

**Curtin University of Technology
Science and Mathematics Education Centre**

**As Proud as We are: A Case Study of Educational Achievement and
Learning for Mature Māori Computing students.**

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**This thesis is presented for the Degree of
Doctor of Philosophy Science and Mathematics Education
of
Curtin University of Technology**

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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signature

Date: 30th September 2014

Whakataukī

(Māori proverb)

E Tipu e rea
Ko nga ra o tou ao
To ringa ki nga rakau
a te pākeha
hei orange mo to tinana
To ngakau ki nga taonga
a o tipuna Māori
he tikitiki mo to mahuna
To wairua kit e Atua
Nana nei nga mea katoa

Na Pa Apirana Ngata

Grow up tender youth and fulfil
the needs of your generation
Your hands mastering the arts
of the Pākeha
For your material well-being
Your heart cherishing the treasures
of your ancestors
As a plume for your head
And your soul given to God
the author of all things

Sir Apirana Ngata

Abstract

The Waikato Institute of Technology has many mature Māori students who have returned to full time studies. There are many stories that have been shared, both good and bad that many of these students have had whilst attending full time studies. Family members would tell them that they would not succeed and that they were just going to be another 'hori' (derogative term for Māori) on the unemployment benefit.

They experienced many barriers such as financial, social and family hardships to name a few, as they made the transition back to full time study. This research will therefore explore the experiences of some of these Māori adult students who have graduated with a Bachelor of Information Technology Degree (BIT), whilst gaining an insight to understand how they have all become academically successful.

This research will look at the participants schooling experiences, their motivation and drive for attending Wintec in the view of succeeding, their experiences at Wintec specifically in the Information Technology field and also consider the reasons why the participants have achieved well.

As educators this is important if we are to improve the situation for future adult Māori students who wish to study Information Technology. This research will highlight the support systems if any, that was used by the Māori participants in this study and will cover in some detail the challenges that they experienced while studying in a tertiary learning environment specifically computing. In summary, this research is a qualitative case study into the experiences of academically successful IT adult Māori students.

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Glossary of Māori terms

Māori Word	English Meaning
Akonga ake	Motivation affects behaviour and learning
Aroha	Love, care, compassion
Arohatanga	Concern, help
Atua	God
Awhi	Support
Awhina	Aid, assist or help
Hapu	Sub-tribe, a division of a Māori people or community
Hori	Derogatory term used for Māori
Iwi	A Māori community or people
Kai	Food
Kāiawhina	Māori Advisor
Kanohi kitea	Face-to-face
Kanohi ki te Kanohi	Face-to-face meeting
Kapa haka	Māori cultural group, Māori performing group
Karakia	Prayer
Kaumātua	An authoritative Māori person
Kaupapa	Topic, policy, matter for discussion
Kawa	Protocols
Korero	Talk
Koroneihana	Coronation
Korowai	Feathered cloak
Kotiro	Girl
Kura	School
Kura kaupapa	Māori-language immersion schools
Mahi	Work
Mana atua	Sacred spiritual power from the Atua
Manaakitanga	Helpfulness
Māori	The indigenous people of New Zealand
Māori rangatahi	Māori youth and younger generation
Marae	Meeting house

Mātauranga	Knowledge, wisdom, understanding, skill
Mihimihi	Speech of greeting, tribute.
Mihi whakataua	Formal speech of welcome
Mokopuna	Grandchildren
Ngawari	Clear and precise instructions
Noho	To sit, stay, remain,
Noho Marae	To stay at a marae
Pākeha	English, foreign, European race
Pasifika	Polynesian people
Powhiri	Invitation, rituals of encounter, welcome ceremony on a marae.
Reo	Language
Tangata Whenua	Local people, hosts, indigenous people of the land
Tangi	Funeral
Tāuira	Student
Te reo	The language
Te Ao Māori	Māori world view
Tiaki	Model
Tikanga	Customs, protocols, values
Tohu	Degree
Utu	Reciprocal relationships
Waiata	Music
Wānanga	School of learning
Whakamā	Shy
Whakawhānaungatanga	Getting to know each other, connectiveness
Whakangungu	To defend and protect
Whakapapa	Genealogy
Whānau	Family
Whānaunga	Family relation
Wharekai	Dining hall, kitchen area

Glossary of Abbreviated terms

BIT	Bachelor of Information Technology Degree
CCIT	Certificate in Computing Information Technology
DipICT	Diploma in Information Communication Technology
EFTS	Equivalent Full Time Study.
Grad Dip in IT	Graduate Diploma in Information Technology
IT	Information Technology
ITP	Institutes of Technical Polytechnics
MOE	Ministry of Education
NCC3	National Certificate in Computing Level 3
NCEA	National Certificate of Educational Achievement
TEC	Tertiary Education Commission
UE	University Entrance
WINTEC	Waikato Institute of Technology

Chapter One

Introduction

...You have come back as mature students who many of you would have been told that you were “over the hill” or just too “old” to succeed. You are numbered as one of a few who have graduated from a discipline (IT) that is seen as a very difficult field to study and pass...

1.1 Overview of Chapter One

In this chapter the background to this research study is outlined. The significance of this research is also discussed with research objectives outlined. The aim of this study is given and a short report is provided on case studies which form the framework to this research. An overview of the Waikato Institute of Technology is discussed followed by the entry requirements of students to undertake studies in the Bachelor of Information Technology. An overview of the thesis forms the concluding section of this chapter.

1.2 Background

For the last 12 years I have watched numerous IT graduates walk the graduation stage to receive their degree. Each of these students has a story to tell and most would say that their journey through education was nurtured at a young age. They had good schooling experiences, education was fostered in the home at an early age and the notion of “if you are to succeed in life then go and get an education” was prominent. Some of these students that I’ve seen enter with very high entry qualifications and others with industry based experience. High family expectations are also the norm. One way or another they are numbered as one of those who have graduated with a Bachelor of Information Technology Degree.

However, there are the exceptions. I noticed waiting to the side of the stage a Māori girl dressed in a beautiful Korowai (feathered cloak) who will soon proudly walk the

graduation platform to be capped and to receive her degree. Her story unlike the rest of her peers bears little resemblance to anything to do with a successful and encouraging early childhood education.

For those who have seen the New Zealand movie “Once Were Warriors” it portrays a story of the Heke family and also similarities to this student’s upbringing. Family violence is the norm, nightly drinking parties are common and the children’s education is that learnt off the streets of South Auckland. This film portrays the harsh realities of some of our Māori families who live in urban areas here in New Zealand.

That’s why I take an interest in this student. From her humble upbringing to where she now stands proudly with her Tohu (Degree) in one hand and her other hand placed proudly over her heart. She is one of those who have broken that stereotype of not being one of the dismal statistic’s of Māori under achievement in a tertiary setting.

The idea for this research topic came some years later from a conversation I had with one of my former students who was a mature Māori student coming to the end of his studies. I was interested in his story because unlike many other students who had the support of family and friends, he had very little.

He was discouraged to attend studies and that he should join the rest of the Whānau (family) at the local meat works (abattoir). As I listened to his story, I wondered why a mature student like himself would want to complete a computer degree. Computing was not one of the easiest courses to undertake and pass.

My interest in finding an answer to this question arose when I was appointed the Māori Kāiawhina (advisor) in the IT department responsible to looking after our Māori students in the School of Information Technology. My work in the School enabled me to work with Māori students. It was through these discussions that I came to realize that my student’s story was not that uncommon among many of our mature students. There were a number of Māori students who were pursuing an IT degree whose backgrounds that they came from would also make a good sequel to “Once Were Warriors”. So why were they here, how did they gain entry to our courses and what drove them to succeed?

In recent years research in New Zealand has investigated the causes of student completion rates within tertiary institutions. Yet overseas research, indicates that student completion rates in tertiary education involves a variety of factors (Prebble, Hargraves, Naidoo, Suddaby, & Zepke, 2004; Scott & Smart, 2005; Yorke & Longen, 2008).

International studies undertaken notes that students from lower socio-economic groups have poorer completion rates in secondary schooling compared to their counterparts (Cook & Evans, 2000) leading to a higher level of underachievement at tertiary level. The differences with Māori are the culmination of factors that include a low pass rate in the education setting (Chapple et al., 1997; Else, 1997, Jefferies, 1997).

I am determined to approach this research with a point of view of drawing out the positives and focusing on the successes of Māori students. Therefore, this research may interest those who wish to understand how others achieve, including researchers and academics but also parents and young people. So what is the significance of this research and how will it add value to a subject that very little is written about if anything.

1.3 Significance of Research

In New Zealand it has been a recognised problem of the under-representation of Māori students in tertiary level computer science and information technology courses. Currently there is a growing concern within the Waikato Institute of Technology and the recognition of the need for a research study about the ‘gap ‘in participation of Māori student’s completion rates in computer science papers.

These numbers are lower than that of the European and Asian student population, and there is a lack of understanding about why this is happening. What is equally important to note is that over the last 10 years the numbers of Māori IT Wintec graduates has declined considerably.

The significance for this research is to focus on the motivation of Māori academic success, specifically in the world of IT, so that future systems specifically those in

technical institutes can support the on-going successes of Māori in this field. It will explore and tell the stories of six mature Māori students who all have successfully completed their IT degrees.

Each has their own story to tell. Though this study may reveal the stories of only six Māori students in essence it will allow many who read this document to learn from and feel inspired to succeed in a demanding field of study.

This research will also be significant because it will focus on success and not failure. A large number of studies have demonstrated that Māori are not performing as well as they should be in education. (Else, 1997). The literature in the general area of Māori education portrays a picture of high failure and underachievement. (Bishop & Glynn, 1999; Clothier, 1993; Selby, 1996; Smith, 1995).

What really inspires me to do this research is that it will provide a ways and means of understanding Māori success in the discipline of Information Technology. Besides adding to the literature in a range of important areas, this research is even more significant because it aims to inform Department policy and practice, particularly with respect to the support systems for Māori students undertaking studies in Information Technology.

I believe it is important to celebrate success and the achievements of those who have struggled in a difficult area of study. Hunt, Morgan and Teddy add that, “if we look at the reasons people stay and why they succeed, we may be better prepared to help those who are struggling, and more adept at identifying individuals who are having difficulty before they become overwhelmed” (Hunt, Morgan & Teddy, 2001, p.8).

This study will therefore provide valuable experiences of those who have achieved in the field of Information Technology and also provide policies and procedures for future support to mature Māori students studying in this educational institution and school.

1.4 My early Memories of Education

My educational experience has come from the school of hard knocks. Having been educated in the far North of New Zealand, I came from a rural township where

everyone knew each other. It was the days where you could leave your house unlocked, your car keys in the ignition and this was done without fear of either house or car being burgled or stolen. These were what I would call the good old days. No gangs existed in our township and definitely the encouragement to be a good member of the community was fostered. I was raised with a good Christian upbringing, with parents who nurtured and guided my sister and I. Indeed, our home was a home of love. My Primary education (5-12 years of age) was promoted by kind and encouraging teachers who showed me that education was a door to opportunities. I loved learning and more importantly loved the friendships that I made. My parents also encouraged me to do well in school and always encouraged me to do my best.

When I got to my local High school (13-17 years of age) that all changed for me. My first two years were a living nightmare. Being somewhat overweight I was teased, made fun of and bullied at school. Having a hearing impairment did not help. Every day for me was a living nightmare and schooling was no longer that safe haven that I was made to believe. My teachers I felt were no better. They labelled me as a distractor and a bad influence on the rest of the students in the class. How wrong were they. All I wanted to know from the rest of the students was what the teacher was saying. I was disciplined harshly by the male teachers for my misbehaviour, having received the cane as a form of corporal punishment. This only heightened my dislike for education and my teachers.

Physical Education (P.E) classes were to help students develop a healthy body and a healthy mind. This however, did not apply to my personal growth and development. A Pākeha (European ethnicity) Physical Education teacher, straight from training college, knew how to demoralize and make fun of students who weren't that good at P.E. He would make our class run 4km around the college farm. For the five students that came in last they were punished with the cane. Guess who came last in the class run? We were made to bend over in front of the rest of the students (both boys and girls) in full view, and receive the cane. If you have ever had a caning you would know that the welts left on you took a long time to heal. So imagine the number of welts left un-healed and that this class was held three times a week. Bunking P.E (missing classes) became the norm for me.

Another occasion I remember being stopped in the street and being told in front of my parents that “Mr and Mrs Rakena, your son will never amount to much I’m sorry.” I looked into my parent’s faces and they were hurt but made no sign of reacting to her comments. I often wondered why my dad didn’t re-act. The answer came many years later when my father told me that schooling for him was the same. My father attended the Native Māori Primary school which was a time when ‘colonisation’ was enforced and the speaking of the native language was forbidden. If caught, students were strapped severely.

Secondary schooling for me fostered nothing but resentment and discouragement for being in an institution that put you down or being told you would never amount to much. Schooling was no longer a place of learning and fun for me.

Like most Māori, I ended up working in the local freezing works (abattoir) at the age of fifteen. I spent the next twelve years working in the “Māori university” that we nick-named because all Māori like me ended up there. It wasn’t a very challenging job as it was manual labour, but the money was good. Over the years I saw a lot of university students during their summer breaks work in the freezing works. I once said to a work mate that I could see myself at university. His reply to that was, “Bro they won’t have you. You’re too dumb like the rest of us dumb Māori”. To that I thought yeah only the brainy Pākeha get to go to university, and us dumb Māori are meant to be here. How wrong was I.

By the late 1980’s the inevitable happened. The freezing works closed down and a lot of men and women had lost their jobs. This was going to be an economic disaster for our small rural communities. No longer did we get the big pay cheques we were accustomed too. Instead, many of us had to sign up to the unemployment benefit. For the next three years I was unemployed and job prospects in the North were dismal. I applied for a number of jobs, but at each one I was told that I did not have the qualifications. This was so humiliating and demoralizing. My self-esteem hit an all-time low and I was giving up.

I was married with four children (had three more children while studying) and daily living was hard. My wife suggested that I needed an education to get a good job and that I should apply to Auckland University and train as a teacher. After my experience

in education, I didn't even want to entertain the idea that I could become a teacher. She reminded me that my community involvement as a Scout leader and martial arts instructor were good traits of a teacher, that perhaps teaching should be a career that I should pursue. I would give this idea some thought.

Another nail in the coffin was when I attended an open day for parents at my son's primary school. The teacher asked them what their parents did for a job. One answered that her mummy was a doctor and another child said his father was a lawyer. This was becoming very uncomfortable for me. The teacher asked my five year old son what I did. His reply "I don't know, he stays at home all day and watches TV". From the mouth of babes, ye shall know the truth.

My son's revelation became the catalyst to my journey to tertiary studies. I vowed then that I would do better for my wife and children, and no longer would my children be embarrassed by their father who "stays at home and watches TV all day". In 1989 I applied to Auckland University teachers training college. Had an interview and sat their pre-entry test. Two weeks after that interview I received a letter that said "Thank you Mr Rakena for applying but with regret you have been unsuccessful", I was so disappointed and vowed that I would not face rejection again.

My wife disagreed and said if Auckland won't have you then Waikato University would. I refused to sign the interview forms and left them on the fridge. A number of weeks later my wife announced that we were going to Hamilton. I asked why and she said that it was for an interview at Waikato Uni. I was horrified and asked her who signed the papers. She replied "since you wouldn't I did". I've learnt in my 30 years of marriage "that a happy wife is a happy life". My interview with the panel went well and there was no need to do a test. A week later I received in the post a letter from Waikato University congratulating me on being a successful candidate. From that point on, my tertiary educational journey begins.

1.5 My Journey through Tertiary studies

My tertiary education journey begins at the age of 31. I entered Waikato University as a mature Māori student and at that time the world of academia was alien to me. I was

a 31 year old Māori attending a school filled with young fresh out of school students. My first class had not even begun and already I felt I was a minority amongst a sea of “white” faces. It was overwhelming and I felt wildly out of place.

Much of the terminology that was used at university was foreign to me. Even simple words like ‘bibliography’, I had never even heard of. I was determined however, to prove that I was just as capable as any other young Pākeha student there. My first assessment experience that I remember well at university was essay writing. I decided that if I worked hard I could produce an ‘A-level’ essay for my first assignment.

I worked hard, studied late into the night and I was really excited to get my assignment back. I thought that this essay would at least get an ‘A’. I soon learnt when my assignment was handed back how wrong I was. Disappointingly I received an “E”. I was devastated. I accepted that I was never going to be a great scholar but if I was to succeed then I needed to be versed in academic writing and that I needed help quickly.

I knew that I needed to change old habits that I had attained through years of labouring at the freezing works. There you were taught to work with your hands and discouraged to work with your brain. However, entering a tertiary level of education I was now being taught the reverse. I went out and sought the help of a lecturer who was Pākeha and told him of my predicament.

I had always been taught that when in trouble, never be afraid to ask for help from people if you don’t know how to do something. He apologised and said he could not assist due to his heavy workload. He however, said that perhaps I should go to student support services and ask them for help. To which I did but was advised that they too were also busy and that I should make contact with my other lecturers. This experience was disheartening, discouraging and deflated my desire to study at university. I wanted to quit.

To my luck, I found three other mature Māori students who had experienced the same thing, who like me, were also struggling. We banded together and created our own form of a support system, one that would encourage and inspire us to attain our degrees despite our educational, financial, emotional and family hardships.

As a consequence with guided support from each another, we were able to complete assignments, survive busy exam weeks and establish long-term relationships. To this day, I cannot say whether or not I would be here without the support of my Māori peers. It was their support that provided the beginnings of a firm foundation in pursuing my University degree. I cannot continue without giving recognition to each of them.

As I continued on my tertiary journey, I came across a few Māori academic staff. These staff members were able to provide me with a source of encouragement to engage, to commit, to dedicate and to aspire. They recognised my desire to be an educated Māori and offered their wisdom and support. I was comfortable in discussing any predicaments I had with them and was inspired by their experiences that were similar to my own.

With these Māori academics, I was no longer feeling like a lone Māori who wished to better his situation for his family and for himself. These Māori staff members were educated and contributors to the Māori community and wider society. In this way, these Māori academics stood as distinguished and highly-significant role models to me. I was grateful to have such inspirational leaders, and I decided that I would become like them.

But I could not have made it through my studies without the support of my whānau, and children. They kept me grounded. I was determined to provide my children with more than just the necessities' of life. We were no longer going to sit upon or be below the poverty line. We were going to have more than just frozen bread and powdered-milk. We were going to be where we are now today. Financially stable, secure and educated.

Today my children work in various occupations. One son is a barber with his own business, another a manager and business owner, my daughter is a policy analyst, who works for our local tribe, and the last son is commencing his degree to become an engineer. Education permeates in our home. I am grateful for my children. They are part of the main reason why I started this journey those many years ago. I was not going to let them down. This was my story and one that I also wanted to discover if others had experienced the same journey as I had.

1.6 General Aim

Māori participation in tertiary education continues to be at a lower rate than non-Māori from pre-entry level through to university (Bishop, Bolton, & Martin, 1994; Else, 1997). Sovaka (2002) adds that, Māori school leavers who attend tertiary institutions were more likely than other students to choose polytechnics. In fact, half (50%) of Māori school leavers choose polytechnics (Sovaka, 2002).

The difference between Universities and Technical Institutes can best be summed up by a fellow colleague who said “Technical Institutes prepare their students for vocational training”. This means all courses that run in Technical Institutes throughout New Zealand have industry-based learning which prepares students to enter the work force. Research often overlooks the experiences of many mature Māori students who return to full time study in Technical Institutes and who experience considerable success.

For this researcher, the general aim of this study is a way to acknowledge and recognize their achievements in a pre-dominantly non-Māori field of study. It will also acknowledge that through hard work and determination they have succeeded and broken the IT barrier to success. This general aim therefore leads to the research question which is discussed.

1.7 Research Question

The aim of this research focuses on one main question. This question underpins the learning experiences that many adult students encounter in particular Māori who have or are completing their studies in Technical Institutes. There have been some New Zealand (Simpson, 2010) and overseas studies conducted on mature students who have returned to tertiary studies.

However, there has been little to no research carried out in New Zealand on mature Māori students studying in the field of Information Technology. This research therefore is intended to fill the gap by interviewing six mature Māori students all who have successfully completed their Bachelor of Information degrees from the Waikato

Institute of Technology. Given the general aim of this study, the specific research question is as follows:

What are the success enablers for mature Māori IT students studying at the Waikato Institute of Technology?

1.8 Limitations of the Study

Using Wintec as the only institution may be considered a limitation to this study. Many may see that insufficient information may not be enough to provide credibility of findings and that more institutions should be explored. The aim, however; of this research is not solely about fulfilling an academic achievement for me but it is about six people telling their personal stories about how they view themselves and their achievements within this learning institution.

Lack of participants used may also be seen as a further limitation in this study. It may be suggested that a larger research group could have gathered more detailed responses, and similar questions with more participants could also help in the data collection.

Another perceived limitation is the researcher's familiarity with the subjects. The researcher (who as their former lecturer), hopes that any biases by the participants would not jeopardise this research. Further research conducted by one who has no links with Wintec could benefit this research by extending better understanding for mature Māori success in IT studies.

1.9 Case Study Framework

Case studies in education are a useful explanatory tool as they serve to make the unfamiliar, familiar, through a rich description of context, the people involved, and the documentation. (Tellis, 1997). This is particularly relevant when the case being studied is a 'real life' phenomenon (Yin, 1984). Burns (2000) adds, "Qualitative researchers believe that since humans are conscious of their own behaviours, thoughts, feelings and perceptions of their informants are vital... The

qualitative researcher is not concerned with objective truth, but rather with the truth as the informant perceives it” (Burns, 2000, p. 388). This research is a journey of narratives from mature Māori IT students.

Case studies can be descriptive because it allows the researcher to understand some particular program or situation in great depth. Patton (2005) suggests that, “Case studies that are well selected are information-rich in essence major impacts/effects may be gleaned from just a few exemplars of a phenomenon” (Patton, 2005, p.1).

It can be also argued that this research can add new knowledge and increase understanding in respect to the area under investigation. One of the major advantages of using a case study approach is that by gaining an ‘insiders’ point of view the researcher is able to see things that can remain invisible to an outsider (Bogdan & Biklen, 1992).

The purpose of using case studies for this research becomes apparent when it is recognized that the Māori population is not a single homogeneous group and that there is considerable variance within this ethnic group (Simpson, 1998). When using the case study approach, a researcher must ensure that the confidentiality of each participant is respected. The researcher must also make sure that there are no descriptions in the final report that may disclose the identity of individual participants.

1.10 Waikato Institute of Technology

The research described in this study was carried out at the Waikato Institute of Technology (Wintec). Wintec as it is commonly known by is situated in a high density Māori population. It is the second largest technical institute in New Zealand and the second largest tertiary institution in the Waikato and Bay of Plenty.

Wintec (2006) notes that the origins of the Waikato Institute of Technology lie with the Hamilton Technical College which was founded in 1924 to provide largely technical and trades training in the Waikato region. In 1968 the institution became the Waikato Technical Institute aiming to provide ‘vocational training for farming, industry and commerce. In 1987 the name was changed to The Waikato Polytechnic to reflect the increasing scope of its educational activities.

During the 1990's the institute developed a range of degrees in nursing, midwifery, business, sport and exercise science, information technology and media arts in response to changing employment needs. The strong practical aspect of these degrees supported the long-standing and successful trades and technology reputation of the institute. In 2001 the name was changed to the Waikato Institute of Technology with the Wintec brand being adopted in 2003 (Wintec, 2006).

Major steps have been taken to expand Wintec's operations overseas in international education. Saudi Arabia, India and China are the top countries for international student numbers enrolling in Wintec.

In 2013, Wintec educated about 6800 EFTS, comprising 19,500 domestic students and 1,182 international students. A quarter of Wintec students are Māori and 80% of them are studying at degree level or above. Wintec enrolls a total of approximately 30,000 students per year and has over 500 full-time equivalent academic staff. Wintec offers programmes from certificate and undergraduate to graduate and post-graduate degrees.

1.11 Entry requirements

Wintec (2014) details the entry requirements to doing a Bachelor's degree. The following information has been retrieved from the official Waikato Institute of Technology programme regulations. NCEA Level 3 comprised of 60 credits at NCEA Level 3 or above and 20 credits at NCEA Level 2 or above, including:

- 14 credits each at NCEA Level 3 in three approved subjects; and
- Literacy (10 credits at NCEA Level 2 or above made up of 5 credits each in reading and writing); and
- Numeracy (10 credits at NCEA Level 1 or above); or
- 60 credits at NCEA Level 2 across four subjects including English; or
- Satisfied the criteria for entrance to a New Zealand University, or an equivalent qualification approved by the relevant Programme Committee; or

- Completed an appropriate overseas school qualification; or
- Completed a year of study at an overseas secondary school, and gained the equivalent of 60 credits at NCEA Level 2 across four subjects. (Wintec, 2014).

So where does this leave those who don't meet the entry criteria? These candidates who do not meet the above entry requirements may nevertheless be considered for provisional entry (if aged under 20) or special admission (if aged 20 or over). In such cases, entry will be dependent on whether candidates demonstrate a reasonable likelihood of success in the programme and upon the discretion of the admission committee.

This is how many of our mature students are able to gain entry into our IT courses. I have been unable to locate any research or documented records on mature Māori students' experiences who have studied and completed any form of Information Technology or Computing degree in any tertiary institution or specifically technical institutes in New Zealand.

For all intent and purposes of this research this researchers focus group of mature Māori IT students will be aged from 25 years plus. Therefore, this study will concentrate on the experiences of this group of students, namely, academically successful IT Māori entrants who have attained the award of a Bachelor of Information Technology Degree.

Each of these students have a story to tell and it is these stories that will serve as an inspiration to other students both Māori and non-Māori alike.

1.12 Overview of this Thesis

The thesis has been structured in the following way.

Chapter One: Introduction

A description of the research problem is introduced in this chapter. The background and significance of this study and the aim and research question is also addressed.

Chapter Two: Literature Review

This chapter presents a review of the literature, focusing specifically on factors that influence Māori academic success in tertiary education. This chapter draws on international literature and research pertaining to indigenous and minority persistence in higher education. International and national context of student retention and completion rates of Māori students in the studies of Information Technology are discussed.

Chapter Three: Methodology

Chapter Three outlines the methodology and research methods. The research method's chapter considers how the research was conducted. A general overview of qualitative research and Kaupapa Māori research is highlighted in this chapter. A description of case studies as the method used to direct the data collection is also discussed. This chapter outlines quality criteria, the techniques used to collect this data and the ethical considerations that arose in this research. This chapter also introduces the six participants.

Chapter Four to Nine: Case Studies of Participants

These chapters will introduce the six participants in this study. An introduction of each participant will be given followed by their story and a critical analysis will be conducted on each participant's narrative.

Chapter Ten: Summary and Conclusion

This chapter is used to provide a discussion on the findings of this study and final conclusions. The limitations of this study are discussed and recommendations for future work are provided.

Chapter Two

Literature Review

This research will add colour and richness to the tapestry that is currently hanging on the walls of education regarding the narratives of Māori engaging in Tertiary education.

2.1 Introduction

This chapter provides a review of the literature relating to the success of Māori mature IT students in higher education in particular technical institutes. As there is limited research in this field, the review has drawn on literature from a wide range of areas related to student persistence, retention and completion. The review draws from national and international research paying particular attention to the experiences of indigenous and minority students at mainstream universities.

According to the literature, there is a dearth of research that has been written about the experiences of Māori students in tertiary institutions (Clothier, 1993; Jefferies, 1997; Selby, 1996). Indeed, there is very little commentary about academically successful Mature Māori students in the discipline of Information Technology (IT). It has been a challenge to locate substantial research that concentrates specifically on this particular cohort of students.

This research will make the experiences and achievements of academically successful mature Māori students visible. As well, the research will contribute to the literature on mature students, specifically Māori students, and will also add to the international literature about indigenous students in tertiary education. More importantly, this research will be a study of success that is adding to identifying the crucial success enablers that tertiary institutions need to implement for recruiting and marketing and retention of mature Māori students in IT.

In contrast, there appears to be a glut of studies which demonstrate that Māori do not and are not yet performing as well as their counterparts. Again, the literature paints a

very dismal picture across all disciplines of tertiary education wherever Māori feature and there appears to be a clear preoccupation with failure and underachievement at all levels of education (Bishop & Glynn, 1999; Clothier, 1993; Selby, 1996; Smith, 1992).

Documenting academic failure and underachievement of Māori in tertiary education is not a recent phenomenon. Recent studies often overlook the experiences of mature Māori students who return to study long after leaving school and who experience considerable success.

Selby (1996) argues that it is just as important to identify “success factors as it is to identify barriers to achievement” (Selby, 1996, p.6). Selby (1996) further posits a positive assertion for women when continuing that “looking at success within education is critical for Māori women, for educators, policymakers and for whānau, hapu and iwi” (Selby, 1996, p.1).

The inspiring message about the proposed study is that it will be a celebration of success in a specialised discipline of IT which does not attract Māori students in numbers; indeed this study will contribute to our growing knowledge and understanding of Māori educational success in particular.

In addition to contributing to the literature that touches on a raft of specific matters, the research will add colour and richness to the tapestry that is currently hanging on the walls of education regarding the narratives of Māori engaging in tertiary education. Arguably, the literature will add lustre and supply information that will enable New Zealand tertiary providers such as universities, and polytechnics to name a few. The research can assist such tertiary providers to develop and tailor policies, strategies and programmes that will churn out success, achievement and retention of Māori students, in particular mature Māori students in the discipline of IT.

Also, by focusing on success rather than highlighting the negatives may provide a more balance view of outcomes of Māori students and that the picture being painted is not all doom and gloom. In sum, it is anticipated that this research will provide data and findings that can be used to hone Wintec policy and good practices, particularly with respect to the support systems for mature Māori students of IT.

2.2 A review of the literature

In starting the preliminary review of literature, I was very confident that there would be a substantial amount of relevant research to secure a foundation to discuss, analyse and draw comparatives with my findings. I navigated a number of databases to assist in locating appropriate articles that will add nuance and value to the study. These databases included: University of Waikato library, Google Scholar, ProQuest 5000, EBSCO Host Research Database, Index New Zealand, Ako Aotearoa. Despite the trolling through these sites and many others, weeks passed and my initial optimism waned and was quickly overshadowed by the realisation that this literature search was not going to produce as many resources and ideologies as I first envisaged. No research was located that dealt specifically with the experiences of mature Māori IT students.

Further to looking for more literature I broadened my search parameters to include literature that commented on all Māori student case studies in tertiary education. Other avenues I investigated included looking at other related research, and investigated international research to see if similar studies had been conducted to the study I had proposed to be undertaken here in New Zealand. I came to the conclusion that very little research had been undertaken on the experiences of indigenous minorities in tertiary institutions such as Canada, Australia which have similar colonisation experiences to New Zealand.

On the other hand, the literature that I did uncover did not yield as much information that I could rely on. However, the search did reveal a number of studies which raise some very interesting questions to consider. For example, many indigenous students shared similar experiences and challenges in studying at predominantly orthodox institutions entrenched in western culture. Many studies revealed common themes running through the interviewees' responses which are discussed below.

The review of the literature revealed studies which looked at the experience of ethnic minority groups in New Zealand universities and other contexts especially 'overseas students', which provided insights (Holmes, 2000). There was also research in the broader area of Māori participation in tertiary education that was useful in highlighting issues that are specific to Māori tertiary students in general. Despite the literature being

sparse on the ground, the literature search was not unrewarding for me. There were a number of useful studies that may provide some information that is relevant for an investigation of the experiences of mature Māori IT students. These themes are highlighted below in the literature review.

Upon locating relevant articles, I commenced a process of reviewing and identifying common threads and themes beginning with the New Zealand context and research pool. I identified five distinct themes from the literature and they include: the importance of relationships: the role of the Whānau, Māori Academics, and Peers; Te Ao Māori worldview of education, personal development of the learner, Pre-tertiary learning, motivation and the Māori learner and the tertiary environment – support systems for Māori students.

2.3 International context of Student retention and completion rates

The causes of student persistence and attrition have been widely investigated. Overseas studies indicate that students from disadvantaged ethnic groups often have poorer academic records in secondary school than their non-ethnic colleagues (Cook & Evans, 2000). Much of the retention literature focuses on encouraging retention for students of, underrepresented populations and individuals from lower socio economic backgrounds. The first systematic study of student attrition and persistence in higher education was undertaken by Tinto (1993) where he develops a model to predict the attrition process of students in college in United States. Tinto's Theory of student departure is considered to be the most frequently cited theoretical model for student attrition and student retention in higher education (Braxton, 2000; Prebble et al., 2004; Scott & Smart, 2005).

Tinto (1993) asserts that there are two primary factors related to student withdrawal, the personal characteristics of the student and the nature of the student's interaction with their institution. Tinto (1993) also argues that students need to “break away from past experiences and traditions to become integrated into the college's social and academic realms (Guiffrida, 2006, p. 451). Furthermore, Tinto's (1993) theory of attrition suggests that the greater level of commitment to the institution, the greater likelihood of student persistence in college (Braxton, Milem & Sullivan, 2000).

Draper (2003) figure 1 illustrates Tintos adapted “student integration model”. He states that “Academic integration” evolves over time and as integration and commitment interact, dropouts depending on commitment at the time of the decision are lessened. Wyckoff (1998) adds that student interaction with university members can influence a student’s intent to remain in his/her studies. It was also established that need for “counselling programs” was needed. This academic advising noted by Anderson (1997) describes how it is “...imperative to undergraduate retention because it keeps students motivated, stimulated and working towards a meaningful goal”.

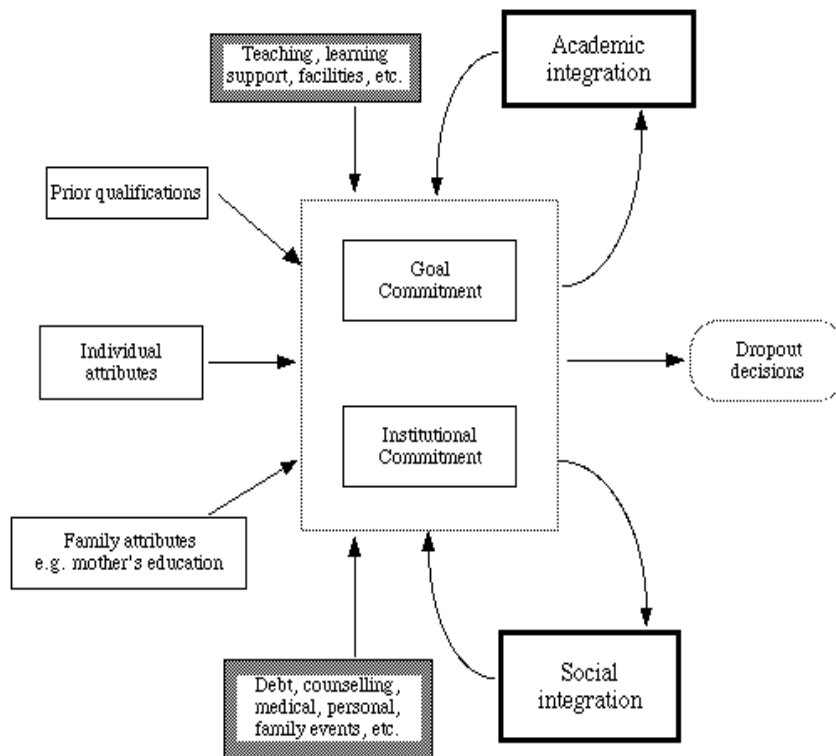


Figure 1. Tintos (1995) Student integration model adapted by Draper (2003)

According to Kirkness and Barnhardt, (2001), there is increased pressure for students to adapt and become integrated into the institution’s social fabric, “with the ultimate goal that they will be “retained’ until they graduate” (p. 1). Here, students are expected to check into the institution’s culture and “check out at the university gate their own cultural predispositions” (Kirkness & Barnhardt, 2001, p.2).

Despite the broad appeal of Tinto's (1993) theory, other critics argue of “the theory’s failure to recognise cultural variables make it particularly problematic when applied to minority students” (Guiffida, 2006, p. 451). Guiffida (2006) critiques the literature

from Tinto's theory, its scope and limitations especially in response to the increasing influx of students who hail from minority groups. Guiffrida (2006) also presents a modification of the model of Tinto (1993) to be more culturally sensitive to minorities, asserting to replace the term "integration with connection" (p. 457).

Here, students can then "become comfortable in the college environment without abandoning supportive relationships at home or rejecting the values and norms of their home communities" (Guiffrida, 2006, p. 257). Further enhancements on Tinto's model (1993) are offered by Guiffrida (2006) states that higher education and cross-cultural literature 'clearly indicate that a cultural advancement of Tinto's (1993) begins by recognizing the need for minority students to remain connected to supportive members of their home communities (Williams, 2010).

The assertion of connection is premised on several conceptual critiques of Tinto's theory (Kuh & Love, 2000; Hurtado, 1997; Rendon, Jaloma, & Nora, 2000; Nora, 2001; Tierney, 1992, 1999). Guiffrida (2006) further concluded that by tweaking the model of attrition of Tinto (1993) these refinements allow the theory to "not only recognise the impact of motivational orientation on academic goal commitment, but to also acknowledge that cultural norms and home and university social systems (past and present) can have significant effects on student motivation and subsequent academic performance and persistence decisions" (p. 460). To explore the assertions of Guiffrida (2006) an indigenous study of First Nations students studying at universities in Canada and the United States was carried out by Kirkness & Barnhardt (2001). Here, Kirkness & Barnhardt (2001) suggest that there is an "ostrich in the sand" philosophy with institutions that ignore the cultural transition from their home culture to the culture of the university.

Kirkness & Barnhardt (2001) put forward The Four R's – Respect, Relevance, Reciprocity and Responsibility as important enablers for First Nations Students in their pursuit of success in education. According to Kirkness & Barnhardt (2001), "What First Nations people are seeking is not a lesser education, and not even an equal education, but rather a better education. An education that respects them for who they are, that is relevant to their view of the world, that offers reciprocity in their relationships with others, and that helps them exercise responsibility over their own lives" (p.13).

By 2002, Tinto (2002) is now suggesting that the most important issue in student retention is that of institutional commitment and support. The institution must now willingly invest time and resources to improve the retention of their students. He also adds that institutions must now provide both academic and social support. By academic support Tinto (2002) defines this as holding effective tutoring, study groups and even more additional study groups. Social support means mentoring and having ethnic study groups and centres for support.

Certainly, evidence through studies reveal that students of minority groups need to connect with students with shared cultural heritage to succeed at higher education and this is strongly supported by research (DeSousa & Kuh, 1996; Guiffrida, 2003, 2004; McClung, 1988; Murguia, Padilla, & Pavel, 1991; Padilla, Trevino, Gonzalez & Trevino, 1996; Sedlacek, 1987). Second, several studies have attempted to take into account the cultural differences that are inherent and surface within minority groups into higher education (Guiffrida, 2006; Johnson, D., Alvarez, P., Longerbeam, S., Soldner, M., Inkelas, K., & Leonard, J., 2007; Rendon, L. I., Jalomo, R. E., & Nora, A, 2000).

It can be concluded from numerous studies that minority students can greatly benefit from the support of families, friends, and other members of their home communities (Cabrera, Nora, Terenzini, Pascarella & Hagedorn, 1999; Delgado Bernal, 2002; Eimers & Pike, 1996; Gloria, Robinson Kurpius, Hamilton & Williams, 1999; Gonzalez, 2000; Guiffrida, 2004, 2005; Hendricks, Smith, Caplow & Donaldson, 1996; Hurtado, Carter, & Spuler, 1996; Nora & Cabrera, 1996; Rosas & Hambrick, 2002). Other findings of international studies affirm that first-year retention is crucial to degree potential (Krause, Hartley, James, & McInnis, 2005; Kuh, 2001; Pascarella & Terenzini, 2005; Tinto, 1993; Upcraft, Gardner, & Barefoot, 2005; Yorke & Longden, 2008; Zepke, et al., 2005). First year students concerns with their academic workload are well documented in the literature. Zepke & Leach (2005) in their New Zealand study identify “workload issues” as the primary factor amongst all the institutions involved in their research. Their findings suggest that such workload issues were related to time management and student challenges in their first year of study.

These findings are reflected in other countries (Haigh, 1999; Kantanis, 2000; Maguire, 2001; Prescott & Simpson, 2004; Ramsay, Barker & Jones, 1999; Sidle &

McReynolds, 1999; Smith, 2003). In conclusion, international studies provide a foundation of findings to see whether they are evidenced by Māori in New Zealand. The findings of this study can reaffirm or add value to the existing literature regarding student retention and completion rates, in particular within the Māori context.

2.4 The New Zealand Context

Educational achievement and the acquisition of formal qualifications are seen as crucial tools to empower Māori people to better workforce participation, enhanced health and wellbeing and then transitioning to becoming better contributing citizens in the global village. However, Māori have “not previously been part of a knowledge society” (Durie, 2006, p. 8) and shifting the paradigm of worker to smart worker requires Māori to engage with education.

As Māori iwi continue to develop as significant contributors to the New Zealand economy (through post-treaty settlements of financial remuneration from the Crown), Māori recognise the importance of succession plans based on skill sets and expertise. Māori are filling the halls of higher knowledge to sustain the aspirations of its people. Tracking and measuring Māori student achievement provides a barometer of where Māori student is at and how it can be improved and how successful are Māori students becoming?

The literature selected is taken to demonstrate the support of academics to find solutions or rationale with an indigenous perspective. The literature will show how the government itself is investigating and research Māori student achievement. Why? It could be argued that economic and sustainable financial stability needs to have a mobile and educated workforce. Māori students form a major part of the populace. Investing in Māori achievement may forestall having to provide unemployment benefits to an unskilled workforce.

The focus of the literature has been determined by the responses of the interviewees and the direction of this study, namely what are the success enablers for mature Māori students in the School of Information Technology. Despite the increasing literature toward success and achievement of Māori students, there is no specific study about

mature Māori students in a School of Technology. Arguably, does this mean there is no need to provide literature on this particular discipline or can it be argued that there commonalities shared by all Māori students both young and mature.

This ‘one size fits all’ approach it would appear is very simplistic and unsatisfying overall. However, the broad brush can umbrella both young and mature Māori students which can provide shelter from all types of academic weathering while modifications to the standard philosophy alter as new research is undertaken.

In the broader context of New Zealand communities, education empowers Māori to become better contributors to the New Zealand economy. According to McMurchy-Pilkington, & Trinick, (2008), “Māori aspirations include being able to live as Māori and to participate fully as equal citizens and as Māori in New Zealand society, (p. 142). This statement explores three interlinked themes, first, Māori’s aspirations to be successful, Māori desire to participate fully and the overarching statement of having a Māori identity.

Further, finding ways to enable and support Māori students to persist with their studies and to complete their qualifications has become the topic of much research and debate over the last two decades. The Ministry of Education is the educational arm of the New Zealand government and it continues to prioritise the raising of Māori student achievement (ERO, 2009). The Ministry of Education further explored ‘how to achieve this’ approach by announcing how educators fit into the educational equation by acknowledging the diversity of cultural skill sets that Māori students bring to the table: “for Māori to achieve greater success in education it is crucial that all educations in New Zealand recognise, support and develop the inherent capabilities and skills that Māori students bring to their learning (ERO, 2010). The following paragraphs will detail the historical journey of the Ministry of Education’s commitment to Māori success achievement on a broad scale.

First, Ka Hikitia – Managing for Success: The Māori Education Strategy 2008–2012 was introduced as the plan for change to “see the system step up its performance for Māori” (Statement of Intent, 2009-2014, p. 6). Here, the aim of Ka Hikitia was to strengthen Māori identity, culture and Māori language as they are seen as the essential ingredients for success for Māori students in education.

Second, the Ministry of Education as a key stakeholder in Māori Learners in education, identified six priority outcomes for 2009/10 were identified where the Ministry of Education will focus its resources and funding. The measure of success for the Ministry would be seeing the changes for Māori students as follows and the statement would look to help, “Māori students achieve their potential through education, policy development and implementation tailored to Māori needs and approaches and increase numbers of high quality Te Reo teachers entering the teaching profession” (Statement of Intent, 2009-2014, p.14).

Third, according to the Ministry of Education Statement of Intent (2009-2014), the statement identifies their responsibility and failure to address the needs of Māori students when it stated, “The New Zealand education system leads the world in many areas and performs well for most students. However, it does not fully meet the needs of some students, including a disproportionate number of Māori... By lifting achievement for these students, the overall performance of the education system will improve.” (Statement of Intent, 2009-2014, p.6). There are still gaps surrounding Māori student achievement that need filling in the New Zealand academic arena.

Fourth, the latest edition of Ka Hikitia - Accelerating Success 2013-2017 is seen as “a strategy to rapidly how the education system performs so that all Māori students gain the skills, qualifications and knowledge they need to enjoy education success as Māori”. This statement is one of four strategies being advanced by the Ministry of Education to champion its responsibilities for Māori student achievement.

The New Zealand Tertiary Education Commission (TEC) is the body responsible for administering all post-compulsory and tertiary education funding. Therefore, tertiary academic institutions provides will develop strategies, charters and profiles to demonstrate to TEC, these institutions can tick all the boxes off to obtain funding. Performance based research funding was introduced in 2003.

Tertiary Education Strategies continue to be rolled out and released by the Ministry of Education ((Ministry of Education, 2002; 2007; 2010; 2015). All the strategies include a focus on the importance of Māori student achievement at tertiary levels. Indeed, the Tertiary Education Strategy 2010-2015 is the government’s commitment through a long term lens which includes ‘Priority 3’ as “Boosting achievement of Māori and

Pasifika”. The strategy continues providing a rationale to priority 3 by adding, “given that one in five students are Māori, outcomes for Māori students are a critical measure of quality for tertiary providers and the success of this strategy” (Ministry of Education, 2002; 2007; 2010; 2015, p.7).

Tertiary providers need to focus “on improving their pastoral and academic support and learning and must adopt teaching practices that culturally responsive to Māori students” (Tertiary Education Strategy, 2010-2015, p. 12). Also, “where achievement levels are high, to find out what is making a difference and encourage collaboration between schools to share this practice” (p. 14). These strategies appear to align to the observations and propositions articulated by Guiffrida (2006). Research in this field is needed.

On the other hand, there appears to be a conflict or a competing of strategic directions within the Ministry of Education. A capping policy was introduced to Tertiary providers around attracting funding from students. Funding for tertiary education is usually through a combination of government subsidies and student fees. The current government seeks to reduce its funding to subsidise mature students and encourages tertiary education providers to attract young students where greater funding components are attached.

As the world demographic show that the human populace will live longer, and mature men and women return to tertiary education to upskill or obtain new qualifications, and the government reduces its commitment to subsidise mature students, what will happen to them? Let us now consider the literature that focusses on Māori success and achievement in tertiary education.

Prior to the New Zealand government promoting the Tertiary Education Strategy 2010-2015; Prebble, Hargraves, Leach, Naidoo, Suddaby, & Zeto (2004) conducted a series of syntheses research on tertiary education. The team of researchers was commissioned to report on student support services and their relation to persistence and achievement of learners in higher education. Over 250 studies were examined and analysed and 146 studies contributed to the review findings. This review is considered to be the most comprehensive study conducted in New Zealand.

Accordingly, the findings of Prebble et al., (2004) extrapolate 13 propositions for institutional practice and action. All the propositions Prebble et al., (2004) argue can contribute to success at tertiary institutions. Ten propositions focus on assimilating students into existing institutional culture (Tinto, 1993) and the final three propositions challenge institutions to change policies and practice to better include diversity of students. Here are the propositions by Prebble et al., (2004).

- 1) Institutional behaviours, environment and processes are welcoming and efficient.
- 2) The institution provides opportunities for students to establish social networks.
- 3) Academic counselling and pre-enrolment advice are readily available to ensure that students enrol into appropriate programmes and papers.
- 4) Teachers are approachable and available for academic discussions.
- 5) Students experience good quality teaching and manageable workloads.
- 6) Orientation/induction programmes are provided to facilitate both social and academic integration.
- 7) Students working in academic learning communities have good outcomes.
- 8) A comprehensive range of institutional services and facilities is available.
- 9) Supplemental Instruction (SI) is provided.
- 10) Peer tutoring and mentoring services are provided.
- 11) There is an absence of discrimination on campus, so students feel valued, fairly treated and safe.
- 12) Institutional processes cater for diversity of learning preferences.
- 13) The institutional culture, social and academic, welcomes diverse cultural capital and adapts to diverse students' needs.

Arguably, these propositions appear to match the perfect student with the perfect tertiary education provider. This is not the reality as Māori student achievement is steadily increasing but still lags behind non Māori student achievement. Many studies indicate that there are combinations of ‘a bit of this’ and ‘a little bit of that’.

Prebble et al., (2004) provides a comprehensive overview of the dominant themes concerning student persistence in national and international debate however, there is still a gap in the research relating to a Māori specific focus in tertiary education specifically in the field of Information Technology. As well, within multiple studies conducted within New Zealand there emerges a preoccupation with failure and underachievement of Māori students at all levels of education (Bishop & Glyn, 1999; Clothier, 1993; Greenwood & Te Aika, 2008; Selby, 1996). The studies related to Māori appear to focus on the negatives, problems and deficits.

In contrast, in an exciting and succinct statement by Durie (2006) in his paper Whānau, Education and Māori Potential he stated:

A deficit model assumes that Māori are problematic and energies should be focused on uncovering problems, or making a diagnosis, or identifying areas...Moreover, the preoccupation with disparities and comparisons with Māori and non-Māori, as if that were the most significant indicator of progress, creates a distorted picture of actual progress and assumes that the non-Māori benchmark captures whānau aspiration. Reversing entrenched attitudes will be no mean task... but balancing problem detection and problem solving with equal weighing on identifying promise and potential could create another level of engagement that leads to longer term positive outcomes... The challenge for whānau, schools, and for those who provide whānau support is to shift from a paradigm of deficit and risk, to one of potential and discovery. (*Durie, 2006, p. 16*).

This research will be modelled after the paradigm of Durie (2006) and echoes many emerging studies that are focussing the success factors that can be latched on to by other Māori students. Such an approach was taken by Williams (2010) in her recent thesis. Here, Williams’ (2010) employed an interpreters approach and employed a qualitative method to interpret the experiences and stories of 16 Māori Adult students

succeeding at the University of Waikato and, then turning the experiences into a narrative. Williams (2010) seeks to celebrate Māori academic success and identified four major enablers that appear to have contributed to the participants to be successful in their attaining tertiary qualifications. The enablers were first: a strong determination to succeed; second: whānau support (Durie, 1994; Metge, 1995; Pihama, 2001; Smith G, 1995); third: whakawhānaungatanga – strong social support networks with peers and faculty (Macfarlane, 2004), and fourth: Te Ao Māori (Rangihau, 1992) – a Māori world view. Williams (2010) also discussed various models criticising Tinto (1993) model of student attrition and student retention in higher education and agrees with Scott & Smart (2005) that the New Zealand context can shape and lessen the impact of some factors that may also be prevalent in international studies conducted such as Tinto (1993).

Another study in New Zealand was conducted by Jefferies' (1997) study of Māori Participation in Tertiary Education: Barriers and Strategies to Overcome Them and Hei Tautoko I ngā Māori ētahi tauira nā ngā Kura Wānanga (Ministry of Education, 2001b) whose research findings were that there are other factors that relate specifically to Māori students in tertiary education. This project analysed the range, nature and extent of barriers to Māori participation in tertiary education and training in New Zealand. The project examined strategies to overcome these barriers. The themes that emerged from this study reveal a combination of factors such as: failure to reach required levels in early education, negative school experiences, transitions between different levels of schooling, difficult home environments, the costs associated with tertiary education, lack of Māori role models as teachers and academics, failure of support systems and Māori parents unaware of the benefits of tertiary education.

Arguably, these findings of Jeffery (1997) were posited approximately 15 years ago, however, the strategies and recommendations signalled substantial growth in participation and recruitment strategies, affirmative action policies and Māori achievement being actioned by government policy makers, tertiary institutions and the Māori community itself.

The literature also discusses the importance of mentoring for students. Accordingly to Tahau-Hodges (2010) mentoring is defined as “the formation of a relationship between a more experienced or wiser person (not necessarily older) and a less

experienced person for the purpose of transferring knowledge and skills” (p. 2). Tahau-Hodges (2010) in *Kaiako Pono-Mentoring for Māori Learners in the Tertiary Sector* was commissioned by Te Puna Kokiri (Ministry of Māori Development) to provide a review of the Mentoring programmes being offered at 21 tertiary institutions in New Zealand for Māori learners. The purpose of the study was to, profile a wide range of mentoring programmes, second; highlight and document good mentoring practice for Māori and investigate how institutions are defining and measuring success in relation to Māori learners.

Evidence from Tahau-Hodges (2010) suggests mentoring is beneficial for Māori learners. It assists learners, to develop meaningful relationships with peers and colleagues, mentors and faculty (Williams, 2010; Macfarlane, 2004; and to integrate into the tertiary institution (Tinto, 1993) and to complete programmes of study (Prebble et al., 2004). However, Tahau-Hodges (2010) argues that there has not been a coordinated approach to Māori mentoring, to the models adopted and implemented by tertiary providers. There is opportunity to research and gather reliable data on what makes some models successful, and to identify issues surrounding mentoring Māori learners in the tertiary sector. To summarise, mentoring programmes are widely recognised as an important support strategy to improve the retention, participation and completion rates for Māori learners in tertiary education. This is evident in the growth of the mentoring programmes across the tertiary sector.

In addition, Greenwood and Te Aika (2008) conducted research in four different tertiary providers and investigated examples of success for Māori achievement and identified 21 themes which included the importance of relationships with teachers, social groups and peers acting as role models for Māori students.

If a tertiary programmes is to be successful for Māori, it needs Māori staff that are strong in their culture knowledge. Strong Māori role models are, in turn, draw cards for their communities. Māori who have expertise in the disciplinary field as well as strength in the cultural field need to be sought out, brought into teaching and nurtured. Active recruitment of such staff is therefore important, as is buffering them where needed from the institution as a whole.

From another source, in a recent Tuia Te Ako conference whose discussions revolved around “how we as teachers, researchers, academics, support staff and managers – can enhance outcomes for Māori learners” (Tuia Te Ako, 2012, p.5), Waikerepuru (2012) identified three broad components that align with what the literature is identifying about assisting success with Māori learners. First, tertiary institutions should use effective teaching and learning practice that acknowledges Māori values. Second, tertiary institutions should provide academic support that is culturally appropriate for Māori. Third, tertiary institutions should provide a culturally safe learning environmental space for learning. These ingredients align with the propositions outlined in Prebble et al., (2004).

Expanding the above theme, it can be said that teachers (lecturers, tutors and academics) play a vital role in securing success and achievement for Māori students. Hunt, Morgan & Teddy (2001) determined that teaching staff at the University of Waikato, New Zealand were crucial players on the stage of Māori psychology students. It is abundantly clear that Māori students not only value the support of their tutors, they depend on it. This finding cannot be emphasised enough. Future developments in the Psychology Department looking to support and retain Māori students should focus on the availability, approachability and genuine support of tutors (Hunt et al., 2001, p. 19).

In a similar view, Professor Walker (2012) from the University of Auckland focusses on the importance of Māori learners in finding friends and relationships in the university environment. Walker (2012) posits when students feel socially isolated, the learning environment is challenging and difficult. The programme he utilises to help tāuira (Māori students) is the Tuakana/Teina programme (TP) has been running from 1991. The following three steps were crucial Walker (2012) argues are crucial to Māori tāuira (students) to survive and succeed in the academic arena. First, tāuira need to make friends quickly. Second, Mentors and role models are important connections for new tāuira to engage in the academic arena. Third, Māori coordinators must also focus on the potential of tāuira rather than the challenge (Durie, 2006, Williams, 2010). The outcome of the TP has been that tāuira quickly settle into their studies, perform at the same levels of their cohorts, and achieve high levels in post-graduate study and later employment (Walker, 2012).

Having a supported ‘family’ on campus is another important strategy to achieving success. Padilla et al., (1997) set out to discover what strategies indigenous ethnic students (Latino, African American, Asian American) used to overcome barriers to become successful in their studies at college. In Pallida et al., (1997) key findings it was noted:

Ethnic minority students appear to emphasise continuity with their home community by knowing about and joining ethnic organisations, participating in ethnic activities and generally seeking out the ethnic presence that exists on campus as a means of being culturally grounded. This is consistent with the findings of researchers who have suggested that many ethnic and racial minority students adhere to a collectivist orientation (commitment to the group) rather than to an exclusively individual orientation (commitment to self) (p. 134).

In the New Zealand context, Prebble et al., (2004) succinctly states: “learning communities are formed by people who wish to enhance their own and the group’s capabilities in a collective undertaking” (p.65). In essence, learning communities seek like minds that can promote collaborative or shared responsibility for the learning. Conversely, there are negative connotations to this approach as evidenced by Sonn et al., (2000) who commented that this type of participation sometimes could lead to segregation from other settings in the university. Let us now consider the whānau relationship as a success enabler. Tiakiwa’s (2001) doctoral thesis examined factors that contributed to success in Māori achievement in higher education. One recurring theme is the importance of whānau relationships:

The role of the family, therefore, has been found through the experiences of the graduates, to influence, shape and support their attitudes to academic achievement, and to the notion of success. The family history of education could be described as one mechanism that contributed to a strategy of success (Tiakiwai, 2001, p. 272).

Whānau can be Māori students’ greatest support systems or greatest barrier. Jefferies (1997) posits that Māori students have to find balance between family and study commitments especially if there is a strong whānau orientation. He further argues that

cultural constructs can influence whether Māori students successfully undertake tertiary studies.

There is also other research that looks at broader issues that are relevant to Māori education focussing on Māori specific concerns (Bishop, Berryman, Taikiwai & Richardson, 2003; Bishop, Berryman, Cavanagh & Teddy, 2007). Finally, from the literature in the New Zealand context has emerged major themes that interconnect with international studies. There is a drive from the strategic approach of the Ministry of Education to assist Māori learners.

A seminal report from Prebble et al., (2004) recognises culture diversity. Māori commentators state a positive approach rather than a deficit model will yield better outcomes for Māori learners. All the literature suggests connection rather than integration between the institution and students. Institutions need to incorporate Māori components into student support systems to help Māori learners to succeed and achieve in retention and completion rates.

Many researchers have been interested in student retention, completion, and achievement since the 1960s. As a consequence, a rich and voluminous research literature has developed on the international stage. Major syntheses have been articulated primarily in the United States (Astin, 1993, 1997; Pascarella & Terenzini, 1991, 2004; Tinto, 1975, 1988, 1993). There has also been a strong body of literature being published in Australia (McInnis, Hartley, et al., 2000a).

Yorke and Longden (2004) reiterate that no unified grand theory has emerged regarding student retention and completion. They further state “Our position is that retention and student success are influenced by a complex set of considerations which are primarily psychological and sociological, but which are in some cases influenced by matters that might be located under other disciplinary banners such as economics” (p. 77).

This literature review in the New Zealand context has identified the following themes. Tertiary providers are heavily influenced by the Ministry of Education overarching strategies the impact on the funding that tertiary providers seek to compensated for. Their services include retention, completion and Māori student achievement under the Tertiary Education Commission, the importance of whānau, friends, student social

groups, positive institutional student relationships cannot be under estimated. Paradigms of thinking about Māori student achievement must shift the paradigm of thinking of the barriers and deficits to a paradigm of celebrating success in Māori student achievement, cultural diversity creates a safe cultural learning environment that will assist in producing success and achievement.

This chapter has provided an overview of the literature and research related to Māori student success in higher education.

2.5 Institutes of Technical Polytechnics (ITP) in NZ

Middleton (2006) notes in New Zealand the term “tertiary education” is used to describe all post school education. New Zealand is comprised of 8 universities, 18 institutes of technology and polytechnics, 3 Māori tertiary education institutions (Wānanga) and 895 private training establishments including private English language schools. The following characteristics of these learning institutions are as noted by Middleton (2006).

- Universities have a focus on higher or degree-level and postgraduate courses and programmes supported with significant levels of research
- Institutes of Technology have a focus on technical and vocational education with a focus on applied research and employment ready graduates
- Wānanga offer a range of programmes targeted at the needs of Māori and Māori development with significant focus on Māori language

The 18 Institutes of Technical Polytechnics (ITP) in New Zealand caters for a wide range of vocational qualifications. These qualifications vary from business, building and engineering, nursing and sciences through to information technology. ITP’s in New Zealand offer qualifications at the following levels ranging from certificate studies through to Post Graduate. The discipline and skill areas for most ITP’s vary from Arts and Design, Engineering, Sports Science through to Computing and Information Technology (Middleton, 2006).

2.6 Māori Student Profile in Wintec

Wintec (2013) discuss that Māori are the largest participating ethnicity in the tertiary sector at 22.1% in 2005 compared to just under 15% for all other ethnicities. In 2010, 24% of the Wintec student population in 2010 was Māori. This is higher than the regional Māori demographic, which reflects burgeoning Māori youth numbers. The majority of Māori students at Wintec are aged under 25. Māori enrolments are spread across the range of schools with the highest percentage in the Centre of Health and Social Practice 69% of Māori students were at level 4 and above in 2010 although the majority of that appears to be at level four, rather than five, six or seven (Wintec, 2013).

2.6.1 Māori Student Performance in Wintec

Wintec (2013) outcomes for Māori are comparable to outcomes achieved by the sector as a whole. They lag 14% behind European descent students (66% to 80% in 2010). At level one to three successful outcomes are closer (Māori 66%; European 77%) however this is consistent if not better than for Māori across the national sector (63% for Māori).

At levels 4+ (Māori 67%; European 82%) the gap is wider, but compares well with the national sector (57% for Māori). The rate of successful outcomes is not uniform. Māori are most successful in health and education where the pass rates are 88% and 78% respectively. In other areas the rates vary as low as 49%. At level one to three Māori (63%) compare well with the all students figure (64%) and with Māori across the sector (39%). At level 4+ Māori (49%) are behind all students (66%) but on par with Māori across the sector (47%) (Wintec, 2013).

2.6.2 Retention of Māori students in Wintec

Māori student compare well within the national ITP sector (Wintec, 2013). Internally, the base figures show promise in Māori student numbers across departments. Māori participation in possible new target areas is reasonable however successful outcomes in some areas such as business, trades and tourism appear low. The manner in which Wintec takes on these challenges will play a central part in the implementation of an

organisation-wide approach to Māori futures (Wintec, 2013). Wintec may consider both a general strategy to improve outcomes and/or support targeting specific areas.

Several of the less encouraging figures for Māori students are not that different from those across the sector; indeed many are better (although some national figures are shaped by extremely poor performance in particular areas). While it may be comfortable to rest upon that buffer, the challenge that emerges is how to make a real difference for Māori at Wintec and do so in a way that provides an exemplar for the sector (Wintec, 2013).

2.6.3 Retention of Māori IT students in Wintec

Retention and attrition of Māori IT students in Wintec has always been problematic for its School. In recent years there have been a declining number of Māori overall undertaking studies in IT. What is more disheartening is the dropout rate of Māori students. If so is the School then doing all they it can to resolve this trend. Te Momo (2012) proposes that the problem is so complex, that finding a solution cannot be done with one single answer. It must be that the problem is just as diverse and complex as the educational institutions trying to find homogenous solutions across multidimensional structures and infrastructures.

If changing the educational infrastructures from an inward approach has not given us an answer, then we should be looking from an outward approach instead. Meaning we should be looking at the type of students that we deal with (in this case Māori students') and designing structures catered to their needs. Indeed, understanding the differences and disparities of Māori students is essential to constructing and building appropriate mechanisms (Te Momo, 2012).

The solution in finding an answer to this is appropriately discussed by researchers such as Bishop, Berryman, Taikiwai & Richardson, (2003); Bishop, Berryman, Cavanagh & Teddy, (2007) who points towards the institution. They allude to the fact that it is the institutions responsibility to provide a safe cultural learning environment for its Māori students. Te Momo (2012) points out that the responsibility then must lie within the School of IT and that the real determining factor of any change is funding and resources being made available and that support must be guaranteed from those in higher positions. It is safe to say that one group that needs the most support within the

School of IT are those Mature Māori students. The question then is raised. How many mature Māori students are undertaking IT studies in Wintec?

There has been a steady increase, in small increments, of enrolments over the years. The year 2011, seven mature Māori students were enrolled which increased to thirteen students being enrolled in Wintec in 2014.

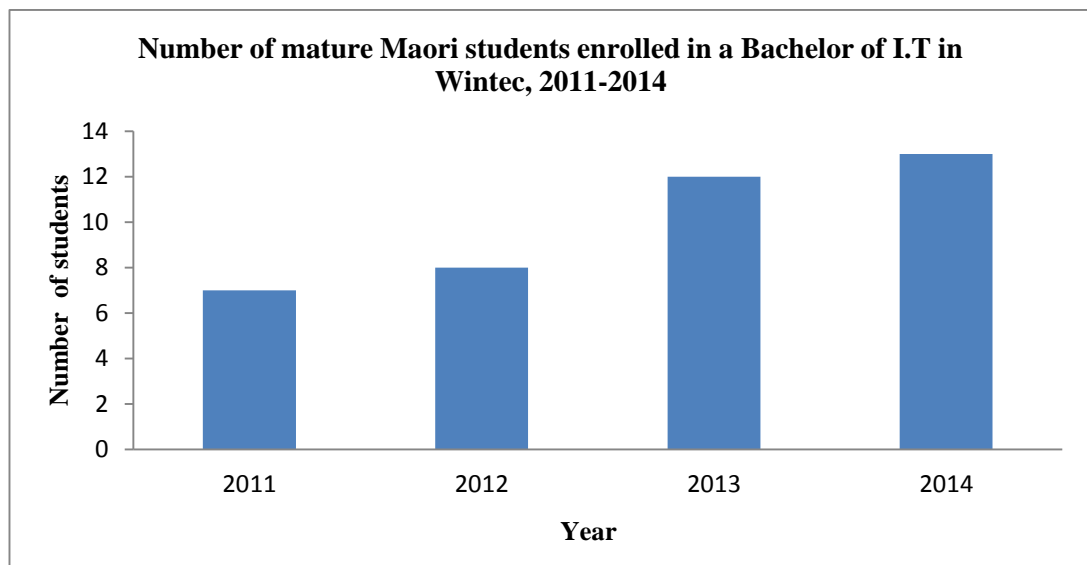


Figure 2. A comparison of the number of mature (25+) Māori students that are enrolled in a Bachelor of I.T. degree in Wintec during the years 2011-2014 (Ministry of Education, 2012).

As shown in figure 2, this graph provides a comparison of the number of mature (25+) Māori students that are enrolled in a Bachelor of I.T. degree in Wintec during the years 2011-2014. As previously mentioned, between the years 2007-2012 a total of 8 mature Māori students graduated with an IT degree from Wintec. Only one student graduated in the year 2012 and two students graduated in 2011. This shows that there is a small population of mature Māori students enrolled in a Bachelor of Information Technology degree. This also shows an even smaller population of mature Māori students, graduating with this degree.

2.6.4 Issues with Māori students in IT

Within any tertiary institution there will always be ongoing concerns with minority groups and how well they perform. The pinnacle and measure of any students success is completing and graduating with their degree. These issues are wide and varied and

a lot of NZ research is given that points this out (Williams 2010, Bishop, Berryman, Cavanagh & Teddy, 2007). One example within the School of IT is the lack of culturally appropriate (Māori) faculty peers to serve as mentors and role models or lecturers being culturally insensitive to their students.

2.7 Bachelor of IT Degree modules in Wintec

Wintec (2014) outlines what is in their Bachelor of Information Technology degree. It is a three-year full-time programme which promotes technical expertise as well as a wider understanding of the information technology context. The specific aims of the Bachelor Degree programme provide a solid foundation of knowledge and capabilities suitable for a range of careers for students involving information technology.

Students who are enrolled into the Bachelor's Degree are encouraged to develop an inquiring, analytical approach to problems and issues, and exercise independent judgement and critical thinking (Wintec, 2014).

The Bachelor of Information Technology Degree requires completion of 360 credits of which at least 90 credits must be at Level 7. (CBITE, 2014, p.19) Table 2.3 Students do four modules per semester for five semesters and then the Project (equal to three modules) plus one module for the final semester.

For the first year at Level 5, (CBITE, 2014, p.19) Table 2.1 All eight modules are compulsory. The second year Level 6, (CBITE, 2014, p.19) Table 2.2 has six compulsory modules plus two elective modules. The third year Level 7 has five electives plus the compulsory project worth 45 credits. Students are not normally permitted to enrol in more than 60 credits (four modules) per semester. A student is considered to be full time if their enrolments make up 0.8 or more of an Equivalent Full Time Student (EFTS) load. Each 15-credit module in the degree equals 0.125 EFTS.

Table 1

BInfoTech Programme Regulations (CBITE, 2014, p.19)

Module Code	Module Title	Pre-requisites	Co-requisites	Credits	Level
ITB5100	Fundamentals of Information Technology			15	5
ITB5105	Mathematics for Information Technology			15	5
ITB5110	Communication for Information Technology			15	5
ITB5120	Introduction to Systems Analysis & Design			15	5
ITB5125	Introduction to Databases	ITB5100 ITB5120		15	5
ITB5130	Introduction to Programming		ITB5100 ITB5105	15	5
ITB5131	Intermediate Programming	ITB5130		15	5
ITB5145	CISCO CCNA 1			15	5

Table 2

BInfoTech Programme Regulations (CBITE, 2014, p.19)

Module Code	Module Title	Prerequisites	Credits	NZQA Level
ITB6210	Information Technology in the Business Environment	ITB5110	15	6
ITB6220	Object Oriented Analysis and Design	ITB5120	15	6
ITB6225	Intermediate Databases	ITB5125	15	6
ITB6230	Data Structures and Algorithms	ITB5131	15	6
ITB6235	Programming Operating Systems	ITB5131	15	6
ITB6245	CISCO 2 CCNA 2	ITB5145	15	6
ITB7301	Project	All compulsory level 5 and 6 modules	45	7

Table 3

BInfoTech Programme Regulations (CBITE, 2014, p.19)

Module Code	Module Title	Prerequisites	Credits	NZQA Level
ITB5150	Mechatronics	ITB5105	15	5
ITB6227	Web Programming for e-Commerce	ITB5131	15	6
ITB6233	Multimedia for the Web	ITB5131	15	6
ITB6246	CISCO CCNA 3	ITB6245	15	6
ITB7347	CISCO CCNA 4	ITB6246	15	6
ITB7305	Artificial Intelligence	ITB5105, ITB5131	15	7
ITB7310	Introduction to Research Methods*	ITB5105	15	7
ITB7321	Information Systems Management	* See below	15	7
ITB7323	Decision Support Systems*	ITB6225	15	7
ITB7325	Advanced Databases	ITB6225	15	7
ITB7326	Database Administration	ITB6225	15	7
ITB7327	e-Business System	ITB6227	15	7
ITB7330	Professional Programming Practice	ITB6230	15	7
ITB7334	Advanced Multimedia	ITB6233	15	7
ITB7336	Data Visualisation		15	7
ITB7337	Games Programming for 2D and 3D	ITB6230		
ITB7338	Games Programming for 3D and Mobile Applications	ITB6230		
ITB7345	Advanced Network Technology	ITB6245	15	7
ITB7350	Project Management		15	7
ITB7380	Special Topic: Current Developments in Information Technology		15	7

Table 4

BInfoTech Programme Regulations (CBITE, 2014, p.19)

Course Code	Course Title	Credits	NZQA Level
BMA0X140	Design: An Introduction	15	5
BMADM215	Digital 3D Modelling I	15	6
BMADM205	Interactive Design	15	6
BMADM210	Internet Design	15	6
BMADM200	Sequential Composition	15	6
BBSD511	Information Systems Principles	15	5
BBSD501	Introduction to Accounting	15	5
BBSD551	Marketing Fundamentals	15	5
BBSD592	Social Science 1	15	5
BBSD682	Employment Relations	15	6
BBSD693	Human Ecology	15	6
BBSD661	Managerial Economics	15	6
BBSD651	Marketing Management	15	6
BBSD672	Operations Management	15	6
BBSD631	Principles of Financial Management	15	6
BBSD652	Sales Management	15	6
BBSD692	Social Sciences II	15	6
BBSD675	Tourism Management	15	6
	Topics in Communication Studies*		6
	Evaluation and Procurement*		6

2.8 Statistical Analysis of mature Māori students in Tertiary studies

New Zealand's Ministry of Education (2014) recently released statistics relating to qualification completion by a range of demographic and study-related characteristics in NZ Tertiary institutions.

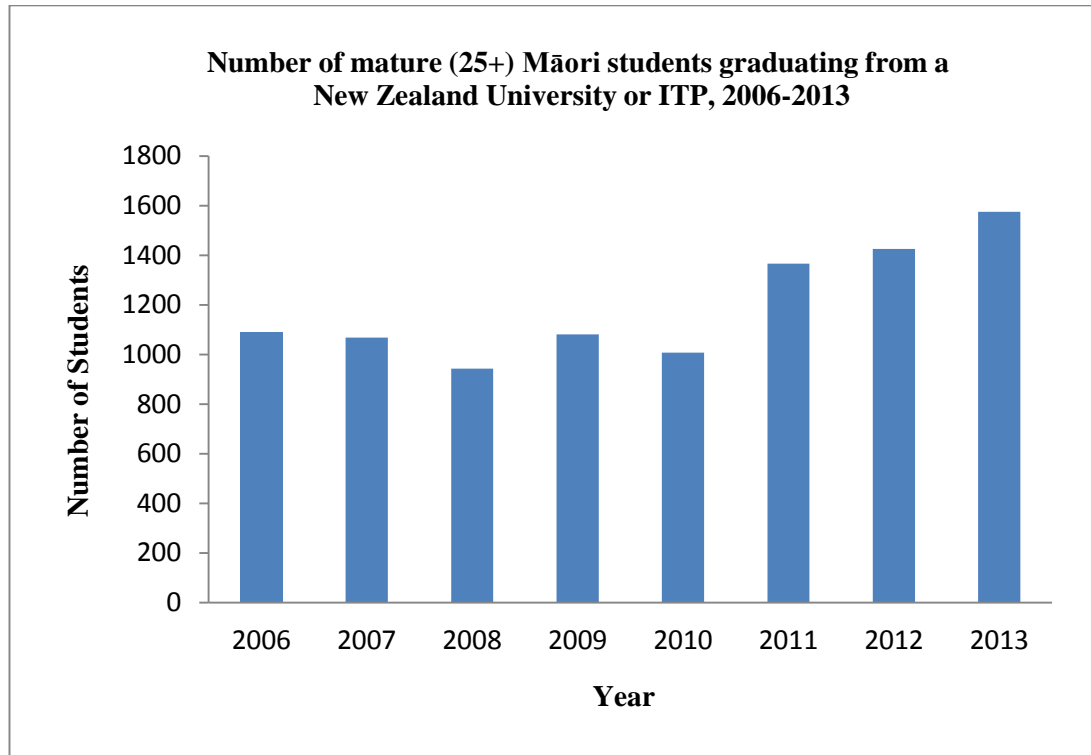


Figure 3. A graphical representation that compares the number of mature (25+) Māori students that have graduated from a New Zealand University or Institute of Technical Polytechnics between the years 2006-2013 (Ministry of Education, 2012).

As graphically illustrated in figure 3, a comparison is made across the years 2006-2013, of all mature Māori students that have graduated from all New Zealand Universities and Institute of Technical Polytechnics. It is shown that between the years 2006-2009 there is a plateau of students graduating from all institutes of learning, ranging from 580 to 690 students graduating per year.

However, this number increases over the years 2010-2013, with 982 students graduating in the year 2013, compared to 595 students graduating in the year 2010. This research also notes, that between the years 2007-2012, a total of eight mature

Māori students graduated with an IT degree from Wintec, with only one student graduating in the year 2008, 2009, 2010 and 2012 and two students graduating in the years 2007 and 2011. Gorinski and Abernethy (2007) support this finding and note that the enrolment of Māori in tertiary education has increased dramatically in recent years.

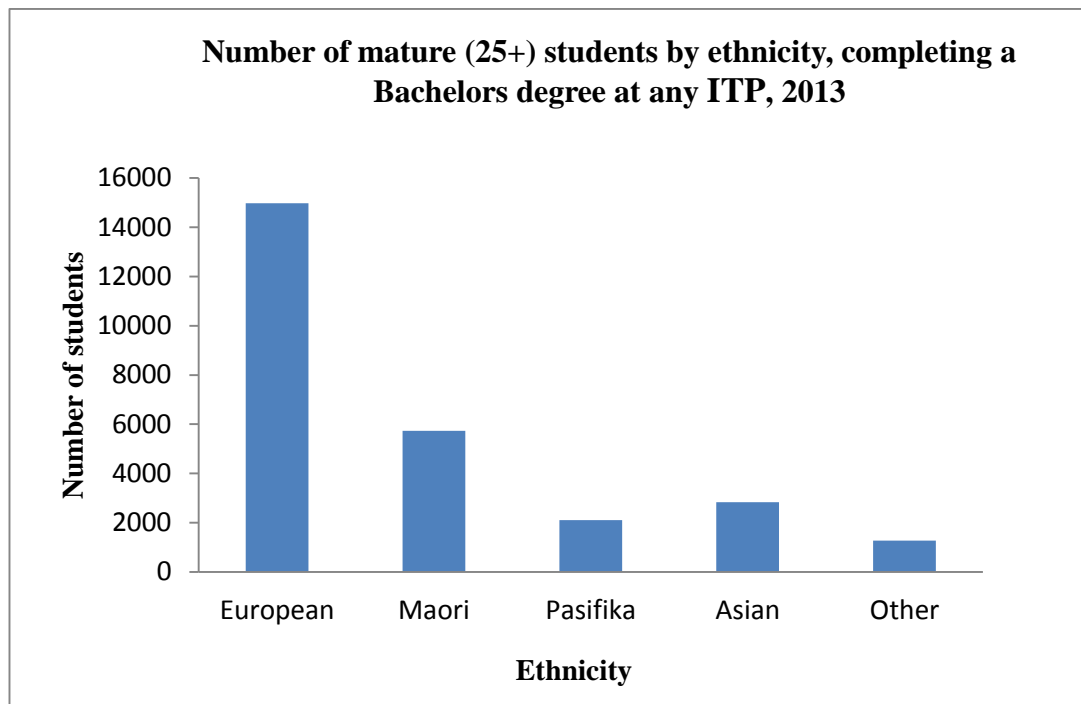


Figure 4. A graphical representation comparing the number of mature (25+) students by ethnicity, that have completed a Bachelor's degree at any Technical Institute in the year 2013 (Ministry of Education, 2012).

Additionally, figure 4 compares the number of mature students from different ethnic backgrounds (i.e. European, Māori, Pasifika, Asian and Other) who have graduated with a Bachelor's degree at any Technical institute in the year 2013. As seen in figure 4, the largest group to complete a qualification were those students who recognised themselves as being European, with 14,967 European students graduating.

The smallest group to graduate in the year 2013, were those who recognised themselves as being Other (1,273 students) and then Pasifika (2,104 students). Of interest to this research, only 5,735 Māori students graduated at a technical institute in the year 2013. This is nearly two thirds less than the largest group of graduates (European students).

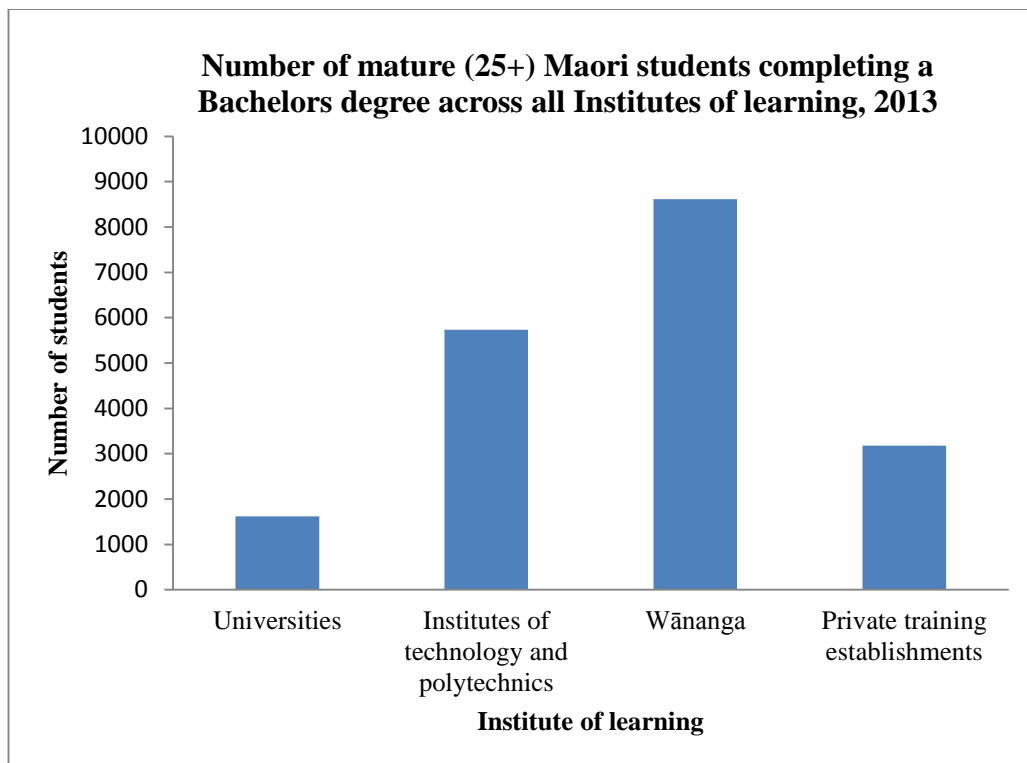


Figure 5. This graph compares the number of mature (25+) Māori students that have completed a Bachelor's degree across all Institutes of learning in the year 2013 (Ministry of Education, 2012).

As shown in figure 5, this graph gives a comparison of the number of mature Māori students that have completed a Bachelor's degree across all Institutes of learning in the year 2013. The smallest number of students to graduate from a learning institute are those who graduated from a University.

Only 1618 mature Māori students completed a Bachelor's degree from this learning institution. The largest number of students to graduate (8610 students) are those who completed their qualification at a Wānanga. It is of interest to note that 5735 mature Māori students graduated from any Institute of Technology and Polytechnic.

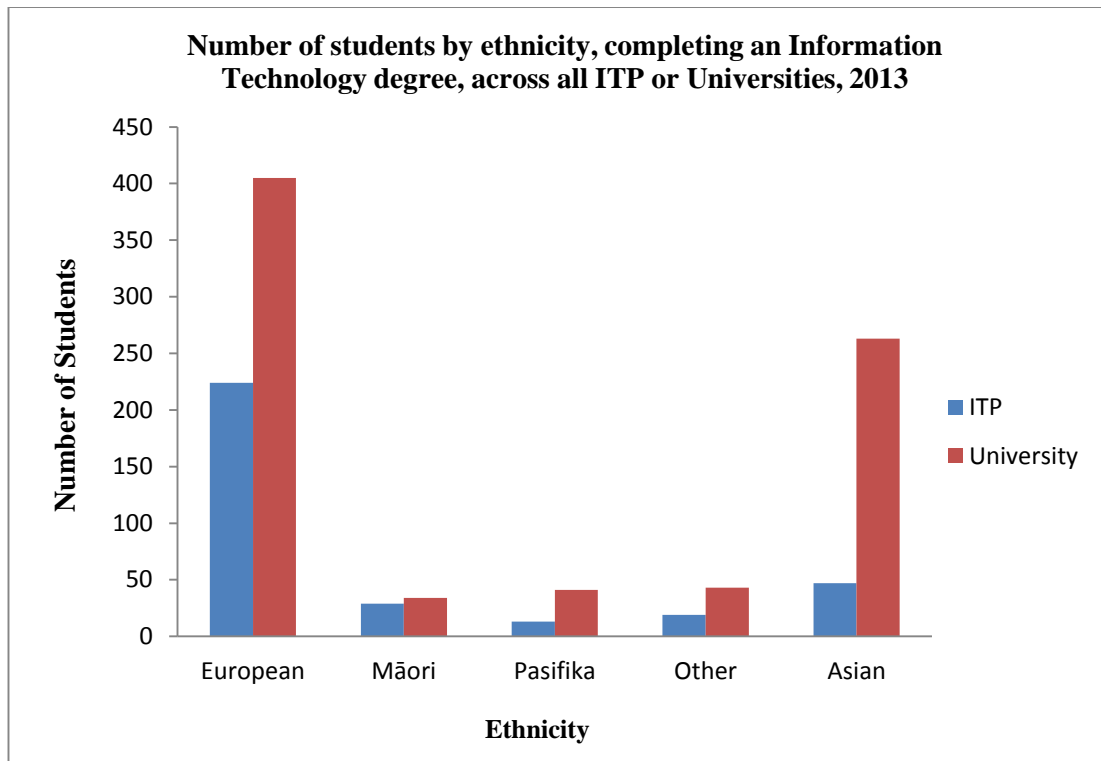


Figure 6. A comparison among the number of students by ethnicity, completing a Bachelor’s degree in Information Technology, across all ITPs or Universities, in the year 2013 (Ministry of Education, 2012).

A comparison is also made in figure 6 of the number of students by ethnicity (i.e. European, Māori, Pasifika, Asian and Other) that have completed a Bachelor’s degree in Information Technology, across all ITPs or Universities, in the year 2013. It is evident that the largest group of graduates to graduate from both IT and Polytechnics as well as from a University are Europeans. There were 224 European graduates from an IT/Polytechnic and 405 European graduates from a University in the year 2013.

The smallest number of graduates from an ITP with an Information Technology degree are Pasifika students (thirteen students), Other (nineteen students) and then Māori (29 students). These three groups: Māori, Pasifika and Other, also have the smallest number of students to graduate from a University, with 34, 41 and 43 students graduating respectively.

It is of interest to note Asian students who graduated from a IT/Polytechnic learning institute with an Information Technology degree (47 students) were meaningfully less than those Asian students who graduate from a University (263 students).

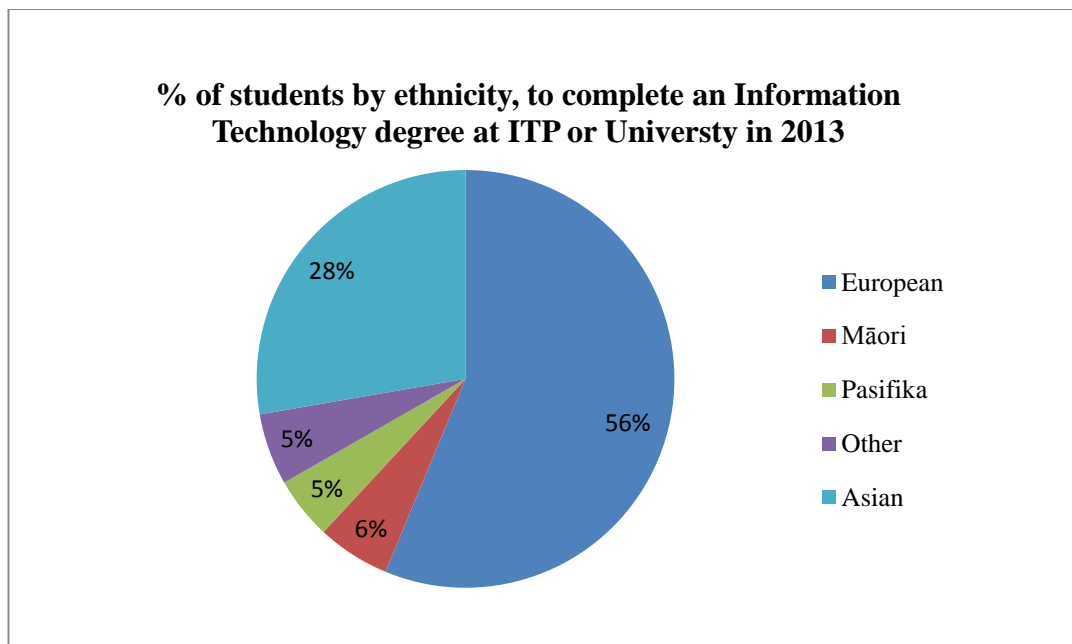


Figure 7. The percentage of students by ethnicity, completing a Bachelor’s degree in Information Technology, across all ITPs and Universities, in the year 2013 (Ministry of Education, 2012).

Figure 7 provides a similar representation to figure 6 but illustrates the percentage of students by ethnicity that completed an Information Technology degree at an ITP and University in the year 2013. In brief, 56% of students that graduated from both of these institutes were European, 28% were Asian and the minority groups: Māori, Pasifika and Other were 6%, 5% and 5% respectively.

The statistics shown in figure 7 are consistent with Hoffman’s (2014) discussion which suggests that “the facts are indisputable and disheartening, the computer science education revolution has left our minority communities behind... although percent of the resident population of the united states is non-white, approximately 18% of Bachelor’s degrees in computer sciences in the united states go to non-white students” (p.3).

Additionally, figure 7 supports the general perception from Māori students, that the computer science subjects are simply too hard and are too much effort to undertake (Te Momo, Rakena, Nikora & Tamati, 2012).

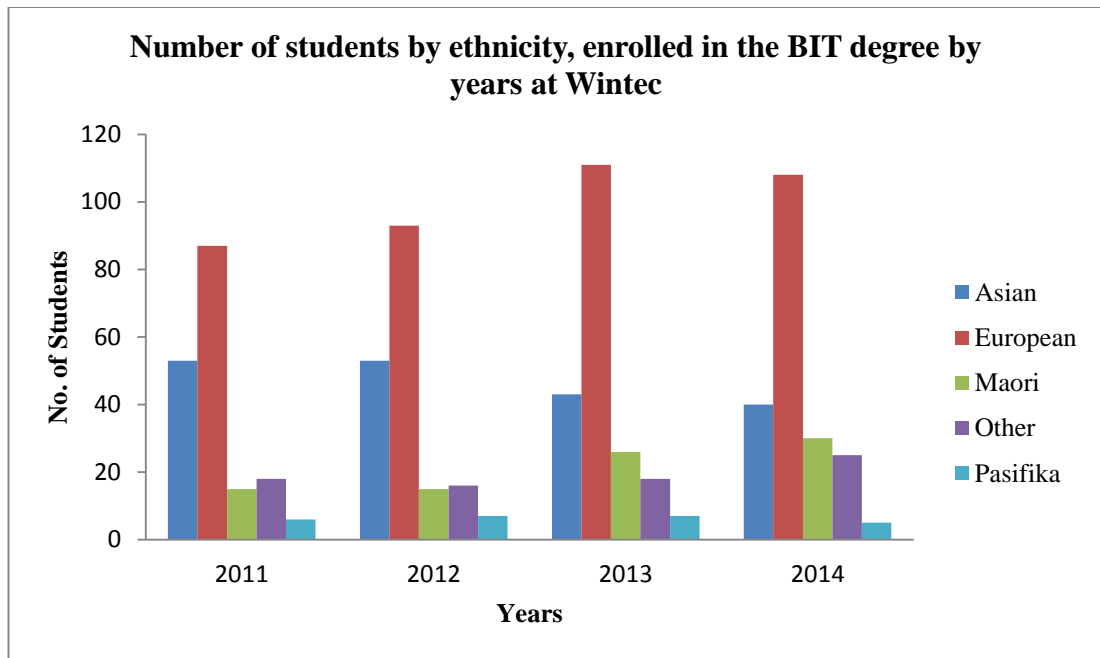


Figure 8. A comparison among the number of students by ethnicity, enrolled in the Bachelor’s degree in Information Technology, at Wintec between the years 2011 – 2014

A comparison is also made in figure 8 of the number of students by ethnicity (i.e. European, Māori, Pasifika, Asian and Other) that have enrolled in a Bachelor’s degree in Information Technology, at the Waikato Institute of Technology, between the years 2011 - 2014. Figure 8 show similar results to figure 4 that the largest group are Europeans.

There were 399 European students from 2011- 2014 enrolled in Wintec undertaking a degree in Information Technology. This is closely followed by 189 Asian students studying at Wintec.

Again similar to figure 8 the smallest number of students to enrol in studying Information Technology at Wintec are Māori, Other and Pasifika with 86, 77, and 25 students respectively. It is consistent across the findings that although Māori enrolments are increasing over 2011-2014, Europeans feature as the dominant cohort for enrolments at any learning institute. Additionally it is also shown that minority groups are still Māori, Other and Pasifika on both a national and international level.

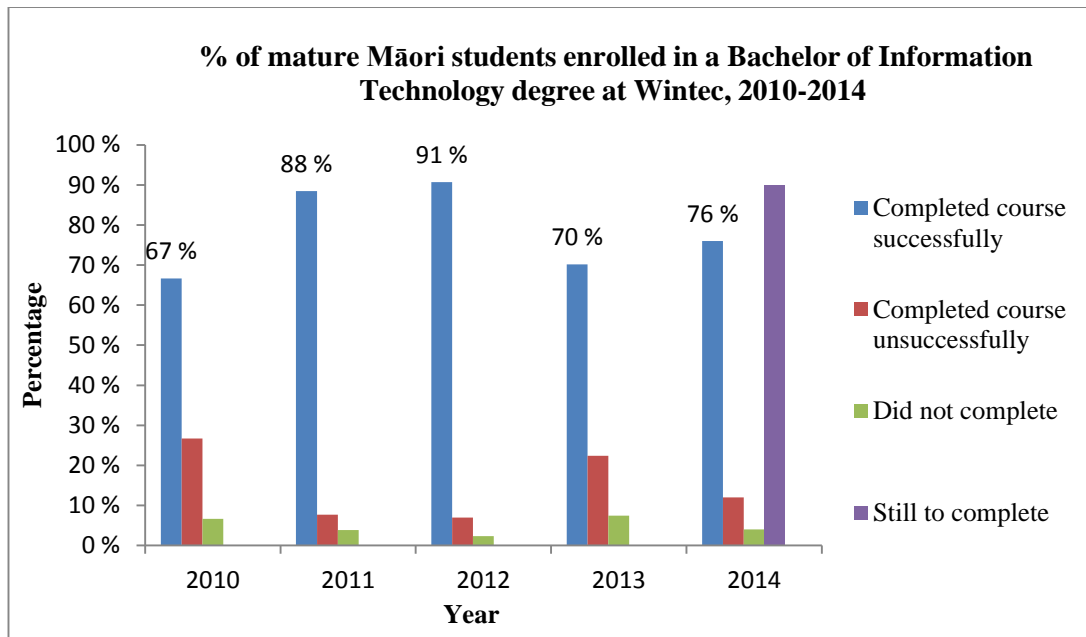


Figure 9. This graph illustrates the percentage of mature Māori students who are enrolled in a Bachelor of Information Technology degree at Wintec during the years 2010 to 2014 and completed or did not complete their modules (successfully or unsuccessfully).

Figure 9 illustrates the percentage of mature Māori students who are enrolled in a Bachelor of Information Technology degree at Wintec during the years 2010 to 2014 and completed or did not complete their modules (successfully or unsuccessfully). Between the years 2010-2012, there is an increase from 67% to 91% of mature Māori students who completed their course successfully. However, between the years of 2013-2014, this trend drops to 70% and then increases to 76%, highlighting a noteworthy change in success rates. Interestingly, between the years 2010-2012, there is a decrease from 27% to 7% of mature Māori students who completed their course unsuccessfully. Between the years of 2013-2014, this trend increases to 22% and 12%.

This highlights the existence of an inverse relationship between successfully and unsuccessfully completing a course. To explain, when one factor increases (e.g. Successful completion of certain modules), the other decreases (e.g. unsuccessful completion of different modules). In addition, less than 7% of those mature Māori students did not complete their modules over the period 2010-2014, with the lowest incompleteness percentage being 2% in the year 2012. The year 2012 also has the highest

success rate (91%) for course completion. Lastly, 90% of students are yet to complete their courses for 2014 at the time of this research being written.

2.9 Māori and Motivation in Tertiary studies

Generating from the disciplines of psychology and education, numerous pieces of literature provided theories as to why people behave or act in a certain way. In particular, several early researchers produced articles that sought to explain the theory of motivation. These early research articles drew heavily on western research and concepts. However, it is apparent that there is sparse literature that covers Māori achievement with links to motivation.

In saying this, Ausubel (1957) and Williams (1960) studies - which apply the theory of motivational achievement (McClelland, Atkinson, dark & Lowell, 1953) - provide comparative research between Māori and Pākeha equivalents. More specifically, both studies examined the aspirations for Māori to achieve and what motivated Māori to do so. Williams (1960) found that there were minor variations of motivational achievement between Māori and Pākeha, based on attitudes and behaviour.

Similarly, Hoffman (1968) conducted research on motivational achievement, comparing academia and vocation motivation for third and fourth form Māori students, residing in rural areas. Using a questionnaire method to collect data, Hoffman (1968) found that practices which encouraged competition within the school and home environment, as well as individual effort and ability were important for success, quote '...children are expected to perform tasks well, to be better than their competitors, no matter what the task...positive reinforcement follows success and negative reinforcement follows failure' (Hoffman, 1968, p.4). His research supports previous literature (McClelland et al., 1953) and is reinforced by Byrne (1966), '...one's occupational success, status and prestige, occupational and vocational goals can be expected to correlate with achievement motivation' (Byrne, 1966, p.307).

Further to this, Julian (1970) uses motivational achievement theory to explore the aspiration and attitudes of 100 adolescent Māori females. A questionnaire centring on individual responsibility was given to the participants. Julian (1970) concluded that

there were many commonalities that existed between Māori and Pākeha females aspirations (Hoffman, 1968). Julian (1970) further reiterated within his paper, that not only should more research be conducted within this specific area of study, but that schools should assist in providing guidance and counselling for Māori females as to assist in raising academic and vocational aspirations.

Thirdly, Julian (1970) noted that whānau assistance was a necessity in promoting achievement aspiration. Finally, Julian (1970) noted that there was a need for schooling institutes to incorporate more fully, cultural considerations towards Māori females which would encourage a more meaningful environment. Again, these early studies emphasised the dearth of literature surrounding methodology and theoretical frameworks.

On the other hand, later research such as Durie (2001) provides a Māori perspective in defining motivational theory for Māori. The research revolved around Māori educational aspirations from the view of the participant, and is defined as a 'determination to succeed (which) depended on both internal and external motivation' (p. 217). Other elements of motivation included the influential role that teachers played in the school life of Māori students, as well as the value that Māori students placed on quality relationships. Furthermore, Katene (2004) conducted a qualitative study on Māori student perspectives around what motivation there was for these students to learn and behave.

Katene's (2004) Māori research methodology (Bevan-Brown, 1998), explored whether orthodox motivational theories were still applicable to young Māori students and whether Māori culture could influence motivation. Underpinning the research, were principles of participation, protection and partnership for Māori, which reflects Kura Kaupapa research (Tuhiwai-Smith, 1999). Katene (2004) also considered social learning theories that sought to describe behavioural learning, more specifically the question of what motivates students to learn.

These social learning theories can be summarised as: Cognitive, Internalised, Extrinsic and Intrinsic theory. The cognitive theory family includes Atkinson's (1964) expectancy x value theory, Weiner's (1979) attribution theory, Rotter (1990) locus of Control theory and Bandura's (1995) self-efficacy theory. A core element of the

cognitive theory family is that thought processes are the motivators of behaviour. Internalised social learning theory (Ryan & Deci, 2000), maintains that motivation is self-regulated and consistent with a person's internal values. This is underpinned by the person's social environment.

Ryan and Deci (2000) further discuss Extrinsic social learning theory as external reinforcements (e.g. reward and praise tools) creating motivational behaviour. Skinner (1974) re-emphasises the importance of environmental factors and its impact on the observable behaviours of a person. Intrinsic theory is the internal drive of an individual, according to Brophy (1998), an individual is motivated by their wants, as opposed to their needs.

By applying the social learning theories within Katene's (2004) research, the findings concluded that extrinsic motivational theories were relevant for Māori students within the study. Katene (2004) also discovered that, relationships between Māori students and pivotal people within the schooling and home environment, were key influences of motivation (Julian, 1970). Katene (2004) also constructed a framework (Te Ha o te Rangatahi) which identified eight principles that reflected motivational factors for Māori students to achieve, and teachers to be responsive in implementing Te Ha o te Rangatahi.

These principles are as follows: Manaakitanga (creating an environment that promotes warmth and a sense of belonging), Awhina (aid, assist or help), Ngawari (clear and precise instructions), Aroha (respect between individuals), Whakangungu (praise and reinforcement), Akonga ake (motivation affects behaviour and learning), Tikanga (Māori culture) and Utu (reciprocal relationships).

Bennett (2001) extends the analysis of motivational theory and its relationship with Māori. The research focused on assessing the degree to which cultural identity moderates student problems, academic outcome and psychological wellbeing (Bennett, 2001, p. ii). Māori students who identified strongly with their culture, were often 'associated with a number of positive psychological and educational outcomes'(Bennett, 2001, p. ii). Bennett (2001), draws on Bandura's (1995) theory of self-efficacy as well as Katene's (2004) research which 'relates to the optimism that an individual has about their ability to deal with situations that will potentially place

demands upon their coping resources...people high in self-efficacy are generally more motivated' (Bennett, 2001, p.25).

Bennett (2001) concluded that motivation for Māori students increases when psychological symptoms and stress factors are minimised. There is sparse literature available, which discusses motivation from a Māori lens. However, literature that is available emphasises that the crucial roles of whānau and school teachers are major motivating factors for Māori student achievement. Further to this, when there is a high sense of cultural awareness and identity this translates into high motivational triggers for Māori success and achievement.

2.10 Themes associated to success enablers for mature Māori students

There has been a lot of documented research on the success enablers and barriers to learning that hindered Māori student success in their studies. (Durie, 2006; Williams, 2010; van der Meer, 2010). It can be asked how the School of Information Technology provides support services for Māori mature students to succeed in their studies and complete their degrees. The education of mature Māori learners cannot be considered in isolation of other factors that may hinder/improve success. Of the several themes explored; six over-arching active themes emerged and are given particular emphasis. These are discussed in the following sections.

2.11 The meaning of success and achievement for Māori students

The concept of success and achievement broadly linked the 'individual and community notions of potential, effort and achievement'. Success is seen as small increments of doing well and completing tasks through a series of steps by all participants. Examples of success are: completing short term goals: doing well in assessments, tests and exams; and more importantly being successful so as to return for another year to study.

Achievement was the 'bigger picture stuff' of completing the degree, being well prepared for life beyond study, balancing work with recreation, and having positive

participation with whānau and friends. Achievement was also attending graduation, being recognised by his/her peers, fulfilling their aspirations, finding employment, enjoying their careers, and being successful in life beyond school. The concepts of success and achievement were inextricably linked to increased earning potential as a part of their socio-economic advancement (Hunt et al, 2001).

2.12 Personal development provides for academic preparedness in learning

Personal development (PD) prevailed as the most important determinant of success and was seen as an inherent part of the academic preparedness for their studies (Williams, 2010). PD was seen as a structured and supported process that was undertaken by a participant to plan, reflect and gauge how their studies were going. The importance of personal characteristics of students to be retained in tertiary institutions was posited by Tinto (1993).

Motivation to succeed and achieve was the energy that provided fuel for action for students in their studies (Tarr, 2005). Māori students ‘were indeed motivated by “what they hope to be able to offer the community when they graduate as by their personal gains” (Greenwood & Te Aika, 2008, p.10). Second, PD was seen as hard work, time management, settling goals, consistency, and patience to battle on when it appeared that the workload was demanding.

A range of approaches to learning that connected planning (an individual's goals and intentions for learning or achievement), to doing (to align actions to his/her intentions with personal expectations), to recording (to write down thoughts, ideas, experiences, in order to understand and chart the process and results of learning) and finally to reflect (to review and evaluate his/her experiences and the results of learning).

One of the most important lessons participants stated when reflecting on personal development was that they learnt from success to keep going and to question and ask for help from their failures. In summary, personal development linked to academic preparedness was the most significant success enabler for Māori.

2.13 Being Māori and having a Te Ao Māori world view for learning

A Māori worldview is important to learning. A Māori world view (Te Ao Māori) is how Māori perceive their environment, and the inter-relationship of the spiritual world, the living world and the natural world (Ministry of Justice, 2001). Māori concepts such as tikanga (custom, protocols and values) and other traditional Māori concepts practiced and acknowledged by an institution cemented a sense of wellbeing for Māori tāuira (Waikerepuru, 2012).

Māori regarded their studies as being part of a holistic inter-relationship linked to all of their life experiences. Evidence of the importance of Te Ao Māori is found in Curtis, Wikaire, Lualua-Aati, Kool, Nepia, Ruka, Honey, Kelly & Poole (2012) in their study *Improving Māori student success* who argue that tertiary institutions “should provide Māori students with additional high-quality academic support (e.g. tutorials) that is culturally appropriate” (p. 29).

Second, being identified as Māori was meaningful and important to their lives, (Guiffrida, 2006; Durie, 2006; Williams, 2010; Kirkness & Barnhardt, 2001). Being Māori came with heavy expectations: being the first in their whānau/hapu to attend tertiary studies, and being the first to achieve and complete their degree and return to their whānau to contribute to their economic well-being.

The importance of studying higher education is always stressed. The completion of tertiary education created capacity building of human capital, professionalism, skills, and competencies and reflected on the iwi/hapu as a collective body. Success in tertiary education is valued as a communal good and not just a personal one (Greenwood & Te Aika, 2008).

Māori students valued important manifestations of Te Ao Māori in the papers offered to them. A mihi whakatau (a formal speech of welcome) demonstrates commitment of Māori values; provide connection with iwi, and “affirm the importance of personal relationships” (Greenwood & Te Aika, 2008, p. 10). Noho Marae where study and inductions are played out in marae context can be effective “because students can get to know each other as more than academic classmates” (Greenwood & Te Aika, 2008, p.10).

2.14 Important relationships provide scaffolding for learning

According to Guiffrida (2006) interchanging integration (Tinto, 1993) with connection with supportive members of their communities allows students to continue to exercise their culturally value systems in a supportive learning environment. Further, Guiffrida (2006) writes “cultural norms and home and university social systems can have significant effects on student motivation and subsequent academic performance” (p. 460).

Success does not occur in a vacuum; nor is it indifferent to interpersonal relationships. Relationships are identified as follows: relationships with Māori staff, peers, and whānau. Across all three relationships, it was recognised that good relationships are based on mutual respect, understanding, common interests, values, goals, intent, commitment, purpose, and knowledge.

The findings also support international studies of the importance of relationships for minority students (Cabrera, Nora, Terenzini, Pascarella & Hagedorn, 1999; Delgado Bernal, 2002; Eimers & Pike, 1996; Gloria, Robinson Kurpius, Hamilton & Williams, 1999; Gonzalez, 2000; Guiffrida, 2004, 2005; Hendricks, Smith, Caplow & Donaldson, 1996; Hurtado, Carter, & Spuler, 1996; Nora & Cabrera, 1996; Rosas & Hambrick, 2002). As well in the New Zealand context, relationships play important roles for Māori tāuira. (Waikerepuru, 2012, Walker, 2012, Williams, 2010).

2.15 Relationships with Māori Academic Staff

Curtis, Wikaire, Lualua-Aati, Kool, Nepia, Ruka, Honey, Kelly and Poole (2010) suggest that relationships with Māori academic support help Māori students to succeed. Māori academics do influence retention. Tāuira recognised, valued and acknowledged supportive academics that were assisting tāuira in their studies. Māori academics needed to be strong, clear-visioned, and significant role models (Jefferies, 1997). Other approaches that Māori academics can do to help retention for Māori students included: encourage and assist Māori tāuira to apply for scholarships, promote academic excellence to Māori tāuira in their studies, become academic advisors for tāuira, provide inspirational guest speakers to incentivise students to

continue their studies and most importantly be seen as role models for what can be potential futures. Finally, Māori academics should provide a clear Māori worldview where there is understanding of Māori values, goals, and aspirations in the content of papers taught.

2.16 Relationships with Peers

Relationships with peers were considered paramount (Walker, 2012; Macfarlane, 2004; Williams, 2010). Where peers join with their peers and appear to have similar aspirations to succeed, to be supportive in study groups, and were focussed in high attainment, success was likely to be more achievable and tangible. Those that wanted to succeed gravitated towards those with similar expectations, and both could contribute to each other's success. For Māori students at risk of leaving early, support services can be vital. A mentoring programme for all tāuira Māori can be established. This programme is underpinned by three Māori world view principles of aroha (care and compassion), manaakitanga (helpfulness) and whānaungatanga (providing a caring environment of connectiveness to tāuira).

The mentors are trained and experienced students and can offer support on academic, procedurally and pastorally matters. The importance of providing culturally appropriate support systems within tertiary educational environments to students has been emphasised (Waikarepuru, 2012; Tahau-Hodges, 2010). (Prebble et al., 2004) and more recently within Success for All Research project within the University of Auckland posits these findings also (Airini, et al., 2011; Curtis, Townsend and Airini, 2012).

Curtis et al., (2012) writes that “academic support that is culturally appropriate and has a positive impact of Māori student learning means providing Māori appropriate tutors are Māori, act as positive role models, are connected with Māori students and Māori specific issues, who know the course content, and who create culturally safe learning environments” (p.29). Māori Mentor relationships are valued and it is these mentors that can provide experience and encouragement. In most instances, Māori mentors can provide pastoral care that is of high quality and be culturally appropriate.

When tāuira feel that they are confident that Mentors care for them, then the transition of looking for academic support emerged. Mentors can also provide the necessary link between student and the ‘elevated high status academic’ to be an advocate and bridge for the student. Issues such as financial assistance, job search, or counselling, tāuira were referred to specialised student support services that are available on campus.

2.17 Relationships with Whānau

The relationships of whānau are important (Williams, 2010). Parents, siblings, cousins, uncles and aunties all impacted on why students come to study; why - to help their whānau. According to Shirres (1997), “so basic to being a person and to being Māori is to be whānau, family, not just with the living...” (p. 53). To all participants, whānau provided the most complex support to Māori students. So many expectations were placed on participants shoulders by whānau, and yet, interesting to all participants expected these expectations ‘part and parcel of their studies’.

Inspiration and motivation to study often came from whānau (Williams, 2010). Whānau expectations were crucial in shaping participants pathways to success and whānau were valued as motivators in times of discouragement. As well, whānau relationships were identified by all participants as a vital relationship to their studies. Whānau were seen to encourage students to seek help if things are getting tough and to stay motivated and persevere with his/her studies.

Williams (2010) writes that whānau need to understand the workloads students need to juggle. Whānau can also help students develop good time management and organisational skills. Students are responsible for attending lectures and handing in assignments. However, whānau can help students balance all of their commitments.

Finally, as Williams (2010) notes whānau can also be a hindrance to study. Whānau valued the importance of educations yet sometimes they could not understand why participants did not attend all the events that whānau went to (especially when assessments were due). However, all participants received on-going support from their whānau in their studies as their studies were seen as future investments to the whānau.

2.18 Other external barriers

The fifth theme is an acknowledgement of other barriers to study. Previous research indicates that the majority of obstacles that Māori learners are external factors such as whānau and cultural commitments (Jefferies, 1997). Broad themes such as whānau responsibilities (demands on time for whānau or hapu commitments, for partners and friends, are responsible for the external factors all impacted on the Māori participants). Another key deterrent to study is financial hardship. Family loans, student loans, student allowances, part-time employment and scholarships/bursaries were primary forms of financial support for participants in this study. Essential resources for study were considered costly and at times not consider priority. The adage “beg, borrow or do without” applied to most respondents.

2.19 Summary of themes

The first theme concludes that success and achievement are two separate destinations on the same journey of student studies. Describing what success and achievement can do is a precursor to exploring strategies of success enablers. The second theme determined that personal development and academic preparedness was crucial to participants’ success in their studies. The learning process and importance of education is paramount to their futures. The third theme is the importance for Māori students to have Te Ao Māori world view for learning and being Māori. Māori students are eager to succeed and journey through to the completion of their degree, however being Māori was integral to success.

The fourth theme is the importance of relationships essential to tāuira Māori with their learning and the significance of these relationships. Relationships with Māori academics, their peers, and finally their whānau all influenced Māori students to succeed. The fifth principle is the external commitments that impact on Māori students learning. Whānau, financial hardship and transitioning from Māori based learning to orthodox learning were identified as major barriers to success and achieve at School of Information Technology.

2.20 Chapter Summary

This chapter reviews literature relating to the success of Māori students in higher education in particular technical institutes. As there is only limited research for the success enablers of mature Māori specifically in the field of I.T. the review has however, had to draw on literature already researched on Māori students from a wide range of areas related to student persistence, retention and completion. This review has drawn from national and international research paying particular attention to the experiences of indigenous and minority students at mainstream universities.

Much of the international literature on retention focuses on underrepresented populations and individuals from lower socio economic backgrounds. An investigation into Tintos (1993) theoretical model for student attrition and student retention in higher education has been discussed and presented. Tinto (2002) also suggests that retention now lies in the hands of the institution and that they must now willingly invest time and resources to improve the retention of their students.

In the New Zealand context a discussion on recent research presented. Researchers such as Williams (2010) and Tahau-Hodges (2010) findings are presented. The NZ literature supports the notion that academics must find solutions to better engage Māori students in their learning.

A description of Institutes of Technical Polytechnics in NZ is given and characteristics of these learning institutions are noted. Further to this literature review the Bachelor of IT degree modules in Wintec is discussed. Statistical analysis of mature Māori in tertiary studies across New Zealand is also given.

The final concluding sections discuss emerging themes that are associated to success enablers for mature students. These themes are success and achievement, personal development and academic preparedness, Te Ao Māori world view for learning and being Māori, relationships and external commitments.

Chapter Three

Research Methodology

Narrative inquiry addresses Māori concerns about research into their lives in a holistic, culturally appropriate manner because storytelling allows the research participants to select, recollect and reflect on stories within their own cultural context and language (Bishop, 1994, p. 24).

3.1 Introduction

This report so far has introduced the research and discussed the research question in terms of the literature. The next step in this study is to report how the research was conducted, and this chapter is organized as follows. After an overview of qualitative research in section 3.4 a description of Grounded Theory within which the data were collected is discussed. This is followed by sections on quality criteria; the methods used to collect these data, ethical, sampling and coding issues are also discussed.

In any research, the selection of the appropriate paradigm and the specific methodologies are determined by the purpose of the study. The motivation for doing qualitative research, as opposed to quantitative research, comes from the researcher's observation that the base of this research is centred on social science research. The next section will discuss qualitative research as the base for this research. As well as identifying the case study approach as the researcher's choice of framework to conduct this investigation.

3.2 Research design and data collection

I chose my research design to align my methodology and analysis with my research question. As indicated in Chapter One the research question is: *What are the success enablers for Mature Māori IT students studying at the Waikato Institute of Technology?*

The proposed topic will employ a diverse range of research methodologies that will combine Qualitative research and Narrative approaches.

3.3 Overview of Qualitative Research

Qualitative research methods are designed to help researchers understand people and the social and cultural contexts within which they live and learn. Kaplan and Maxwell (1994) argue that the goal of understanding a phenomenon from the point of view of the participants and its particular social and institutional context is largely lost when textual data are quantified. Banister et al. (1995) states that, qualitative data sources include observation and participant observation, interviews, and questionnaires, documents and text, and the researchers' impressions and reactions (Banister et al., 1995).

Although most researchers do either quantitative or qualitative research, some researchers have suggested combining one or more research methods in the one study. All research, whether quantitative or qualitative, is based on some underlying assumptions about what constitutes 'valid' research and which research methods are appropriate (Myers, 1997, p.2).

Bogdan and Bilken (1982) note with qualitative research that it, is a rich description of people, places, and conversations not easily handled by statistical procedures, and is concerned with understanding behaviour from the subjects own frame of reference (Bogdan & Bilken, 1982). There are various perspectives which can inform qualitative research and there are various qualitative research methods. A research method can be considered a strategy of inquiry which moves from the underlying philosophical assumptions to research design and data collection. Specific research methods also imply different skills, assumptions and research practices. It was decided that qualitative, rather than the quantitative approach is more suitable to this research.

This research methodology must allow the participants to share their experiences. A qualitative research approach is best considered and the most appropriate in this regard. Merriam (1998) notes that, this inquiry helps us to understand and explain the meaning of a social phenomenon with as little disruption of the natural setting as

possible (Merriam, 1998, p.6). Kaplan and Maxwell (1994) add that the goal of understanding a social phenomenon from the point of view that the participants and its particular social and institutional context is largely lost when textual data are qualified. Banister et al. (1995) states that, qualitative data sources include observation and participant observation (fieldwork), interviews and questionnaires, documents and text, and the researcher's impressions and reactions (Bannister et al., 1995).

The fundamental aim of this research project is to bring to light the experiences of those mature IT Māori students studying in a technical institute. The research methodology that is chosen must allow the participants to share their experiences for this reason, qualitative research is considered the most appropriate. Qualitative research is used in several approaches. These include ethnography, case studies, field research, interview and observational research, document and content analysis and life history to name a few (Bogdan & Biklen, 1992; Burns, 2000).

Qualitative researchers are concerned with meaning and the way that people make sense of their lives (Bogdan & Biklen, 1992; Burns, 2000; Cohen, Manion & Morrison, 2000). Therefore, qualitative research focuses on people's experiences, feelings and their behaviour, which is important in this research. Qualitative researchers believe that since humans are conscious of their own behaviour, the thoughts, feelings and perceptions of their informants are vital. How people attach meaning and what meanings they attach are the bases of their behaviour. The qualitative researcher is not concerned with objective truth, but rather with the truth as the informant perceives it (Burns, 2000, p.388).

Qualitative data are very descriptive because the researcher's main objective is to understand each participant's own frame of reference. The information that the participants supply is of the utmost important to the qualitative researcher because this data is often included in the final written report to help illustrate and validate the research (Bogdan & Biklen, 1992). One of the major advantages of using a qualitative research approach is that by gaining an insider's point of view, the researcher is able to see things that can remain invisible to an outsider (Bogdan & Biklen, 1992). This can add new knowledge and increase understanding in respect to the area under investigation. This is the main reason why a qualitative research methodology has been chosen for this particular study.

3.4 Kaupapa Māori Research Theoretical Framework

Kaupapa Māori research is a well-established academic discipline and research methodology (see for example, Smith, 1999). This research will be guided by a Kaupapa Māori theoretical framework underpinning the qualitative method used to collect and interpret the data (Smith, 2005). Smith (2005) describes Kaupapa Māori research as “a theory of research methodology” (p. 90) creating a niche methodology for Māori researchers to conduct studies. The Kaupapa Māori framework is embedded in the research design, implementation of the semi-structured interviews, collection and analysis of the data, report writing and dissemination of the research. Smith (1999) asserts that Māori researchers can be subjective yet still conduct valid, reliable and rigorous research. The methodology was reaffirmed in Cram (2001) who posited that it is essential for Māori researchers to ensure they are not writing about their communities as if they were outsiders, viewing the participants as ‘other’.

For this reason, by writing from the perspective of an ‘insider’, this allows for authentic interpretations of the Māori world which according to Marsden & Henare (1992) can only be achieved through a subjective and passionate approach. According to Cleave (1997), “every culture has a right to present its own culture to its own people” (p.15) and where the process is “culturally relevant and appropriate” (Irwin, 1994, p.27).

3.5 Māori Participation within Qualitative Research

With Māori participants the qualitative method of gathering data is viewed as more empowering for research participants (Barnes, 2000). The collection of stories, korereao (talk) and in some cases waiata (music) is methods that are useful in determining 'why' certain occurrences exist. It is from these occurrences that the researcher is drawing on certain phenomenon and not testing data against a theory or idea.

For Māori, qualitative research provides the opportunity to explain certain occurrences and events as it happens or has happened. This research can then be best described in several approaches. Again Merriam (1998) highlights these as interpretive research,

field study, participant observation, inductive research, case study, and ethnography. The qualitative research framework that will guide this study is that of a case study approach as discussed in Chapter 1, section 1.9 which focuses on Māori participants' experiences, feelings and their behaviour in a familiar environment.

3.6 Interviews

Interviews are a type of survey that is used for qualitative purposes. They involve recorded conversations with participants, whereby the researcher/interviewer uses prompts to direct the conversation in the direction required for the research.

There are three interview classifications:

- 1) Structured interviews use a set schedule of question and answers;
- 2) Semi-structured Interviews (or focused) use questions as a guideline, meaning there is some flexibility around how the questions are asked, and the answers that may be received; and
- 3) Unstructured interviews whereby there is no set questionnaire and the interview is free-flowing (Bill, 2005).

There are many ways in which interviews can be conducted. All of these ways have different purposes and are useful at drawing out different types of 'data' and information from participants. The interview approach was used to collect qualitative data which consist of "direct quotations from people about their experiences, opinions, feelings, and knowledge obtained through interviews" (Merriam, 1988, p. 78).

A series of questions to prompt the participant was given during the interview process. The main tool that was used to collect data in this research will be a digital audio recorder. Stockdale (2002) describes the use of digital audio recordings to "frame and structure the representation of an event." It is important to the researcher that with the use of digital technology, this can heighten the sense of "being there". (Stockdale, 2002). Being able to record the participants will accurately give a clearer picture and

meaning of their own true account of their learning experiences on their journey to succeeding.

Interview guides were semi-structured to allow unanticipated ideas. Rubin & Rubin (2005) justifies this approach as “Richness means that your interviews contain many ideas and different themes, often including those you did not anticipate when you began the study” (p. 134). Interviews and questions commenced with asking introduction questions moving to the more specific. Participants were encouraged to use their own experiences and examples in answering questions. The interviews lasted for approximately 60 to 90 minutes each. Two interviews took place in an office on the City Campus of Wintec and the rest were conducted at their individual homes. All of the interviews were audio-recorded with their permission and informed consent of participants. Each recording was then transcribed verbatim by an independent transcriber. Transcripts were checked by the researcher to remove any identifying information.

These interviews followed the in-depth interviewing approach, which according to Johnson (2002) sought “deep information and understanding” (p.16). As suggested by Hirsch (1995) the interview guide was sent to participants before meeting to conduct the interview. Previewing the questions ahead of time allowed the participants to achieve a level of comfort with talking about and to think about their answers and supporting examples ahead of time, thereby making the most of the allotted time (Yeager & Kram, 1995).

Bogdan & Biklen (1992) define an interview as “a purposeful conversation, usually between two people but sometimes involving more than one that is directed by one in order to get information from the other” (p.96). Interviews enable the interviewer and interviewee to discuss their “interpretations of the world in which they live in, and to express how they regard situations from their own point of view” (Cohen, Manion & Morrison, 2000, p. 267).

Qualitative interviews vary by the way they are structured as noted by (Bogdan & Biklen, 1992). At one end of the spectrum lies the ‘structured interview’ where the questions are pre-prepared before the interview commences. At the end of the continuum lies the ‘unstructured’ interview, this is where the interviewee is

encouraged to have an open dialogue to talk about in relation to the topics that is being studied. This research project will use semi-structured interviews as the main method of data collection.

Semi-structured interviews are conducted with a fairly open framework which allow for focused, conversational, two-way communication. They can be used both to give and receive information. Case (1990) adds that the major benefits to conducting semi-structured interviews are that, first; semi-structured interviews are less intrusive to those being interviewed as the semi-structured interview encourages two-way communication between the interviewer and respondent. Interviewees can ask questions of the interviewer. In this way, semi-structured interviews function as a gateway for both parties to reciprocate and engage in meaningful dialogue. Secondly, semi-structured interviews confirm what is already known by both the interviewer and interviewee and also provides the opportunity for learning for both parties. Information obtained from semi-structured interviews will provide not only answers, but the reasons and insight for the answers. Finally, interviewees can discuss more easily sensitive issues related to the topic (Case, 1990).

As well, another advantage of using semi-structured interviewing is that the researcher can collect comparable data across subjects (Bogdan & Biklen, 1992). By also developing a framework as posited by Bell (1999), this allows the respondents to talk about the topic and present their views, however; the framework helps to ensure consistency and, analysis is “greatly simplified” (Bell, 1999, p.138).

In the Māori worldview, or through the Kaupapa research lens, a semi-structured interview format creates a comfortable environment for Māori to engage in dialogue. In the Māori context ‘Kanohi-ki-te-Kanohi’ or face-to-face meeting between the participants and researcher is an important protocol in Māori culture. When the participant and researcher are available to engage in an interview using a ‘Kanohi-ki-te-Kanohi’ approach, another protocol is triggered called whakawhānaungatanga (getting to know each other). Therein, there is an exchange of cultural values and socializing that fosters trust and confidence between the interviewer and interviewee.

Bevan-Brown (1998) acknowledges that such a framework would be seen “from a Māori world view, be based on Māori epistemology and incorporate Māori concepts,

knowledge, skills, experiences attitudes, processes, practices, custom, reo, values and beliefs” (Bevan-Brown, 1998, p. 231). This framework allows the participants the opportunity to meet the person conducting the interview and to form some human attachment and familiarity. Therefore, the interview process using face-to-face interviews will be the instrument for collecting this data. An interview framework was developed for the interview (for interview framework see Appendix A – D1).

3.7 Process of Interviewing Framework

The participants will be interviewed once in the process of this research project. Each interview (which should take approximately two hours) will be taped on to an audio tape and each interview will be transcribed by a professional typist. The researcher will keep in close contact with the research participants during the research process. This will allow a deepening exploration of the issues of central concern to the participants. It will also help the researcher to develop a close rapport with the research participants. The relationship between the researcher and the participants is crucial to the success of the qualitative project because intimate information will not be likely to be shared until a trusting relationship has been established. Bogdan and Biklen (1992) claim that “some respondents need a chance to warm up to you” (p.98).

3.8 Selection of Interviewees

Participants who are known to the researcher through personal contacts were approached and asked to participate in this research. Potential participants were informed via face-to-face (Kanohi-ki-te-Kanohi) or telephone contact with the researcher. As the Māori and Pasifika IT Kāiawhina for the School of Information Technology department, trusting relationships have been forged with many of the participants even after they have finished and completed their studies at Wintec. Contact with many of these participants is still maintained. Overall participants were selected from a range of criteria including:

- Identifying themselves as Māori;

- Being over the age of 25 at the start of their studies;
- Being enrolled as full time students; and
- Gained a Bachelor of Information Technology Degree from the School of Information Technology.

3.9 Ethical clearance of research

There were a number of ethical considerations that arose while trying to protect the rights of the participants in this study. The principles in this research are those concerning: informed consent, anonymity, confidentiality, and minimisation of risk. These are discussed below.

This research will have six participants who have all successfully completed their Bachelor of Information Degree. To Māori face to face contact is very important. Therefore, access to the participants will be established through personal contact. The participants will be contacted informally in the first instance to determine whether they are interested in participating in this research. At this point, the general aims and objectives of the study will be outlined.

The most obvious ethical issue which will arise in this study is that of confidentiality. Informed consent forms will be procured from participants informing them of the aims of the study, the methods to be employed, the lengths to which the confidentiality will be ensured and the risks involved in this research. Their consent to be participants of this research study must be required.

All participants in this research will remain anonymous throughout the duration of this study. The anonymity standard is regarded as a guarantee of privacy for the participants. The privacy and confidentiality of those involved in this study must be upheld by the researcher. The research procedures that will be used in this study guarantee the participant's confidentiality. This will assure that that identifying information will not be made available to anyone who is not directly involved in this study. Written guarantees will be given to the participants that all data collected will remain confidential.

The ethical standards set out by the National Human Ethics Research Committee require that the researcher does not put his participants in a situation where they may be at risk of harm, as a result of their participation. These risks will be reduced by ensuring anonymity and confidentiality of the participants in this study.

The individuals will be assured that they will not be identified in any publication of the research findings without their explicit consent. Participants will also be informed of their right to access any data that will be collected about them and the right to withdraw from the research at any stage. All data collected both electronically and hardcopy will be destroyed after 5 years.

Data collected will be qualitative in nature and this will be stored on my office computer which I am the only one who has sole access to it. As this is a standalone computer meaning, it is separate and not connected to our network I have full and total control of access rights to this computer.

Backup of all files will be encrypted to an external hard drive which will be stored in a lockable file in the researcher's office.

The procedure for the storage of, access to and disposal of raw data, both during and at the end of the research will be as follows:

- All written material (interview notes etc.) will be kept in a manual file under lock and key.
- All digital material (interview notes, audio tapes etc.) stored on any recordable medium namely USB Flash drives, audio tapes will be kept under lock and key in a filing cabinet.
- Access to all written material (interview notes etc.) in hardcopy form will be locked in a secure filing cabinet and will be restricted to the researcher only.
- All data collected will remain confidential and anonymous, and will be stored in a secure environment for a period of 5 years.

3.10 Coding

Coding begins at data preparation and is the first step in analysing data. Lee & Lings (2008) argue that “coding is at the very core of the analysis approach” (p.243). A code is defined as “a label which you attach to a bit of text, whether it be a single word...They are designed to capture the meaning of that unit of text (Lee & Lings, 2008, p. 244). Here, data can be “separated, compiled and organised” (Collis & Hussey, 2009, p. 179).

There are many different styles of coding ranging from structured to unstructured. The labels used by the researcher are subjective. There is software to help coding, however; the “thinking and interpretation is still complex (Lee & Lings, 2008, p. 244). In essence, Collis & Hussey (2009) argue that coding is used to represent data to aid storage, retrievability and reconstruction leading to development of themes. The synthesis and reorganisation of data can also lead to patterns which can be “confronted by existing theories or used to construct new theories” (Collis & Hussey, 2009, p.183).

3.11 Thematic Analysis

Qualitative approaches are incredibly diverse, complex and nuanced (Holloway & Todres, 2003), and thematic analysis can be seen as a foundational method for qualitative analysis. According to Braun & Clarke (2006), there are six phases of thematic analysis: first, the researcher must familiarise his/herself with the data collected. There can be a transcribing (if necessary), reading and rereading of the data and noting any initial ideas as they come to mind. Second, the researcher must generate initial codes in a systematic fashion. Third, the researcher will search for themes by collating all relevant data. Fourth, the researcher will review all themes and generate a thematic map of the analysis. Fifth, there is on-going analysis of each theme. Sixth, this is the final opportunity for analysis for producing the report.

The practice of Thematic Analysis in this research includes open, axial and selective coding practices which compliments Grounded theory. Open coding requires a breakdown of the differences and similarities in themes across the case studies and then labelling these themes as categories. Axial coding incorporates scrutinising and

making connections, revealing sub-categories. Selective coding integrates all of the categories to find a common or core category (Bosmann-Watene, 2009).

Second, I will review the literature covering a large scope to try and capture several aspects that could then be analysed into themes. Reviewing literature concluded when the initial analysis of the transcripts were completed and presented as case studies. In principle, the research is completed when ‘additional analysis no longer contributes to discovering anything new’ (Strauss, 1987, p.21) and is termed theoretical saturation. From this point the data produces concepts and theories which explain the phenomenon under examination (Denscombe, 2007).

3.12 Data interpretation

The research method that will be used to conduct this research should strongly influence the way in which the research will proceed. The choice of the method is dependent upon the research process used. Grounded Theory is a qualitative research method developed by Glaser and Strauss (1967), which has influenced the design and conduct of this research. As Strauss and Corbin (1990) explain,

“A grounded theory is one that is inductively derived from the study of the phenomenon it represents. That is it is discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon. Therefore, data collection, analysis, and theory stand in reciprocal relationship with each other. One does not begin with a theory, and then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge” (p.23).

Educational researchers North (1994), Strauss & Corbin (1994), began to explore and apply the grounded research to behaviourally-based problems. This theory is an approach which can be used to analyse social processes that are present within human interactions (Siegel, 1996). The application of the theory results in explanations of important social processes of structures that are derived (grounded) in the empirical data (Siegel, 1996).

In applying the grounded theory approach to this research, the problem is allowed to emerge from the data. From this process, the collection of the data is also substantiated from the field notes taken. As a result of this research the results provide an idea where the data came from, how the data can be rendered and how these emerging concepts were integrated. A strength of the grounded theory approach for this research is that it meets four central criteria. These are discussed by North (1994) as being:

- 1) It will closely fit the area under study.
- 2) It will be readily understandable
- 3) It will be sufficiently general to be widely applicable within the subject area
- 4) It will provide its user with sufficient control to make its application worthwhile.

Grounded theory has been featured in previous research on Māori students in Tertiary studies (Bennett, 2001) and is interpretive in the sense that theories are generated throughout the research process and 'grounded' in empirical data (Strauss & Corbin, 1994). In following this approach the researcher must have an open mind to the research area being explored and refute any bias that he or she may have (Bosmann-Watene, 2009).

A particular element of Grounded theory is the process of analysing the data which requires specific coding methods with a purpose to finding concepts and theories which eventually become the main findings. McLoughlin (1996) notes, that the novelty of the grounded theory lies not in the mode of investigation, but the manner in which the information is collected and analysed.

Searching relevant literature is the beginning phase of grounded theory provides a starting point for the researcher to consider provisional theories. This means that the concepts derived from any literature 'would not yet have proven theoretical relevance to the evolving theory' (Strauss & Corbin, 1990, p.180).

Due to the design of this research continuing an investigation which might require a re-introduction of data collecting methods was not possible. Denscombe (2007) states,

‘ideally the researcher should return to the field to check out emerging explanations [however] in practice, it is not always feasible (p.292).

3.13 Quality Criteria

It is important that this research meets a number of quality criteria. These terms reliability and validity traditionally have been associated with quantitative research, yet increasingly they are being seen as important concepts in qualitative research to substantiate claims that are supported by convincing evidence.

Validity relates to the honesty and genuineness of the research data and reliability relates to the reproducibility and stability of the data. Some comments on the aspects of validity and reliability are discussed in the following sub-sections.

3.13.1 Validity

Validity refers to whether an item measures or describes what it is supposed to measure or describe (Bell, 1987., Borg, 1987). Qualitative researchers, because they try to engage and come to understand the experiences of their informants in naturalistic settings, believe that the method that they follow brings them closer to reality and is therefore valid (Genishi, 1982).

However, Burns (1991), points out that the validity of the qualitative research can be reduced by the reactivity generated by participants observation and by the credibility of the informant reports in interviewing.

Burns (1991), furthermore adds that this can improve the validity of the research analysis by:

1. Checking out the consistency of findings generated by different data collection methods.
2. Checking out the consistency of different data sources within the same method.

3.13.2 Reliability

Whatever procedure for collecting data is selected, it should always be examined critically to assess whether it is likely to generate reliable and valid data (Bell, 1987). Reliability is the extent to which the procedure produces similar results under constant conditions on all occasions. In other words, a question which produces one type of response on one occasion but a different response on another is considered unreliable.

Burns (1991), identifies two assumptions in his categories:

1. The study can be replicated: other researchers must be able to replicate the steps of the original research, employing the same procedures.
2. Two or more people can have similar interpretations of the outcomes generated by using these procedures.

Burns (1991), affirms that reliability in qualitative research can be enhanced through the following processes:

1. Investigators outline the reason for the research and the major question they want to address.
2. They explicate their perspectives on the question, stating their research assumptions and biases.
3. They explain their data gathering procedures, including timing and timelines of observations, spatial arrangements of interviews, relationships with subjects and categories developed for analysis.

3.13.3 How Validity and Reliability is applied to this research

Most of these aspects that have been outlined by Burns (1991), are considered in this research. The researcher attempted to ensure that the research was carried out properly, in depth, with validity and reliability and the process was credible and rigorous.

Validity was substantiated by respondent validation, and constant comparison. The researcher employed respondent validation which allowed participants to read through

the data and analyses and provide feedback on the researchers' interpretations of their responses. This validation provided the researcher with a method of checking for inconsistencies, and challenged the researcher's assumptions. It also provided the interviewees with an opportunity to re-analyse their data. Subtleties and complexities about the research subjects were discovered. As well, the use of constant comparison allowed one piece of data (the interview) to be compared with previous data and not to be considered on its own. This enabled the researcher to treat the data as a whole rather than fragmenting it. Constant comparison also enabled the researcher to identify emerging/unanticipated themes within the research project.

To ensure reliability, the data collection was undertaken in a consistent manner free from undue variation. The researcher used Sandelowski's (1986) technique of honestly declaring the origins of any value-laden concepts and publicly acknowledging potentially his researcher-centred perspectives. The researcher also attempted to remain true to the data and to the boundaries of the sample. There is uniqueness in this research, and Sandelowski's (1986) process recognised that "the nature of claim as one of a perspective on rather than reproduction of the phenomenon" (Long and Johnson, 2000, p.35).

3.14 Limitations of Approach

According to Prebble et al., (2004) "there is a need for research that will both replicate the international research on withdrawal and non-completion" (cited in Williams, 2010, p. 340). However, this research study takes the approach as espoused by Durie (2006) which focusses on shifting from a deficit paradigm to potential and discovery and what Māori students perceive to be success enablers. The following paragraphs explore the limitations experienced by the researcher.

First, conducting interviews was an addictive exercise. The data was rich and interesting and the researcher wanted to ask more questions with more students. It was only after advice from my supervisor to halt the interviews that the researcher stopped and only then was the researcher able to see what the students were saying.

Second, an online survey could have been circulated to all Māori IT students to ascertain whether the same viewpoints were prevalent over the entire Māori IT student

population. The researcher acknowledges that this was an ambitious undertaking, alongside conducting qualitative interviews. Why? Due to time constraints and working full time, tasks such as conducting interviews, collecting, analysing, and transcribing of interviews took a lot of time. Therefore, the online survey was abandoned. The researcher suggests that there is potential opportunity for future research from the online survey questions.

Third, technical and administrative processes were tedious and exhausting. It was easy for the researcher to forget all the minute details which impacted on timeframes and added stress to undertaking this research. However, by keeping in touch with the supervisor, this yielded strategies to assist the researcher to keep “on top of things”.

Finally, time is a limitation. This research was undertaken in spurts and spasms alongside all other projects and work commitments. It was important for the researcher to complete a full draft of the report, set it aside for a time for reflection, get feedback from the supervisor and then re-edit. It all takes time which just flew.

3.15 Conclusion

This chapter, Chapter Three, has outlined the research methodology for this study. There are several general statements that can be made about the research method.

It was decided that a qualitative, rather than a quantitative approach would be more suitable to this line of inquiry given that the qualitative approach is more conducive to the Māori participants.

Qualitative research methods are designed to help researchers understand people and the social and cultural contexts within which they live and learn. The qualitative research method that guided this study is that of Grounded Theory. This was the researcher’s main approach to collecting his data. A particular element of Grounded Theory is the process of analysing the data which requires specific coding methods with a purpose to finding concepts and theories which eventually become the main findings.

The importance of oral contributions to this project will help to deliver the outcomes that this research is seeking. Narrative research has been chosen because of this reason, they emphasise the importance of oral language and accept stories as valuable sources. Semi-structured interviews will be the form of data collection in this research which will be informal where the interviewee has complete autonomy on how the interview is conducted.

There are a number of ethical considerations that are addressed in this research which protects the rights of the participants in this study. This has been addressed through informed consent forms, anonymity, confidentiality, and minimisation of risk. The analysis and interpretation of this data in this study will try to explain the nature of the researcher's question, what motivates mature IT Māori students to succeed in a predominantly non-Māori discipline.

A full description of how the research was conducted and data collected is required in this research report. This chapter has provided a description such that if another researcher was to replicate this study, they could follow the same procedures in similar settings and get similar, though not identical conclusions. The next chapters, Chapter Four to Chapter Nine will present the case studies of the participants involved.

Chapter Four

It's not about getting that degree but most importantly, it's about achieving that level of learning...It's the mahi behind it, the years it has taken. It's the level of learning which you've gone through. How many times you've cried! Even failing.

4.1 Overview of Chapter

In this chapter the analysis of one participant is presented. A discussion of the findings will be highlighted and the success enablers discussed. A brief profile of the candidate will be given followed by the personal development of the individual learner prior to undertaking studies at a tertiary institute. This will be followed by the tertiary environment that is found to consist of three collectives of people that enabled and inhibited the success of the participant. The final sections; Whānau and Te Ao Māori form the concluding part of this chapter.

4.2 Introduction

The result of the case studies found that there are four major factors that contribute to being success enablers for mature Māori IT students studying at a tertiary institute. The first is the personal development of an individual learner, second; the tertiary learning environment of a mature IT Māori student, third; the importance of whānau relationships to students, and fourth; Te Ao Māori. The format for this chapter will be as follows. Themes will be introduced that emerged from the interviews and these will be further expanded into other sub-themes. Each section will provide an analysis and use supporting quotes (provided by the interviewee) to support this analysis and the hypotheses of the overall research.

4.3 Interviewee Profile

ZX is a mature Māori female, born in Huntley on the 23rd February 1963. Her iwi affiliations are Tainui and Te Arawa. ZX is a mother of four children and three mokopuna (grandchildren). She undertook her studies at the Waikato Institute of Technology in the School of Information Technology with a Bachelor of Information Technology degree. ZX successfully completed her Degree in IT. She is currently working and living in Australia, for the Brisbane hospital, in the IT department.

4.4 Individual Learner

The first major theme consistently mentioned throughout the interview and recognised as laying the foundation for determining success enablers for mature Māori IT students was the personal development of the individual learner. This research found that the personal development of an individual learner consisted of two sub-themes that are inter-connected with one another. The first theme is the nature of pre-tertiary educational experiences. The second theme is the interviewee's motivations for undertaking studies at a tertiary institute. These themes would be the key drivers and influences that would lay the foundations for the interviewee's educational moulding and eventual path of undertaking study at Wintec. The theme 'Individual Learner' will be discussed further in the following sub-sections.

4.4.1 Pre-tertiary Learning

In the beginning of the interview, ZX is asked to describe her early educational experiences to the interviewer. She begins by saying that she started Primary School in the 1970s, had no problems with attending Primary, and loved the experiences she had there. During this time, ZX grew up in an area that was family-oriented. She explains, "we had everything; Pākeha and Māori... We all shared everything. In those years, we formed the world together." This observation provides an interesting insight for this research; it suggests that at a point in ZX's life, there was equality amongst people and that they progressed together. This experience would also shape ZX's character, influence her personal development as an individual learner, and be the benchmark that ZX would measure future experiences against.

ZX then goes on to explain that it wasn't until she attended High School that she felt a 'change'. She says "it was because you were expected to have all that learning in you." In analysing this statement, ZX may have felt that she didn't possess the required knowledge or general 'know-how' when entering into the High School education system. This may be because:

- ZX had poor knowledge retention; or
- ZX had ineffective Primary/Intermediate teachers; or
- ZX may have not been able to transition comfortably from Intermediate to High School; or
- The educational system at ZX's High School was different to what she experienced at Primary School, quote "when I got High School, I saw a different change in class of teachers."

To detail this further, ZX shares with the interviewer this experience:

A boy called me a 'black Māori' and I punched him. I got sent to Rose Petty (a Māori teacher). And I'll never forget her. She told me 'You were right in what you did but it was the wrong time to do it.'... But it was because he called me a bad name- he called me a horrible name. That's why I punched him and she said to her it was like a Māori striking out instead of talking about it... but the first thing he did, instead of hitting me back, he went straight to the teacher. That's a process I never had in me.

ZX reacted physically towards her verbal abuser. Unbeknown to her, there was an alternative method of reacting to the situation, for example approaching her teacher about what was said to her. This process was something she wasn't aware of before, something that her teacher (Rose Petty) informed her about, and one that would add a different type of learning, learning about processes and procedures. ZX experienced a 'change' that she hadn't expected, when transitioning to a higher level of education thereby adding another element of learning.

This change would influence and set a foundation for ZX to prepare herself both socially and academically for similar situations later in life. It is this academic/life

preparedness that would contribute to being a success enabler when ZX would eventually undertake studies at Wintec. Finally, ZX discloses to the interviewer that she had withdrawn from High School at the age of 15. When asked about her decision to withdraw, ZX explains:

I was 15 and I didn't want to go back cos I didn't realise my mum had to spend 45 dollars for me to get School C (High School qualification) and that was a lot of money.

Interestingly, ZX also states “I knew I could do it, that School C, but there was no funding available for my mum to get it.” Analysis of this statement suggests that at this particular point in ZX’s educational learning, ZX felt that money would be better spent towards her family, than towards her education. This shows that although ZX knew that she could complete her High School education and School Certificate, ZX valued the welfare of her family more than her academic needs. This experience would help set a foundation for ZX’s decision to gain higher education and attend Wintec later in life.

A key experience that ZX shares in the interview compares hers and her daughter’s educational experiences at the same High School. She explains:

When I saw my girls at [name changed], the difference in making them excel was just unbelievable. I went to the same school [name changed], you wouldn't believe I went to the same school.

This quote suggests that between the times that ZX attended High School to when her daughter’s attended, something had changed. This could possibly be because the value of education and the investment of time, effort and resources into a student have increased. However, ZX shares her view on why this is, saying:

What I never got was that I was just a number. When I went to high school it seemed to me that I was just a number. If that number didn't succeed, 'oh you're going that way'. If you succeeded, you went the other way.

ZX felt that she was treated as a statistic, whereas her daughters were treated as individuals. Not only does this reflect that the educational system itself has had to evolve and adapt to ensure that the value of education is adequately reflected, but this

also illustrates the importance of understanding the different learning abilities of students and the need to recognise that they are individual learners.

4.4.2 Motivations

This research identified three key motivations for ZX in wanting to undertake studies at Wintec. More specifically, to undertake studies in a field that is under-represented by Māori. These motivations were instigated by several events that ZX experienced. These events can be explained as ZX's desire to further her educational development, provide a better lifestyle for her whānau and herself, and realising the value that comes from education.

4.4.3 Self-Improvement

After ZX withdrew from High School she sought out employment as a source of financial relief for her family, at Waikato Hospital. Having withheld her actual age of 16 from the employee, she secured a job for herself and her sister by saying she was 17. ZX says, "We (ZX and her sister) used to give our money to our mother... but she used to give it back to us... She told me to move, to move on with my life."

The advice given by ZX's mother provided unspoken permission for ZX to re-evaluate her priorities and where her obligation to her family sits amongst them. This event would in future years help ZX seek out higher education. In re-prioritising what was most important to her at that point in her life, she found that education ranked higher than it did when she was at High school. To support this thinking, ZX states "It's not about getting that degree but most importantly, it's about achieving that level of learning... It's the mahi behind it, the years it has taken. It's the level of learning which you've gone through. How many times you've cried! Even failing." This research found that in ZX's case, education provided character-building and self-improvement experiences.

Lastly, ZX offered some valuable insights into how she perceived herself and other Māori. She states, "Māori's are so negative in their own self. We are. We're so negative. Straight away we think we can't do it or we will do it only if we see someone else doing it in front of us." However, ZX also comments that, "That's what Māori's love to hear that we're not dumb! We're good! We're not dumb! We're sharp. We

know what we're talking about." These two comments show that it was more than developing her own self and character, but it was also about proving that Māori have more to offer than the stereotypes that are afforded them.

4.4.4 Lifestyle

Between leaving High School and making the decision to attend Wintec, a significant event occurred where ZX's marital affairs were brought into conflict. ZX says, "It changes again because you have your own children to start thinking about. And it does, it blinking changes your whole outlook on life." This experience put ZX in the position of having to depend on only one income, her own. Needing to find a way to improve the living situation for her and her children, she realised that higher education could do this; "Using it (ZX's degree) outside in that real world and seeing how much money I can make, that's what it boils down to." This shows that higher education could provide the financial stability ZX needed to look after her and her children, which in turn would improve their lifestyle.

4.4.5 Value of education

The interest for ZX to undertake studies within the field of IT was sparked by a free training programme that was advertised on television. This programme offered Levels 2 and 3 training in computer studies for Māori students who had no skills in this particular field. ZX participated in the programme and says of it, "I loved it. I got on so good that I passed the level 2 and 3 paper within six months. It was supposed to last that whole year." The educational value ZX received was that her success created a confidence in her to pursue higher education. ZX was motivated to undertake further studies in this field because she excelled academically, developed a keen interest, and enjoyed learning about this niche discipline.

4.5 Tertiary Environment

The second key theme that this research identifies as being enablers of success for mature, Māori, IT students is the tertiary environment. This environment encompassed three collectives of people, who also had the potential to inhibit the academic success of ZX. The first collective are the academic staff which consists of individuals that are

tasked with the responsibility and role of educator (i.e. lecturer, tutors). The second group are ZX's Peers. This collective is identified as those persons who have a similar educational environment and background as ZX. The third collective are the institutional support groups; these being the role of government and Māori support systems.

Although each group is largely similar, the distinction between them is dependent on the level of interest and responsibility that they have for ZX. This research considers these factors of the 'tertiary environment' which will be further analysed and discussed in the following sub-sections.

4.5.1 Academic Staff

The first group of academic staff that are recognised as being success enablers for mature, Māori, IT students are the lecturers. ZX first began her studies at Polytech where two lecturers entered her class room and said to her class:

We're gonna offer you a diploma, Level 5, you can do it!' The encouragement was really good. Then [name changed] standing next to him said that when we're finished with that we may even want to carry on and do a degree.

ZX then goes on to say:

We were amazed that these two Pākeha men could stand in front of the class and tell us, a group of people that they'd never met in their life that we could do this, that we could be educated!

However, when ZX tried to make contact again with these same lecturers during normal semesters, she was told she had to make an appointment, quote:

Nobody told me these things. Nobody told me about the processes about going to the same man that I'd been (seeing in the) corridors for the last ten weeks through summer school. I go to knock on the door and she (receptionist) comes out, and he (lecturer) comes out behind the door and says to me 'It's all different when school starts [ZX]. '... That's not what I expected.

ZX makes the following comments on her lecturers and of her learning:

- *By the end of 18 weeks, we have a little bit of understanding of what's need[ed] to pass. Not to fully understand in depth, but enough to grab a bit here and there and then we've passed. What do we do with it once we've passed? Push it to the side again and grab the next paper.*
- *It feels like I haven't been given that learning when I should be standing tall... But I don't. I feel lost. I don't believe I've been given that learning where I have the strength to stand up and do on my own.*
- *At the end of the day it's not about what you're working in. It's about what you're given.*
- *They should be teaching me things that are out there, not now, but are going to be out there in five years' time. So I'm fully prepared.*
- *We don't know where to go. We don't have any direction. Who do you go to? Who do students go to? ... For Help. For directions.*

These comments highlight the lack of time and investment from the lecturers into their students and the challenges and fears that ZX faced during her studies. These thoughts that ZX shared in the interview were constraints on her overall development as a student. They highlight the need for proactive lecturers to be committed to their students' learning and in doing so; they have the ability to guide and help students.

The previous statements provided by ZX highlight that lecturers can inhibit the learning of their students. However, they also show that lecturers have the potential to enable the academic success of students, if they provide the necessary pastoral care which is needed to support students during their academic journey.

The second group of academic staff that are recognised as being success enablers for mature, Māori, IT students are the tutors. ZX has had both positive, quote "I've had wonderful woman tutors, absolutely wonderful" and negative experiences with tutors:

Some of these tutors have been downright rude. Some of these tutors have just had the most horrible aura about them that they shouldn't even be teaching. And

some of these tutors don't even have teaching ability. They sit behind their desk and they watch.

Yet, it is one experience that ZX shares about a particular tutor which captures the significance of tutors and their influential role in a student's academic well-being. To explain, ZX couldn't attend a class for cultural reasons (Koroneihana), ZX explains:

I told him (the tutor) the day before and he emailed me back and told me that I'd known this for more than a year and only emailed the day before that I was not coming to Kura. He said he was disappointed... And that's awesome because that's telling me that he knew that koroneihana comes every year. And so he was culturally sensitive too. And so I got a growling, but I appreciate that because that's the way it goes.

This experience was intriguing, because it shows the tutor balancing respect for and recognition of a Māori culture event with his academic responsibilities to ZX. The tutor knew that this cultural event was held annually, knew the significance of it and knew that it was poor form for ZX to give insufficient notice for not attending her course. This research notes tutors as an enabler because their role is to provide support and educate, which leads to success. But with this particular example, the tutor was an enabler to ZX because he recognised ZX as both a Māori and an IT student, and treated her as such for both factors.

4.5.2 Peers

The second group of individuals will later be recognised as being success enablers, but for this section are identified as being inhibitors of ZX's academic success. In ZX's classes, she recalls how her learning would be interrupted by people talking, walking in and out and being late to class. Her attitude towards those peers can be explained by her statement that, "I will certainly do away with people making a noise in my class and affecting my learning."

It was ZX's view that the tutor of disruptive students should be addressing the situation and taking control of the class. She remarks that, "He should be making a stand and telling them not to talk and do this-and-that. If you've (tutor) got no control over the class, they'll (disruptive students) just keep forever doing it to them (tutor)." The effect

of the students on the class, the tutor and other students (including ZX) severely restricted the scope and extent of ZX's learning. As a result, the tutor was unable to teach to their full capabilities; and consequently the students were not able to appropriately receive all the necessary information. This shows that peers have the ability to inhibit a student's (regardless of them being mature, Māori or studying IT) ability to succeed, "When the students already in there, their learning is being interrupted by these unstable students."

However, ZX makes the comment that in being a mature student, she felt more confident and proactive when faced with situations that involved disruptive students, her attitude was to "get rid of that threat and go deal with it. Go do something." Additionally, she also comments:

Because we were older and we had a piece of paper that told us that we were allowed to ask 'this, this, this, this and this.' ... And when somebody says you can do it, that's what I'm gonna backfire with.

This shows that although a person can be faced with a barrier to learning, they still have some control or power to overcome the tribulation. By this means, they themselves can be regarded as enablers of their own academic success.

4.5.3 Institutional Support

The fourth and final collective of individuals that this research identified as being success enablers for mature Māori IT students were the Institutional Support groups. These included the Government and Māori Support services. The Government was a form of institutional support because they offered financial support to ZX, thereby enabling and providing an opportunity for ZX to pursue higher education. Having been offered a Scholarship, another door was opened for ZX. However, as ZX explains, this opportunity was difficult for her on a personal level, quote;

They offered me a Scholarship, and this is when the negative stuff starts coming in, when you start saying 'geez I can't do this, it's a Pākeha thing. Oh, you've got to go to High school to do that sort of stuff. You've got to have school C, UE, university entrance', because

that's what the Pākeha system told me all my life. I can't do anything unless I have these three.

The doubt that she placed on herself because of the views that she held were an impediment to her learning. Because of this view, ZX felt that the only option for her to gain a higher education was to attend Polytech.

During her studies at Polytech however, ZX found that the Māori support systems weren't very helpful and of poor quality. She relays to the interviewer her experience of having failed a tertiary paper and was told that she had to go to the help desk to rectify the situation. The help desk then told her to see the Kāiawhina, who then passed her onto someone else. ZX remembers telling the Kāiawhina:

I said to her that she was passing the buck. If you don't know what you're talking about, don't tell me to sit here for an hour and wait for someone else to come around. So, no, I didn't think she was very structured.

Although this experience wasn't highly beneficial or positive for ZX, she remembers that there was another Māori support person who “was very good because I had to work out a plan with her... I had to have a diary; I had to show her what I was going to do. She was also accountable to me... That was her thing; ‘don't you like that. I won't have that talk’.” This research finds that the highly proactive and invested nature of the Kāiawhina in ZX was of great support. This was because the Kāiawhina:

- Set benchmarks for ZX to achieve;
- Gave clear guidance on what had to be done to achieve and pass the classes, as well as what was expected from ZX;
- Ensured there was consistency in the meetings that her and ZX had;
- Showed that she was accountable to ZX;
- Empowered ZX to be accountable to her; and
- Lastly, the negative belief that ZX carried, where she thought ‘I can't do this’ was immediately squashed by the Kāiawhina where ‘that kind of talk’ was unacceptable.

All of these observations were tools used by the Kāiawhina to help, support and encourage ZX to believe in her own abilities. Ultimately these were tools that enabled the academic success of ZX.

For Māori students, we need that. We need to have full-on support... it's just that support so that we can turn around and say 'that's our Māori support. That's his job. That's what he does. He makes sure we're on top of everything. If we're not, we've got to line up!

4.6 Whānau

The third significant theme that was recognised in this research as being a success enabler for mature Māori students in the IT field is Whānau. Throughout the interview, ZX makes several references to her family, describing her parents as hard-working labourers and her family as living “week by week.” Overall, ZX recalls several experiences which recognise the impact that her family has had on her. However, there were also moments in the interview where whānau were viewed as inhibiting that success. This research finds that the family unit has a significant influence on ZX’s educational moulding of which this section will discuss further below.

4.6.1 Whānau as a barrier to learning

As previously mentioned, ZX described that she wanted/had to withdraw from High School because her mother had to find a means to pay for her education. When asked about what her father thought about this, she commented that her Dad said that a School Certificate was “only a piece of paper with a tick on it!” ... That’s all you get from it.” According to ZX’s father, the only value a School Certificate could provide was not an education or qualification, but rather an inanimate object. The reason why this can be seen as a barrier to learning is because ZX’s father is an influential figure in ZX’s life. This view can be further illustrated by the experience she shares of how she was raised:

[Her way of life] was very structured. And it was the only way I knew, I didn't know anything else... I think because it was so structured, there was no turning

left or right. That was the way because I thought it was a safe way and I didn't know anything else.

Because of the influence and guidance that ZX's parents had on ZX, the low value that the father placed on education may have influenced and contributed to the overall value that ZX placed on education. Had ZX's father viewed education to be of utmost importance, this may have influenced ZX to continue attending High School? Instead, for this research, this experience is viewed as an inhibition on ZX's educational success at a younger age.

Interestingly, this research also found that although whānau can be inhibitors of success on another individual, whānau can also be inhibitors to them. When asked if ZX's decision to pursue higher education has had an influence on her children to do the same thing, her reply was "They don't see going on to get a degree is going to make themselves any better than what they have now because they're very content." This highlights that ZX's children became complacent and were content with their current circumstance, accepting things as they were and not wanting to progress academically. This is an interesting point because it highlights that the benefits a person can derive from pursuing higher education may not always inspire other family members to do the same.

4.6.2 Whānau support

Whānau are largely recognised by ZX as being an important cornerstone in her life. Throughout the interview ZX shares experiences of being raised by her parents, growing up with her siblings, and raising her own children saying, "we come home and they're (ZX's whānau) waiting for us at the table, waiting for us to cook." She also says of her family "I don't care what they do, as long as they know that there's family out there that supports them." This experience is a reflection of the value that ZX places on whānau, and that in any circumstance they are a top priority in her life, "You look after your family."

When asked what her family and friends thought when they learnt of ZX's decision to attend Wintec, ZX says "they love it but they don't know how to help... They said that it's awesome, awesome what I'm doing." Additionally, ZX makes the following comment:

I think that is the most important thing – my family is so proud of me... They're so proud they can't talk. They're so proud that it's like getting the supervisor's job at the freezing works or like getting a pay rise, a big pay rise for them. They know what we've gone through, just the massive pats on the shoulders and the kisses and the hugs.

With regard to the affection shown by ZX's whānau (in relation to her decision to undertake tertiary studies), it is shown that her whānau recognised the sacrifices, time and resources ZX put towards pursuing higher education. They also showed an appreciation for the hard work and commitment that ZX invested towards obtaining a degree. Additionally, when ZX's whānau compared her education to 'getting the supervisor's job at the freezing works' or 'getting a pay rise', it shows that ZX's whānau understood the importance of obtaining a degree. In the wider realm, to ZX, these affections are viewed as acts of love. This final quote by ZX, with regard to her whānau, highlights the magnitude of influence and significance that ZX's whānau have on her, quote:

I think you need a good education but you still need family support. If you haven't got that family support, what's the purpose of having a good education and money? ...Money doesn't do everything - it's having that family support. Even having a kai with them.

From the experiences shared by ZX, this research recognises whānau as having a significant influence on ZX and the decisions and paths that she chose to take in life. It is the influential role and constant support system of whānau that validate why this research views whānau as being enablers for mature, Māori, IT students' success.

4.7 Te Ao Māori

The fourth key theme that recognises success enablers for mature Māori IT students is Te Ao Māori. As previously noted, Te Ao Māori is a holistic world view that understands that everything and everyone are connected, and that there is a balance to all things. The spiritual nature that Māori associate with their culture is illustrated throughout the concept of Te Ao Māori. This section will discuss how ZX viewed Te

Ao Māori as having a significant role in her educational journey, as she explains, “My identity will be there but you can’t get anywhere else. We own it.” In particular, this section will discuss those practices that enabled ZX to succeed as a mature, Māori, IT student. The following sub-sections will be discussed further: Tikanga Māori, whakamā, and whakawhānaungatanga.

4.7.1 Tikanga Māori

The practice of concepts, customs and protocols within Māori culture are known as Tikanga Māori. ZX exercises Tikanga Māori in her everyday life, and has, since a young age. For example, she shares the following experience of when she attended Intermediate School, and studied a subject that involved working in the kitchen. ZX explains that:

Sister (a Māori teacher) used to leave us in the kitchen and go help the hostel girls to teach them how to mix and do this and that. Whilst maybe six Māori girls on the other side, just left them to do it because they knew what to do. And we respected the kitchen. Those are things that are the difference in our cultures. Pākeha think it’s a kitchen. Māoris think of it as a bit more than that.

In Māori culture, Māori are taught to work hard at a young age. In general, many Māori are taught good work ethics on the Marae, and more specifically in the kitchen. To Māori, not only is the kitchen a place of feeding people, but it is also a place that is respected because it has the ability to manaaki or take care of others. The wharekai also teaches people how to work, how to work with others, to listen to your kaumātua who give you instructions and to further develop relationships with those who you work with, these being your whānau. These are reasons why the kitchen holds huge significance for Māori, and why those lessons learnt in the kitchen are acts of practising tikanga Māori. In addition to this, ZX also makes the following comments:

- *Māori need to see an end product; and*
- *Māori like to be led.*

These statements (including the example about working in the kitchen) are important for this research because there are certain customs and protocols that Māori expect and live by. In recognising, understanding and enhancing what those customs, concepts

and protocols are, this knowledge can then be used as tools that will enable success for mature, Māori, IT students. This is largely because those customs, concepts and protocols are tikanga Māori, things that are taught and learnt by Māori, things that are a natural part of a Māori person's being. Suppressing instead of supporting tikanga Māori has the ability to inhibit the success of Māori students as you would be suppressing a key foundation of Māori.

4.7.2 Whakamā

The concept of whakamā is a unique term for Māori that encompasses values ranging from being considerate or reserved to 'saving face'. In general, whakamā is described as meaning 'shy' or 'humble'. ZX shares the view that Māori are taught to be humble and show humility:

Māori are humble. Because they're quite happy to sit anywhere. If that's all you have on your table, they won't say that they're not eating 'what is that?!' You just grab a plate and you take kai... So you don't disrespect them by saying that you don't want that. We're humble. Take the bread and eat.

This comment shows that in teaching Māori to have humility or to be humble, the by-product of this is that Māori are also taught to have gratitude, appreciation and respect for what they're given and for the persons who give it. When relating the concept of whakamā to identifying success enablers for mature, Māori, IT students; if those persons who are in teaching/support-capacity roles for students are able to understand the concept of whakamā, then they may be able to use it in a way that can enable the success of Māori students.

To explain this finding further: generally because Māori are taught to show humility and gratitude for what they are given, then consequently any information or knowledge that teachers, lecturers, tutors etc. impart to their Māori students will be taken without question. Those teachers, lecturers, tutors etc. who are unfamiliar with the concept of whakamā may believe that the Māori students they are teaching understand what is being said to them implicitly. However, Māori students may not understand the material/content at all, and these students will not speak up or against the teacher to let them know this, because of how they were raised. It is the misunderstanding of the

lecturer etc. and the shy/humble nature of the Māori person that can hinder the success of them as a student.

To counter this, those teachers, lecturers and tutors that can understand and see beyond what the student is showing at face value have the ability to be enablers of success. This can be done by encouraging their Māori students to enquire if they are unsure, or support them if they are being whakamā.

4.7.3 Whakawhānaungatanga

When asked what it was like studying at Wintec, and more specifically what it was like as a Māori student, ZX remarked that it was quite lonely, she says this was because “we’re (Māori students) a minority.” However, ZX did not let this hinder her academic success. Although recognising that she was a minority, ZX also recognised that the relationships, friendships and people she met played a part in contributing to her academic success. This establishing of relationships is known in Māori culture as whakawhānaungatanga and supports Te Ao Māori, that everyone and everything is connected.

She explains that having the ability to openly korero to people and get their korero back helped create those relationships. ZX also explains that ‘people’ did not only have to include creating relationships with only Māori, but “Mixing with any culture. I have no problem mixing with any culture.” Exercising whakawhānaungatanga is recognised as success enablers because in building relationships with people, you also create a supportive environment of people who you can share experiences in confidence, and talk openly with about any matter.

4.8 Summary

In summary, it has been identified that there are four significant success enablers for mature Māori IT students, studying at a tertiary institute. These are firstly; the personal development of an individual learner, secondly; the tertiary learning environment of a mature IT Māori student, third; the importance and influence of Whānau relationships on students, and fourth; Te Ao Māori.

This chapter has highlighted that these four factors are catalysts that both inhibit and enable a student's academic success. In saying this, it is also important to recognise that whilst some of these themes have the ability to inhibit, when recognised and used appropriately, they also have the ability to be used as tools for empowerment and therefore success. In the words of ZX, "My identity will be there but you can't get anywhere else. We own it."

Chapter Five

It (academic success) is a big thing because it's paving the way for my kids who are the next generation.

5.1 Overview of Chapter

In this chapter the analysis of one participant is presented. A discussion of the findings will be highlighted and the success enablers discussed. A brief profile of the candidate will be given followed by the personal development of the individual learner prior to undertaking studies at a tertiary institute. This will be followed by the tertiary environment that is found to consist of three collectives of people that enabled and inhibited the success of the participant. The final sections; Whānau and Te Ao Māori form the concluding sections.

5.2 Introduction

This research recognised four key themes that contribute to or regarded as being success enablers for mature Māori IT students studying at a tertiary institute. The first is the personal development of an individual learner, second; the tertiary learning environment of a mature IT Māori student, third; the importance of whānau relationships to students, and fourth; Te Ao Māori.

The format for this chapter will be as follows. Themes will be introduced that emerged from the interviews and these will be further detailed by their sub-themes. Each section will provide an analysis and use supporting quotes (provided by the interviewee) to support this analysis and the hypotheses of the overall research.

5.3 Interviewee Profile

XY is a mature male Māori, born in Gisborne on 28th August 1969. His iwi affiliations are Ngai Tuhoe, Te Aitanga-a-Hauiti. XY's marae is Taurau, Hauiti. He undertook studies at the Wintec in the School of Information Technology with a degree in Computing. XY successfully completed his BIT Degree and will be undertaking his post graduate studies in the near future. He is currently a lecturer in the Waikato region.

5.4 Individual Learner

The first theme that is recognised in the interview as having had an influence on XY and laying a foundation for which XY would pursue learning, was his personal development as an individual learner. Individual learner is recognised in this research as encompassing those influences that give effect to success enablers for mature Māori IT students. This theme can be further broken down and described by two underlying factors. The first being the nature of Pre-tertiary learning experiences and the second addressing the motivations for XY in undertaking studies at a tertiary institute. The theme 'Individual Learner' will be discussed further in the following sub-sections.

5.4.1 Pre-tertiary Learning

XY was raised in a home that fostered education. Having had the luxury of having his mother as a teacher, he says of her "She knew exactly what was happening at school and exactly what should be happening at home in terms of doing homework. So she was there to make sure my homework was all done." Seeing his mother as a teacher at a young age, it also wasn't uncommon for XY to see other teachers after hours, visiting his mother at home.

It comes as no surprise that the value XY put on education at a young age was largely moulded by him having an influential figure who was both your parent and your educator. The importance placed on education was strongly engrained in XY at a young age, as education was encouraged both at school and in the home. However, XY also shares in the interview that:

Academically I wasn't the brightest-wasn't in the top ten. In primary I was doing alright. In intermediate it was the first time away from Mum's influence and performance started to drop because Mum wasn't pushing me.

Further to this, it was found that XY decided that he would leave High school. When asked what influenced him to do so, he says “Demographics. A lot of my mates left school at fourteen – the Māori ones. Very few of them stayed on. I'm working in the bush, instant money, instead of working harder.” Three findings are realised from these quotes.

The first is that although XY had a parent who was heavily involved in and influential to, XY's education, it was the proactive nature and motivation of the mother that pushed XY to succeed academically at a young age. This is why the mother is recognised as a success enabler.

Secondly, and in contrast to XY's mother, it was shown that XY's 'Māori friends' influenced his decision to leave High School. Analysis of this quote shows that peers with similar demographics, have the potential to influence a person's academic journey. This research finds that peers can also inhibit a person's academic success.

Lastly, XY indicates that the financial income received from working in the bush outweighed having to work harder if he had stayed in school. This research found that it was also XY's own judgement that would make himself an enabler or inhibitor of his own success. This would also contribute to his personal development of becoming an individual learner.

A thought provoking experience was shared in the interview where XY compares his early education experiences to the learning to that of his children's. He says: “Same old-same old, standard subjects. But nothing like what they have now. In my daughter's classes she can go to school and just do this other work.” In terms of other work, XY referenced subjects that involved studying in the kitchen (e.g. Home Economics). XY's observation of comparing the subjects that XY studies to that of his children's highlights the evolution of education.

Over time, education has grown to include more than standard subjects (e.g. Math, English, and Science). Education now includes other subjects (e.g. Home Economics,

Art, Metal and Woodworks). This development and evolution of education reflects the changes in society and the value that they place on the need to provide for and recognise the time, effort, resources and knowledge for new disciplines. Overall, XY's experience highlights that the diverse nature of education has increased over time.

5.4.2 Motivations

This research also found that there were two primary realisations that motivated XY, as an individual learner, into pursuing studies at a tertiary institute. These realisations give evidence and provide a foundation for why motivations are considered to be success enablers. The motivations are first, the desire to complete a 'milestone'. Second, was the desire for XY to provide a better lifestyle for him and his whānau. These motivations will be discussed further below.

5.4.3 Milestone

Analysis of the interview found that one of the motivations for XY pursuing his tertiary studies, and providing a foundation for this research in recognising success enablers was XY's desire to complete a 'milestone'. What this research found was that there were two prongs of benefits that came with achieving a milestone. The first was completing a personal goal; the second was in XY inspiring his children to do the same. To explain, XY says that after leaving High School he needed to decide what he wanted to do next in life:

I remember sitting down and talking to Dad about what I was going to do as the end of year approached. And he wasn't too happy with my ideas. He wasn't too keen on the 'army idea'. So what ended up happening was that I agreed to do Māori trade training as an electrical apprentice...It was probably the first type of real education that was tailored towards real Māori.

After this course, and serving a two-year mission for his religion, XY started studying at a tertiary institute between the ages of 26-27. When asked why he chose to undertake a tertiary qualification, XY said that getting his degree was for his children. He adds on to this that in completing his degree, his children can look at this accomplishment and say "This is his achievement; this is a goal he has accomplished."

The benefits that XY saw from pursuing higher education were that he:

- was able to achieve a milestone/goal in his own life;
- could be a role model to his children in pursuing higher education;
- through his example, his children could know of the benefits and possibilities that come with higher education; and
- inspired his children to know that they can achieve a milestone in their life.

“They can look at education and believe that they can make it happen... For my children I’ve always told them ‘You can do this’.”

5.4.4 Lifestyle

Another realisation that motivated XY to succeed academically was his desire to provide a better lifestyle for him and his family. XY shares this experience:

I’m looking at my daughter and trying to get her into high school but we’ve found that schools are really competitive to get into if they’re good unless you’ve got lots of money... we don’t have lots of money.

Succeeding academically could give XY the credentials to be employed in a position that would provide financial stability. This would be beneficial as it would provide XY and his family the opportunity to improve their lifestyle and thereby provide the opportunity for his daughter to attend a “good” school. To end this section, XY says it best with “You’ve got a lot of motivation when you’ve got your wife and family there. You’re meant to take care of these people and get the job.”

In summary, the motivations to achieve a milestone and improve a person’s lifestyle provides evidence as to why a person would want to succeed academically, especially a person who is described as being a mature student.

To explain, generally speaking, there is more awareness and urgency for mature persons to accomplish a personal goal. Additionally, mature persons generally have families to take care of later in life in contrast to earlier in life. This is why this research considers motivations as being a success enabler for XY, a mature student.

5.5 Tertiary Environment

In the interview, XY was asked if undertaking tertiary studies was similar to what he expected it to be, he replies to the interviewer “Is there any learning environment that which you expected it to be? Probably not but I was reasonably satisfied with how it ran.” This quote raises a compelling question, why was XY only reasonably satisfied with his learning environment? Why wasn’t this level of satisfaction more than just reasonable? This comment and others provided in the interview identify the second theme that this research considers as being an enabler of success for mature, Māori, IT students. This is the tertiary environment.

XY makes this statement, “I will go and throw myself at it (academic studies) and go and study it by myself happily, but what I need is someone to give me direction.” For this reason, this research regards the tertiary environment as consisting of three groups of people who have or have had the potential to, direct or influence the academic success of XY, because of their role and responsibilities to XY. The first group of people are the Academic Staff which consists of individuals that are tasked with the responsibility and role of educator (i.e. Lecturer, Tutors). The second group are XY’s Peers, who are those persons who have a similar educational environment and background as XY. The last group of people who enable success are Institutional Support Groups; these being the role of Government and Māori support systems.

Each of the three groups is quite similar because they all have an influential role on XY’s academic success. However, each group is considered to be independent from the other because of the level of interest and responsibility that they have to XY. This theme will be further analysed and discussed in the following sub-sections.

5.6 Academic Staff

The first collective of people, that are part of the tertiary environment are academic staff who in the case of XY, are his tutors. During XY’s early education, he undertook a Māori trade training programme, of the experience he says:

We had Pākeha instructors but they knew what was required and rules that we had to adhere to, so they were strict in some areas. But at the same time they

knew we were just a bunch of eighteen, nineteen year old boys. We had a lot of laughs... So I think there was a lot of humour in the class shown by the tutor which was cool.

Of this experience, he notes why he enjoyed and succeeded in his trade training programme. He notes that it was a result of the environment that he learned, that there was no pressure and he was able to relax in an easy-going setting. In comparing this to his learning experiences at Wintec, XY notes that the main thing that he enjoyed about Wintec were the small class sizes. Classes consisted of around 20 people, granting XY the benefits of:

- A higher degree of interaction with the tutors: This was part of the reason why XY was wary of going to university because “The thing with university initially was that going to the lectures was cool, but how much interaction would they really have with the tutor as far as work from the lecture goes.”
- A greater level of feedback from his tutors: “You know – if that feedback was negative, I didn’t care just the fact that I could get feedback, I felt that I was getting more feedback than what I might have got if I had gone to university. Even if I was getting negative feedback I knew what I was doing wrong.”

What XY enjoyed at Wintec was not the small class size, but rather the by-products of having a small class size, these being the benefits of tutors. This research regards tutors as being success enablers because as XY highlighted, the interaction and feedback given by tutors was helpful in directing and giving guidance to XY’s academic journey. It is important that this research notes that it is the level of feedback and degree of interaction that increases the probability of academic success. To further explain this point, it is meaningful tutor engagement that gives students a greater chance of academic success. It is generally not subpar interaction or standard feedback that enables student’s to succeed.

To support this finding, XY comments that there were some tutors who knew the topic very well, and there were some tutors who knew the topic well but had trouble communicating this to their students. As an example, XY shares this experience:

I've probably had one potential complaint I was going to make against the tutor and I don't know it was necessarily because it was the tutor's fault or it was the polytech's fault. This guy here was an Indian gentleman... but he pretty much looked like he didn't know what he was doing so that's why I had to say something. These tutors come in and they're thrown in the deep end and I can see that and they try to swim their way out of it. But this guy didn't, he'd given up swimming. I realised that I had to do something here or otherwise I was going to waste my money on this paper.

Overall, XY notes that he had issues with those tutors who “didn't really care if they didn't get [the information] across.” In contrast, XY didn't have a problem with those tutors who tried teaching the topic. In trying to teach the topic, XY saw that there are tutors who are willing to go above and beyond (e.g. the tutor who tried to overcome communication/teaching barriers') what is required (e.g. the tutor who had given up 'swimming') to teach students what they need to know and what they need to do to succeed. Again, this is why tutors are considered success enablers.

5.6.1 Peers

The second collective of individuals that have the potential to enable success are XY's peers. However, this research found that they can be considered to be inhibitors. To explain, XY's friendships during his early educational experiences were largely with those who were of the same ethnicity, Māori. In contrast, during XY's tertiary educational experiences, his friendships were predominantly with Pākeha, “I had plenty of Pākeha mates in the course and I enjoyed that. But even though they don't know it, probably subconsciously they're doing it. They're drawing an invisible line (between XY and themselves).” He also explains why there was a change in the ethnicity of his friends. The first reason being that Māori are underrepresented in the IT discipline, so there weren't many Māori persons to establish relationships with, “because I was doing an IT degree, you'd sit there in the class to talk to Māori's... Not a hang of us doing it eh?” He explains why he thinks this is so:

Maybe some people think it's out of their reach... Well it's a Pākeha dominated industry. I had a problem with that, working with Pākeha. It's hard in this

area.... But this one is probably veering towards professionals and you don't run into many Māori people here.

From XY's point of view, Māori were possibly underrepresented within the IT field, either because Māori lack the confidence needed to succeed and/or Māori don't have positive experiences with people who do succeed in this field. The second reason why XY's 'mates' were mostly Pākeha was because:

I felt uncomfortable with Māori s who might have been doing other courses too. It's funny why. Most of them were doing courses that had to do with being a man on the field. That's probably why I felt uncomfortable with the idea that I was going to hang out with them. You don't want to be the only one who doesn't get the joke or who is the joke but doesn't know it.

XY was isolated from Māori peers and potential friendships, because those peers were part of a collective that had common interests, this being the discipline they studied. For XY, he was studying a niche discipline that those peers were unfamiliar with. This inhibited XY's ability to establish a common interest and subsequent relationship where he didn't feel 'left out'.

The findings show more than answering why XY had more Pākeha friends than Māori ones; they show why peers are inhibitors of success. The examples show that XY felt:

- uncertain about pursuing a qualification in the IT field (supported in other sections of this chapter);
- outnumbered by other peers in the IT field; and
- isolated by peers who are considered to have similar backgrounds to him.

Two of the three findings shown above are directly related to the inhibiting influence that peers had on XY. The peers he associated with made him feel uncomfortable or companionless. If XY had developed relationships and friendships with like-minded people, a support system would have been developed as well. This support system would have encouraged him to overcome his trials and challenges. This would also give XY the motivation needed to succeed. This is why this research considers peers as having the potential to be success enablers.

5.6.2 Institutional Support

The last collective of people in the Tertiary environment is institutional support. The first prong of institutional support is the Government who offered at the time of XY's studies, financial assistance. As XY explained, when he applied to the Government for an allowance he wasn't successful. But someone who wasn't tangata whenua did, "Yeah I had this feeling that this form was structured in such a way so why the heck does someone else who wasn't even born here get it?! That's just wrong-it's wrong." This experience draws attention to the inequality that XY faced, based on his ethnicity.

Had XY been able to receive financial assistance, this would have greatly enabled him to succeed academically. The financial assistance would have alleviated the financial pressures and responsibilities that he faces as a mature student. These 'responsibilities' are supporting his wife and children as a father and husband. Alleviating any financial strains would have directed his energy and focus elsewhere, such as his studies, thereby enabling him to succeed.

The second prong of institutional support is the Māori support services. When XY was asked if there were any Māori support services available to him during his studies, he replied, "No I probably wasn't aware of them [*Māori support systems*] then. No. There may have been but I don't think I was aware of them." This quote draws attention to two conclusions. The first is that the Wintec XY was studying at didn't have a Māori support system in place. The second was that if the Wintec have this service in place, its services were not widely publicised to the students. Further to this, one of XY's doubts that he faced during his time studying at a tertiary level was:

I kept on asking, 'Am I going to succeed? Am I going to make it? Heck.' We didn't have a lot of role models to look up to when I was doing it-people who were successful- so it was a big unknown.

XY was unsure of whether or not he could succeed academically because there weren't many people he knew or looked up to undertaking studies in the IT field. XY further states:

There were hardly any of us how, could there be a strong support group. The first main issue was that there was no identifiable Māori role model to demonstrate that this is possible. There was none.

Overall, these experiences highlight the lack of Māori representatives, influences and role models within the field of IT. These comments identify the lack of personnel and resources in the IT field needed to support Māori students and ultimately aid them in their academic journey. Māori support services are considered to be success enablers because they are a direct source of assistance, targeted specifically to Māori students, studying in the field of IT, with the purpose of helping students to succeed academically.

5.7 Whānau

The third theme that is recognised in this research as being a success enabler for mature Māori students in the IT field is Whānau. In the interview, XY regards his wife, children, parents, siblings and wife's immediate family as whānau and mentions them several times. One notable memory of his family, is the hugely influential role they had on his decision to undertake studies at Wintec.

To explain, XY had family members (including his brother and cousin) who struggled at University, which made him wary of studying there too. This influenced XY's decision to undertake studies at Wintec and 'staircase' his degree by doing a National Certificate in Computing. XY also says:

The whole idea of why I did the initial 'taster course' [was] so I could see and have a look at what sort of pressures would be put on there, rather than fully commit to something and then find out that you've wasted a month.

Lastly, XY explains that he used to ask himself this question, when making the decision to study, "Am I going to be able to handle study and still look after my family?" These influences highlight why XY stair-cased his degree by undertaking introductory courses. It was because of the responsibilities and obligations that he felt

that he had to his wife and children. The obligations to look after his family influenced how he shaped his academic journey. XY also says:

There was a perception that university was a lot harder than Wintec which is why I looked at polytechnic first. The thing was that I was going to commit this amount of resources and this amount of money. If I wasted that money, it could have been money that went onto our family.

In wanting to succeed academically, XY approached tertiary studies with caution because there was more at stake than failing academically; there was the possibility of failing to take care of his family. XY had to balance succeeding academically with supporting his family. This finding supports why this research finds whānau as being success enablers as well as inhibitors, because of the strong influence they have on a student. This theme will be discussed further in the following sub-sections.

5.7.1 Whānau as a barrier to learning

Analysis of the interview found that there were various situations in which the family unit could be viewed as inhibiting a student's success. This section can be summarised by the sacrifices XY made and his family's thoughts on this:

Not going to all those social things. It was very hard for my wife... There were challenges with my parents who said 'Why are you doing this boy? You should be working! ...They didn't see me as the bread winner. Probably because I was on a skinny student allowance that they kind of equated it to being on the dole so they saw me as bludging... My wife's family again... when I couldn't come they had problems with that.

This quote identifies three groups of whānau who are analysed in this section as being potential barriers to learning, these are: friends' families, immediate family (i.e. close relatives, parents, siblings, offspring) and extended family (wife's immediate family). This section will discuss the influence of whānau further and provide supporting evidence as to why they have the potential to be inhibitors of success.

The first group was 'friends' and families'. When XY was asked about his early educational experiences, he recalls that, "A lot of the mates I had at school were probably reflecting the area. Education wasn't a big thing for the families they came

from.” This quote shows whānau can be viewed as a barrier to learning because they have the ability to create a learning environment that fosters education, in this particular context the family didn’t encourage one where education was pursued.

The second group was with regards to immediate family (and briefly mentioned previously). When XY was making the decision to undertake studies at a tertiary institute, this decision was strongly influenced by family members that had already undertaken studies at University:

I looked at my cousins and two of them who were bright sparks and went to University, they’ve had nervous breakdowns. So I thought ‘maybe not’. I was putting safety first.

I was very aware that [my brother] had started a computer science degree but never finished it... computers were hard back then because they weren’t as user-friendly as they are now. You had to be pretty disciplined in order to pass that course.

Both quotes show how whānau can be seen as barriers to learning. The experiences highlight how family influenced XY to not pursue higher education at university. To explain, although XY did eventually undertake studies in the IT field, XY’s brother influenced his view of IT because he did not complete his computer science degree. Furthermore, the two cousins ‘nervous breakdowns’ discouraged XY from undertaking studies at university because XY personally knew two people who were adversely affected. He was concerned that the same thing would happen to him so protected himself against the possibility by deciding to study at polytechnic.

However, even the decision to study at polytechnic was judged by XY’s immediate family. XY explains, “I had siblings who succeeded at university anyway. It looked good and they looked down on Wintec courses to a certain extent, so that perception was there.” This perception implies that the quality of education that XY would receive at Wintec would be inferior to the one that his siblings received at university. This experience supports why whānau can be seen to be a barrier to learning because the ‘perception’ that XY’s siblings held, can be viewed as demeaning the education that XY was receiving. In turn, this could potentially discourage him from performing

his best academically, because of the little value that he felt towards the studies he was undertaking at Wintec.

Lastly, XY explains his father's attitude when informed of XY's decision to undertake studies, he says:

As far as he was concerned that door was closed. He (XY's father) thought like that- that the opportunity had sunk because I was married... From the background they come from, when you're that age, you should be someone that is independent and self-reliant. That's how they saw it.

XY's father's upbringing was one moulded around the importance of family and the father/husband's responsibility to provide and take care of his family. With XY studying, his parents viewed him not as a 'bread winner' (provider) but as a 'bludger', some-one who wasn't independent or self-reliant. The father's view is seen to be a barrier to learning, because it reflects his perception that pursuing education as a mature Māori student does not fulfil the responsibilities of a husband and father. This could have possibly influenced XY to want to 'close that door' on education as well.

The last group of whānau influence was XY's wife's immediate family (i.e. parents). XY was asked what challenges and barriers he faced when studying, of which he replies:

- *the challenge from here was the external influences from the family;*
- *extended family – you're studying but they don't understand;*
- *my wife's family again... when I couldn't come they had problems with that; and*
- *my wife's family they have a different view of education. They do view it as something positive but... For me I always feel that for them a hard worker is someone who does manual labour- who does the mahi. When they see someone who sits in the chair and pushes the pen, they can't see that as hard.*

Again, whānau are viewed as a barrier because of the:

- little value they placed on tertiary education;

- lack of understanding the importance of studying/education;
- lack of support; and
- perception that the effort and resources needed for intellectual labour is less than that needed for manual labour.

The above deductions show how whānau can inhibit a person’s academic success because for XY, if his wife’s parents had shown understanding and support, or placed greater value on what XY was trying to achieve as mature, Māori IT student, then he wouldn’t have viewed his wife’s family as a challenge or barrier to his learning.

5.7.2 Whānau as enablers to success

Although the previous section has discussed in detail how whānau can be seen as inhibitors of academic success, the opposite is also true. Whānau are also enablers of success, because of the potential wealth of support they have to offer to their whānaunga (extended family).

A prime example of whānau enabling success through showing support was when XY was asked if the school catered to his learning, he replied “Instead of the environment being tailored to me, my parents looked at the environment and told me what I had to do to succeed.” The proactive approach that XY’s parents had undertaken was a source of support to XY, because they gave him guidance and direction on how to succeed, thereby acting as an enabler of success.

To further illustrate how whānau are success enablers, XY provides the following examples:

- when asked if education was fostered in his home, XY replies “*Definitely. Most definitely. Look at Mum’s whakapapa, she comes from the east coast, and her line, there are known as educators... Within Mum’s family education was very strong.*”
- *even my grandfather saw education as the way out so much so that he put Dad into Saint Stephens’ and that’s why Dad sent me to Saint Stephens’.*

- *we could never do what we wanted. Dad said no to leaving (High School) and he wanted us to do more. He said we could do more.*

These examples show the intergenerational influence that whānau have on a person. The lineage that XY's mother descended from, the importance and value that XY's grandfather placed on education and XY's father's strong role of wanting better for his children show the influence that whānau have on their whānaunga.

The influence that XY's family had on him in earlier years, also influenced him later on in life and the role he would play in his children's lives, quote "[I was] being proactive with what was happening in school. In other words, if there wasn't homework when they were coming home, we were asking why our child wasn't getting some."

Last, XY shares in the interview that although his wife's family didn't entirely support his decision to undertake tertiary studies they still supported his family, quote "Financially I bit the bullet and moved in with my father-in-law. We couldn't afford it at that time." These experiences demonstrate why whānau are viewed as success enablers, because similar to the previous section which found that whānau have a strong influence on a student, it is what the family chooses to do with that influence that can either inhibit or enable a person.

5.8 Te Ao Māori

The fourth and final key theme that recognises success enablers for mature Māori IT students is Te Ao Māori. Te Ao Māori is a holistic world view that views everything and everyone as being connected, providing a balance to all things. With Te Ao Māori there is a high degree of spirituality that recognises this balance. The customs, protocols and concepts that Māori persons exercise, give effect to Te Ao Māori. This section will discuss the role that Te Ao Māori has had on XY's educational journey, and in particular that of Tikanga Māori and Mana Atua.

5.8.1 Tikanga Māori

Tikanga Māori can be described as the general practice of, and guidelines for, the customs and protocols associated with Māori culture. Tikanga is generally based on experience and knowledge of things that have incorporated the Māori world view. It is common practice for Mātauranga Māori to be taught to, and handed down through the generations. However, for XY Māori culture wasn't a high priority to learn in their family home. XY says that learning Māori culture wasn't always fostered, because education was the central focus of the home:

They (XY's parents) put education first above learning Māori language.... I feel sad about that now but that's just hindsight. Back then I can understand why they put an emphasis on learning.

Further to this, when asked why his parents put emphasis on learning education instead of learning Māori, XY replies:

It was a Pākeha orientated world and to get in education had to be put first. More so with Dad's experiences because Dad had lots of negative experiences with Pākeha people... to him it was important that we focussed on education and I guess I guess the Pākeha view of the world in order to make sure that we were looked after.

As a last point XY shares this, "I had a couple of bullying instances, got into fights. Every other Māori boy probably had the same thing. That's normal." The importance of these experiences is that they highlight XY's view of Māori culture. To briefly explain this, XY made the comment that it was normal for Māori boys to get into fights, as if fighting were an acceptable component of everyday Māori culture; that fighting in the context of bullying was tikanga. However, this isn't true. In linking this reasoning to the research, it illustrates that from XY's view, tikanga Māori is separate to education, that they are two separate tools of learning, with no clear synergies.

This view was shaped by XY's mother having strongly ingrained positive views of education and XY's father's wanting his children to be educated so that they would be able to understand the 'Pākeha orientated world' better than he did. In doing so, they would be protected from the negative experiences that the father faced. In hindsight,

XY understands why his parents put education first, but did feel that this view didn't entirely represent him. Analysis of these findings shows that tikanga Māori is a success enabler if a person is taught the appropriate exercise of tikanga Māori which would encourage a person to find a balance in all things. This includes a person's health, economic, family and social well-beings which are key components to a mature, Māori, IT student's academic success.

However, XY notes that exercising Tikanga Māori is difficult to achieve at present:

We're always going to have problems because of our culture no matter what. One of the first things would be going to tangi's and unveilings. How many pākeha's know what happens in an unveiling? How many people even know what values are put on and unveiled? It's important. Pākeha's don't understand... But for Māori it is an important thing to be able to do anyway and that will always conflict with working education. My father always talked about other Māori people who were worried about their job and stuff and said that it's just hard. If you're genuinely going to a tangi to mourn someone it doesn't matter.

In Māori culture, there are certain customs and protocols that aren't always recognised in European culture as being important. But it is those customs and protocols that need to be exercised by Māori not solely because they enable academic success, but because they are a way for Māori to exercise their culture and develop their understanding of Te Ao Māori.

5.8.2 Mana Atua

The second sub-theme discussed in this section is based on mana atua. This encompasses the spiritual nature or spiritual power of a higher being/ancestor recognised within Te Ao Māori. To XY, he recognised and acknowledged that there was a higher being than him who cared for him and provided guidance: "These are my beliefs- when you put your Father (Atua) first, things will happen for you as long as you're doing your work, you've figured out what you want, you have a plan of attack and then it will happen for you... the first thing I'd do would be to ask Him for help." Further to this XY states, "When I was growing up and we were having problems in the family... we'd sit down as a family and talk about it and pray... That was a way to help solve your problems and tackle your problems."

This research recognises that Te Ao Māori (as with many other cultures and religions) acknowledges that there are higher powers who are an enabler of his success. A practical example of this, that this research feels comfortable in explaining, is that XY committed to serving a full time mission for two years, for his religion.

On his mission, XY developed essential skills and the discipline needed to succeed academically, quote “I learnt new ways of studying too, more ways of better managing my time.” Through serving his Father (Atua) via his mission, XY developed skills that were beneficial during his tertiary studies, thereby enabling his ability to succeed.

5.9 Success enabler recommendations

As a last point, XY made the following recommendations of what he thought would enable success for mature, Māori, IT students:

- having flexible learning environment's and hours of work;
- actively using your IT skills inside and outside study hours;
- *being able to have a dedicated two hours where [students] can do something for fun. I'm just speaking from my experience... It's not a two hours slot where you're free to go-it's a bit more structured than that. But it's to go to a class that's a complete break from everything else that you're doing for the rest of the week.*

5.10 Summary

In summary, this research discussed and identified four significant success enablers for mature Māori IT students, studying at a tertiary institute. These are firstly; the personal development of an individual learner, secondly; the tertiary learning environment of a mature IT Māori student, third; the importance and influence of Whānau relationships on students, and fourth; Te Ao Māori. In particular this chapter has highlighted that it is the learning environment of an individual and the people in that environment that have an influence on a student. More specifically, it is what an

influential person chooses to do with that influence that can either inhibit or enable a student's success.

Dad said no to leaving (High School) and he wanted us to do more. He said we could do more.

Chapter Six

I loved school... and my uniqueness is my family support.

For tāuira that are studying now, one I know is a solo mum but she has great family support and friends that keep telling her to continue to succeed.

6.1 Overview of Chapter

In this chapter the analysis of the next participant is presented. A discussion of the findings will be highlighted and the success enablers discussed. A brief profile of the candidate will be given followed by the personal development of the individual learner prior to undertaking studies at a tertiary institute. This will be followed by the Tertiary environment that is found to consist of three entities that enabled and inhibited the transition of the subject from an unemployed person into a successful tertiary student. The final sections Whānau support and Te Ao Māori forms the concluding chapter.

6.2 Introduction

The aim of this research was a three prong approach to first: explore the background of the participants, look at the motivation of the learner and his/her education toolkit prior to entering tertiary education. Second, respondents were to identify what were success/barrier components that influenced the success and achievement of their studies. Finally, respondents' perceptions on whether the Department of Information Technology (Wintec) assisted or hindered their studies were noted.

The findings suggest four major factors contribute to the success and achievement of the participants in this study. First, personal development and motivation as an individual learner is crucial to academic preparedness and pre-tertiary learning, second; the important of whānau relationships to tāuira, and third; the learning

environment/institution can inhibit or enable tāuira in their quest of obtaining tertiary qualifications. Finally, participants view their experiences through Te Ao Māori worldview.

The format for this chapter will be as follows: Themes will be introduced that emerged from the interviews. This will be followed by an analysis about the overall findings of respondents. Finally, a couple of examples of script will be featured to support the hypotheses that may be seen as helpful practice.

6.3 Interviewee Profile

VR is a mature Māori woman of 34 years of age. She was brought up in Te Karaka, north of Gisborne. Her tribal affiliations are Ngāpuhi and Tainui. VR loved school as a child which she states was ‘one of the best things in the township’. VR is now married with children. VR has worked as a waitress, receptionist and youth worker. VR was unsatisfied and unchallenged with her job until 2004 when she decided to come to Wintec the second time round and enrol in the Degree of Information Technology. VR was hard-working in her classes, very methodical and meticulous in her work. VR participated regularly in class discussions and used prior learning and life skills to engage in conversation with the topics. VR often helped her colleagues with school assignments. VR graduated in 2008 with a Degree of Information Technology from the Waikato Institute of Technology.

6.4 Overview

The following section focusses on the success enablers that VR identified as significant in assisting her studies in the Department of Information Technology (Wintec). Three major themes emerged in order of importance:

- 1) Motivation is an important element of the journey to individual learning and pre-tertiary learning;
- 2) Support from Whānau is unconditional and crucial to VR’s success; and

- 3) The learning institution can hinder or enable the Māori learner.

6.5 Pre-tertiary Learning

The first major theme that emerged was the pre-tertiary learning and childhood experiences that provided the motivation and academic strength for VR to return to study. Throughout the interview VR was articulate and reflective in her responses. The findings suggest that VR considered herself to be unassuming but a steady plodder in her studies. Personal development and prior learning provided a secure emotional and psychological platform for VR to take the significant step to enrol in the degree of IT as a second-time learner and mature student.

VR's childhood exposure to education moulded VR as a confident child 'in love with school and learning'. VR noted she had positive experiences of learning transitioning easily through primary and secondary school; because school was her 'escape' and "it was fun". VR's family ("whānau") and the small community of teachers in Gisborne encouraged VR to consider education at higher levels and beyond the confines of her small settlement.

VR had a diverse network of support systems while as a child, and there was a clear understanding that education was part of her life. Education provided security, an 'escape' when her mother passed away when she was very young. The surrogate motivational role to enjoy learning was replaced by VR's grandfather. VR recalls her grandfather had 'higher expectations for me than what my father had for me'. There is no evidence in the interview that VR was deprived of opportunities and enjoyed authentic, genuine exposure to education in apparently an education orientated community.

It is also apparent from the interview that the teachers in the small settlement supported and influenced VR's educational experiences in a positive way. Here, teachers gave ideas of "where to go and what to do" with education. VR appeared to be a bright and intelligent student. VR recalled how teachers met with her whānau to send her to boarding school, because VR's brain was being 'wasted' in the local school and that

‘they didn’t have the curriculum high enough for where I was at that time to keep my brain active’.

As well, VR took initiatives to satisfy her thirst for learning. At age 15, VR told her whānau that she wanted to attend Wintec, her whānau especially her aunts made the transition to tertiary learning happen.

When considering a return to tertiary learning, VR articulated how she has ‘always been passionate about computers’ and she wanted to ‘know more about them’. Because of her passion for IT, VR was determined and committed to complete the requirements to attain the degree. VR stressed the importance and support she received from her spouse. More importantly, VR reflected upon her own childhood experiences, that being an example of education would foster a blueprint of learning for her children. VR also stated that the journey to success was up to her and she employed processes to help her succeed.

I loved school. At Primary I lost my mum and the community was great support. Through college, because I was the eldest, school was my escape in my time and that’s why I put myself out there into the education system.

6.6 Whānau support is crucial to success

I asked my husband first. First and foremost, it was a wage that I was giving up to come and study a course that didn’t pay nothing. And because of our marriage situation, he’d have the only finances coming into the house. So first and foremost I had to ask him.

The second major theme that emerged as a success enabler for VR was her whānau. VR transitioned from a child to a teenager, then an adult being whole heartedly supported by her whānau. To VR, whānau provided emotional, psychological and mental support while VR attended to her tertiary learning. VR greatly benefitted from the support of her whānau relationships. Transitioning from a child to a teenager, then an adult through the education institutions, VR was supported whole heartedly by her whānau of parents, siblings and then her spouse. VR also indicated that her journey

into becoming a 2nd time learner was significant to show her children that education was important.

The degree of influence that whānau wielded was both motivational and influential. VR's whānau represented unconditional support, the reality check on the purpose of the study, the unstinting support of a spouse, the visible example of engaging in education modelling to her children, and more significantly; the invisible hand of acceptance on VR's long journey of study. Whānau also provided solutions to 'enduring financial strains, whānau understanding and acknowledgement to assessment timelines and deadlines, the sacrifice of time when 'I need to study', quelling academic frustration, and reenergising the passion for VR to complete her degree.

Of significance importance in VR making the decision to return to tertiary studies was the support of her spouse. Especially, as VR would return as a Māori mature woman, a second time learner in a perceived male dominated discipline. Aside from the financial sacrifices because "VR's financial contribution to the household would be forfeited", other significant events would happen to make VR's studies a challenge to continue, such as some of her children dropping out of school while she attended school. VR adopted an attitude of "Just do it" to help her complete three years of study, coupled with determination, commitment and making the decision to be successful in the pursuit of her studies.

6.7 Tertiary Learning Environment

The interview highlighted the third major theme of the research that may indicate a strong success enabler or inhibitor for mature Māori tāuira in the IT field. The findings in the interview affirmed that VR considered the tertiary learning environment contained a broad spectrum of positive and negative influences.

VR explored how education has changed since returning back to studies after 18 years. Her thoughts were reflective of the past and VR reflected on her prior tertiary learning and how she moved forward to engage with the future in tertiary learning for a number of reasons.

Challenges for VR were varied and some were ongoing such as the challenges in returning back to school, re-sitting exams to obtain her degree and the struggle to keep going. However, VR's greatest challenge was the fear of failure. The evidence indicates that VR loved learning especially in the field of computer technology. Despite the obstacles to her learning, VR kept plodding on, depending on her love for her specialised area while grappling to come to grips with comprehending and understanding the specialised language of this discipline.

Four sub themes emerged in order of importance:

- 1) The importance of confidence and belief to succeed while studying in the IT discipline;
- 2) Inhibitors and Barriers to learning for VR;
- 3) Strategies to assist mature Māori IT tāuira in their studies; and
- 4) The importance of confidence and belief to succeed while studying in the IT discipline

VR acknowledged not only was the internal pressure to learn, study, process and sit assessments and exams; there were also the external forces that impacted on her learning. VR stated 'some of the courses I couldn't understand or comprehend' but she used her internal mettle of 'commitment and study', VR remembered the reason of why she returned to study, therefore she 'dug in her heels' to endure despite the 'frustration of learning new things and to keep going.

6.7.1 Barriers to learning

Some tutors respect a student's understanding. There were some tutors you couldn't get nothing out of which made it hard. You show up to do your papers and nothing's prepared. In my view to be honest I think there'd be five tutors that needed to go back to school to be taught how to be a teacher. You're either prepared for class or not. They expect us to show up as tāuira and be prepared".

One major barrier that VR indicated inhabited her learning was the academic staff perceptions of IT tāuira. VR commented that there was a paradox where tāuira are expected to be prepared for learning and tutors were unprepared. VR also mentioned

‘struggles with tutors’. Here, it appeared that tutors ‘don’t want you to succeed from the beginning’. VR specifically recalls one tutor who labelled all tāuira negatively when he said:

I remember one tutor introduced himself and then said that 90 percent of us were going to fail. This was after his name, it was his next sentence. I put up a wall to that guy. The next minute we were statistics to wasting taxpayers’ money. That’s a bit of an insult to us.

As well, VR mentioned “tutors were closed” to answering student queries. There appeared to be a “Closed door” policy according to VR that tutors would not volunteer any assistance or help. VR also commented that some tutors would not help her or other tāuira outside the classroom and she used the term ‘closed’. VR stated, “For two years one of those tutors was one of my closed tutors. He was very closed; you couldn’t get nothing out of him”. Tutors were also “inaccessible” to provide mentoring or reassurance to VR that she “was on the right track” in the comprehension of the subject matter.

Another barrier to learning for VR was on how ineffective the Māori support services of the Department of IT were for Māori tāuira. VR explained the role of Kāiawhina stating “Basically the role was to support Māori tāuira and anything they required as far as being course related” however; VR stated “They had a Kāiawhina but that was a waste of time because I was the Kāiawhina !” This would suggest that there may not have been a strong pool of Māori tāuira who could fill this role as very few Māori were enrolled in IT. On the other hand, VR could have been identified as a role model for other Māori , VR states she was always ‘willing to help other Māori tāuira’ even though she didn’t see herself as being a role model, or being academically able to assist Māori tāuira in their studies; academics may have seen her potential to assist academically and pastorally.

Third, VR struggled with the fear of failure and ‘passing my tests in this field’. When VR initially commenced studies, she felt ‘intimidated’ because of the 18 year gap of not studying or having to sit exams. VR overcame those feelings of inadequacy through study and commitment to succeed. VR went over ‘every test paper I ever had and just repetitive reading’.

6.7.2 Strategies to assist Māori Mature IT tāuira

“Everybody loves (name withheld)! Honestly because (name withheld) teaches at a level of understanding for everybody in the classroom. It’s like (name withheld) is not a tutor but you’re just there to sit around with your mates and ‘this is what’s going on’ kind of thing. But you have a process of getting it through with understanding”.

VR provided some strategies she believed would assist Māori to be successful in their IT studies. The following strategies were suggested:

- 1) Wintec should employ a more robust filtering system to enrol IT students;
- 2) Wintec should employ tutors who make learning fun for IT learners;
- 3) Wintec Māori academics are important for modelling success and teaching success for mature Māori tāuira in the discipline of IT.

First; ‘screening tāuira and not just filling seats’ would suggest a more robust selection process for tāuira enrolling in this degree. Second; having more tutors in the classroom who make learning fun and can deliver the content contextually appealing to Māori IT tāuira. VR was a ‘hands on kinda person’ who learnt through watching theory come to life through application. Finally, VR stated Māori academics do influence retention of IT tāuira. VR recognised, valued and acknowledged supportive academics that were assisting tāuira in their studies.

6.8 Te Ao Māori Worldview

I think they were respected [Māori values]. They were very much respected. Even little things like some people wanting to learning about our culture and the differences with what we do in our culture – understanding. And that was not only coming from tāuira but it was also coming from tutors.

The fourth and final significant success enabler for VR as Māori mature student was Te Ao Māori worldview (Te Ao Māori). VR articulated that a Māori worldview was important and a strategy of learning to assist in her studies at Wintec. VR associated Te Ao Māori with her learning environment at Wintec with whānaungatanga (being a

family with other Māori) and being Māori. Arguably, most tāuira would first gravitate towards their peers first. However, as Māori are an ethnic minority in the IT discipline, being connected as Māori served as a vital link to survival in an ‘alien’ learning environment for VR.

In the interview VR used Māori terminology such as ‘tikanga’ and other traditional Māori concepts such as ‘whānaungatanga’, ‘whānau’ lunches, and get-togethers. From the findings, VR remarked that ‘Māori student initiated cultural events’ cemented a sense of wellbeing, and collegiality for Māori tāuira. These events strengthened pastorally needs of friendship for mature tāuira, created commonalities in tāuira with their studies.

As well, Māori student initiated activities provided a culturally safe academic environment where tāuira could ‘bounce ideas and theoretical jargon’ off each other and to also gather a Māori perspective and insight to the technology topics from other tāuira.

More importantly, tāuira could provide empathy because of similar educational background and experiences of other mature tāuira. Cultural identity and practice the Te Ao Māori worldview protocols became success enablers for VR to latch on and hold on to, to sustain VR in her studies. Whānaungatanga with other Māori tāuira provided a sense of collective bonding that shelters tāuira from loneliness and provided academic commitment to each other. VR communicated that the Māori support group was strong and assisted her in her academic pursuits.

6.9 Summary

VR appears to be a confident Māori mature woman who had dreams and aspirations that were fulfilled when she was ready to fulfil them. VR’s motivations and strong whānau support help her to achieve success in obtaining her degree. VR identifies some gaps in the support systems for Māori the untenable position of being a Kāiawhina to assist Māori learners academically when she herself was learning as well. VR also regarded her studies as being part of as a holistic inter-relationship linked to all of her life experiences.

The learning environment where tutors are closed and unprepared can be addressed internally by the department as well as the selection process of having tāuira who are committed and passionate to succeed rather than have bodies on seats to get subsidies by the Ministry of Education. Finally, VR felt success was subjective and driven by her intrinsic drive of determination and commitment.

Chapter Seven

All I could say was that I was going to study and this was an opportunity for me to make something of myself.

7.1 Overview of Chapter

In this chapter the analysis of one participant is presented. A discussion of the findings will be highlighted and the success enablers discussed. A brief profile of the candidate will be given followed by the personal development of the individual learner prior to undertaking studies at a tertiary institute.

This will be followed by the tertiary environment that is found to consist of three entities that enabled and inhibited the transition of the subject from an unemployed person into a successful tertiary student. The final sections Whānau support and Te Ao Māori form the concluding part of the chapter.

7.2 Introduction

The findings suggest that four major factors contribute to success enablers for mature Māori IT students at a tertiary institute. First, the personal development of an individual learner is crucial to academic preparedness, second; the tertiary learning environment of a mature IT Māori student, third; the importance of Whānau relationships to students, and fourth; Te Ao Māori.

The format for this chapter will be as follows. Themes will be introduced that emerged from the interviews. These will be further expanded into other sub-themes that the researcher identified. Each section will also provide an analysis and quotes provided by the interviewee to support this analysis and the hypotheses of the overall research.

7.3 Interviewee Profile

XT is a mature Māori male of age 37. XT was born in Gisborne on the 21st June 1971. His iwi affiliations are with Ngati Porou (hapu Ngati Kanohi) and Ngati Raukawa (hapu Ngati Whakatere). XT marae are Whangara and Poutu Pa.

7.4 Individual Learner

One of the five major themes consistently mentioned throughout the interview and recognised as laying the foundation for determining success enablers for mature Māori IT students is the personal development of the individual learner. Personal development consists of two sub-themes that are inter-linked with one another. These themes are first, the nature of pre-tertiary educational experiences and their influence on the interviewee, and secondly the interviewees' motivations for undertaking studies at a tertiary institute. This research considers these two sub-themes as factors of the 'Individual Learner' and would be the drivers and key influences the interviewee's educational moulding and eventual path of undertaking study at a tertiary institute. The theme 'Individual Learner' will be discussed further in the following sub-sections.

7.5 Pre-tertiary Learning

XT shares with the interviewer experiences of his exposure to the educational system at both a Primary and Intermediate level of schooling. This research found that these early educational experiences influenced XT's personal development as an individual learner. When asked about the nature of his early education, XT offers an insight into the challenges and difficulties faced by a young Māori child, with one of the most thought-provoking quotes of the interview, quote:

Learning was really difficult for me at school. My memories of being in Primary school was challenging not only to try to understand what was being taught but also as the only Māori in my class it was overwhelming.

This statement highlighted that at the beginning of XT learning experiences he encountered two challenges. The first was that at a young age, XT was made aware of

how his ethnicity would distinguish and make him feel separated from other children. The second was that XT would be exposed and have to adapt to the education system as a child, and not only this, but as a Māori child. In retrospect, XT believed that there was racial discrimination present at the Primary School he attended. XT understood that the education system functioned differently for him because he was Māori.

To further illustrate his point, XT recalls that as a child he would wait for his primary teacher to give him permission to do colouring or building activities. However, the teacher would leave him and one or two other Māori children sitting on the floor,

As you're sitting up there as a kid and seeing other kids being chosen to go off and do activities, you wait there to be chosen... And so you're sitting there asking what's going on and then you start to think "Is it me, what have I done wrong? You were told to sit up straight and you did."

XT also said "myself and this other Māori child, we were both poor, we got disciplined for colouring outside the lines." These experiences provide two findings; the first was that the educational system taught XT that following the instructions and protocols set up by the teacher would enable him to learn. The second, and more concerning finding was that this experience revealed the treatment of XT's primary teacher towards him, inhibited his learning and neglected the benefits that should have been provided to XT

Upon further discussion of XT's exposure to the educational system at an Intermediate level, he recalls when he had to select a subject to study. His options were between learning how to speak Māori and learning how to speak French. XT opted for the latter option. This decision was driven by his parent's perceptions:

[My parents] grew up in a time when they were strapped for speaking Māori. Corporal discipline- the way they grew up that's the only thing they knew. So what my parents told us was that there was no point speaking Māori.

And his own, that "a Māori speaking French – wow, but a Māori speaking Māori – that's no good." However, XT recalls that in the end he didn't get to choose what educational pathway he would take, "None of the Māori got to choose. They were all automatically placed into Māori students." This firstly reflects the attitude of XT

towards his culture at an intermediate level, being of the view that there was no value in conversing in Te Reo. Secondly, this reflects that at an intermediate level, teachers showed bias and prejudice towards Māori rangatahi (young person/s) having already pre-determined their educational pathway. Regardless of XT's own wants, the Intermediate School had already chosen what XT would learn.

7.5.1 Motivations

This research identified four key motivations for XT in undertaking studies at a tertiary institute and more specifically, in a field that is underrepresented by Māori. These motivations were instigated by several realisations that XT experienced.

These realisations are categorised as first, the desire to reach the next 'milestone in life'. Secondly, the desire to improve a person's self-worth. Thirdly, is the desire to provide a better lifestyle for one's self and their whānau and lastly understands the value of a higher education.

7.5.2 Milestone

The first motivation was XT's desire to achieve the next milestone in life. XT felt that he had reached a 'crossroads';

I didn't know where I was going, I didn't have a clue, I had no money to study- and it's in those times when you think about what you're going to do in your life

XT realised that there was a lack of direction in his life, and it was of his own discovery through the school he studied at that provided a sense of direction, accomplishment and status. For these reasons, XT felt like this was why attending tertiary studies will be his next milestone. "I got the notion that going to study must be the next step in life".

7.5.3 Self-Improvement

Analysis of the interview found that another key variable in influencing the personal development of XT as an individual learner, as well as being a key driver in XT pursuing higher education was his desire for self-improvement. Prior to undertaking tertiary studies, he recalls having this 'idea' drummed into him that he was "only a dumb Māori and if you can't do this, you're just dumb." He expresses to the

interviewer that he didn't like this generalisation because he had struggled with education at a younger age.

Continually being exposed to hearing this negative representation and stereotype of Māori people from peer groups, society and those within the education system made an impact on how XT perceived his own worth. He explains that overcoming the stigma that certain groups attached to Māori, was by:

Being popular in sports and improving and being a straight-A student by the time I got to Standard Three kind of helped. No longer were you looked at as a poor Māori kid. You were looked at as something different...I could grade myself and be judged by my schooling and not upon who I am and what I look like and my background.

Another factor of motivation for XT was with regard to his personal development. When asked what contributing factors there were for undertaking tertiary learning XT replied "a lot of it was to do with self-esteem and trying to improve myself." According to XT, attending tertiary studies would provide:

- an opportunity for XT to *make something of himself*;
- recognition of the skills that he possesses;
- a sense of achievement; and
- the drive to achieve more.

XT realised the value that came from being successful in education, not only do you learn and acquire knowledge, but to him there was also a sense of self-worth and accomplishment that came with education. To XT, this was a significant part of the success and a significant contributor to XT's motivations for attending.

7.5.4 Lifestyle

XT was also motivated by his desire to provide a better lifestyle for himself and consequently for his family. When making the decision to undertake tertiary studies, XT's circumstances at the time consisted of him receiving unemployment benefit funded by the Government. In addition, various experiences XT shared with the

interviewee highlighted the socio-economic status of his family, and illustrated that they struggled financially, “we had hardly anything in the house” and “we were poor.” Lastly, XT felt that he was “another statistic – a Māori school leaver on the Dole...my Māori friends on the Dole were going nowhere.”

Comparing his lifestyle at that point, to that of his friends and family, XT realised that he didn’t want those same circumstances that for his whānau and himself, he didn’t want a life of struggling for himself, and he didn’t want his children to have the same upbringing that he had. XT was overall motivated by the want for a better lifestyle, “If you’ve got family, this is a do or die situation. I’m not solely here for myself.”

7.5.5 Value of education

In conjunction with wanting to provide a better lifestyle for both his family and himself, XT understood that this could be achieved through higher education, stating “I realised the value of education... you could use your brain and get a better wage.” The statement reveals several insights for XT. One, education is valuable; two, education leads to a higher income and subsequently investment of an organisation into an employee; three, higher income afforded by higher education would enable a person to better their lifestyle. XT’s motivations were focused towards gaining education at an institute that would provide higher learning.

More specifically, XT recognised the value of his knowledge in the field of Computer Science. Having topped the class at Intermediate, XT found that his strength lay in developing his skills and being educated in Computer studies. In retrospect, this particular field was a niche area for a student of Māori ethnicity because there were not many Māori students studying this discipline. When asked why he chose this particular field, XT commented, “I’m not going to follow you, I’m going to be different” and it was this point of difference - with regard to the value of this particular field of education - that would make XT more unique, appealing and valuable.

7.6 Tertiary Learning Environment

The second major theme that this interview recognised as indicating success enablers for mature Māori students in the IT field was the tertiary learning environment. This

consisted of the influence of three collectives of individuals who had the potential to enable as well as inhibit the transition of XT from an unemployed person into a successful tertiary student.

This section will discuss these three external influences further, with the first being Academic Staff. This grouping consists of individuals that are tasked with the responsibility and role of educator (i.e. Lecturer, Tutors). The second group is the individual's Peers; identified as those persons who have a similar educational environment and background as XT. The third group are the Institutional Support Groups; consisting of the Government and Māori support systems. The distinction between each collective is the level of interest and responsibility that each collective has in XT. This research considers these factors of the 'Tertiary Learning Environment'. The theme 'Tertiary Learning Environment' will be further analysed and discussed in the following sub sections.

7.6.1 Academic Staff

Analysis of the interview found that a success enabler for mature Māori IT students were the academic staff. More specifically, it was the level of engagement and influence they gave an individual that enabled that person to succeed. To explain, XT stated that the main contributor for him undertaking studies in the field of IT was because the staff recognised his potential, and advised him to move down that path of learning. In addition to this, XT states "Good lecturers sympathised with you, but at the same time they pushed you to your potential." XT also offered the following comment "One of my lecturers sparked a determination for me to succeed." This comment highlights an array of points:

XT's phrase 'determination to succeed' realises that XT had a purpose in mind and that was him being resolute in succeeding;

- XT's use of the word 'determination' indicates that he faced challenges throughout his journey of tertiary study; this also indicates that XT overcame those challenges.
- The term 'sparked' implies that some-one or something was an inspiration to XT, and would act as a catalyst for him continuing and succeeding. This

comment also suggests that the ‘lecturer’ was not the reason for XT’s success, but rather he enabled (acting as a catalyst) XT to succeed.

- Last, ‘One of my lecturers’ indicates that not all of XT’s lecturers were success enablers.

XT explains the last point, saying:

There were good lecturers and there were some hopeless lecturers... They will assist you as much as [they] can but then not all lecturers are like this. You’re always going to get some lecturers who are going to assist you in the minimal possible way.

This comment indicates that some lecturers will go above and beyond their obligations under contract to ensure an individual succeeds, and there will be lecturers that will only help according to what is required of them, or their bottom-line responsibilities to a student. Interestingly, XT uses the term ‘always’, suggesting that he has the expectation that this will continue to happen, no matter what.

These experiences are a stark contrast to those discussed in section 4.4.1 and highlight how persons in positions of educating can be both enablers and inhibitors. “At school you were just a number and they treated you just like a student” (XT). There is a finding in this that with higher education there is less room for ignorance, and that if lecturers inhibited a student’s ability to succeed; this was a result of the lecturer’s responsibilities and their level of interest and engagement with an individual. This research is of the view that any persons in the position of educating can be a success enabler for an individual, however for XT, lecturers were success enablers.

7.6.2 Peers

The second collective of individuals, recognised as being success enablers for mature Māori IT students were XT’s Peers. At the same time, XT’s peers could also discourage success. XT made comments to several groups that this research recognises as being his peers. These include: students in the same field of study as XT and students attending the same tertiary institute as XT; Māori and non-Māori alike.

Peers had the ability to discourage success because they could create an environment where you didn't feel supported, "You were segregated in class; not by your lecturers but by your peer groups...With colleagues (students), some would share with you, some wouldn't." XT felt segregated by his peers because of his demographics. XT was a Māori, mature student, studying in the field of IT. XT provided various quotes to support this view:

- On being Māori: "We had a saying which was 'Spot the Brown face'. And that's what it was like";
- On being a mature student: "You as an older student sit in amongst younger kids. That also is a pressure as well"; and
- On studying IT: "Surprisingly both Māori and non-Māori were saying 'You shouldn't be doing this because this is not for you'...and that was my own culture saying that."

XT developed the opinion that, "Discrimination is just not until the point of your colour. Discrimination can be to the point of your field...Discrimination has a different meaning when you get older." At a Tertiary level, XT recognised that he was still facing discrimination and separation from his peers because of a multitude of reasons. While these variables could have discouraged XT and his determination to succeed, they would instead serve to empower him.

XT was in a niche demographics where he was a mature student, he was studying IT and he is a Māori, from the experiences he shared, he used these to his advantage. XT explains that "with older students they're focused. They know where they want to go." This demonstrates that as a mature student, there is more incentive to focus and prioritise your studies.

In XT's classes, he established a partnership with another Māori student who was studying in the same discipline as him. XT comments, "We joined together and helped each other through our degrees." Again, because of the niche demographics of XT and the under-representation of Māori within the IT field, XT developed an on-going support/buddy system throughout the entirety of his degree, with someone who shared similar demographics.

7.6.3 Institutional Support

The last collective of individuals, recognised as being success enablers for mature Māori IT students were Institutional Support groups. These included the Government and Māori Support services. XT highlighted in the interview that he struggled financially and academically throughout his studies.

Financially, XT was “used to being poor”, which is reflective of his family’s socio-economic status, but XT still recognised that he needed financial assistance. XT recalls that his mother said it would be possible for him to attend if he applied for a hardship grant. This grant was set-up by the Government to fund any Tertiary student seeking an education. XT applied and was awarded the Government funded grant. This financial aid would have eased the strain of XT’s everyday living costs and supported XT while he was pursuing his education.

Academically, XT struggled. When trying to seek help XT recalls that, “there was no support and when I was trying to look for support, they couldn’t help me or they didn’t want to help... they don’t want to listen and that’s what made it difficult.” When asked if there were any support structures for Māori studying in the School of IT, XT replied “None. Absolutely none... there were a lot of support structures for students studying Māori studies.” These experiences indicate that time and resources weren’t allocated for Māori IT students, studying in the field of IT. XT explains that this was most likely because IT was a field that was not of interest for Māori support systems to invest in. This suggests that at the time, the field of IT had little importance to the development of Māori.

XT explains that because there was a lack of support structures for him during his time and he was motivated to create support roles for other Māori students in the field of IT. As explained by XT, “If they’re studying now, there’s more support.” XT recalls that his first support role was during his time as a tertiary student, where he would help first and second year Māori students who faced the same difficulties as he did during his studies. There was also the development of the Kāiawhina role, a mentoring programme for students. The provisos of these mentoring programmes required that the mentor had already studied the same degree with similar courses as the student, and that both the student and the mentor were of Māori ethnicity. The goal of these

programmes was to create a support hub where Māori IT students could converse with each other. However, these support systems still faced a significant challenge, quote:

Sadly, what I find with Māori students is that they're half and half something. They want to do bits and pieces but they won't do all of it. They don't want to go through the hard struggle but just want the answers.

These experiences show that whilst support systems are success enablers for mature Māori IT students, the students themselves have to be proactive and engaged in the support processes.

7.7 Whānau

The third major theme that recognises success enablers for mature Māori students in the IT field was found to be Whānau. At various points of the interview, XT makes mention of the impact and influence that whānau had on his educational experience at a Primary, Secondary and Tertiary level. When providing a background on his family, XT explains that his father left school when he was thirteen and his mother left when she was about fifteen. XT's father was illiterate, "he couldn't help me. He wanted to but he couldn't even read."

Both XT's parents were manual workers and "that's all they were told they were ever going to be." XT developed the view of, "I found that as there were problems at home, school became a break away from home."

Of the various statements XT makes with regard to his family, it was revealed that whānau played a similar role to XT's 'Tertiary Learning Environment'. XT's whānau have the potential to be either a support system or barrier to learning. The role that whānau play in the educational environment of their whānaunga (family relation) is significantly influential. This is why this research recognises that whānau are success enablers for mature Māori IT students. This theme will further discuss why whānau are potential barrier or support systems in the following sub-sections.

7.7.1 Whānau expectations as a barrier to learning

A significant barrier to XT's pre-tertiary learning was the expectation of XT's family that XT drop out of his final year (Seventh form) of Secondary school. This was motivated by the need for XT to provide another stream of income for their family. Similarly, XT's sister was put in the same position as him. While XT's teachers "made sure [he] went straight to Seventh Form", XT's "mum pulled her (sister) out and told her to work and bring some money into the house." This highlights again the financial struggles of the family, as well as the higher value of an income in the short-run as opposed to the value of a person in gaining an education in the long-run.

Another barrier to XT at a tertiary level, was the expectations he had of his whānau. When asked about what his family thought about XT's decision to attend, he said:

My family don't express emotion... I didn't know whether my parents were happy, sad, relieved, I couldn't tell what their feelings were. I know that when my older brother left to his [carpentry course] down in Wellington, my mum was in full support.

This experience reveals two things: XT's whānau lacked expressing emotion, and perhaps interest or involvement; Key components of a supportive environment. Secondly, XT felt that his mum was fully supportive of his brother seeking an education in the Carpentry field. Carpentry is considered to be manual labour, this coupled with the fact XT's parents were both manual labourers and were willing to withdraw XT from an educational institute to also be a manual labourer, supports the case of why XT's mum was happy about XT's brother doing a carpentry course.

XT's parents valued manual labour over the value of human capital (higher education), because they were raised to be manual labourers, and believed that this was all they could aspire to be. This way of thinking and expectation, filtered through to the next generation and created a barrier that impeded XT's ability to succeed. This was seen in both a tangible (being withdrawn from Secondary school) and intangible (lack of emotional support) manner. For these reasons, this research views whānau as having the potential of being a barrier to enabling success.

7.7.2 Whānau support

Whānau are also viewed as being a potential support system to their whānaunga, undertaking studies at a tertiary level. The interviewer asked XT if education was supported by his family in their home, to which XT replies “No.” In an experience shared by XT with the interviewer, he recalls his graduation celebration and the kai (food) that he shared with his family,

I was first to graduate in my family, I thought that they would have been interested in that but no... With my whānau, I thought they would be over the hill and maybe they were. But as I said, our family doesn't express emotions openly.

Reflecting on his achievements XT believed that “I could have done far better if I had a lot of support from my parents.” From XT’s comments regarding his whānau, support did not have to come in the form of time or resources, but they suggest that support could have been in the form of acknowledgement, appreciation and even understanding the value of higher education.

XT himself highlighted that he felt restricted from accomplishing more, because of the lack of support his whānau showed. To enable is to give someone or something the authority or means to do something. In this case, XT’s whānau could have given the support he wanted, to succeed. This research considers whānau in the supporting capacity have the potential to enable success.

7.8 Te Ao Māori

The fourth and final significant theme that recognises success enablers for mature Māori IT students was Te Ao Māori. Te Ao Māori is a holistic world view that understands that everything and everyone is connected and there is a balance to all things. The spiritual nature that Māori associate with their culture is illustrated throughout the concept of Te Ao Māori.

This section will discuss this Māori world view and the tikanga Māori (protocols) that are practiced within Te Ao Māori, but more specifically, those practices that enabled the success of XT, namely: Tikanga Māori, whakamā, whakawhānaungatanga and

spirituality. The theme ‘Te Ao Māori’ will be further analysed and discussed in the following sub sections.

7.8.1 Tikanga Māori

At a younger age XT was encouraged by his family to be Pākeha. This finding coupled with the discrimination he faced because of his ethnicity, XT stated that “in order for me to establish myself I had to excel at something... I had to make the illusion that I was not Māori.”

In analysing this quote, it indicates that at during XT’s earlier educational experiences there was a perception that only non-Māori could excel. However, XT proved through his personal development and tertiary education, that this perception was false.

XT was motivated to “promote your culture because you don’t want your culture to die.” Practising tikanga Māori enables success, because it recognises the ingrained customs and protocols that Māori practice and highlights to tertiary institutions the importance and effect tikanga Māori has on Māori students.

7.8.2 Whakamā

Whakamā is a very broad Māori concept which may have multiple meanings in varying contexts. Generally, whakamā is encompassed as meaning ‘shy’ or ‘humble’ and is often embedded in Māori at a young age. It is a unique concept that incorporates values that range from being considerate or reserved to ‘saving face’. XT shared the view that Māori are taught to be humble and quiet, which filters through to their learning:

My beliefs were that if you’re humble, you’re quiet and you listen. If you’re boisterous, you’re proud and you’re arrogant, so it was trying to strike a balance between those two things.

For XT, being whakamā was a cultural inhibition for him in the tertiary sector, quote “In order to get something from the lecturers, you have to actually talk to them and ask them. But coming from our cultural background as Māori – whakamā – you don’t ask.” Further to whakamā inhibiting his learning, was being embarrassed in front of your academic peers, “you don’t want to say the wrong answer because if you say the

wrong answer you're classified as being dumb or an idiot and go stand in the corner.” When XT was whakamā this limited both the depth of his relationship with Academic staff and his education. Recognising that Māori are inhibited by the concept of whakamā suggests that support systems would be better suited for Māori if Academic staff were proactive and approach the student instead of vice versa.

7.8.3 Whakawhānaungatanga

At my school of studies, especially being in the IT field, you're lonely, very, very lonely... When you do see a brown face you're buddies, pals of lifelong friends and then you start establishing whakapapa... Even if they don't have a genealogy relationship you make one up! All of this is just to feel comfortable.

Whakawhānaungatanga is the process of establishing relationships with others, which is in line with Te Ao Māori where everything and everyone is connected. This holistic view contributes to the importance of whakawhānaungatanga, that when relationships are established, so is a sense of belonging and more specifically, belonging to a collective. XT's remark supports this practice saying “Us as Māori... we love to socialise with whānau because that's who we are.” Whakawhānaungatanga is a success enabler because it nurtures a supportive environment for the student and enhances relationships that encourage furthering education.

7.8.4 Mana atua

The final sub-theme encompasses the spiritual nature or spiritual power of a higher being/ancestor recognised within Te Ao Māori. XT states that “with Māori there is definitely a different type of culture which deals with a lot of spiritualism...there are certain protocols that you will follow.” XT notes that:

When no-one was around I kept on praying and looking for that guidance. I also believe that I didn't do it on my own but also that I had somebody looking out for me...There's a spiritual side to my upbringing as well.

The spirituality of XT's upbringing provides a deeper connection between XT and powers outside the control of this research. However, this is a large contributor to XT's learning with XT stating that “I asked him for a blessing and he gave it. You can't abuse that blessing.”

7.9 Summary

In conclusion, the personal development that an Individual learner experienced prior to undertaking education at a tertiary institute would lay the foundation for different success enablers, for mature Māori IT students.

The success enablers could be both barriers and supports to learning and were identified as being the individual learner's tertiary learning environment, whānau and Te Ao Māori. His perseverance, dedication and willingness not to give up even if he failed helped him to complete his degree.

We need to persevere and keep our minds focussed

Chapter Eight

Three years of the hardest time of my life struggling with the learning and getting through everything. What made it a good experience for me was the tutors who showed a lot of empathy and showed that they really cared about you.

8.1 Overview of Chapter

In this chapter the analysis of one participant interview is presented. A discussion of the findings will be highlighted and the success enablers discussed. A brief profile of the candidate will be given followed by the personal development of the individual learner prior to undertaking studies at a polytechnic institute. This will be followed by the tertiary environment that is found to consist of three entities that enabled and inhibited the transition of the subject from an unemployed person into a successful tertiary student. The final sections: Whānau relationships and Te Ao Māori worldview form the concluding parts of this chapter.

This chapter should not be considered in isolation but rather as a sequential, inclusive and contiguous presentation of this participant's testimony. As well, success, however, needs to be measured by many indicators. Success can mean that a Māori learner has been well prepared for life beyond tertiary education.

8.2 Introduction

The four major factors identified as success enablers for mature Māori IT students in the tertiary education provide a framework from which primary data is addressed in this chapter. First, the personal development of an individual learner is identified as being crucial to academic preparedness and is explored in this chapter. Second, the tertiary learning institution's environment does impact on the academic success of a mature IT Māori student. Third, the personal testimony of the participant reiterates the importance of whānau relationships to the mature IT students' wellbeing and how

they persevere with their students. Finally, the Te Ao Māori worldview provides a supportive perspective and ideology that allows mature Māori IT students to connect to their cultural identity as a core foundation to rest and rejuvenate their energies as they plod through their IT studies for three years.

The format for this chapter will be as follows: Themes will be introduced that emerged from the participant's testimony and these themes will be further expanded into other sub-themes that the researcher identified. Each section will also provide an analysis and quotes provided by the interviewee to support this analysis and the hypotheses of the overall research.

8.3 Interviewee Profile

I was talking to a friend and he mentioned that he had come up to Wintec and had checked out their computing course and had wanted to do the technician course up here. At the back of my mind it had sparked interest but I went down another road and went down doing the landscaping business. But I guess the seed was planted back then. XE is a mature Māori male, born 31 July 1964. His iwi affiliations and his marae are not specified. XE undertook studies at the Waikato Institute of Technology (Wintec) in 1999 and XE obtained a Bachelor of Information Technology from Wintec in 2003.

8.4 Individual Learner

The doctor said that I couldn't do any heavy lifting anymore and that I couldn't lift those cobblestones anymore and that I'd have to look at another career. I thought 'heck' and started thinking about what I could do. Those thoughts came back and funnily enough another friend of mine had signed up for a computer course up here at Polytech... And he said 'Why don't you come on the course with us?' And I was a bit scared to be honest.

The first major theme consistently mentioned throughout the interview was the personal development of the individual learner. XE recognised this component as laying the foundation as a success enabler as a mature Māori IT student. This interview

further shows that the personal development of an individual learner. The theme consisted of two sub-themes that are inter-linked with one another. The first theme is the nature of pre-tertiary educational experiences where the journey of academic learning was undertaken as a child. The second theme is the interviewee's motivations and purpose for undertaking studies at a tertiary institute in the field of information technology as a mature IT student. These themes are key drivers and influences that lay the foundations for the interviewee's educational moulding and eventual path of undertaking study at Wintec. The theme 'Individual Learner' will be discussed further in the following sub-sections.

8.4.1 Individual Learning

I was scared to go into what I thought was a Pākeha environment. I've always looked at teachers... through primary school and intermediate, I haven't had the best of teachers.

XE's individual learning XE considered as a significant success enabler for himself as mature Māori IT tāuira. The personal journey of education and prior learning of the individual learner became important as XE reflected on why he decided to enter into tertiary education; especially on a discipline that was new and foreign to Māori families. Throughout XE's childhood education was 'fun and play' and the shift to becoming 'academic' occurred when XE's whānau moved from Wellington to Hamilton.

XE considered him-self to be an "average student" but noted he had always liked "those kind of hands-on-stuff". XE obtained school certificate and sixth form certificate at Church College of New Zealand (CCNZ) where role models and vocational guidance counsellors talked to him about careers. XE got a summer job over the Christmas holidays which paid good money. He finished school with no thoughts of tertiary education.

8.5 Pre-Tertiary Learning

It was a fun time to be at school. I just remember lunch, playing bull rush... The academic side of it wasn't really a priority for me.

XE was raised in a conventional nuclear family with both biological parents. As his family is of Māori ethnicity, XE has a strong family or whānau orientation. At the beginning of XE's learning journey, the expectation of XE's parents for XE was positive. Growing up with strong Christian beliefs and a lot of family involvement XE was encouraged to participate in education, and then given opportunities to think about a career. It appears that XE parents wanted XE to have a positive experience with education as opposed to their own experiences and his mother 'didn't finish school' and 'had to go and work to support the family'.

While XE found pre-tertiary education fun, there was also the expectation from his parents 'to go and find work and make money as soon as possible'. The reasoning behind this philosophy was that XE's parents were strapped (with a belt) for speaking the Māori language at primary school. However, despite XE's parents' negative experiences with the education system, primary school education was fun and XE ruminates there were 'a lot of Māori' at his school. The Māori population comprised of 'my cousins, and relations at the school'. XE's whānau moved to Hamilton where he was enrolled where 'the community he lived in, there was a bit more emphasis on doing better at school' and there were a lot more European (Pākehā)'. XE notes in this phase of his educational learning, 'I started thinking more academically' despite XE thinking that he was an average student and enjoyed more 'hands-on stuff'.

It appears that tertiary education was not an aspiration for XE. However; in 1997, the importance of education was brought home by his parents to XE. XE was enrolled in a private boarding secondary school (Church College of New Zealand) where his family shifted from Wellington to Hamilton (522.59 kilometres). Here, XE completed four years of study. XE comments on the memorable experiences he remembers from Church College of New Zealand, Hamilton (CCNZ) as "probably one of the best experiences for me".

The reasons XE affirmed that his academics (his teachers) influenced his educational journey in a positive and forward thinking way; through their ideologies, counselling and role modelling. Again, XE reflects that these role models were of Māori ethnicity. As well, these teachers encouraged all students to be successful in their studies, and 'took time to oversee his studies'. XE ruminates on the qualities of a good teacher as

being passionate about his/her teaching, being organised, and being ‘very patient’ with XE.

XE remarked that ‘I seemed to excel in that class’. XE commented that the teachers at CCNZ impacted on his learning in a positive way and the teachers took the time out to just see how you were doing even though it wasn’t your subject. To see how you were doing in the rest of your schoolwork. Sports coaches, they were all great. Accessibility and role modelling of tutors in XE’s degree programme were important success enablers at Wintec for XE.

Other reasons, XE remembers is that not only was academic learning encouraged at CCNZ, but also abiding by a student code of honour and ethics. These concepts were new experiences but ones he remembered vividly. XE reflects that these moral and ethical compasses impacted on how he approached his work life and his overall wellbeing. As well, XE accredits teachers at CCNZ being passionate about their subjects and passing this enthusiasm on to him. XE reflects on the encouragement that radiated from his teachers.

XE stayed at CCNZ for four years. XE comments that he enjoyed communicating face-to-face with teachers and; his teachers teaching as ‘his level’ is where he did well. XE believes a teacher who demonstrated care and took time to help him was where he excelled. XE also noted that he always felt he knew the teachers that cared about him.

XE obtained his school certificate and sixth form certificate and XE left school at age 17 to go to work. He served a two year religious mission for his church at age 20 and married at age 24. XE notes that this religious experience was ‘life changing and his focus ‘had changed from getting a job to getting a career for me’. He contemplated at this time that “whether it was education or going back to school or learning a trade’ his mind was set.

XE’s whānau were quite entrepreneurial in the landscaping business and XE worked with his brothers until he was unable to do physical work any longer. XE reflects that at the back of his mind, was a journey of education that was waiting to be walked, however; he was “a bit scared to be honest”. He remembered his secondary school experience with fondness and clarity on how education was an important journey to

undertake. XE appears to be quite observant the academic staff who inhibited or enabled his learning. He associated positive learning in the light of secondary school experiences where teachers were emphatic and committed time and accessibility to students such as him.

It would take XE over 10 years until in 1999 with the support of his spouse and extended whānau (family), XE enrolled in a Degree of Information Technology at Wintec with apprehension at age 36 and with a family of four young children.

Finally, XE when summing up his pre-tertiary experiences, XE fondly remembers CCNZ as an important stage of his life that made him think about education in a positive way. Also, influenced by his parents' expectations of education and work, other experiences both secular and pastorally help mould XE's perceptions of education and drive him to consider later in his life tertiary education.

8.6 Motivations

It's always been something that I've wanted to strive for in education. I want to keep on learning and not only get lots of qualifications because they're good, but I've got that hunger to continue learning.

The second major theme as a success enabler for a mature Māori student according to XE is the motivations in entering tertiary education. The research findings identified four key motivations for XE in making the decision to enrol and undertake studies at Wintec in a discipline that was underrepresented by a Māori population. The motivations are as follows: first, motivation must come from the learner himself. Second, parents can be catalysts to motivate children to seek better education opportunities. Third, spouses/partners are crucial anchors to mature Māori students to hold on to when entering tertiary studies followed by his peers support. Fourth, helpful and accessible academics/tutors can act as role models to help mature Māori students persevere with their studies and be successful.

8.6.1 The most important motivation comes from the learner

Yep. It always came down to me. These were my qualifications anyway. Regardless of what experiences I had in the classroom with different tutors, the good and the bad tutors, I wanted to achieve this degree and certificates.

With all XE's educational and life journey experiences, XE acknowledged "that it always came down to me". He wanted the qualifications. At crossroads in his XE's life, he made the crucial and final decisions concerning his pathway. XE was also surrounded by people albeit family who supported his decisions, however; XE has to initiate the direction that he wanted to pursue. XE also notes that self-esteem is an important factor that he considered and he wanted to change significantly his career pathway. XE agreed that despite the value of guidance and encouragement from others, in the end personal commitment and personal motivation might be the most significant success enablers.

At times of XE's studying, XE mentions the value of making his learning 'fun'. XE believed that education and learning should be enjoyable. He learnt better in a relaxed setting; and was most likely to make progress where there was a close alignment of his cultural values within the tertiary learning environment. Parents act as catalysts for learners to move obtain qualifications in the education system.

I remember purchasing a computer back then for 3500 dollars. It was a 4.5gigabyte hard drive. Even the whānau helped me get money to pay for that so that I could continue doing homework and studies at home.

To XE, in the pre-tertiary learning stage, parents can inhibit or enable their children to seek further education. The reasons for children to pursue further or better education can be for better careers, satisfaction, supporting your family and to better qualify for better resources. His parents were significant players in XE's life exposing him to education whilst they had very little. XE's parents were catalysts of immovable support, as XE made the decision to undertake tertiary study. They provided pastoral care, encouraged, provided financial support and more importantly supported XE's to dream of what he wanted to do. With a smile in his voice, XE reflected that his parents "came in and supported me when things were tight". Whānau expectations were also

crucial to XE in shaping his pathways to success. Where his whānau encouragement was continual and encouraging, XE felt inclined to aim high.

8.6.2 Spouses/partners are crucial anchors for mature students hold fast to as they undertake tertiary studies.

My wife supported me with the decision. She encouraged me heaps. Because I had a young family with four children, not working and going to school caused financial pressure. We owned our own home but taking care of everything else and looking after the kids was a big ask for her. But she supported the idea of me going back and studying anything.

As mature students returning to undertake studies in a tertiary environment, spouses/partners are more pivotal in hindering or providing unconditional support to their partners. Spouses/partners usually provide the mental stability necessary to justify learners returning to studies where emotionally and financially matters will be transferred to the supportive partner. XE stated that his wife took ‘care of things at home, allowing me to go to school, come home, sit down and get into my studies’. Spouses fill the gaps for parenting, attending and family occasions and resolving family disputes when assessments need to be submitted and time taken to prepare, research, attend lectures and tutorials. They provide the rationale to children ‘that mum/dad is studying’ and need to study or pick up the pressures of emotional and financial strains that were usually shared by both partners in the relationship.

8.6.3 Māori Lecturers/Tutors are important role models to mature Māori students in tertiary education.

XE remembered his teachers with exceptional clarity. This is evidence of the key roles that teachers/academics play and the lasting influencing they can leave. Passionate, caring and committed teachers helped motivate XE to succeed in education in pre-tertiary learning and in his tertiary studies. Māori academics often have different expectations of Māori students and tended to interact with Māori students on a more personal level and this happened to XE. Māori tutors and lecturers also act as proxies as role models. They represented important examples to XE to follow when he was moving through the tertiary education system. They also provided a strong foundation to build his aspirations on. Academics/tutors were also empathetic to his journey of struggling with new concepts of learning; and as he retrained his thinking capabilities

to assimilate and retain new information, and to meet the requirements of obtaining a degree over a long period of study.

8.6.4 Wintec – The Tertiary Environment

I thought Wintec was going to be a hard experience in that it would be academically challenging for me. I didn't think there would be supports up here in case I was struggling and got behind.

Some of my expectations about what Wintec would have been would have been like my experiences at primary school and intermediate.

The second key theme that this research identifies as being enablers of success for mature, Māori, IT students is the Tertiary Environment. This environment encompassed three collectives of groups, who had the potential to both enable and inhibit the academic success of XE. This section will discuss first XE's transitioning into the tertiary learning environment and the three specific groups and the influence they had on XE. The first collective are the academic staff which consists of individuals that are tasked with the responsibility and role of educator (i.e. Lecturer, Tutors).

8.6.5 XE's transitioning into the Tertiary Environment

I thought Wintec was going to be a hard experience in that it would be academically challenging for me. I didn't think there would be supports up here in case I was struggling and got behind... I had to learn from scratch so that was quite a big learning curve for me.

XE expressed fear at returning "back to school". He considered himself an 'average student' entering into a "Pākeha environment" and he was moving out of his 'comfort zone' to learn new things. He had no expectations of what he would learn and if he could learn anything. Curtis et al., (2012) writes that "academic support that is culturally appropriate and has a positive impact of Māori student learning means providing Māori appropriate tutors who are Māori, who act as positive role models, are connected with Māori students and Māori specific issues, who know the course content, and who create culturally safe learning environments" (p.29). XE struggled in the first six months of his study. The pressures of having 'four young children and

a mortgage and relying on a student allowance to live week to week' played constantly on his mind while XE studied.

XE noted that learning in a culturally appropriate environment tailored to his needs enhanced his learning and allowed him to successfully complete his degree. Māori academics also played a role in providing positive role modelling and providing successful academic experience to him as a mature Māori student. The Māori academics were accessible and willing to listen and help him in his studies.

8.6.6 Academic Staff

There were a handful of awesome teachers here who took time, just like in high school. The ones that just took a little bit more time.

The first group of academic staff identified as being success enablers for mature Māori IT students are the lecturers. The potential impact of an academic on the aspirations and achievement students is widely recognised (Jefferies, 1997). Academic staffs like tutors are a unique source for students who lack confidence in themselves. XE considers that the relationships he had with Māori academic staff helped him as a mature Māori student to believe he could engage in the learning, be confident in him to succeed. As well, the expectations of the academics were especially important.

The Māori academics were strong, clear-visioned, and were significant role models. He believed that Māori IT academics influenced also his retention. XE like other tāuira recognised, valued and acknowledged supportive academics that assisted him in his studies. However, it appeared to XE, that there is an assumption that Māori learners do not do well, or at least not as well as their counterparts. Here, stereotyping Māori learners was one practice that was in favour with some academics. XE identified unhelpful aspects of teaching and learning with academics.

8.6.7 Tutors

Not all of them were Māori tutors but they were the type of tutors who would do a lit bit extra to make me feel like I could do things or that I was important. And they helped me get through things.

The second group of individuals recognised as being success enablers as well as success inhibitors for XE are the tutors. Tutors are a unique resource for learners. The relationship between a tutor and students was at the heart of successful further education. The support of tutors featured strongly in the support systems that XE utilised to see him through three struggling years of study.

When asked to elaborate on the attributes tutors had that made them supportive, the themes that came through XE's interview was that some tutors had genuine interest in him as a student, wanted to see him be successful as a student, were approachable and accessible and listened to his needs.

If XE was unable to attend classes, tutors would give the notes to one of your classmates to make sure you had the notes. These were little things that some of the tutors did to overcome those barriers.

On the other hand, XE also articulate that he believed that there were prejudices that some tutors practiced that were blatant discrimination against Māori IT students in their classes. XE mentions there was preferential treatment given to Pākehā and not giving the day of time to us Māori. Stereotyping against Māori was also practiced. XE commented on the feelings associated with this tutor's behaviour towards him:

There were some tutors that I felt stereotyped us. Even though we were mature students, they just looked at us I thought at no-hopers and useless. If they don't want to spend time helping you but they'll spend time with someone else, how are you supposed to feel?

In summary, as indicated by the interview, tutors can guide students to becoming achievers. Being a novice student XE was dependent on tutors' expertise to help develop existing skills as well as teach new ones. XE was quite clear that he valued the support of his tutors.

Having a tutor that was available, approachable did contribute to his success. There were some practices that XE felt discriminated about Māori especially the stereotyping of Māori.

8.6.8 Fellow Non-Māori colleagues as success inhibitors

I think our tutors are a bit more tactful but our peers and other students can be tactless. They have preconceptions and tell Māori jokes and say that Māori s are on the dole or a public burden. It really rubs me up.

The third group of individuals to be identified as success inhibitors were fellow non-Māori colleagues in his classes. XE was quite scathing about fellow colleagues such as Pākeha (New Zealander's of European descent) who while studying the IT degree who would not help other students; and keep their work to themselves and didn't want to share their success with anybody. They appeared to focus on their journey as an individual. On the other hand, Māori as a whānau (family) were that we help each other to get through each assignment, and support each other. XE considers his cultural conditioning as a normative value where Māori work in a collective collaborative environment.

Another issue for XE was because Māori students in the IT discipline were a minority; XE was made to feel like a minority. XE also stated that there was narrow-mindedness with some students who saw Māori as having preferential treatment and preconceptions of Māori and can be at times quite tactless.

8.6.9 Mature Māori IT students' perspective versus younger IT students' mentality

XE reflects on the motivation and mentality of Māori Mature students as they return to higher learning after leaving education early. XE distinguished how mature student are compelled and motivated by the external conditions of their lives that impact on their learning as they consider how to be successful in their studies. Younger students usually don't have the commitments that mature students deal with on a daily basis as well as with study such as families and responsibilities.

8.6.10 No Support Systems for Māori IT Students

The Māori student support services are usually provided through the provision of additional equity-funded Māori specific academic and pastoral support. Components of Māori student support services can include the provision of tutors, resources, support for transitioning issues, senior Māori academic role models, Māori mentors

and Māori support staff. XE was concerned about the non-existent Māori student support services until he completed his final year. The interview indicated that XE felt that it is vital for Māori students to know what support services are available when they start study as tutors can assist Māori students through a Te Ao Māori lens and the importance of this environment as a safe place.

8.6.11 Barriers or success inhibitors for mature Māori IT students

The types of sacrifices my family made range from financial sacrifices to time strains on family time due to studies and work.

There are barriers that XE identified that may/did restrict his participation, performance and achievement to enter into tertiary education. Factors included:

- Difficulties for balancing all of his commitments such as his family;
- The lack of recognition of Māori culture in the content and delivery of programmes in the discipline of IT;
- Academics/tutors who do not know how to deal with, or relate to Māori students can inhibit learning and achievement;
- Racial discrimination, narrow mindedness and stereotyping of Māori was evident to XE as a mature Māori IT student;
- There was a lack of access to positive Māori role models in the discipline of IT that XE could use; and
- The conflict of values, and being alienated from his culture was a barrier that XE has to overcome during his IT studies.

8.6.12 Financial Barriers for mature Māori IT Students

The pressures of not having a wage but having to rely on a student allowance – to live from week to week. Having four young children, a mortgage, even the thought of me being able to keep ahead of my studies were all considerations.

Student allowances for attending tertiary courses are the main source of finance. Arguably, the allowance was provided to ‘ensure better access from low socio-

economic groups (Jefferies, 1997, p. 8). Like XE stated, living week to week on a student allowance lead to his family directly bearing the larger proportion of costs associated with study. Cost is an important factor that can impact on Māori participation and achievement. As well, the emerging downstream problems associated with entering and exiting tertiary study can include acquiring a substantial student loan debt, and costs associated with purchasing recommend resources (books, stationery, and equipment) to assist with the learning.

8.6.13 Preliminary conclusions on the IT Tertiary Environment

I don't think they have any training for staff in cultural sensitivity or anything like that. I don't know if they do. Some of the tutors are so 'whack'.

There are five broad levels of themes that can guide institutions to better support Māori students towards IT degrees in tertiary environments as noted by Curtis et al., (2012).

- Use effective teaching and learning practices;
- Provide academic support that is culturally appropriate. Additional academic support that is of high quality. There should be provision of Māori – specific resources;
- Provide pastoral support that is culturally appropriate. Pastoral support that is provided should be of a high quality;
- Provide a culturally safe learning environment. Tertiary institutional support should actively develop student-to-student interactions; and
- Encourage cohort cohesiveness. This space can be used to foster supportive, collaborative whānau relationships and networking with Māori student cohorts.

8.7 Te Ao Māori worldview

Being a Māori and have a strong whānau and extended whānau, supports are very important to me.

The fourth key that recognises success enablers for mature Māori IT students is Te Ao Māori. As previously noted, Te Ao Māori is a Māori world view or a worldview lens that perceives that everything and everyone is connected and that there is a balance to all things. The spiritual nature that Māori associate with their culture is demonstrated throughout the concept of Te Ao Māori. This section will discuss how XE viewed Te Ao Māori and how it was important to him on his educational journey in the discipline of IT. More importantly, the section will discuss the practices that enabled XE to succeed as a mature Māori IT student. The following sections will be discussed further, whakawhānaungatanga.

Unprompted, XE saw the Te Ao Māori worldview as part of his identity. This identity provided cultural confidence, allowed him to seek assistance through a collective network and not travel through his academic studies alone. Being Māori XE believed was integral to his success though he was eager to succeed and to enter into a rewarding career. Being Māori was also not incompatible with his aspirations for high levels of achievement in his chosen discipline.

Te Ao Māori embraces principles that XE implemented such as: Whānaungatanga (making connections with his peers and looking to them as a whānau (family)). Here, there is no gender or age discrimination, but rather a collective bonding as Māori that superseded the before mentioned discriminations.

Here, whānau have inherent obligations to help and support others. Manaakitanga is the second Māori principle which looks at people helping others in a collective manner. Again, XE experienced assistance from Māori students and assisted his whānau to complete their degrees in pastoral, academic and procedural matters.

The third principle of Te Ao Māori is Aroha. This principal in its simplistic form is 'love', however; in its broadest terms, it is associated with caring, be concerned, being the underpinning principle that links whānaungatanga and manaakitanga as interlocking pieces. All three principles XE practiced. They were evident in the relationships XE fostered in the IT teaching environment.

8.7.1 Peers as Whānau Support and Whānaungatanga as success enablers

To be honest a lot of that was not what the institute itself provided in support but we actually went through...five Māori students out of a group of eighteen...who became really close friends. And we just supported each other like a family all the way through until we got our degrees.

Whānau as a social construct is very powerful social norm for XE. Whānau relationships were valued by XE, not only for social and family reasons but also for the potential of whānau for improving educational success. The degree of influence that whānau and friends wield was significant and meaningful to XE. Good and positive feedback from parents and whānau members made the difference between persevering with studies and feeling not good enough to do it. These relationships were crucial and contributed to the success that XE enjoyed while studying. XE acknowledged that his greatest supports were his family and his wife. His peers also contributed to supporting XE and each other so that no one was ever alone in an alien learning environment where Māori were the ‘minority’.

The second group of individuals to be recognised as success enablers were his peers in his studies at Wintec. Relationships with peers were considered important by. Unprompted, XE notes that as Māori students going through this tertiary experience together, identified quickly as a collective unit of Māori students young and mature. The Māori students gravitated towards each other and seemed to help each other just automatically. XE considered his learning style as slow and a plodder until he got it but he was appreciative of some Māori students who were really switched on and they didn’t mind helping. Creating a sense of community was also an opportunity to network with others while studying. Friends quickly turned into whānau (family) and whānau became sources of information of IT concepts that needed explaining, a listening ear when things were tough, feedback channels when assessments were being completed and critical analysts to critique work if XE was unsure.

Overall, whānau support and whānaungatanga, XE states are the other success enablers that pulled him through to obtaining his IT degree. Friends at school became people to talk to, to study with, and be like a family.

Relationships with peers were considered paramount. XE's peers appeared to have similar aspirations to succeed, were supportive in the study groups, and were focussed in high attainment. Success was likely to be more achievable and tangible. As a result, all those mature Māori students who wanted to succeed gravitated towards those with similar expectations, and where both parties could contribute to each other's success.

8.7.2 XE's Big Picture aspirations

I think for Māori's to succeed... there have been quite a few who have gone through new steer education and become good role models for other Māori... They told their story of how they had to struggle to get in, all the challenges they had when they were here and where they came from even. Those kind of stories and experiences will help promote to Māori that they can do it.

XE was asked to respond to what he considers would assist Māori to be successful in the IT industry. His response is very reflective and thoughtful. XE identifies three major success enablers. First; XE acknowledged that there are staples that need to be in place for Māori learners to succeed in their IT studies.

Having whānau support, financial supports are essential elements for successful achievement. Second; XE talked about role models doing motivational presentations, talking about their experiences, the challenges and struggles and creating empathy with Māori students that success is achievable. Third; there is a gap that needs filling by having more Māori tutors teaching in the IT discipline who can teach and relate to Māori students.

8.8 Summary

Don't spend ten years finding out what you want to do. At least get into education and get something. Once you've got a degree or something behind you, you can make a choice then and you'll be a bit lighter.

In summary, the findings of the interview have identified that there are four significant enablers for mature Māori IT students, studying at a tertiary institute. First, the

personal commitment and motivation comes from the individual learner. Second; the tertiary learning does impact on the success of a mature IT Māori student.

Third, the importance and influence of Whānau relationships or peers cannot be underestimated. Fourth, a Te Ao Māori worldview is important in how mature Māori students see their role as learners and how they used Te Ao Māori principles to become successful learners in the IT discipline.

This chapter has highlighted that these four factors are catalysts that both inhibit and enable a student's academic success. More significantly, it is also important to recognise that whilst some of these indicators have the ability to inhibit, when recognised and used appropriately, these determinants also have the ability to be used as tools for empowerment and therefore success to the Māori learner.

Chapter Nine

My expectations were that it was going to be a fun learning environment, that there was going to be a lot of support from students, tutors and also somebody to cater to my Māori side – somebody that understood how I learned.

9.1 Overview of Chapter

In this chapter the analysis of one participant interview is presented. A discussion of the findings will be highlighted and the success enablers discussed. A brief profile of the candidate will be given followed by the personal development of the individual learner prior to undertaking studies at a polytechnic institute (Wintec). This is followed by a discussion on the tertiary environment that is found to consist of three entities that enabled or inhibited the transition of the Māori IT students from an unqualified person into a successful conferred tertiary student. The final sections: Whānau relationships and Te Aō Māori worldview form the concluding sections of the chapter.

This chapter should not be considered in isolation but rather as a sequential, inclusive and contiguous presentation of this participant's testimony in relation to the other interviewees. As well, success, however, needs to be measured by many indicators. Finally, success can be interpreted in many different forms. Success can mean that a Māori learner has been well prepared for life beyond tertiary education and obtaining a degree is only one part of the success journey.

9.2 Introduction

The four major factors identified as success enablers for mature Māori IT students in the tertiary education provide a framework from which primary data are addressed in this chapter. First, the personal development of an individual learner is identified as being crucial to academic preparedness and is explored in this chapter. Second, the tertiary learning institution's environment does impact on the academic success of a

mature IT Māori student. Third, the personal testimony of the participant reiterates the importance of whānau relationships to the mature IT students' wellbeing and how they persevere with their students. Finally, the Te Aō Māori worldview provides a supportive perspective and ideology that allows mature Māori IT students to connect to their cultural identity as a core foundation to rest and rejuvenate their energies as they plod through their IT studies for three years.

The format for this chapter is as follows: Themes are introduced that emerged from the participant's testimony and these themes are further expanded into other sub-themes that the researcher identified. Each section also provides an analysis and quotes provided by the interviewee to support this analysis and the hypotheses of the overall research.

9.3 Interviewee Profile

I liked everything! I was a bit of a nerd I think because I guess mum pushed us quite a bit to do well.

ZD is a mature Māori female, born 29 October 1978. ZD's iwi affiliations are Ngāpuhi – Te Tai Tokerau/Tāmaki Makaurau (Northland/Auckland). Her highest secondary qualification awarded is Sixth Form Certificate or the equivalent NCEA Level 2. ZD undertook studies at the Waikato Institute of Technology (Wintec) in 1996 where she enrolled in various papers. ZD obtained a Bachelor of Information Technology from Wintec in 2005.

9.4 Individual Learner

Because my brother dropped out quite early in high school I had the expectation that I would go all the way. I didn't finish high school but I had plans of where I was going to go after high school.

The first major theme consistently mentioned throughout the interview was the personal development of the individual learner. ZD recognised this component as

laying the foundation as a success enabler as a mature Māori IT student. The theme consists of two sub-themes that are inter-linked with one another. The first sub-theme is the nature of pre-tertiary educational experiences where ZD's journey of academic learning was undertaken as a child. The second sub-theme is the interviewee's motivations and purpose for undertaking studies at a tertiary institute in the field of information technology as a mature IT student. These sub-themes are considered key drivers and influences that lay the foundations for the interviewee's educational moulding and eventual path of undertaking study at Wintec. The theme 'Individual Learner' will be discussed further in the following sub-sections.

9.4.1 Personal development as an Individual Learner

Going to an all girls' school... there weren't a large number of Māori students there...but from the learning, I think I was pretty much strong enough by that time to move on and just get onto what I needed to do.

ZD's individual learning pathway is littered with confidence and assurance. Her positive outlook and attitude to her personal development are considered to be significant success enablers as she enrolled in the Bachelor of Information as a mature Māori IT tāuira. ZD knew where she wanted to go and created experiences that led her to look at the IT discipline as a step moving forward. ZD considered herself an 'average student', however; throughout the interview, her reflections on her journey were always positive with a sense of strength that she drew upon with her educational experiences and more especially where she wanted to be with her education.

9.4.2 Pre-tertiary Learning

My experiences have been pretty much positive through Primary, Intermediate and Secondary.

ZD was raised in a positive home environment within a traditional nuclear family with both biological parents. ZD's ethnicity was 'half-Māori, half-Pākeha and she notes that she 'didn't fit' within either cultural grouping (Māori or Pākeha). ZD has a strong family (whānau) orientation where there was no pressure to do well in the pre – tertiary learning environment. However; it appears that ZD was confident as a child and strongly supported by her whānau in her pre-tertiary learning because "if there were

any issues” at school with teachers, ZD would take them home and ‘mum would soon sort those type of problems out”.

ZD reflects on how she didn’t quite fit with those Māori ‘kids who did kapahaka (Māori form of dance) or those “European people who were diligent in doing their homework” at school. She points out that she belonged to the “in-betweens” or the ‘middle groups”. Her family was her mainstay, and she just “got on with the job” and continued her learning journey. It is suggested that ZD was a well-rounded child, confident in her own identity that stemmed from the gentle but firm guiding hands of her parents.

ZD commented that the influence of her teachers on her educational learning was positive. Again, ZD appears very confident to be able to ‘go up and speak to the majority of them” especially in the secondary school which she attended. ZD reflects that extra support such as a Māori consultant to ask about how she could fit in; asking for advice about the future could have been helpful at secondary school. More importantly, ZD wanted to discover “what was her place in the world”. Though, again, ZD presents a philosophical attitude of “getting on with her studies” and “not lingering what wasn’t there”.

ZD defined herself as an “average student, who did her homework and tests”. She critiques that it was a ‘bit of downfall’ not to do well in science. Education and schooling was viewed as important by her parents, yet; in spite of these expectations, no overt pressure was exerted on ZD. ZD left secondary at the age of 16 completing her sixth form. She ruminated that whilst she was doing ‘OK at school, I didn’t feel I could continue, I thought it [school] was holding me back from doing other things that I really wanted to do”. Her parents supported her decision conditional on ZD having ‘something else to go on to”. So, at 16 ZD enrolled in Travel and Tourism at the Waikato Polytechnic through distance learning.

Finally, when summing up her pre-tertiary experiences, ZD fondly remembered that all her childhood education experiences were an important stage of her life that made her think about education in a positive way. As well, ZD was influenced by her parents’ expectations of education. There was strength and support in how ZD’s parents supported her decisions to withdraw from secondary education at a very early

age. ZD's experiences both secular and pastoral helped mould her perceptions of education and provided a strong foundation that ZD used to launch off her tertiary studies.

9.5 Motivations

It was important but there wasn't any pressure to do well academically. Like I said my brother dropped out fairly early because he was uninterested unlike myself. I liked school and wanted to achieve well but mum and dad didn't pressure me into it.

The second major theme as a success enabler for a mature Māori student according to ZD is the motivation that led to enrolling into tertiary education. The research findings identified four key motivations for ZD in making the decision to enrol and undertake studies at Wintec in a discipline that was underrepresented by a Māori population. The motivations are as follows: first, motivation must come from the learner herself. Second, parents can be catalysts to motivate children to seek better education opportunities. Third, spouses/partners/family are crucial anchors to mature Māori students to hold on to when entering tertiary studies followed by peer support. Fourth, helpful and accessible academics/tutors can act as role models to help mature Māori students persevere with their studies and be successful.

9.5.1 The most important motivation comes from the learner

I have my degree up on the wall and it shows that this is what you can get and that you can achieve things if you put your mind to it.

ZD was very young to make a significant and far-reaching decision to withdraw withdrawing from secondary school at age 16 and then enrolling with a tertiary education in the same breath. ZD states "I had already decided that I wanted to enrol and do Travel and Tourism at a tertiary institute". ZD presents strong inner core strength to follow through with her aspirations, dreams and displays the sustaining drive to pursue her goals. However, despite her drive, ZD withdrew after two months declaring she had hung out with the 'wrong crowd'. ZD attempted to continue her studies through distance learning.

In 1998, ZD returned to Wintec to complete Level 3 NCEA and a national qualification with the School of Information of Technology. ZD clearly states that part of her motivation to return to tertiary learning was that her mum worked at Wintec, she already knew the learning environment and she knew some people; ZD exclaimed that was “the biggest incentive”. Wintec to ZD was not unfamiliar, but “comfortable”. Enrolling at a university was not an option as ZD exclaimed “it would be too overwhelming for her with too many people”.

Another motivation enabler was ZD’s passion to learn about computers and IT. ZD expressed excitement in her voice when she articulated that:

IT had just become popular around the time I came back. And although I could use a computer but it wasn’t part of our curriculum in high school so I really wanted to get into it and learn how to use a computer.

To put it simply, ZD had great resources of attitude and dreams to point her in the right direction of obtaining success and achievement in the discipline of IT as a mature Māori student.

Finally, as ZD progressed through her Bachelor of Information, she verbalized another driving motivation through her interview which symbolism the great well of strength and driving attitude that ZD presents when she said, “I guess being a Māori woman in the degree, there were two of us so that was a great motivation to finish it and say ‘I can do it too’”.

9.5.2 Parents can act as catalysts for learners to move obtain qualifications in the education system.

Because of my background, I was never afraid to ask a question if I felt like somebody was trying to dismiss me or ignore me. I wasn’t afraid to go voice my opinion and let somebody know.

To ZD, her parents were significant players in her life exposing her to education and how to deal with problems head on. ZD’s parents were catalysts of immovable support, as ZD made the decision to undertake tertiary study. ZD’s parents provided pastoral care, instilled confidence to ‘never be afraid to ask a question’ and ‘never be allowed to be ignored’.

More importantly, ZD's dreams were realised through her parents' belief and confidence in her. With a smile in her voice, ZD reflected that her parents "gave a lot of support ... Just having my family there to support me, understanding what I was going through motivated me to finish my degree". Whānau encouragement and expectations of success was continual and encouraging, ZD was motivated to attain her dreams.

As well, being a single parent at a very young age made the relationship with her parents very important. Planning, organising and managing her time, included ensuring that her son was 'all sorted' so that she could 'make her classes on time' and could study. ZD's parents provided the additional emotional, financial, psychological and physical support for her and her young son.

9.5.3 Māori Lecturers/Tutors are important role models to mature Māori students in tertiary education.

There was a lot of support from the tutors and the students. But I did find that there were a couple of tutors who seemed to be oblivious to myself in the class and even other students in the class.

ZD remembers her experiences with tutors with clarity. She had high expectations of the tutors. In two of her early level 3 papers of the Bachelor of Information, she 'felt like I was expected to learn it by myself'. Tutors were 'standoffish' and 'difficult to approach. Trying to 'what they were trying to tell me' also clouded and confused ZD's ability to think and learn already new and alien IT concepts. Because of ZD's perception that these tutors were disinterested in her, ZD started 'skiving off' (not attending classes) and decided that she 'might as well go home and teach herself' or ask 'other students how they were doing and could they teach her'. ZD looked for other student support to help her with her studies.

9.5.4 Māori Academics as role models

Definitely. If you can talk to somebody then you're more inclined to go to them and say 'Hey! How do you do this?' Or go in there for a cry or for a laugh. Just having somebody there who you know is going to support you and is of the same culture and knows how you operate and work.

Māori academics demonstrate different expectations of Māori students and tend to interact with Māori students on a more personal level. Cultural identity is an important connection with Māori students who see Māori academics as influential role models, listening ears and most significantly as approachable and accessible sources of IT knowledge. Māori academics also represented to ZD a ‘bridge’ between an alien academic environment and a culturally familiar and safe backdrop. The familiarity of cultural connection allowed ZD to express heartfelt emotions about being able to cry or laugh with an academic. More importantly, ZD expressed the belief that Māori academics will support her, they ‘know how I operate and work’. Academics and tutors also demonstrated empathy and academic assistance when ZD struggled with new concepts of learning.

9.6 The Tertiary Environment

I knew the environment, I knew the people. And university can be a bit overwhelming. It would be overwhelming for me.

The second key theme that this research identifies as being enablers of success for mature, Māori, IT students, is the Tertiary Environment. This environment encompassed three collectives of groups, who had the potential to both enable and inhibit the academic success of TE. This section discusses first TE’s transitioning into the tertiary learning environment and the three specific groups and the influence they had on TE. The first collective are the Academic Staff which consists of individuals that are tasked with the responsibility and role of educator (i.e. lecturer, tutors).

9.6.1 ZD’s transitioning into the Tertiary Environment

My expectations were that it was going to be a fun learning environment

From the start, ZD had positive expectations about entering tertiary education. ZD withdrew from secondary school at the early age of 16 with high hopes and determination of achieving success at the tertiary level. The choice of enrolling at Wintec was cemented by the fact that her mother worked in the IT department. ZD knew the environment, ‘had been coming here after school while waiting for her mother to finish work. The added incentive was ZD knew people who worked there

and therefore, there was already a familiarity in the environment. However, ZD reflects that ‘class time could have been spent more wisely’ and I was ‘skivvying off’ (skipping classes) a bit. These antics resulted in ZD’s ‘disinterest’ in schooling and ending up in the wrong crowd”.’ She withdrew from her studies.

9.6.2 Academic Staff

The majority was really good. It was so easy to talk to them. You could ask questions at any time and they encouraged that...But there were a couple that very standoffish and it was very uncomfortable.

The first group of academic staff identified as being success enablers for mature Māori IT students are the lecturers. The potential impact of an academic on the aspirations and achievement of students is widely recognised (Jefferies, 1997). Academic staffs like tutors are a unique source for students who lack confidence in themselves.

On the other hand, Māori academics act as role models in providing positive role modelling and providing successful academic experience that kept ZD motivated to continue and complete her studies. ZD considered that the relationships she had with Māori academic staff helped her as a mature Māori student to believe she could engage in the learning. ZD was already confident in her belief to success at her studies but the expectations of the academics were especially important to ZD. The Māori academics were strong, and clear-visioned. ZD also believed that Māori IT academics influenced her retention. ZD recognised, valued and acknowledged supportive academics assisted her to ‘keep going in her studies”.

9.6.3 Tutors

Not all of them were Māori tutors but they were the type of tutors who would do a little bit extra to make me feel like I could do things or that I was important. And they helped me get through things.

The second group of individuals recognised as being success enablers as well as success inhibitors for ZD are the tutors. Tutors are a unique resource for learners. The relationship between a tutor and students can be at the heart of successful further education. The support of tutors featured strongly in the support systems that ZD utilised to see her through three struggling years of study. When asked to elaborate

on the attributes tutors had that made them supportive, the themes that came through ZD's interview was that some tutors had genuine interest in her as a student, wanted to see her be successful as a student, were approachable and accessible, and listened to her needs.

In summary, as indicated by the interview, tutors can guide students to becoming achievers. Being a novice student ZD was dependent on tutors' expertise to help develop existing skills as well as teach new ones. ZD valued the support of her tutors when they were available and approachable. ZD commented that learning in a culturally appropriate environment provided a positive learning space and definitely assisted in a successful completion of her degree.

9.6.4 Fellow Māori colleagues as success enablers

It was excellent having one of your own kind in the classroom...Just being able to ask them questions.

The third group of individuals to be identified as success enablers were fellow Māori colleagues. ZD commented that she was comfortable with asking questions with other Māori students and there was whānau (family) connectedness that invited ZD to build on relationships. These relationships enabled Māori students to work together on IT concepts that they were unfamiliar with, to go and ask each other for help, and then come together to say "Hey, hey, hey, this is what I figured out". ZD stated this was a crucial success enabler to draw upon others help and knowledge, and be comfortable in asking for help.

With regard to non-Māori colleagues in her classes, ZD was amazed at the wealth of knowledge of students just completing secondary school and enrolling into the IT degrees. ZD made no negative statements about these students rather that 'they were in their own world just like me.'

Another issue for ZD was because Māori students in the IT discipline were a minority; ZD was made to sometimes feel like a minority. However, like in her pre-tertiary experiences, she just 'got on with the job of learning and seeking help'.

9.6.5 Support Systems for Māori IT Students

It was great in my first two years having somebody there to be able to go to and have that support. And make it known that they are there... I didn't know. I had to go out and find out myself.

ZD's responses to what support services were available to her were the Māori students who were peer tutors. These peer students were often in their final year of study. ZD reflected that one of the peer students was a 'strong Māori woman'. ZD made an instant connection with her because the peer tutor 'spoke the same language as me. Not particularly the Māori language, but the language of normal people, like how I'm used to talking to people'.

Māori student support services are usually provided through the provision of additional equity-funded Māori specific academic and pastoral support from the Tertiary Commission of Education. Components of Māori student support services can include the provision of tutors, resources, support for transitioning issues, senior Māori academic role models, Māori mentors/tutors and Māori support staff.

ZD felt that it was vital for Māori students to know what support services are available when they start study, because tutors (Kāiawhina) can assist Māori students by strengthening the cultural connectedness and support through a sympathetic, supportive and empathetic collective. Māori support services that operate on a Te Aō Māori lens focus on the success of the whole body of students through the collective help of individuals – every student is important for achieving success. The focus of Māori support systems allows the cultural elements of manaakitanga (pastoral care), whānaungatanga (a collective supportive group) and arohatanga (concern and help) to permeate and be interwoven in the academic, pastoral and procedure supports to make the tertiary environment a culturally safe environment to study.

9.6.6 Barriers or success inhibitors for mature Māori IT students

Like I say, there was my son who was very young; making sure he was all sorted so I could make it to classes on time and making sure I had enough time to study...Money – making sure I could pay my loan off. Going to WINZ and having them trying to support me as well.

There are barriers that ZD identified that may/did restrict her participation, performance and achievement to enter into tertiary education. Factors included:

- 1) difficulties for balancing all of her commitments with her young son;
- 2) academics/tutors who do not know how to deal with, or relate to Māori students can inhibit learning and achievement; and
- 3) maintaining financial support for a young son and her studies.

9.6.7 Financial Barriers for mature Māori IT Students

Because I was on a benefit I was being paid by the government. They offer Training Incentive Allowance for solo parents and I was able to get some funding from them to pay for my degree. The rest had to come through a student loan through Study Link.

Student allowances for attending tertiary courses are the main source of finance for many students both young and mature. Arguably, the allowance was provided to ‘ensure better access from low socio- economic groups’ (Jefferies, 1997, p. 8). Like ZD stated, “living week to week on a student allowance” lead to her little family directly bearing the larger proportion of costs associated with study. Therefore, cost is an important factor that can impact on Māori participation and achievement in the IT tertiary environment. As well, the emerging downstream problems associated with entering and exiting tertiary study can include acquiring a substantial student loan debt, and costs associated with purchasing recommend resources (books, stationery, and equipment) that are essential tools to assist with learning.

9.6.8 Preliminary conclusions on the IT Tertiary Environment

I think there’s an expectation for us to fail to be perfectly honest. There’s not a lot of encouragement and support. I think we’re expected to fail.

ZD’s commented on the reoccurring theme of stereotyping of Māori students and the low expectations of Māori students to achieve success and degrees in the tertiary environment. The promotion of and the paucity of support services for Māori students in the IT cannot be over emphasised from 2003-2007. Perhaps because of ZD’s own

personal motivation and inner core strength, ZD went searching for support to help in her studies.

There are five broad levels of themes that can guide institutions to better support Māori students towards IT degrees in tertiary environments as noted by Curtis et al., (2012).

- 1) Use effective teaching and learning practices.
- 2) Provide academic support that is culturally appropriate. Additional academic support that is of high quality. There should be provision of Māori – specific resources.
- 3) Provide pastoral support that is culturally appropriate. Pastoral support that is provided should be of a high quality.
- 4) Provide a culturally safe learning environment. Tertiary institutional support should actively develop student-to-student interactions
- 5) Encourage cohort cohesiveness. This space can be used to foster supportive, collaborative whānau relationships and networking with Māori student cohorts

9.7 Te Aō Māori worldview

My expectations were that it was going to be a fun learning environment, that there was going to be a lot of support from students, tutors and also somebody to cater to my Māori side – somebody that understood how I learned.

The fourth key theme that recognises success enablers for mature Māori IT students is Te Aō Māori. As previously noted, Te Aō Māori is a world view through a Māori perspective. In a nutshell, Te Aō Māori is also a worldview lens that perceives that everyone and everything is connected and that there is a balance to all things. Also, Te Aō Māori suggests that the Māori students attempt to find assistance on many levels that are interconnected: academic, physical, emotional, social and spiritual. This section will discuss how ZD viewed Te Aō Māori and how it was important to her on her educational journey in the discipline of IT. More importantly, the section will discuss the practices that enabled ZD to succeed as a mature Māori IT student.

ZD saw the Te Aō Māori worldview as part of her identity. Whilst she did not boldly state she was Māori, her practices of seeking assistance with her learning through peer support, Māori academics and tutors, and Māori colleagues, strongly suggest a strong leaning towards a Māori flavour in her support systems. This unassuming identity provided cultural confidence, allowed her to seek assistance through a collective network and to not travel through her academic studies alone. Being Māori ZD believed was an important link to her success as evidenced by the comments noted by ZD. ZD was also highly motivated to succeed and to enter into a rewarding career because of her interactions intermingled with a Te Aō Māori worldview. Being Māori was not incompatible with her aspirations for high levels of achievement in her chosen discipline.

Te Aō Māori embraces principles that ZD implemented such as: “Whānaungatanga” (making connections with her peers). Here, there is no gender or age discrimination, but rather a collective bonding as Māori that superseded the challenges and barriers that ZD faced. As well, Māori colleagues became ‘mini whānau’ and there were inherent obligations to help and support each other in their studies. “Manaakitanga” is the second Māori principle which looks at people helping others in a collective manner. Again, ZD gained and sought help from other IT Māori students and felt elation when asking for help, another Māori student would say “Hey, I found something”, that finding was shared with the collective. The third principle of Te Aō Māori is “aroha”. This principle in its simplistic form is ‘love’, however; in its broadest terms, it is associated with caring, be concerned, being the underpinning principle that links whānaungatanga and manaakitanga as interlocking pieces. ZD practised all three principles. They were evident in the relationships ZD fostered while pursuing her studies.

9.7.1 Peers as Whānau Support and Whānaungatanga as success enablers

I guess being a Māori woman in the degree, there were two of us so that was a great motivation to finish it and say ‘I can do it too.’

Whānau as a social construct is a very powerful social norm for Māori and it was for ZD. Here, whānau relationships were valued by ZD, not for social and family reasons but for the potential to help her on her journey to educational success. The degree of

influence that whānau and friends wielded was significant and meaningful to ZD especially with only having one other woman in the same degree. Good and positive feedback from her parents generated continuing endurance to persevere with studies. Peer relationships were also vital links in driving ZD's motivation to achieve success in her studies. Her peers contributed to supporting ZD, and no one Māori student was ever alone in an alien learning environment where Māori were the 'minority'. ZD also recognised that her greatest supports were family and her young son.

The second group of individuals to be recognised as success enablers were ZD's peers in her studies at Wintec. Relationships with peers were considered important for survival in her studies.

Unprompted, ZD noted that as Māori students going through this tertiary experience together, they quickly identified as a collective unit of Māori students young and mature, each student brings 'a variety of different experiences and knowledge'. The Māori students gravitated towards each other and 'seemed to want to help other'. Creating a sense of community was also an opportunity to network with others while studying. Friends quickly turned into whānau (family) and whānau became sources of information of IT concepts that needed explaining, a listening ear when things were tough, feedback channels when assessments were being completed and critical analysts to critique work if ZD was unsure.

Overall, whānau support and whānaungatanga, ZD states are the other success enablers that pulled her through to obtaining her IT degree. IT Māori colleagues became people to talk to, to study with. Relationships with peers were considered essential to coming to class".

ZD's circle of friends appeared to have similar aspirations to succeed, they were supportive in the study groups, and were focussed in high attainment and achievement. Success was likely to be more achievable and tangible. As a consequence, mature Māori students who wanted to succeed gravitated towards those with similar expectations, and where both parties could contribute to each other's success.

9.7.2 ZD'S perceptions of issues facing Māori students

Just knowing exactly what they're getting themselves into. There was a bit of unknown for me and it would be nice to know exactly what you're going to be doing, how it is going to work and what support they offer.

ZD was asked to respond to what she considers would assist Māori to be successful in the IT learning environment. ZD's response was very reflective and contemplative. ZD identified three major success enablers. First; ZD acknowledged that there are staples that need to be in place for Māori learners to succeed in their IT studies. Māori students need to make informed decisions about the tertiary environment they will study in, the course of study they choose to undertake.

Māori students need to understand the mechanisms and teaching environment they will be learning in and the type of support that will assist in making the learning journey less arduous. As mature Māori students, strong motivations drivers are needed to weather problems that come their way and to help look for solutions to overcome the barriers. Second, ZD recognised the importance of whānau support to provide emotional, financial, and motivational affirmation that the path ZD was undertaking was worth it.

Third, ZD endorsed the crucial role that Māori academics and Māori tutors play. These actors make available academic, procedural and pastoral support in the academic environment away from family and friends. These important players through motivational presentations, talking about their own learning experiences, the challenges and struggles create empathy and confidence that success is attainable to Māori students who are on that journey.

9.8 Summary

I'm in a unique position. I'm an adult student, also a solo mum and I'm raising my son as well as having to study. Plus... being Māori and a woman in fact... Again that comes back to a lot of support from my family. Without that I don't think I would have succeeded.

In summary, the findings of the interview have identified that there are four significant enablers for mature Māori IT students, studying at a tertiary institute. First, the personal commitment and motivation comes from the individual learner. Second, the tertiary learning does impact on the success of a mature IT Māori student.

Third, the importance and influence of Whānau relationships or peers cannot be underestimated. Fourth, a Te Aō Māori worldview is important in how mature Māori students see their role as learners and how they used Te Aō Māori principles to become successful learners in the IT discipline.

This chapter has highlighted that these four factors are catalysts that both inhibit and enable a student's academic success. More significantly, it is also important to recognise that whilst some of these indicators have the ability to inhibit, when recognised and used appropriately, these determinants also have the ability to be used as tools for empowerment and therefore success to the Māori learner.

Chapter Ten

Summary and Conclusion

I am an educator and more importantly a role model for my people, and to those who I teach. There is an old adage that says 'If I can do it, so can you...to those who feel they are over the hill it is never too late.

10.1 Introduction

Returning to tertiary study for mature Māori students is complex, and varies according to many differing factors and students' interaction with these factors. Mature Māori students also face many challenges as they try to balance study commitments with the demands of work and family. The remainder of this chapter will explore this further by summarising what has already been discussed.

10.2 Overview of the analysis of findings

This research aimed to identify the success enablers and barriers to learning that hindered Māori student success in the study of information technology in the School of IT. The research also asks how students perceived how the school provided support services for Māori students to succeed in retention of their studies and completion of their degrees. Of the several themes explored through the analysis of the interviews; five over-arching themes emerged and are given particular emphasis.

10.2.1 Personal Development

The first theme concludes that the personal development of an individual learner is crucial to academic preparedness in a tertiary learning environment. The participants were articulate, thoughtful and concerned about their personal development, concerned about the learning process, and mindful of the importance of education to their futures. Sub-themes included pre-tertiary learning, and motivations.

Several studies both in the international and domestic context identify academic preparedness and personal development as pivotal elements to secure success and achievement for students entering tertiary education. For example, the sub-theme ‘motivations’ explored how lifestyle, self-improvement and the value of education contributed to the personal development of a mature Māori IT student, which ultimately acts an enabler of success.

10.2.2 Tertiary Learning Environment

The second theme determined that the tertiary learning environment plays an essential role in the academic success for mature IT Māori student. Mature IT Māori students discussed the merits and shortcomings of Academic Staff, Peers and Institutional support impacted on their academic experiences. When tutors engaged with mature Māori students in a genuine manner, students responded positively resulting in a meaningful academic learning experience.

As discussed in previous chapters, there was a lack of culturally appropriate (Māori) faculty peers to serve as mentors and role models. Interviewees identified this barrier as challenging as information technology learning concepts were sometimes difficult to comprehend and there was no mentor to assist and give academic help. Students reported they believed that a mentor would help them to be more successful in their IT learning modules. Students also commented that mentors who were ‘Māori’ were more easier to approach and could empathise with their queries without making mature Māori students ‘feeling stupid for asking a stupid question’. Students described feeling uncomfortable approaching their tutors or a non-Māori Academic for help. Students perceived hesitancy on the part of the non-Māori staff members to engage with them.

As well, mentors provided a connection to the ‘been there done that’ journey and they could provide tips, techniques, be advocates for the students to their tutors and also provide pastoral and procedural support. Mentors also acted as a gateway to refer mature Māori students to other student support services that were available on the Wintec campus that could be help to students. Mentors in mentoring programmes could act as facilitators of success and achievement for mature Māori students.

In the time this thesis was undertaken, Māori student groups were still in their infancy of development. Students reported this socialisation with fellow colleagues who were Māori, would have been very helpful to other students. These groups could have provided motivational support and information about classes, strategies and information to improve academic performance. Further, these groups could have provided social and professional network support. However, these groups are rare, and when available, students are sometimes not aware of their existence. Another consideration is also that mature Māori students reported having very little time for involvement in student organisations because of their study, work and family commitments.

10.2.3 Whānau support

The third theme recognises the importance of Whānau relationships as success enablers by being a support or barrier to learning. Whānau are often the backbone for Māori and heavily influence the emotional, social and physical environment of the mature Māori students. The interviewees acknowledged that whānau are the first priority in their lives, and will sacrifice their academic learning for their family.

All the mature Māori students who participated in the study had either a spouse or partner and/or had children. All interviewees discussed the struggles they experienced with conflicting expectations and responsibilities including caring for their children, being there for their children (at school activities or sports) and of course their own studies. All students stated that meeting family obligations, caring for their spouse/children and maintaining their homes was a top priority. As previously mentioned, these priorities sometimes even surpassed, thereby sacrificing time, for their studies.

However, spouses/partners supported wholeheartedly their spouse's/partner's decision to return to study. They often stepped in to fill the gap and if need be, found ways to supplement their income and meet the needs of their family. Students commented that they sometimes experienced covert criticism and negative feedback from whānau members if they did not attend family functions or 'lend a helping hand' because they needed to study.

10.2.4 Te Ao Māori

The final theme is the importance for mature Māori students to have Te Ao Māori world view incorporated within their learning. Māori students were eager to succeed and journey through to the completion of their degree, however being Māori was integral to their success. Te Ao Māori worldview discussed concepts such as: Tikanga Māori, being whakamā, and whakawhānaungatanga. For example, mature Māori students discussed their peers' lack of cultural knowledge and this acted as a barrier for them as students contextualised the learning from their worldview and it would differ from the tutors. Mature Māori students expressed frustration by their classmates' limited cultural knowledge which they attributed to a lack of exposure to 'Māori thinking'.

10.2.5 Other key themes

A theme that emerged from the interviews, although not obvious, was the determination to succeed in spite of the barriers or obstacles they encountered. All respondents used words such as 'persevering', 'being determining', 'keep going' and 'need to do well' to provide the description of their desires and aspirations to succeed. The theme 'Determination to succeed' is warranted. Methods of identifying what success and achievement means to this particular cohort of students, provides opportunities for academics to design effective teaching strategies. An opportunity is also provided for administrators to take a tailored approach in their recruiting and marketing strategies. Finally, student support systems will be adapted to meet the needs of this cohort leading to the increase of retention and completion rates for mature Māori students in the discipline of IT.

The last key theme revolves around the financial struggles for those student participants in this study. Mature Māori students discussed financial concerns as a major barrier, and that there is little financial aid available. Undergraduate degrees attract scholarships to the maximum value of \$5,000.00 and usually the core requirement is a high GPA (Grade Point Average). Māori Tribal Scholarships invite application to scholarships dependant on tribal affiliation, current financial solvency and what specific discipline the Tribe wants their financial contributions to be invested in. Mature Māori students sometimes felt inadequate to compete against their younger colleagues.

Two common reasons were expressed by mature Māori students, first to cover educational expenses and second, to cover the living expenses for themselves and their families. Working long hours at minimum wage reduced the time available to attend lectures, tutorials and time to study. As tuition costs increase and must be paid as part of the enrolment process, most students consider student loans (loans offered by the New Zealand Government to domestic students) as the only available option for financing their tertiary education. Whilst students contract to work only 10 hours a week to supplement their student allowances, many students do not declare they are working in excess of their contract to ‘make ends meet’.

Financial commitments such as house mortgages, hire purchase of chattels and the financial needs of children increased the financial pressures that needed to be met. This then required spouses or partners to pick up the financial obligations. Family or whānau also contributed through purchasing groceries or paying utilities costs to assist their children returning to study.

10.3 Summary of key findings

This thesis acknowledges the very personal journeys and narratives that mature Māori students take when they embark in a tertiary education at Wintec. It goes beyond the ‘how to’ of tertiary life to give a deeper understanding of the experiences that they have undertaken, what they undertook at Wintec and the experiences that lie ahead in their future. These key findings will be summarised in the following sections.

10.3.1 Students continuing on to higher levels of study

Within this thesis it was highlighted that Māori students trend towards discontinuing their education at higher levels. These higher levels of qualifications, offered at the School of IT services includes: Grad Dip in IT, BIT, DipICT Levels 5 and 6, CCIT and NCC3 (refer to glossary). In particular, there is:

- A high rate of students who withdraw from studies after the first year of NCC3 level study in IT;

- Of those that remain, a high percentage of these students discontinue after the first year of DipICT Level 5; with
- A smaller percentage drop out from the first year of the BIT degree; and
- The ratio of general students dropping out of their first year of study in comparison to Māori students is proportionally the same.

This finding is consistent across many institutes of learning, and a reoccurring theme within the educational sector. This highlights and suggests that those students who do find study within the IT field difficult, struggle with the content of the course, the style of teaching given by the educator and the workload that accompanies the paper.

10.3.2 Success as a product of their environment.

Those who identify themselves as being Māori carry with them a holistic worldview, that everyone and everything is connected. This view is expressed by the way they interact with others and in particular the way they consider non-relatives to be whānau as well. In doing so, success for Māori students isn't an individualistic effort or a result of the class setting, but rather a product of the student's internal and external environment.

A Māori student's success is dependent on the balance of their studies, personal lives and whānau. If there is an imbalance in any of these factors, (and as previously noted), Māori students will sacrifice their academic learning for their family, as whānau takes precedence. As a result, if student's are prioritising their time towards other areas in their life (e.g. whānau), there is less time dedicated to pursuing study which increases a student's commitment to continue on with their education and decreases their success. However, if a Māori student is successful then this can lead to retention of that student and on to higher levels of learning.

For Māori student's, success isn't defined by the grades they achieve, or the qualification they undertake. Success is more dynamic and multifaceted, than what educators perceive. For example, Māori students may not find success in learning a theory, but rather success in the ability to apply that theory to help their whānau or in their own personal lives.

In relation to the classroom setting, for there to be success, tutors must be willing to meaningfully engage with students. This includes genuinely listening to the student and providing awhi. Such an approach will change the rapport, effort, attitude and dynamics that a Māori student will display in the classroom, as the student will respond positively towards their tutor and their teachings and towards their studies.

10.3.3 IT teaching practices for Māori

Within the education sector it is understood that at the core of education, there is a drive to produce students that are independent and resourceful. Applying this notion to the study of information technology, there is a culture that exists where IT is a strict discipline and encourages individualistic efforts. The content of the IT course can be learnt in a communal setting, but applying the practical aspects of the course cannot always be achieved in a collective way.

This is a theme that is inconsistent with the cultural realm of what Māori students normally experience: Collectivism. The communal, social nature of Māori students conflicts with the separate nature of IT. Therefore, when Māori students approach the paper, it becomes very difficult for them to successfully acclimatize to the demands of the paper. Likewise, the culture of IT utilises westernised practices/styles in teaching. Both reasons are thought of contributing to why there is underachievement for Māori students, and why few complete their qualification.

10.3.4 Misconceptions of studying IT

Information Technology is often associated with smart technology, social media, high-tech learning and a thrill of knowing such an intricate network of data. These are reasons as to why Māori students can be attracted to the field of IT. As a result, many Māori students want to enrol into those introductory courses because they perceive these courses to be as ‘exciting’ and ‘innovative’ as their personal perception of IT.

It is often overlooked that the understanding and using the end result of IT (e.g. using a smartphone), is far easier than understanding how to produce that IT. Early in the start of the course, Māori students realise this and tend to withdraw from their IT course and resign from this option as a viable career.

10.3.5 Bad Teaching Practice

Māori students approach groups of people with a holistic view, meaning they are whānau-based, communal and collective. Resultantly, Māori students are less likely to come forward in a classroom or ask questions in a group setting, for fear of being seen as inarticulate or inferior in front of others. General teaching models provide a westernised framework that is very individualistic.

In particular, the field of IT encourages students to be independent thinkers, and those western teaching models can enhance this notion. Furthermore, the course material in the study of IT can be very distinct and largely theory driven, that uses IT terms, definitions and concepts that can be somewhat overwhelming. It is incredibly difficult to articulate this course material in an easier alternative way without losing what essentially needs to be learnt.

This then results in typical lecture style formats. The way that an educator uses those general models can significantly influence a Māori student's success, education and interaction with the class and tutor.

To explain, if a Māori student enquires about a certain topic, and a tutor responds with 'I told you yesterday', 'it's in the book', or 'you can find this yourself', this disregards the point that a Māori student was looking for clarification/direction. The stigma of Māori students being unintuitive (dumb) can be inferred if tutors approach these students in a counterproductive manner.

Additionally, this can be seen as damaging to a student's success because firstly; Māori students by nature are whakamā in asking for help. When a Māori student does come forward, this requires a lot of courage on behalf of the student. Second, such an experience has a more detrimental effect on Māori students, in comparison to other students. Third, counterproductive comments such as above defeat the purpose of a Māori student asking for assistance. Lastly, these phrases can discourage and make a student feel even more whakamā in seeking guidance again from the tutor.

This has the potential to discontinue the tutor-student relationship and drive Māori students further away from their studies. This results in unsuccessful completion or non-retention of students to pursue higher levels of studies. However, comments such

as ‘in the lecture notes it mentions this, review those again’, ‘refer to page y and see what it says?’ or ‘let’s talk about this some more’, encourage tailored pastoral care for success.

10.4 Suggestions for Good Teaching practice

Throughout the research it is shown that underachievement of Māori students is prevalent. However, this research believes that it is possible to overcome such a dilemma. This section will provide strategies and skills, which can contribute to a successful learning experience in a tertiary environment, for prospective mature Māori students and educators.

In developing these potential models for encouraging success, it was recognised that changes needed to be made; either directly or indirectly. To explain, direct changes relate to the teachings of the educator and how they directly influence the learning environment of the student. This particular change can be undertaken with minimal costs to the education provider. Indirect changes relate to those in higher managerial positions, who do not directly interact with a student, but are indirectly linked because of their position within the educational institution and the influence they have on a student’s tertiary learning environment.

It is necessary to state, that for these suggestions and strategies to be successful, all stakeholders involved need to support, commit to, and champion these proposals. This is specifically for those stakeholders who are involved either directly (Lecturers, Tutors and Mentors) or indirectly (Upper level management) in a student’s education.

For example, upper level management need to be made aware that this dilemma exists, and commit to implementing solutions for this. Additionally, because tutors regularly interact and engage with students they often represent the ‘face’ of Wintec. However, if tutors feel that ‘meaningful’ engagement or interaction is outside the scope of their job description, then the strategy will fail. It is emphasised that the responsibility of implementing and following through with these proposals, needs to be shared by all parties involved. These responsibilities should not be left on the shoulders of those

educators and staff, who are Māori. This thesis posits that both the issue and solutions need to be embraced by all.

What follows is an action plan for implementing those direct and indirect solutions. These are recommendations and practical solutions for the School of Information Technology, Wintec to consider. These recommendations can help to form a living working document for Māori academic and student support staff. Following Clarke et al., (1994), there were several variables that were identified in the literature, and are grouped into the following five categories.

10.4.1 Developing Pastoral care

The School of Information Technology needs to:

- 1) Encourage Pastoral care inside the classroom environment: Firstly address the way their tutors approach, interact, engage and respond to Māori students. Why Māori students behave in a certain way (e.g. ask questions to the tutor, don't answer questions in class), needs to be understood by those who are in a position of teaching. This has been previously discussed.
- 2) Establish Pastoral care outside the classroom environment: It is important for the success of Māori students to receive pastoral care outside the classroom environment. This can be achieved by establishing and making aware to the student that a Māori educators, Kāiawhina or Kaumātua are available if they wish to talk to them. This improves success, because students can respond and relate to these parties.

However, it is important to note that this strategy is only successful if these parties contribute time and resources that can cater to the student's needs. This includes an area/room that is both comfortable and private as this will encourage parties to discuss sensitive issues in a safe environment as students can be whakamā. If issues become too large Māori educators, Kāiawhina or Kaumātua will direct the student to Māori Counsellors or more appropriate services.

10.4.2 Assisting students in Personal and Academic preparedness

The School of Information Technology will assist mature Māori IT students in personal development and academic preparedness. This can be achieved by:

- 1) Enrolment Process:
 - a. Ensure that enrolment requirements indicate that students should have some degree of academic preparedness and self-management skills;
 - b. Ensure that the selection criterion for enrolling Māori Students considers the academic preparedness and self-management skills of the student by the programme managers;
- 2) Holding workshops:
 - a. To develop time management and organisational skills. This can be learnt by educating students on how to manage a diary, how to read a course outline, how to prioritise assessments, how to identify what they want to achieve in the study of IT in Semester A;
 - b. For Māori students who have difficulties in preparing assignments e.g. essays;
- 3) Through Wintec's recruiting and marketing campaigns, there needs to be an emphasis on the importance of personal development and academic preparedness to be a successful student.

10.4.3 Tailoring the learning environment

The School of Information Technology will assist mature Māori IT students by tailoring the learning environment. This can be achieved by:

- 1) Clustering Māori students – where permitted, Māori students can be clustered into groups and placed in a larger classroom. Not only does this encourage a collective approach, but this option avoids isolating Māori students. This will also support a small study group approach, within the class. This is seen as a viable option as is not financially or resource demanding.

- 2) Organise study groups- this will be successful and highly recommended if this is developed early in the semester/programme. This will encourage students to engage in conversation and ‘bounce’ ideas off one another in the beginning of their learning of that paper.
- 3) Organise study sessions – where extra tuition is provided for. These sessions will use theoretical, technical and practical elements to discuss the range of topics learnt in the field of IT. These can be taught by different tutors (thereby sharing the responsibility).
- 4) Incorporating Te Ao Māori themes in course material – This can be done through basing examples in course material, assignments and exercises on Māoridom.

10.4.4 Enhancing and creating important relationships

The School of Information Technology will strengthen and enhance the relationships that Māori IT students identified as being important success enablers, by having:

- 1) Māori IT Academics:
 - a. Māori IT academics and staff will advocate Te Ao Māori worldview in IT papers;
 - b. Māori IT academics will continue to be role models and advocates of success to Māori IT students;
 - c. Māori IT academics will secure inspirational Māori speakers to talk to Māori IT students about success;
 - d. Māori IT academics will encourage students to advance their academic potential in preparing and looking to the future.
- 2) Whānau: The School of Information Technology will provide an information evening for Whānau to show how Whānau can support Māori IT students in their studies.
- 3) Peers and Friends:

- a. Māori academics will actively encourage Māori IT students to establish study groups with friends;
- b. Māori academics will actively promote and encourage Māori IT students to participate in the support system for Māori students;
- c. Māori academics will hold a whakawhānaungatanga hui per semester and on induction day (where the purpose of the meeting is to create whānau connections with other Māori IT students) to help Māori IT students belong to a community of friends and peers;
- d. Māori academics will continue to maintain and promote the mentoring programme to all Māori IT students.

4) Māori IT Mentors:

- a. As Mentors are to be seen as successful role models for Māori students to aspire to be as they demonstrate academic excellence in their studies, thereby are able to share their knowledge with Māori students;
- b. Able to inspire Māori IT students to be successful and achieve success; and
- c. Be part of a case management programme to track and monitor Māori IT students that they are allocated and responsible for.

5) Creation of staff roles:

- a. Staff member(s) to monitor Māori students - a role where a staff member would monitor, manage, keep in contact or follow up on students within the IT department to help track success of Māori students.
- b. Kāiawhina – establish a full time position for a Māori staff member (within the IT department) to support and encourage Māori students in their studies.

10.4.5 Additional student support services

The School of Information Technology will continue to promote all existing support services and make available additional support services on Wintec campus and encourage Māori IT students to use these services, such as:

- 1) Student Job Search – students can register to be considered for employment on their books;
- 2) Student Medical Centre – Māori IT students can receive medical service (usually free of charge);
- 3) Scholarships Office – encourage Māori IT students to apply for scholarships from their respective iwi and from the Wintec for Māori; and
- 4) Programme co-ordinators –
 - a. Encourage Māori students to seek counsel from programme co-ordinators; and
 - b. Advise Programme co-ordinators to encourage Māori students to undertake a diploma (where if a student were to leave Wintec, they leave with a qualification), second year of study or third year of study (so students can gain a Degree in IT).
- 5) Additional activities - In an effort to promote whakawhānaungatanga, additional activities such as marae visits and kapahaka practice should be organised. The implication is that these activities will need to receive financing and resources (staff time).

10.4.6 Assisting with Financial Hardship

The School of Information Technology could find alternative ways to assist students with financial hardship, specifically around:

- 1) Finding ways to procure less expensive text books and course materials for students;

- 2) Providing incentives for students doing well in assessments e.g. book vouchers, petrol vouchers; technological gadgets.

10.4.7 Celebrating success

The School of Information Technology could create events to celebrate success for Māori IT students, via:

- 1) Graduation Dinners to celebrate graduation for Māori IT students;
- 2) Morning teas to celebrate Māori IT student IT students, post-graduate students;
- 3) Profiles; e-newsletters and Banners and promotional material profiling Māori IT students.

10.5 Final reflections - An academic perspective

Underachievement of Māori students in a tertiary learning environment recurs as a frequent theme within the academic context of New Zealand education. As academics, we must inquire if what we are doing is/has been, the most appropriate way to address this concern. Consequently, this then makes us ask: Will a single solution provide the answers for such a complex enigma? Or is it that this ongoing conundrum deserves multiple solutions as the difficulties around underachievement for Māori students are just as complex as the educational institutes that it exists in.

Alternatively, if the internal environment of those educational institutes has yet to find a solution to this enigma, then it must be that the answer lies within a Māori student's external environment. Perhaps it is a case of understanding the cultural background of Māori students and tailoring the learning environment to complement this. Research highlights that westernised educational practices rarely accommodate the unique academic needs of Māori students. Therefore, customised learning strategies are necessary for the achievement of Māori students in retention and completion rates of degree qualifications.

As shown in previous figures, there is an increase in the enrolment of Māori students in tertiary education centres; there is an assumption that the rate of underachievement of Māori students will mirror this increase. As academics, we are faced with providing strategies that will disrupt this trend and require substantial funding and resources. Indeed, it is also necessary that these strategies receive the support from the strategic arm of management.

10.6 Conclusion

This thesis has discussed and addressed the research question of “What are the success enablers for mature Māori IT students studying at the Waikato Institute of Technology?” The findings have had implications and provided solutions for the School of Information Technology, Wintec to consider. Commitment to the retention and completion rates of mature Māori IT students requires a partnership between students and the institution. The findings from this thesis have far reaching benefits that extend beyond Wintec.

My journey as a returning mature student to tertiary studies has had some highs and lows along the way. Some would say that’s just a part of life. But for me it has been a huge accomplishment from being on the bread line to where I am today: An educated Māori male. I am an educator and more importantly a role model for my people, and to those who I teach. There is an old adage that says ‘If I can do it, so can you’. This is a constant that I share with my students daily. I undertook this research for the whole purpose of sharing my own personal journey through education. I also wanted to know if there were others like myself, who had the same experiences; who faced the same challenges in education, and more importantly who succeeded as a mature Māori student. To those who feel that they are over the hill it is never too late.

The research question that has been asked is ‘what are the success enablers for mature Māori IT students?’ can best be summed up by what one of the interviewee’s said ‘It didn’t matter the number of barriers that I was faced with, what mattered was how I overcame those barriers.’ Has the research question been answered? Yes.

Through the stories that were told, the research explored a lot of the information that was found. It is hoped that not only will the findings in this research be used for Wintec, but that it can also be used for any institution that is looking for the same answers for their own students.

This has definitely been a momentous journey for this researcher.

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Every reasonable effort has been made to acknowledge the owners of copyright material. I would be pleased to hear from any copyright owner who has been omitted or incorrectly acknowledged.

Appendices

Appendix 1 Consent Form



CURTIN UNIVERSITY OF TECHNOLOGY
School of Science and Mathematics Education Centre

CONSENT FORM

I (Name of Participant) have read the "*Participant Information Sheet*". Any questions I have asked have been answered to my satisfaction. I understand that the supply of information is voluntary and that the recording of my interview and associated material will be held by the researcher Blain Rakena under secure storage.

- I give consent to the recording of my interview
- I understand that the taped interviews will be transcribed and that I will receive copies of these transcripts to check that they are accurate.
- I understand the purpose and procedure of this study.
- I have been provided with the participant information sheet.
- I understand that my involvement is voluntary and I can withdrawal at any time without trouble.
- I have been informed of my right to remain anonymous. A pseudonym will be used to protect my anonymity throughout this research.
- I also understand that I may amend these transcripts up until the end of the data collection phase.
- I have been informed of my right to complain and understand that I can approach Professor Darrell Fisher with any concerns I have about this research project.
- I agree to participate in this study outlined to me.

Signature of Participant _____

Date _____

Witness Signature _____

Date _____

Appendix 2 Participant Information Sheet



CURTIN UNIVERSITY OF TECHNOLOGY
School of Science and Mathematics Education Centre

Participant Information Sheet

Tena koe _____,

Thank you for expressing an interest in this research project about academically successful Māori IT students who have attended Wintec. My name is Blain Rakena and I am currently completing part of my research for my *Doctorate of Philosophy* at Curtin University of Technology.

Background to Research

This letter explains my research in a little more detail and seeks your written consent to take part in this study. For the last nine years I have watched numerous IT graduates like you, walk the graduation stage to receive their degree. Nothing makes me more proud than seeing one of our own Māori students being capped at their graduation. It is not only a big day for you and your whanau but for us who are staff in the School of Information Technology. Many of you have come from different walks of life.

Some from lower socio-economic areas, from different Iwi and Hapu throughout the Motu, and some with little or no schooling qualifications. Some of you have come back as mature students who many of you would have been told that you were “over the hill” or just too “old” to succeed. You are numbered as one of a few who have graduated from a discipline that is seen as a very difficult field to study and pass in.

Yet you did it. I am proud of you. Your story that you share will hopefully serve as inspiration to not only our Māori students studying IT but to “non-Māori” as well. I would deem it an honour and a privilege to have your stories recorded.

Purpose of this Research

The purpose of my research is to learn what was the driving force for you to succeed in a field of discipline that is pre-dominantly non-Māori. I would like you to share your experiences and also to help motivate and inspire more of our rangatahi (younger Māori students) to undertake IT training. It is also envisaged that this research will help inform Department policy and practice, particularly with respect to support systems for Māori students undertaking studies in Information Technology at the Waikato Institute of

Technology.

Role of the Researcher

As the principle researcher I am interested in finding out,

1. What your experiences where like as a Māori student studying for your IT Degree?
2. As a Māori in a class that is pre-dominantly “*non –Māori*” what where your experiences like?
3. What can we do to make the School of Information Technology more amenable to mature Māori students?
4. The quality of the service provided by the academic staff and support personal to helping Māori students through their time of study?

Consent to Participate

Your involvement in this research is strictly voluntary. You have the right to withdrawal at any stage without it affecting your rights to responsibility. I ask that you,

1. Participate in a two hour interview with me at a place that you feel comfortable in.
2. Read the transcripts from your interviews and make any changes that you see are appropriate.
3. Comment on key items that emerge from the research in light of your own experience.
4. Acknowledge that you have the right to withdraw or amend any information in these transcripts up until the end of the data collection phase.

As a Doctoral student at Curtin University, there are several ethical guidelines that I must adhere to. These are,

1. **Cultural Sensitivity** – If you would like your interview to be conducted on a Marae then this can be arranged. A comfortable environment for you during the interview process is paramount. Proper protocols and tikanga will be adhered to if you decide to have your interview on a marae.
2. **Consent** – Once you have sufficient information to make a decision, I need to collect a signed Consent Form from you in order for you to participate in this research.
3. **Confidentiality** –Your anonymity in this research will be protected and your name will not be revealed in this research. Care will be taken that you are not identifiable by the information that you provide. Pseudonyms will be used throughout this research.
4. **Right to Decline** – You have the right to decline to participate in, or to withdraw from the study up until the end of the data collection phase. You also have the right to change any part of your interview transcript.
5. **Secure Storage of Data** - Access to all written material (questionnaires, interview notes etc) whether in a hardcopy or on electronic medium will be password

protected and locked in a secure storage cabinet and be restricted to the researcher Blain Rakena.

6. **Transcripts of Interview** –Your interviews will be recorded on audio tape and these will be transcribed professionally. The accuracy of each interview transcript will be verified by you before analysis is complete. You will receive copies of the transcripts.
7. **Right to Complain** – You have the right to complain if you have any concerns about my conduct in this research. You may direct your complaints to my Principal Supervisor :

Professor Darrell Fisher

Telephone: xxx

Email: xxx

This research has been reviewed and given approval by Curtin University of Technology Human Ethics Committee (Approval number XXXXX). If you would like further information about this study please feel free to contact me on xxx or by email: xxx

Alternatively you can contact my supervisor Darrell Fisher at the above contact details. If you are willing to participate in this research, could you please fill in the Consent Form and return it to me in the envelope provided.

Once again, I would like to thank you for your participation in this project.

Noho ora mai,
Blain H. Rakena

Appendix 3

Interview Questions

These questions can be used to help start the interview process.

Early Education experiences

1. What was your early schooling experiences like?
2. What was the environment of the school like for you as a Māori student?
3. Did you attend main stream or a Kura?
4. Where your teachers supportive in your education?
5. Did you have good support structures in place to help you at school?
6. Where you treated any differently as a Maori student compared to other ethnic groups at your school?
7. Did your friends play a big influence in your schooling? If Yes Why and If Not Why?
8. Did you have any teachers who were role models at your school?
9. Where any Māori?
10. Was education fostered in your whānau home?
11. Did you have the support of whānau during your education years?
12. Why did you leave school?
13. How old where you when you left school?

Wintec – Tertiary Studies

1. What did you do after you left school?
2. Why did you decide to do tertiary studies?
3. Have you had any whānau who have graduated with a tertiary qualification?
4. What made you decide to study at Wintec?
5. What was your motivation to return to study?

6. Did your whanau support you in your decision to return to studies as a mature student?

Wintec environment

1. Do you remember your first day at Wintec? What was it like for you?
2. What were some of the challenges that you faced as a mature student on your first days?
3. How did you feel as an older student returning to study?
4. Why choose IT as your course of study?
5. Where were the academic services supportive in your studies?
6. Were there any Māori role models (for you staff or students) at Wintec?
7. Where did you go to for support during your studies on academic issues?
8. Were there any Maori support groups set up in the School of IT?
9. Do you know what Te Ao Maori means?
10. Did you see any of this practised during your course of studies in IT?
11. What obstacles or barriers did you experience during your time of study?
12. As a mature student what would have been the number one problem that you were faced with?
13. What do you attribute your success in gaining your degree?

IT teaching practices for Māori

1. Were there any whanau based or group based study groups just for Maori to help support your studies?
2. Were there any study sessions held to help you in your studies?
3. Were the non-Maori staff supportive in your academic studies?
4. Do you feel that you were prepared academically before the start of your studies?