantly, it must be taken seriously. By ignoring this tāpu may lead to serious illness or even death. For this reason, adequate precautions must be put in place to safeguard and protect Māori information uploaded onto a course website. Furthermore, Māori professionals were of the belief that traditional Māori information uploaded such as waiata (songs) and whakapapa (genealogy) must be administered correctly and appropriately so not to offend Māori. As a result, Māori professionals reinforced that tutors must understand the sacredness and sensitive issues of Māori information knowledge and forewarned anyone opting to upload information to seek appropriate advice from a respective elder or Māori advisor.

Shifts from Within

To create a culturally responsive e-learning environment change must take place, by finding appropriate ways of meeting the diverse needs, and expectations of Māori tertiary students. It was Rayna who added that by being responsive to her cultural understandings and experiences, and allowing her to make sense of the environment by integrating Māori pedagogies into the environment was exciting and stimulating for her.

The Māori pedagogies, unique in practice are a core feature of a culturally responsive environment which Bishop (2006) argues, students need to have a positive feeling toward being Māori, if they are to accept and engage in a culturally responsive learning environment. More importantly, Tiana (CI) indicated that the understanding of Māori ways of learning should be incorporated into programmes for Māori who wish to learn in a traditional Māori context. Similarly, Darice (CD) and Rayna (CS) stated that the application of technology and meaningful cultural content helps personalise a programme, of which Rayna (CS) believes builds the character and

motivation of a person. For culture to survive in a culturally responsive e-learning environment it is important to contribute respectfully and responsibly and in a way that is familiar and comfortable to them. This comment has particular relevance to the issues and concerns of Māori who value cultural content. Manasseh spoke about how his Māori architectural students express tikanga Māori through their mahi (work). He stated that, *“you are more likely to get a lot more soul out of a Māori student in the design of their buildings than you would ever get out of another ethnic person in a course.”* As such, this learned behaviour can be viewed symbolically and communicated in a traditional way. Furthermore, Mead (2003) argues that Māori need to pull themselves together and reconnect with tikanga Māori. For it is the underlying principles and standards of behaviour of which Māori professionals indicated were important in engaging and upholding tikanga in a culturally responsive environment.

Bishop & Glynn (1999) note the revitalisation of Te Reo Māori (the Māori language) is of paramount importance in Māori tertiary education. In support of this view, Tiana who teaches Te Reo was excited about delivering Te Reo online. She spoke about her whānau who live in a rural settlement off the East Coast of Aotearoa. She spoke about their interest in technology and passion for learning Te Reo Māori online. To use technology as a catalyst to deliver Te Reo online to her whānau and engage them in learning, she believes would be an awesome opportunity for them. She was excited by this notion of making it available to those who lived in remote areas. She extended an invitation to other Māori who live in rural areas wishing to learn Te Reo, to build up the courage to educate themselves and engage online. As mentioned earlier, as *“technology evolves, so too does our learning, our reo, and our passion to learn.”* Her response follows:

I'm willing to give anything a try if it means putting Te Reo Māori out there, and if it means doing it online. The people we least expect will be interested. We have a lot of people who want to take the reo here. The whole concept is a really good kaupapa, and if it means we have to move with the times, then we move with the times. (Tiana)

The image emerging from this response highlights Tiana's vision that e-learning can provide opportunities for them to deliver Te Reo anywhere. Furthermore, her feelings are supported by Kamira (2001, p.1), who argued that, the Internet can support our

language, and cultural heritage. E-learning contributes to our cultural survival as long as our cultural contexts are maintained. Symbolic in nature is the theory that the Māori learner prefers to study *kanohi ki te kanohi*. Findings in this study concur with this comment. Collectively, seven Māori professionals agreed that they like to “*mix and mingle*” with others in the group. However, Schvaria indicated that *whanaungatanga* is integral to the course, however now that she is at the stage of starting her doctorate meeting with others online is not important. She referred to the online Moodle tutorial mentioned in the methodology chapter of this thesis.

I don't have time to access any chatrooms or discussion boards at this time in my study. All I need easy access to RSS each morning to read the news and I'm set for the rest of the day. I have developed the skills, I am self-disciplined, self-motivated and self-determined to succeed in my studies. I don't need a tutor to empower me, only to facilitate my learning.
(Schvaria, CI)

It might be anticipated that educational technology tools such as text, audio, movie and images used in online educational environments enabled Māori professionals to use the best available resources in the most creative ways imaginable. By exploring innovative techniques using instructional strategies to accommodate the unique needs of Māori can motivate, engage and enhance their e-learning experience (Smith & Ayers, 2006). Furthermore, Tiana (CI) believed that the idea of using a simple greeting written in text, or audio to welcome her each time she accessed the course website would engage her right from the start. “*It's the little things that count. Sometimes the simple things can make a huge impact on the engagement of a student.*”

Darice (CD) added that by “*taking short video clips using their cell phones, copying the file to YouTube and then transferring the file to their course web page was the coolest. To mihimihi live and to make it public allows others in the group to get to know you and find connections.*” Rayna stated that this collaborative approach could also be used as a motivational tool for students who are considering dropping off or are struggling to cope. She used the following scenario to express her thoughts.

Late at night in the middle of winter when you're all alone, and you're struggling to with an assignment and all you want to do is give up, just simple turn on the video clip with your mihimihi, or view clips of your whanau will remind you of why you are doing this. On a personal note, just knowing that my whānau support me is encouraging and reassuring to me that I can get through it. (Rayna, CS)

Studying in Isolation

The physical separation of the tutor from the learner did not deter them from studying this way. The Māori professionals thought deeply about how they positioned themselves within a diverse and sometimes isolated learning environment. However they were all adamant that their previous study at tertiary level had provided them with the tools to survive as an independent learner who sets goals, and is self-determined, self-motivated, and self-disciplined to succeed. The following comment from Schvaria expressed this point of view:

Māori need to stop telling our youth that they can only succeed in a face to face environment.

Māori are a collaborative group of people who focus on the group dynamics (Bishop, 1996) and who prefer to do things in a group. Furthermore, these Māori professionals recognise that many of their Māori students also prefer to study and interact in groups, and for this reason they believed they needed to start encouraging them and showing how to move away from their comfort zone, if they are to engage comfortably and succeed in an e-learning environment. Kaavis was of a similar view. Comment following comment:

Often times in e-learning for Māori and Pacific Islander's, it's that concept of being alone that really puts them off because in the past they have been told that they can only succeed in a face to face environment so its learning to help them change that mindset. They can sit there and email, and bebo, it's the same concept. It's different. They know the people they are talking with, but also there are no expectations. How do you teach Māori to understand the concept that e-learning can be a beneficial learning tool? (Kaavis)

This highlights a significant gap in the literature of which further research can be explored in further research.

Despite the pressures and challenges of studying in isolation, Pallof and Pratt (2005) state that learning with technology and in a collaborative and responsive environment serves to reduce isolation. With this in mind, perhaps we need to be reminded of the advice from Tiana and “*move with the times, or we’ll get left behind.*”

Implicit theories that students hold about the availability to access online academic support using a web cam was reflected in this research. All forms of support have become more widely accepted in tertiary institutions due to student demand. What distinguishes the sharing of this indigenous pedagogy from non-Indigenous ways of knowing that are dominant in tertiary institutions is that it recognises the holistic approach to learning.

Holistic support

Intrigued by the notion that e-learning has in many ways enhanced the learning of students (Pagan, 2005), Tiana believed that by taking a holistic approach which provides Māori students academically, pastorally and culturally would help her to focus on her assignments. She stated that, just knowing that there is available support reassures her that she is not alone.

Initiating a holistic support service which provides twenty four hour access to academic learning support, pastoral guidance, and cultural support was deemed favourable. Rayna and Tiana emphasised the need to provide online holistic support by offering this support for students would eliminate the anxiety, stress and frustration they experienced whilst studying in isolation. Moreover, this approach to learning is highly dependent on Web-based delivery systems which must provide an online support service for tertiary students. Furthermore, Leiken and Kaavis raised similar issues surrounding access and availability of an effective and efficient online academic support mechanism. As academic advisors they believed that online academic support was crucial for the participation, retention, and success of any tertiary students however for Māori who find it difficult to seek support other mechanisms must be put in place for them to even consider seeking this support.

One of the more interesting developments in this research is the idea that an efficient and effective holistic support centre which provides academic, pastoral and cultural support for students should be available to Māori students. As mentioned by Tiana (CI) who works in a holistic support centre for Māori, academic support is strongly encouraged and promoted within their institution. She stated that Māori students are too *whakamaa* (embarrassed) about seeking assistance with their work as they come with the view that people would think they were dumb. Therefore, this highlights a major issue of concern for tutors with Māori students to bridge the gap between their classes and academic learning development centres by encouraging and promoting these services. Both Māori academic advisors argued that, “*as much as we try to promote our services to our Māori students is it difficult to get them in our doors, hopefully by using technology to stimulate interest.*” Furthermore, Mead (1997) argues that there is a move by Māori to repossess their cultural heritage and, by taking ownership of it, to strive to control it. For the Māori e-learner, this gives them good reason to own their learning, to take control and seek to find the support they require. As Simpson (2000) suggests encouraging students to study in depth, to push beyond the boundaries of their programme, and to develop a sense of excitement about their learning and progress.

These aspects of encouragement and support also apply to Māori, as Tiana (CI) pointed out that Māori need to build up enough confidence within themselves to seek academic help, and have the self-motivation and self-determination to succeed in isolation. However, Simpson (2000) emphasises that in order to be constructive, tutors and academic advisors need to keep these online academic support sessions short or with punctuated breaks as they can be quite intense.

Using the Senses

The fundamental concept underlying engagement is to participate in meaningful, interactive learning activities and worthwhile tasks using a variety of tools such as digital text, audio, movie and/or image and applications, and in a variety of ways to enhance students’ understanding, and improve the quality of the learning experience

for them. While in principle, engagement can occur without the use of technology, Māori professionals considered that by taking ownership of their learning would facilitate engagement in ways which are difficult to achieve otherwise. In support of this view, Oliver (n.d) argues that a problem-solving process gives learners ownership of the learning process and encourages the development of skills and knowledge that are transferable beyond the classroom setting.

Varied pedagogical strategies and tools such as social networks, e-portfolio's and simulations appeared to outweigh other preferences in this research. Thus, the philosophical and pedagogical under-pinning of goals, objectives, content and instructional activities, incorporate not one, but multiple pedagogies according to the needs of the Māori e-learner (Fleming, 2006).

A prominent issue that emerged from the research came from Alicia and Darice who raised issues of the design of the programme and the pedagogical strategies and methods that can be used to assist in their engagement. They stated that an e-learning course must be *'tailored to meet their needs,'* that is courses must include well-designed learning activities to engage them and maximise their learning.

Notably, there are a range of issues which arise from a tutor's role, each with its own challenges as mentioned earlier in this research. In particular, the role of responsibility and responsiveness is very demanding for tutors who choose to create a culturally responsive e-learning environment exclusive for Māori. Also, the degree to which tutors use digital tools and applications for the delivery of course content and for interactivity between the tutor and the learner; and the learner to learner with course materials varies considerably (McFarlane, 2004). This has meant that much pressure and attention to the design and delivery of an e-learning course must be managed appropriately in order to uphold the respect and integrity of the programme. Indications of the many features that make up a culturally responsive environment which are highly favourable to Māori professionals can be directed at the responsibility of the tutor.

The Māori professionals in this research emphasised that tutors need to assume responsibility of their own preparation and delivery by taking time to get to know their audience, and more importantly as Pere (1994) argues being empathetic towards the needs of Māori. This is probably a manifestation of the thinking that tutors are responsible for their students' engagement rather than viewing their own responsibility. This attitude has also manifested itself in the focus of the integral role in engaging the Māori e-learner. Now, the challenge now for tutors must be to have a clear visualisation of the kinds of interactions and processes they want to achieve to embrace e-learning in a productive and pedagogical way (Renwick & Owen, 2005) that is consistent for Māori. More importantly, a tutor must be empathetic towards the cultural needs of Māori students. To allow diversity to flourish within the learning environment or whānau (Ngatai, 2006) seemed more appropriate for Tiana (CI) and Rayna (CS). According to Fleming (2006) technological pedagogies and methods must drive the design of an e-learning programme. This also applies to Māori professionals to allow them the freedom to experiment and be creative, to reflect and problem solve, and to communicate and collaborate all within their own learning space (Hughes, 2005; Ke & Carr-Chellman, 2006). Evidence in this research reveals that, video conferencing via a web cam appeared (Race, 1998) to attract some Māori professionals, who have discovered and become accustomed with this device. Its ease of use and low cost was an indication that this digital device excited these Māori respondents the opportunity to communicate face to face with the rest of the group.

The power to engage comes when a tutor has done everything he or she can to design an effective plan that is culturally sensitive to the needs of Māori. The attitude of the Māori professionals indicated that their aspirations, preferences and practices of how they prefer to learn must be considered when developing a programme. Rayna (CS) in particular, who has worked with rangatahi (youth) for a number of years, indicated that in order to engage Māori students online, you do not have to be Māori, but you do need to have an understanding of their home-life and diverse backgrounds from which they come and incorporate that knowledge into the design and delivery of a programme.

Facilitating a more responsive relationship with Māori is to recognise and acknowledge them, their culture and notions of belonging (Mead, 2003). Kaavis mentioned that designing a course based on the diverse needs of the learner fosters student interaction and collaboration amongst the group, all of which leads to engagement. To accomplish this Māori professionals believed that it is the responsibility of the tutor to ‘piece together students’ realities and lived experiences’ (Fletcher et al, 2008) and to provide a source of valuable information from which students can evaluate their own learning and contribute to knowledge effectively online. However, to create a learning space where Māori can engage and construct information knowledge a tutor must take a ‘common sense approach’ when designing an e-learning programme for Māori. Kaavis shared his thoughts on this topic in the following comment:

You really need to make a common sense approach. Part of the websites job is to be able to have those meanings and what it represents, rather than just put a photo on there just to make it look pretty. How many people would know what a kowhaiwhai means, not many. (Kaavis, CD)

Darice (CD) was quick to add that principles of motivation should be applied to all aspects of instruction. According to Oliver (n.d) who argues that the strength of a blended learning environment is to ensure students are fully supported and guided by the tutor throughout the learning process as they undertake independent learning tasks. Furthermore, Light and Cox (2001) argue that students have a sense of real participation in a very personal way. Having a clear appreciation of this is crucial for critically responsive teaching.

It was seen in earlier literature that the responsibility of the tutors to provide an opportunity for students to explore alternatives and course content without any restrictions (McSparran, 2004). Comments received from Māori professionals welcomed the opportunity to explore, experiment, and actively participate in online activity. This approach is an integral part of engagement and can be used address Alicia’s problem she experiences with her hardware technology students who find theory classes boring and often do not attend class.

Studying in Isolation

Further evidence from these findings would suggest that e-learning creates autonomous, independent learners (Johnson & Johnson, 1987; Boud, 1995; Knowles, 1990). The fear and anxiety experienced by Māori tertiary students as mentioned in the literature review of this thesis did not reflect the same attitude of the Māori professionals. Māori professionals indicated that studying in isolation, away from classmates and colleagues, was not a major issue of concern them (Gunter, 2005). They stated that they were aware of the problems that exist and acknowledged however their years of studying at University had prepared them well, and provided them with the appropriate tools to survive in isolation. As Schvaria mentioned earlier, we need to start teaching our Māori students that learning independently, and in isolation can be challenging yet empowering for them. She strongly believed that they needed self-motivation, self-discipline and self-determination in order for them engage in isolation and to be successful. Furthermore, it is argued that in order to succeed in this environment a student must be self-directed, self-disciplined and self-motivated to learn (Higgins, 2002). According to Boud (1995) and Lai (2005), it is the self-motivated learners who know what they want and who come to learn with their goals and aspirations in tact. Furthermore, Cranton (1994) states those who are capable of accessing and utilising online resource materials and evaluating their own learning progress will succeed.

The changing role of the tutor is to train students in the use and understanding of technology. Accordingly, Pere (1994) argues that a tutor has a significant influence on Māori learners to achieve their goals. Moreover, Schvaria concurs with this view by stating that tutors need to embrace e-learning in a productive and pedagogical way if we are to be engaged in our classrooms. Therefore, Porima (n.d.) states it takes much dedication, commitment and pride to succeed in this environment. To implement a variety of innovative and creative pedagogical strategies and methods into the design and delivery of an e-learning environment can capture the interest and attention of students.

Assessment

Assessment is important Māori professionals in this research reflected on assessment as being intellectually demanding, socially disturbing, and divisive for the students. Kaavis (CS) an academic advisor stressed that it is not only their learning that is being assessed but the development of their identity as Māori.

Seduced by Culture

Being technology competent will help many students succeed academically and professionally (Bishop & Berryman, 2006). Māori professionals positioned their learning as a space of difference where interdependencies, values and principles are emphasised and upheld. Therefore, it must be noted that the formal positioning of the engagement of Māori professionals gives tacit privilege to their preferred method of learning. As Māori embark on this new learning experience, substantial opportunities to learn in a social context are on the increase. The profound interest that Māori professionals have with technology and how they interact and engage online came by way of social networking.

Social Networking

More to the point, there are a number of ways of looking at the engagement of the Māori e-learner. In this present study, Māori professionals identified features of social networking that appealed to them and their passion to teach Te Reo online. Tiana (CI) looked upon this as a great opportunity for her to learn, in the comforts of her own whare (home), and surrounded by whānau (family). More importantly, she spoke of her whānau who live in a rural settlement on the East Coast of New Zealand, who she says is very keen and willing to learn take up the challenge to learn online.

On that note, the need to guide and facilitate students respectfully while online and in isolation. This comment concurs with Manasseh's (CD) perception that the freedom to be creative in their learning and to construct new knowledge and understanding in a contemporary way and fashionable manner would best suit his architectures students

creative learning styles. This deemed satisfying to know that the support of the tutor is close at hand, even when at a distance.

Freedom is space

Two Māori professionals recognised social networking or “space” as an opportunity to participate and engage in stimulating and meaningful activities (Brown, 2008). To have the freedom and flexibility to engage in space while communicating with classmates and practising their technical skills via online simulations excited them. As a result, Māori professionals emphasised that engagement can also be influenced by the freedom to choose from a variety of rich multimedia tools (picture-sharing, video, music, blogs) to deliver a required task or presentation.

Comments from Māori professionals emphasised that a high degree of engagement and motivation came from interacting with digital tools such as Flickr an online photo management and sharing application; YouTube, a video sharing website where users can upload, view and share video clips with others online. Moreover, they expressed the freedom and flexibility to collaborate online with other people they know proved more exciting than a chat room or discussion forum in Moodle.

Primarily, social media sharing (space) integrates technology; encourages social interaction; and the construction of text, audio, images, and videos. Critically important, is that Tiana recognised the benefits and rewards “*space*” provides for her and her whānau. It is a motivating and empowering experience for them. She shares her personal comment:

Space denotes engagement. (Tiana, CI)

Tikanga Māori and Technology

Upon reflection, Manasseh spoke of a time when he “lured” his niece, who he said was passionate about Te Reo and Tikanga Māori to the computer. He mentioned mixing tangi (funeral) and technology together to attract her to the Internet. His words, “you can turn dead bodies into diamonds,” and now “you can’t pull them away

from the computer.” Kamira (2001) recognises that this is one way the Internet can contribute to the cultural survival of Māori information knowledge, Māori culture, and values and principles.

Unmistakeably, e-learning opens many doors to many opportunities. For Māori professionals introducing pedagogical strategies and methods that are familiar and common practice to Māori can influence engagement. Most Māori professionals were excited by the opportunity of sharing real-life experiences online. Tiana, a culture inheritor indicated that incorporating real-life activities familiar to her such as pēpeha (introduction) would motivate and stimulate her to learn in this environment. Hence, the boundaries of learning are not confined to an organised classroom curriculum, but open to flexibility and freedom to learn and experiment in many different ways (Race, 1998). Thus Māori professional’s identity is blended into their study, by sharing real-life experiences through technology. Moreover, it was Tiana (CI) who believed that Māori should grasp the opportunity to learn this way.

Conclusions

To engage in a culturally responsive e-learning environment requires a variety of factors. In effect, to strive for academic success in an ever-changing environment comes with many challenges. However, for the Māori e-learner who is willing and prepared to accept changes from within and who are keen to participate in a rich and vibrant virtual community it is somewhat challenging yet rewarding.

Chapter 7

Conclusions and Recommendations

Introduction

In this concluding chapter, the research project is briefly reviewed and its main findings are highlighted. Some recommendations and suggestions for future reference are not given.

The aim of this research was to provide an insight into creating a culturally responsive e-learning environment into mainstream e-learning programmes for the purpose of engaging the Māori e-learner.

To critically examine what engages the Māori learner in e-learning:

The research objectives determine:

1. How do Māori participants prefer to learn?
2. What are the issues, challenges and needs of the Māori e-learner?
3. What are the pedagogical strategies and methods that will enhance learning for Māori?
4. What elements of technology, design, and delivery can be used to engage the Māori e-learner?

The project was undertaken as a qualitative research that employed an action research approach. Data was collected from a sample of Māori professionals through individual and group interviews and observation.

Main Findings

How to engage the Māori e-learner

Early reference was made to Māori who find their way to tertiary institutions and enrol into e-learning programmes. Most Māori professionals in this research were quick to embrace this new paradigm of learning while others were cautious and took time to reflect on this learning process. Furthermore, results indicated that a critical factor of e-learning engagement is the online readiness of Māori professionals or (Hughes, 2005; Skills New Zealand, 2001) that readiness to learn is setting goals and finding the motivation to achieve those goals.

The screening of participants for e-learning programmes was based on assessing their responses to four readiness measures: academic preparedness, cultural competence, sharing Māori information knowledge, and their learning preference toward engagement. The Māori professionals in this research strongly believed that online readiness had a definite impact on their e-learning engagement.

Indeed it is essential that a tutor provides a variety of opportunities for the Māori e-learner who comes with differing learning styles, and with their goals and aspirations in tact in order to achieve positive learning for any given activity put forward. To learn and participate in an environment that is deemed culturally sensitive to the diverse needs of the Māori e-learner is a reflection of the time and effort a tutor has taken to design and develop a culturally responsive e-learning environment.

Māori pedagogies, values and principles, promotes social interaction and participation within the group. A description of these values and practices that underpin a culturally responsive learning environment was defined in this research to inform tutors who are interested in teaching in a culturally responsive environment. From this point forward a strong emphasis was placed on the need to embrace cultural diversity and more

importantly articulate and uphold principles and values (respect, integrity, and individual worth) throughout the term of study.

Māori information knowledge

An expression of concern for the protection and safety of Māori knowledge and Māori graphics must be considered in the design. More importantly, the thoughts and attitudes of Leiken and Kaavis proved indifferent and somewhat controversial to other Māori professionals. Their seemingly diverse views highlighted a major concern for Māori to protect, and preserve the sacredness of tāonga (Māori treasures). Accordingly, Mead (1997) argues, “Māori art is an expression of our humanity” (p. 166) Therefore, reasserting the care and protection of this body of knowledge, it is crucial that tutors choose wisely in their selection of Māori information and Māori graphics uploaded onto the Internet.

Independent Learners

In light of the many differences and preferences that engage Māori, what was most outstanding in this research was the need to teach our rangatahi (youth) to be independent learners. E-learning creates the independent learner (Lamb & Reinders, 2008). Too often they are reminded that success only comes with the support of their whānau or in this situation their tutor and peers.

For Māori to succeed in an e-learning environment that physically separates them from the rest of the group, it is important that they are taught from an early age how to learn and enjoy learning in isolation.

Therefore, the responsibility falls on the tutor or those responsible in the design of the programme to take in account their cultural lifestyle, cultural values and principles, cultural knowledge, cultural heritage and preference to learn. As Schvaria pointed out:

We must teach our youth to be independent learners (Schvaria, CI)

Technology is a powerful tool that has the potential to engage tertiary students in the learning process and more importantly it provides a new and exciting way to construct new understandings for the Māori e-learner, revive Te Reo Māori, and adopt many flexible learning alternatives which Māori professionals state is most suitable to their way of learning.

In recognition of the needs, abilities, and aspirations of Māori e-learners the Māori professionals in this research stated that to achieve academically in this environment requires much technical skill and expert knowledge of the course content by the tutor. For this reason, they stated that a tutor needs to construct innovative programmes that are stimulating, interactive and meaningful to the Māori e-learner to arouse their passion and interest, to learn and to value the many opportunities that e-learning has to offer, in a flexible and self-paced manner. It is essential that the Māori e-learner develops a passion to learn and participate in a full range of interactive activities. To use technology as a catalyst for change is to create a virtual space of learning where stimulating, and interactive activities are available, at any given time. Participating in a virtual space appears to be a way of addressing isolation and bridging the gap that students will experience.

Limitation of the Research

A few Māori professionals who were invited to participate in this research claimed that they were too busy or unavailable at the time this research was undertaken. For this reason, the researcher invited Māori participants who were available, appropriate to the study and willing to participate.

One week prior to the designing the Moodle tutorial for the Māori participants the Te Reo lecturer resigned. For this reason and due to time constraints the researcher had little choice but to continue on with the process, and was forced to make major changes to the tutorial.

This time, Māori participants had already been informed of the Te Reo tutorial and had been looking forward to participating online. They voiced their disappointment in the group sessions that followed. I was conscious of these problems and where possible sought to minimise them.

Future Research

1. To cultivate a more positive perception and readiness of e-learning for the Māori e-learner further research into how Māori pedagogies can be incorporated into the course curriculum to engage the Māori to e-learner.
2. An extensive investigation of how instructional technology, design and delivery can engage the Māori e-learner.
3. Even as this thesis was finishing, showing that Māori are interested in the Internet, Google Māori was launched and introduced to the public in Te Reo Māori week, 21 July 2008.

Conclusion

To engage in e-learning, is to be willing to accept change, and study in a challenging environment. Whether Māori choose to learn in a culturally responsive e-learning environment or not, it must be said that they are recipients of change. Learning in isolation or in a face-to-face situation, provides an open-system where people can come and go, and for this reason Māori must learn to adapt themselves to the change.

Recommendations

1. Initiate Māori pedagogy into the design of the course by blending richness and diversity and allow diversity to flourish.
2. Allow for freedom and creativity in lessons.
3. Teach our rangatahi to be independent learners.
4. Provide holistic support.
5. Careful attention to the way Māori information is handled must be taken. Any misappropriation toward its use or misuse may cause problems and deter Māori from participating in an e-learning programme.
6. Create space.

Appendix A

Glossary of Terms

| | |
|---------------------|---|
| Aotearoa | New Zealand |
| aahua | character |
| ako | pedagogy |
| aroha | love in its broadest sense |
| awhi | embrace |
| bebo | social networking programme |
| blogging | web-logs, text-based comments |
| discussion forums | a web application for holding discussions |
| gaming | software application developed with game technology |
| hapu | sub-tribe |
| hinengaro pai | self-esteem |
| interactive | Anything from the ability to click on a link to another webpage, through to full interpersonal discourse. This term must always be considered in context. |
| iwi | tribe |
| kai | food |
| kaiako | teacher |
| kaitiakitanga | guardianship |
| kanohi ki te kanohi | face to face |
| karakia | prayer |
| kaumaatua | respected elder |
| kaupapa | subject, topic |
| kawa | protocols |
| kete | basket |
| kuia | respected female elder |
| manaakitanga | hospitable, caring |
| mana | power, prestige |
| mana tāngata | having influence, prestige, power, acknowledging, differences, culture, values, and rights of others |

| | |
|----------------|---|
| māori | indigenous person of New Zealand |
| māoritanga | māoriness |
| marae | ceremonial meeting place |
| matauranga | knowledge |
| mihi | ritualised self-introduction |
| mokopuna | grandchild |
| moodle | learning management system |
| pedagogy | the art and science of effective teaching |
| powhiri | traditional welcome |
| rangatahi | youth |
| simulations | imitation of some real thing |
| runanga | council, assembly |
| tāngata whenua | indigenous people |
| tāonga | Treasure |
| tautoko | support |
| teko teko | pattern |
| te reo | Māori language |
| tikanga | customs, values, beliefs and attitudes |
| tupuna | ancestors |
| waiata | song |
| wairua | spiritually |
| wānanga | school |
| whānau | extended family |
| whanaungatanga | relationship, kinship, group dynamic |
| whakapapa | genealogy |
| whare | house, building |

Appendix B



TO:

FROM:

DATE:

RE: Engaging the Māori e-learner: Instructional technology, design and delivery.

I have been given and have understood the explanation of this research for the School of Education. I have had an opportunity to ask questions and have had them answered. I understand that neither my name nor the name of my organisation will be used in any public reports, and that I may withdraw from this research within four weeks of this interview, without penalty of any sort.

I agree to take part in this project.

Signed: _____

Name: _____

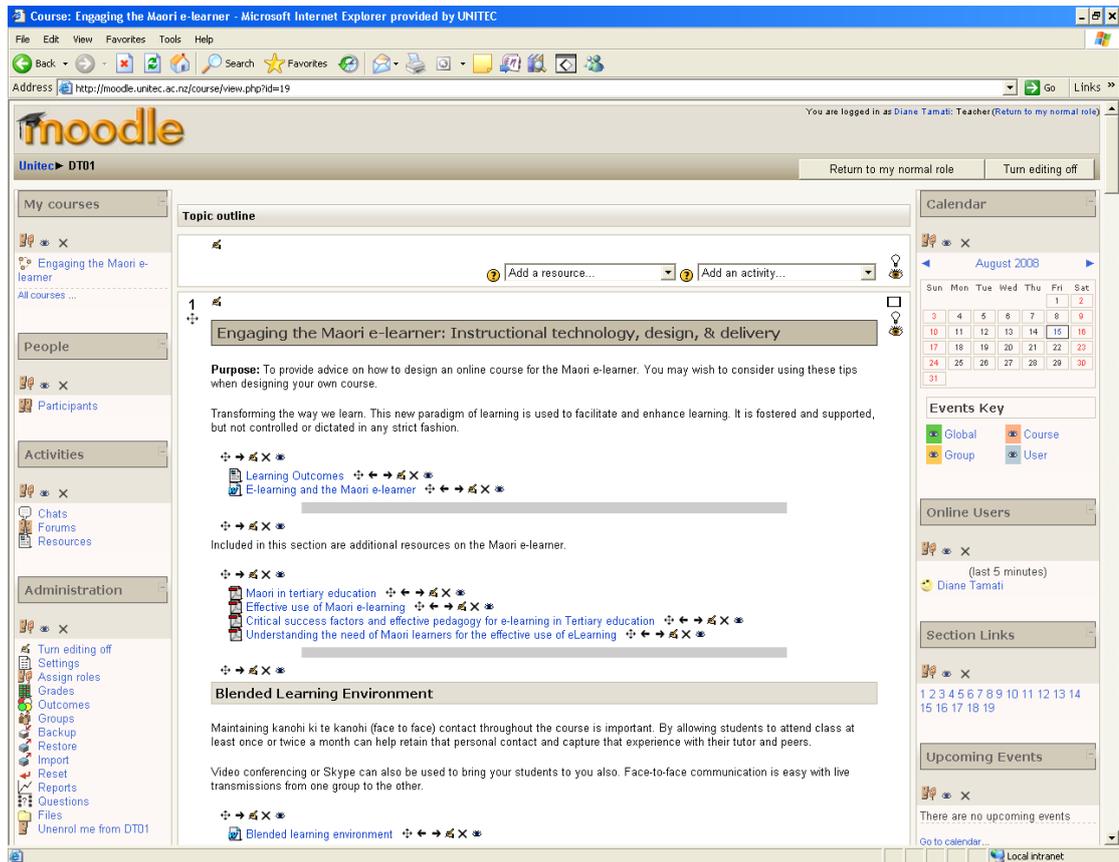
Date: _____

UREC REGISTRATION NUMBER:

This study has been approved by the UNITEC Research Ethics Committee from (date) to (date). If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretariat (ph: 09 815-4321 ext 7254). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix C

Moodle Online Tutorial



Course: Engaging the Maori e-learner - Microsoft Internet Explorer provided by UNITEC

Address: http://moodle.unitec.ac.nz/course/view.php?id=19

5 **Korero (chat) with me!**

After the introductions, it is important for students to find a connection and build a relationship with their peers.

High interactivity and collaboration is encouraged.

Computer-enhanced learning is supported by collaborative activities. For Maori, knowledge is perceived as belonging to the whole group; and not the individual. Maori have the responsibility to contribute and share this knowledge with others. Allow them time to chat early in the course.

Korero with me!

6 **Maori Design**

Incorporate Maori images into the design of your course.

Use Te Reo Maori as an option in the headings.

Be mindful of your page layout, colour, and design. Keep to one page, keep your page clean, clear, and easy to read. Avoid too much text. One link to a lesson is preferred.

Make it personal. Display students name on the front page. For example, Kia ora Corbyn. It's nice to be acknowledged.

Course Design

7 **E-Tutor**

As a tutor, you need to expand your repertoire and expertise, if you are to engage your students.

Know your topic well, and know your audience. Include goals and incentives into the course to enhance student performance.

Know your audience

Course: Engaging the Maori e-learner - Microsoft Internet Explorer provided by UNITEC

Address: http://moodle.unitec.ac.nz/course/view.php?id=19

Know your topic well, and know your audience. Include goals and incentives into the course to enhance student performance.

Know your audience

Tutoring via email

8 **Week 2: 30 July**

This week you will learn more about the learning technologies and how they can be used to engage the Maori e-learner.

If you have any questions or just need to catch up with me, I will be online between Wed 1 Aug, 12pm - 1pm.

Online Communication

Chat rooms, Forums, Skype are ways that students can communicate with each other. Set up a private chat room when dealing with sensitive issues.

Chat Protocols

9 **Learning Technologies**

A key environment for learning is the whanau. Using a variety of digital media help to engage the Maori e-learner. One way you can do this is by inserting images, audio, or video of yourself and your whanau, your maunga, your marae to create a visual imagery of who you are and where you come from.

Your task

Bebo

Itunes

Flickr

Text msg: Make it easy on yourself. Try **texting** your friends if you have any queries or need to keep in touch. This works well especially for those who are working.

Course: Engaging the Maori e-learner - Microsoft Internet Explorer provided by UNITEC

Address: http://moodle.unitec.ac.nz/course/view.php?id=19

10 E-Lecture

Does video appeal to you? Please add your comments to the discussion forum at the end of this segment.

- Phrase drills
- Video Tips
- Sample of e-lectures
- What are your thoughts on video

11 Quizzes and Games

Gaming involves a level of competition and can be used to increase motivation and encourage participation. Include games in your lessons to engage your learners.

- Need a break!
- Puzzle
- Crossword

12 Motivate me!

Keep going! Feel free to add any advice in our Forum below.

- 5 Successful Tips!
- How do you keep a Maori motivated online?

13 FAQ's & Glossary of Terms

Frequently asked questions and a glossary of terms may provide immediate answers for students when the tutor is unavailable.

14

Course: Engaging the Maori e-learner - Microsoft Internet Explorer provided by UNITEC

Address: http://moodle.unitec.ac.nz/course/view.php?id=19

14 E-journal (Mentoring Tool)

Introduce an e-journal into the course. Ensure that students enter their thoughts and feelings about the course at least once a week. If any major issues or concerns arise then this information can be passed on to the counsellor, or mentor coordinator.

Self-reflective tools are intended to supplement the experience of the simulation through private assessment of personalised feedback. This feedback and record keeping allows learners to engage in a more traditional teamwork simulation with "live" team members.

Capturing and building on the learning. Learners can use their insights later, in online discussions.

- E-Journal

15 Waiaata/Karakia

Provide waiaata or karakia video/audio clips. Maori may choose to access these clips at their leisure.

16 Simulation

Simulation can be used to develop team dynamics and communication. Learners build on insights and ideas to develop these skills. Allow students to explore, interact, and manipulate knowledge using simulated activities.

Below is one way you can implement this strategy into your course.

Phase 1: Present a stand-alone CD virtual reality simulation that each student completes independently.

Phase 2: Allow students to discuss their participation online. This session should be guided by the tutor who asks questions, making suggestions throughout the discussion.

Appendix D

Questions to Māori participants

Appendix D - 1 Individual Interview Questions

Appendix D – 2 Group Interview Questions

Appendix D.1

Questions to Māori Participants

Individual Interviews

1. What is your current role?
2. Where were you born?
3. How were you raised?
4. What is your academic and cultural background?
5. What are your thoughts and feelings of e-learning?
6. How will the instructional technology, design of a course and its website, and delivery of the programme engage you?
7. What are the issues and challenges of e-learning?
8. What are the benefits and advantages of studying this way?
9. Do you have any recommendations about engaging in an e-learning environment?
10. What is your vision of e-learning? Where do you see the Māori e-learner in the future?

Appendix D.2

Group Interviews

1. What elements of instructional technology do you believe would engage you?
2. Digital text, audio, movie, image and space.
3. What pedagogical strategies and methods would engage your learning?
4. Appropriate processes and practice of delivery, timing of activities; use of interactive tools by the tutor.
5. What type of learning environment do you prefer to study in?
6. Blended, active, culturally responsive
7. What is your interpretation of tikanga Māori? Where do you place yourself as a Māori learner? For example, cultural inheritor, culture seeker, culture dissenter.
8. Will tikanga Māori blended with instructional technology, design, and delivery.
9. Does tikanga have a place in e-learning? Will the two sit comfortably?
10. Do you think that e-learning will be accepted by Māori as a Māori way of doing things?
11. What are your thoughts and feelings of studying in isolation?
12. Can you (Māori) succeed only in a face-to-face environment?
13. Would you like to comment on the online tutorial site?
14. Are there any other comments you would like to mention?

References

- Anderson, A. (2002). *Engaging student learning in physical education*. *Journal of Physical Education, Recreation and Dance*, 73(7), 35-39.
- Baker, W. (1995). *Evaluation in tertiary education: an investigation of the effectiveness of SGID (Small Group Instructional Diagnosis) as an evaluation technique to improve the quality of educational provision: being a thesis submitted in partial fulfilment of the requirements for the degree of Master of Educational Administration at Massey University*.
- Biggs, J. (2003). *Good teaching: Principle and practice*. Teaching for quality of learning at University. Philadelphia: Society for Research into Higher Education: Open University Press.
- Berryman, M., & Bishop, R. (2006). *Culture speaks - cultural relationships and classroom learning*. Wellington: Huia.
- Bishop, R. (1996). *Collaborative research stories: Whakawhanaungatanga*. Palmerston North: The Dunmore Press.
- Bishop, R., and Glynn., T. (1999). *Culture counts*. Palmerston North: Dunmore Press Ltd.
- Bonk, C. J., & K Kyong-Jee. (2004). *Future directions of blended learning in higher education and workplace learning settings*. In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning*. San Francisco: Pfeiffer Publishing.
- Boud, D. J. (1995). *Enhancing learning through self assessment*. London: Philadelphia.
- Brown, G., & Atkins, M. (1988). *Effective teaching in higher education*. London: Routledge.
- Brown, M. (2008). *Learning spaces* [Electronic version]. Educause, 1-15.
- Bruckman, A. (2002). *The future of e-learning communities*. 45(4), 60-63. Retrieved 31 August 2006, from <http://portal.acm.org/citation.cfm?id=505274>
- Bryman, A. (2004). *Social research methods*. New York: Oxford University Press.
- Cardno, C. (2003). *Action research: A developmental approach*. Wellington: New Zealand Council for Educational Research.
- Chin, P. (Ed.). (2004). *Using c and it to support teaching*. New York: RoutledgeFalmer.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in education*. In (5th ed.). New York: RoutledgeFalmer.

- Coombes, P., & Danaher, G. (2006). *The power of the partner in promoting lifelong learning: the perspective of the mature-age student*. Paper presented at the Lifelong Learning Conference, Queensland, Australia.
- Cranton, P. (1994). *Understanding and promoting transformative learning: A guide for educators of adults*. San Francisco: Jossey-Bass.
- de la Harpe, B., & Radloff, A. (2006). *Changes over time in learning and self-regulation strategies of beginning and mature-age university students: Implications for learning for life*. Paper presented at the Lifelong Learning.
- Dickey, M. D. (2004). *The impact of web-logs (blogs) on student perceptions of isolation and alienation in a web-based distance-learning environment*. Open Learning, Volume 19, Number 3, November 2004. (pp. 279-291(13).
- Durie, M. (1998). *Te mana, te kawantanga*. Auckland: Oxford Press.
- Fennes H, & Hapgood K. (1997). *Intercultural learning in the classroom: Crossing borders*. London: Caswell.
- Fleming, J. (2006). *Cast off those shackles: moving from 19th century perceptions of technology*. Paper presented at the Lifelong Learning Conference, Queensland, Australia.
- Fletcher, J., Parkhill, F., Fa'aofo, A., & Taleni, T. (n.d.). *Influences on pasifika students achievement in literacy*. [Electronic version]. Teaching and Learning(1).
- Gay, G. (2000). *Culturally responsive teaching*. New York: Teachers College Press.
- Gunter, H. M. (2005). *Cenceptualising Research in Education Leadership*. Educational Management Administration & leadership, 33(2), 165-180.
- Higgins, A. (2002). *Creating a National E-Learning Strategy in the Open Learning Environment: A New Zealand Case Study*. Distance education association of New Zealand.
- hooks, B. (1994). *Teaching to transgress Education as the practice of freedom*. New York: Routledge.
- hooks, B. (2000). *Where we stand [electronic resource]*. Class matters. New York : Routledge.
- Holsapple, C. W., and Lee-Post, A. (2006). *Defining, assessing, and Promoting e-learning success: An information systems perspective*. Decision sciences journal of innovative education, 4(1), 67-85.

- Hughes, J. A. (2005). *Supporting the online learner*. Paper presented at the The Annual Conference on Distance Teaching and Learning. Retrieved May 5th 2006. from <http://www.uwex.edu/disted/conference/>
- Johnson, D. W., & Johnson, R. T. (1987). *Learning together and learning alone: cooperative, competitive and individualistic learning* (5th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Johnson, R. B., & Onwuegbuzie, A. J. M. (2004). *Mixed methods research. A research paradigm whose time has come*. [Electronic version]. *Educational Researcher*, 33(7), 14-26.
- Kamira, R. (2001). *I sneeze - therefore I live: the impact of the internet in the Māori culture*. Retrieved 8 July 2008, from <http://209.85.173.132/search?q=cache:EB0tyivJxGwJ:www.communityresearch.org.nz/resources.php%3Fdownload%3D1019+I+sneeze+kamira&hl=en&ct=clnk&cd=3&gl=nz>.
- Karabenick, S. A., & Collins-Eaglin, J. (1997). *Relation of perceived instructional goals and incentives to college students' use of learning strategies*. *The Journal of experimental education*, 65(4), 331-338.
- Ke, F., & Carr-Chellman, A. (2006). *Solitary learner in online collaborative learning: a disappointing experience?* *Quarterly Review of Distance Education*, 7(3), 249-265.
- Keeves, J. P. & Watanbe, R. (1997). *International handbook of educational research in the asia-pacific region*. Retrieved 8 July 2008 from, http://books.google.co.nz/books?hl=en&id=hPwEpWpIj48C&dq=keeves&printsec=frontcover&source=web&ots=qIBKtoEMBX&sig=nhdQWrTlQWCfL7hVTHhVbQ1M1qU&sa=X&oi=book_result&resnum=7&ct=result#PPP1,M1.
- King, M. (1992). *Te ao hurihuri: Aspects of māoritanga*. Auckland: Reed Books.
- Klemm, W. R. (1998). *Eight ways to get students more engaged in online conferences*. Retrieved 15 August, 2006. from <http://www.thejournal.com/articles/14054>
- Knowles, M. (1990). *The adult learner: A neglected species* (4th ed.). Houston: Gulf Publishing.
- Krueger, R. A. (1994). *Focus groups: a practical guide for applied research*. Thousand Oaks, California: Sage.
- Krueger, R.A. & Casey, M. (2000). *Focus groups: a practical guide for applied research*. Thousand Oaks, California: Sage Publications.

- Lai, K. (Ed.). (2005). *e-Learning communities*. Dunedin: University of Otago Press.
- Lamb, T., & Reinders, H. (2008). *Learner and teacher autonomy: Concepts, realities, and responses*. Philadelphia: John Benjamins Publishing Company.
- Light, G., & Cox, R. (2001). *Learning & teaching in higher education*. Thousand Oaks, California: SAGE Publications Inc.
- Lim, C. P. *Engaging learners in online learning environments* [Electronic version]. Tech Trend, 48(4).
- Maharey, S. (2002). *The report of the e-learning advisory group, March 2002: Māori and e-learning*. Retrieved from <http://www.executive.govt.nz/minister/maharey/highways/references.htm>.
- Mason, M., G, Chesemore, S., & van Noord, R. (2006). *E-learning's next*. Library. http://209.85.175.104/search?q=cache:KbpRW2-EugJ:www.flinz.ac.nz/file.php/20/01_E-learning_in_context_27-08-07_kh.pdf+mark+nichols+bcnz&hl=en&ct=clnk&cd=1
- McFarlane, A. H. (2004). *Kia hiwa ra?: Listen to culture*. Retrieved from.
- McInerny, D. M., & van Etten, S. (2003). *Sociocultural influences and teacher education programs*. Connecticut: Information Age.
- McKegg, A. (2005). *Learning communities: A structured approach to student integration*. Higher education in a changing world. Paper presented at the Herdsa conference. Retrieved 8 July, 2007.
- McLouglin, C. O., & Oliver, R. (2000). *Designing learning environments for inclusivity: A case study of indigenous online learning at tertiary level*. [Electronic version]. Australian Journal of educational technology, 16(1), pp. 58-72.
- McNiff, J. (1988). *Action research: principles and practice*. London: MacMillan.
- McSporran, M. (2004). *How e-learning is being implemented in Australian and New Zealand institutions*, Unitec New Zealand, Auckland.
- Mantyla, K. (2001). *Blending e-learning: the power is in the mix*. Alexandria: American Society for Training & Development.
- Mead, H. M. (2003). *Tikanga māori: living by māori values*. Wellington: Huia.
- Mead, S. M. (1997). *Aspects of māori culture*. Wellington: Victoria University Press.
- Metge, J. (1986). *In and out of touch*. Wellington: Victoria University Press.

- Ministry of Education, N. Z. (2003). *Te kotahitanga: The experiences of year 9 and 10 māori mainstream classrooms*: Ministry of Education, New Zealand.
<http://www.minedu.govt.nz/goto/tekotahitanga>
- Ministry of Education, N. Z. (2005). *Te timatanga: A māori kaupapa framework*. Retrieved May 5th 2006. from <http://www.minedu.govt.nz>.
- Neuman, W. L. (2003). *Social research methods: Qualitative and quantitative approaches* (5th ed.). Boston: Pearson Education Inc.
- New Zealand Council for Educational Research. (2004). *Critical success factors and effective pedagogy e-learning in tertiary education*. Retrieved 8 July, 2004.
- Ngatai, L. (2006). *Lifelong learning: Partners, pathways, and pedagogies*. Paper presented at the Lifelong Learning Conference. Retrieved 1 February 2007.
- Nichols, M. (2007). *E-learning in context* [Electronic version].
- Oblinger, D. G., & Hawkins, B. L. (2005). *The myth about students: we understand students*. Educause Review, vol. 40, no. 5 (pp. 12 -13).
- Oliver, R. (n.d.). *Using a blended learning approach to support problem-based learning with first year students in large undergraduate classes*. [Electronic version].
- Pagan, L. (2005). *Teaching for diversity and globalization in online and web-based learning environments*.
<http://209.85.175.104/search?q=cache:e1EWcLsRIXMJ:www.formatex.org/micte2005/225.pdf+leticia+pagan&hl=en&ct=clnk&cd=4>
- Palloff R. M, & Pratt, K. (2003). *The virtual student*. San Francisco: Jossey-Brass.
- Palloff, R. M., & Pratt, K. (2005). *Collaborating online: Learning together in community*. Distance Education Report, 9(7), 2-2.
<http://libproxy.unitec.ac.nz:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=16718815&loginpage=Login.asp&site=ehost-live&scope=site>.
- Pere, R. R. (1994). *Ako: Concepts and learning in the māori tradition*. Wellington: Te Kohanga Reo National Trust Board.
- Piggot-Irvine, E. (2002). *Rhetoric and practice in action*. Paper presented at the British Educational Research Association. Retrieved. from
<http://209.85.175.104/search?q=cache:hA5VxvWsuzIJ:www.ethiopia-ed.net/images/806030467.doc+eileen+piggot-irvine++prar&hl=en&ct=clnk&cd=3&gl=nz>

- Porima, L. (n.d.). *Understanding the needs of māori learners for the effective use of eLearning*. Retrieved 8 July 2007, from <http://elearning.itpnz.ac.nz/files/Understanding%20the%20Needs%20of%20Māori%20Learners%20for%20the%20Effective%20use%20of%20eLearning.pdf>.
- Postlethwaite, M. (2004). Online discussions and AKO in Aotearoa/New Zealand, Unitec Institute of Technology.
- Purnell, S. (2006). *Tertiary institution that works for students*. [Electronic version].
- Race, P. (1998). *500 tips for open and flexible learning*. London: Kogan Page.
- Race, P. (2005). *500 tips for open and online learning* (Vol. 36): Blackwell Publishing Limited.
<http://libproxy.unitec.ac.nz:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=17691153&loginpage=Login.asp&site=ehost-live&scope=site>.
- Renwick, J., & Owen, S. (2005). *Measuring the worth of e-learning support systems*. Retrieved 5 June, 2007. from <http://cms.steo.govt.nz/NR/rdonlyres/92FD593C-D582-45F1-96FC-7AF67BDCC34E/0/ATSAELPReport.pdf>.
- Ritchie, J. (1992). *Becoming bicultural*. Wellington: Huia Publishers.
- Roblyer, M. D. (2003). *Integrating educational technology into teaching*. (3 ed.). New Jersey: Pearson Education.
- Ryder, M. (2008). *The cyborg and the noble savage* [Electronic version].
- Ryder, M. (2008). *The cyborg and the noble savage: Ethics in the war on information poverty*. In R. L. a. R. Adell (Ed.), *Handbook of Research on Technoethics*: IGI Global. <http://carbon.cudenver.edu/~mryder/savage.html>
- Sedibe, E. M. (2006). *The African renaissance process and the significance of African indigenous knowledge systems (AIKS): Meeting the challenges of globalisation in the 21st century*. Paper presented at the Lifelong Learning Conference, Queensland, Australia.
- Selinger, D. (2004). *Changes over time in learning and self-regulation strategies of beginning and mature-age university students: implications for learning for life*. Paper presented at the Lifelong Learning Conference, Griffith University, Queensland, Australia. (pp., 72-75).

- Selzer, D., & Schefe, V. (2006). *The changing face of common time: moving on with an award-winning first year student retention initiative*. Paper presented at the Lifelong Learning Conference, Griffith University, Queensland, Australia.
- Sheets, R. (2005). *Diversity pedagogy*. Boston: Pearson Education.
- Simpson, A. (2000). *English teaching: practice and critique*. Retrieved 20 June 2007, from <http://education.waikato.ac.nz/research/journal/view.php?author=true&id=41&p=1>.
- Smith, D. R., & Ayers, D. F. (2006). *Culturally responsive pedagogy and online learning: Implications for the globalized community college*. *Community College Journal of Research & Practice*, 30(5/6), 401-415.
<http://libproxy.unitec.ac.nz:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=20032090&loginpage=Login.asp&site=ehost-live&scope=site>
- Smith, L. (1999). *Decolonizing methodologies: research and indigenous people*. Dunedin: University of Otago.
- Tapine, V., & Waiti, D. (1997). *He Tirohanga ki mua: visions for māori education*. Wellington: New Zealand Council for Educational Research.
- Thompson, L., & Heng-Yu Ku (2005). *A case study of online collaborative learning*. *The Quarterly Review of Distance Education*, 7(4), 361-375.
- Vasil, R. (1990). *What do the more want?* Auckland: Random Century.
- Vonderwell, S., & Zachariah, S. (2005). *Factors that influence participation in online learning*. *Journal of Research on Technology in Education*, 38(2), 213-230.
<http://libproxy.unitec.ac.nz:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=20872836&loginpage=Login.asp&site=ehost-live&scope=site>
- Walker, R. (1987). *Nga tau tohetohe: Years of anger*. Auckland: Penguin Books.
- Walker, R. (2004). *Ka hauhau tone motor: Struggle without end* (Revised Ed.). Auckland: Penguin.
- Wan street, C. E. (2006). *Interaction in online learning environments*. *Quarterly Review of Distance Education*, 7(4), 399-411.
<http://libproxy.unitec.ac.nz:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=23965563&loginpage=Login.asp&site=ehost-live&scope=site>

Webber, B. (1996). *He paepae korero: Research perspectives in māori education*.

Wellington: NZCER.

Weimer, K. (2005). *Creating an active online learning environment* [Electronic version].

Wiemer, K. (2005). *Helping faculty create an active online learning environment*. Distance Education Report, 9(14), 8-8.

<http://libproxy.unitec.ac.nz:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=17670314&loginpage=Login.asp&site=ehost-live&scope=site>