KIA MAU KI TŌ IWITANGA:

THE ROLE OF MĀORI IDENTITY AND IWI IDENTITY IN POSITIVE EDUCATIONAL AND PSYCHOLOGICAL OUTCOMES.

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ABSTRACT

University student engagement is increasingly recognised as a major determinant of academic success and general wellbeing for Māori. Cultural identity is seen as a key resource in this domain, and the notion of academic self-concept has been shown to be important in other research contexts. The present study considered the relationships between both academic engagement and academic self-concept, and academic achievement, wellbeing, life meaning and life satisfaction in a sample of New Zealand Māori students. The moderating effects of Māori identity and Iwi identity were also examined. A group of 171 Māori students from Massey University completed an online survey. Major findings were that (a) Māori identity moderated the relationship between engagement, and both academic achievement and life meaning for internal students; (b) Iwi identity moderated the relationship between both engagement and academic self concept, and life meaning for internal students. Despite limitations, these findings have important implications for Māori students, tertiary education providers, and those involved in the development and implementation of tertiary education policy. The findings also highlight the need for future research to focus on the specifity of Iwi identity as a more specific measure of Māori identity.

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CHAPTER ONE: INTRODUCTION

Education is a vital contribution to human capital (Bowles & Gintis, 1975), is a key influence on positive employment outcomes (Durie, 1998; Robson & Harris, 2007) and is connected with better health outcomes (Ross & Wu, 1995). Educational participation and achievement within the tertiary sector is important, and the ongoing participation and success of Māori in the sector is essential. The development and implementation of strategies to increase participation and achievement of Māori has been a key focus for many tertiary institutions within New Zealand. As a result of such strategies, the decade 2000–2010 showed significant gains for Māori achievement within tertiary education. A prime example is that of Massey University (2013) who has shown increased completion and success rates for Māori, as well as higher paper pass rates in selected programmes for Māori compared to non-Māori pass rates within the same programmes. The largest increase in Māori achievement was seen at graduate level with figures showing an increase in doctoral completions for Māori students from 5 in the previous decade, to over 50 by 2010 (Massey University, 2013). Similar positive outcomes for Māori within tertiary education were also found at a national level, with large increases in the number of Māori who gained Bachelor's degrees, Masters degrees, and Doctorates from 2001–2006 census periods (Statistics New Zealand, 2001; 2006), with statistics also highlighting that tertiary education completion rates for Māori had increased by 34% over the 2005–2012 period (Education Counts, 2013).

Though significant gains have been made within tertiary education achievement and participation for Māori, it is important that we do not become complacent. We must continue to strive for improvement and ensure that the positive gains made thus far will continue into the future. Most research that has investigated disparities in educational achievement between Māori and non-Māori come from a deficit theory viewpoint e.g. Walker-Moffat (1995). Minority

students are thought to fail in school because they have deficiencies (such as lack of motivation or limited intelligence), which are thought to obstruct the learning process (Valencia, 1997). This type of thinking blames the individual, and fails to take into account systemic failures which may disadvantage minority populations. Contrary to the deficit theory viewpoint, I argue for the need to undertake this research from a positive psychology perspective, which aims to discover and promote factors which allow individuals and communities to thrive (Seligman & Csikzentmihalyi, 2000). This perspective provides the opportunity for research to be undertaken through a lens which allows for the discovery of factors which allow for Māori, both individually and collectively, to thrive within tertiary education. In order to do this, it is critical that academic achievement and variables that may relate to academic success for Māori be further investigated. These areas are to be the focus of this thesis.

The remainder of the introduction will cover the following topics:

1. Two key factors which have been shown within the literature to have a positive relationship with academic achievement; the concepts of academic engagement and academic self-concept.

2. The importance of general happiness, and its potential relationship with academic engagement and academic self-concept.

3. Central to the advancement of Māori within educational settings is the need to understand the psychological connection that we as Māori have with our Māori identity. Therefore Māori identity is a fundamental construct of this thesis, and will be investigated by exploring the moderating role of Māori identity between all relationships.

4. The research goals of this thesis.

1.1. Academic Engagement, Academic Achievement, and Ethnic Identity

Academic engagement is critical to student retention (Alexander, Entwisle & Horsey, 1997).

Engaged students report a greater sense of psychological wellbeing, show higher levels of life

satisfaction, report a greater sense of belonging, expect success and value educational outcomes

(Christenson et al., 2008; Frisch et al., 2005; National Research Council, 2004; Steele & Fullagar,

2010). There is extensive evidence of a positive correlation between academic engagement and

academic achievement (Green, 2006; Greene, Marti, & McClenney, 2008; Kuh, Cruce, Shoup,

Kinzie, & Gonyea, 2008). The potential positive role of academic engagement in improving

educational outcomes for Māori warrants further investigation.

Definitions of academic or student engagement can be categorised into three groups. The first

group focuses on the effort that is made by the student to engage with the educational activities

and practices, as shown by the definition given by Hu and Kuh (2001) where academic

engagement is defined as "the quality of effort students themselves devote to educationally

purposeful activities that contribute directly to desired outcomes" (p. 3). Such student-focused

definitions have also been developed by Kuh, Kinzie, Buckley, Bridges and Hayek (2007), and

Krause   and   Coates   (2008).

By contrast, the definitions of academic engagement in the second category place the

responsibility on the tertiary institutes to engage students. This differentiation is highlighted in

the definition by Higher Education Funding Council for England (HEFCE) (2008) in which student

engagement is seen to be the process where institutions make deliberate attempts to involve

and empower students in the process of shaping the learning experience.

The third category recognises the importance that both the student and the institutions have in

student engagement, and the definitions included are an amalgamation of the first two

perspectives. This is shown by Kuh (2009) who defined academic engagement as "the time and

effort students devote to activities that are empirically linked to desired outcomes of college

and what institutions do to induce students to participate in these activities" (p. 683).

The role of the institution is important in creating an environment and opportunities that allow for students to engage, but it is the student who makes the ultimate decision to firstly engage and then secondly decide at what level they will engage. Though institutions can affect how easy or hard it is for a student to engage, the student must still make a conscious psychological decision to engage with the available opportunities that are present within their institution. Therefore, the definition of academic engagement to be used within this research will focus on the effort that is made by the student to psychologically engage within their educational environment. This is best defined as the extent to which a student participates within the social and intellectual environments of their educational institution, and involves themselves in meaningful educational practices (Astin, 1999; Pace, 1984; Pascarella & Terenzini, 2005; Sontam & Gabriel, 2012).

Previous research regarding measures of student engagement have focused on engagement within specific tasks (Guthrie & Alvermann, 1999) or focused solely on the role of cognition within academic engagement (Meece, Blumenfeld & Hoyle, 1988; Pintrich & Schunk, 1996) with most research being conducted in primary and secondary school settings. This highlights a need for measures specific to tertiary settings that are inclusive of more than just cognitive strategies of engagement. Current tertiary level measures of academic engagement make the student think about the university experience as a whole (macro level) instead of focusing on the engagement level within their specific courses (micro level). Students were believed to have the most control at the micro level and that engagement and measures aimed at this level could make the most immediate difference to academic outcomes. Macro level engagement scales focus on wide-scale measures of engagement such as the environment of the university, which are less likely to have an immediate impact on academic achievement. A widely used measure within the international literature is the National Survey of Student Engagement (NSSE) which assesses "whether an institution's programs and practices are having the desired effect on students' activities, experiences, and outcomes" (NSSE, 2000, p. 1). The survey measures

engagement as a global quality that students have in relation to elements such as level of academic challenge and supportive campus environments. The NSSE focuses on active learning and other educational experiences but does not focus on individual courses, rather, it assesses students' overall perceptions. It also emphasises the role of the institution as explained previously, which is not an aim of this research. Though the most relevant measure contextually for Aotearoa is the Australasian Survey of Student Engagement (AUSSE), this measure has been developed from the NSSE and therefore is also based on a macro approach to student engagement and is not an appropriate measure for this study.

A more relevant measure for this research is the Student Course Engagement Questionnaire (SCEQ) developed by Handelsman, Briggs, Sullivan and Towler (2005) which specifically focuses on activities in and immediately surrounding class. Though academic engagement is multidimensional, early results from the SCEQ indicated a single and large dimension that measured a skill-effort component. The first skill-component factor that emerged included items on going to class and generally putting forth academic effort, and has been found to be reliably related to various measures of college success, such as academic achievement and retention (Robbins et al., 2004).

The primary measure of academic achievement within the majority of literature is Grade Point Average (GPA). GPA is seen as a universal benchmark measurement, with few studies including other measures of academic achievement. Findings by Casuso-Holgado et al. (2013) highlighted the positive relationship between academic engagement and academic achievement in a sample of health science students. Though this study utilised three measures of academic achievement, GPA was most strongly associated with all engagement dimensions, justifying its continued use within research to date, and its use as a measure of academic achievement within this thesis.

A positive relationship between academic engagement and academic achievement was also highlighted by Kuh, Cruce, Shoup, Kinzie and Gonyea (2008), where engagement had a

statistically significant positive relationship with grades for both first and second year students of different ethnic backgrounds. A more specific relationship examined within this research was between academic engagement and "historically underserved students", who are defined as low-income students, those who are first in their families to attend college, or students of colour (Green, 2006). Results highlighted that these students benefited more from engaging academically in terms of earning higher grades. As many Māori students share similarities with historically underserved students, these results highlight a potential pathway in which academic engagement could positively affect academic achievement specifically for Māori students within the tertiary sector of Aotearoa.

Though extensive research supports the positive relationship between academic engagement and academic achievement, findings are less clear and consistent in minority populations. This is highlighted in research done by Greene, Marti and McClenney (2008) who surveyed 3,143 students on the three engagement factors; class assignments, mental activities (such as organising ideas and applying theories), and academic preparation. Hispanic students were more engaged than their White peers in only the mental activities factor, yet had significantly lower grades. African American students reported higher levels of engagement across all factors yet had lower levels of academic achievement when compared to their White peers, a finding supported by a multitude of other research (CCSSE, 2005; Hu & Kuh, 2001; Sontam & Gabriel, 2012; Swigart & Murrell, 2001). Results such as these suggest that minority students must engage at higher levels in order to overcome the combination of academic and institutional barriers to educational success as highlighted by Greene et al. (2008). Cultural incongruence which exists at the core of predominantly White institutions (Harris & Kayes, 1996) has been cited as a predominant factor for these findings, as exhibited through perceived discrimination, racism, stereotyping and culture-bound pedagogical approaches (Prillerman, Myers & Smedley, 1989; Sanchez, 2000; Smedley, Myers & Harrell, 1993). As the majority of the literature has found minorities to be more academically engaged than their White peers, this contradicts

deficit theories in which the poor performance of ethnic groups is attributed to laziness or lack of commitment.

A key point that research such as Greene et al. (2008) highlights is that the reference point for minorities is consistently Pakeha or White students' standards of achievement. It is a consistent finding worldwide that Pakeha or White people provide the benchmarks across all measures when compared to any minority group (Pollock, 2012), with New Zealand being no exception. This was highlighted within a New Zealand context by Sopoaga and van der Meer (2012) who measured engagement factors in a group of first-year Pasifika students enrolled in a Health Sciences programme. Students scored high on engagement measures in relation to peer and staff interaction but overall academic performance was low. From this study it is unclear what constituted low academic performance, as there was no description of how this was defined. If it was compared to university average definitions of academic achievement levels, this is likely to differ from levels of academic achievement specific to Pacific Island students, due to the majority of the population being Pakeha within tertiary institutes in New Zealand.

The issue with comparison between races, ethnicities, or cultures is that it normalises comparison between cultures who historically are very different, and are at their core, incomparable. In the process of normalising comparisons we are implicitly reinforcing a hierarchy formed by colonisation, where the Pakeha level is seen as the benchmark we must set out to achieve. Continuous comparisons and aims to reach the standards and levels achieved by Pakeha mean that we are subconsciously relinquishing factors that are culturally historical and important in order to maintain or reach an ever moving, unattainable standard that has never been culturally relevant or appropriate. By minimising the importance of comparisons between cultures and focusing on comparisons within cultures, it then reinforces and promotes a hierarchy whereby culturally relevant processes, measures and methodologies are prioritised, reinforcing each cultures' own distinct status as a people.

As previously highlighted, the barriers to educational success for African American students, such as factors related to cultural incongruence, closely reflect barriers faced by Māori students within predominantly Western institutions in Aotearoa (Bennett, 2008). However, this does not necessarily mean that research such as that by Greene et al. (2008) would have the same outcomes if conducted with a Māori student sample. Based on the results from Greene et al. (2008), Māori students would be predicted to report higher levels of engagement yet have lower grades. This however is based on research which solely measures the ethnicity of the respondents, and not the level of identification that students may have with their stated ethnicity. It is one thing to know one's ethnic origins, it is another thing entirely to identify with those origins, be connected with them, and have a detailed and elaborated knowledge of those origins. The level of ethnic identification within individuals should be included within research, as higher levels of Māori identity and security has been linked to better psychological wellbeing and positive educational outcomes (Bennett, 2008; Durie, 1998; Stevenson, 2001), and may also be replicated in research with other ethnic groups. Therefore, when investigating the role of Māori identity in the relationship between academic engagement and academic achievement this research will look to include differing levels of Māori identity.

As Māori culture has been identified as a collectivistic culture (Haar, Brougham, & Roche, 2011), fundamental factors of collectivism could propose a pathway through which cultural identity could influence the relationship between academic engagement and academic achievement. An example of collectivism factors positively influencing the relationship between academic engagement and academic achievement is highlighted by King, McInerney and Watkins (2012). Results highlighted that types of social goals (particularly social responsibility) were important predictors of academic engagement for Filipino students. Studying for the sake of keeping interpersonal obligations or commitments positively predicted behavioural, cognitive and emotional engagement. For collectivistic societies, social responsibility and interpersonal commitments are central to maintaining order and providing for the greater good of the tribe

(Heine, 2008), with this being particularly relevant for Māori. Further support for the importance of key collectivistic factors has been highlighted by Fuligni (2001) and Fuligni, Tseng and Lam (1999) in which Hispanic students who had a higher sense of responsibility toward their family had more positive academic outcomes when compared to those who had lower sense of responsibility to their families. Responsibility to the family can be seen as another aspect central to collectivistic cultures, with specific relevance to Māori (Cunningham, Stevenson, & Tassell, 2005). This provides a potential pathway in which the moderating effect of Māori identity on the relationship between academic engagement and academic achievement may be supported.

As an extension to the above theory, would it then be assumed that higher levels of Iwi identity as a more specific measure of Māori cultural identity would be associated with higher academic engagement and achievement compared to those with lower levels of Iwi identity. As the construct of Iwi identity has not been explored before in any context, it is a key goal of this research to investigate whether there is support for a more specific measure of Māori cultural identity in Iwi identity, and furthermore, to investigate whether there are differences in academic engagement and academic achievement for differing levels of Iwi identification.

1.2. Academic Self-Concept, Academic Achievement and Ethnic Identity
The construct of self-concept is grounded in the self-worth theory (McGrew, 2007), which as stated by Eccles and Wigfield (2002, p.122) asserts that all individuals have a motivational "tendency to establish and maintain a positive self-image, or sense of self-worth", a view supported by Covington, 1992, 1998, 2000; Covington & Dray, 2002. Self-concept can be defined as a person's general view of themselves across multidimensional sets of domain specific perceptions. These perceptions are based on self-knowledge and the evaluation of worth of one's own capabilities formed through experiences and interpretations with and of the environment (Byrnes, 2003; Snow, Corno & Jackson, 1996).

A specific domain of the general self-concept construct is academic self-concept. There are two main distinctions to be made between definitions of academic self-concept. In one category, definitions focus on general perceived academic ability and can be seen as encompassing a more global assessment of academic self-concept. This is highlighted by the definition where academic self-concept is seen as an individual's own perceived level of ability or competence within the academic realm (Redd, Brooks & McGarvey, 2001). The second category is comprised of definitions which highlight the specificity of perceived academic ability within certain areas (ie. maths, English, science). This is highlighted by the definition where academic self-concept can be seen as an individual's perceived and self-evaluated ability in specific academic domains or academic abilities (Marsh, Trautwein, Lüdtke, Köller & Baumert, 2006).

As this research is concerned with the promotion of Māori academic achievement across all domains within the tertiary sector, it is impractical to employ the use of a domain specific definition. This research uses a definition which aligns to a global assessment of academic self-concept. This can be seen in the definition given by Wigfield and Karpathian (1991) where academic self-concept is defined as "an individual's knowledge and perceptions about themselves in academic achievement situations" page, which will be used for the purposes of this research.

In order to provide clarity for the remainder of the discussion on academic self-concept, we must first differentiate it from the closely related construct of academic self-efficacy. According to Bong and Skaalvik (2003) and Ferla, Valcke and Cai (2009) academic-self-concept is concerned with an individual's perceived academic ability and is usually measured using past or current-oriented perceptions, such as "I have always done well at school". In contrast, academic self-efficacy is concerned with an individual's perceived confidence to successfully perform academic tasks and is usually measured using future-oriented perceptions, such as "how confident are you that you can successfully complete all assignments". As actual ability and therefore how

individuals perceive their academic ability is critical to academic achievement, academic self-concept was used instead of academic self-efficacy.

Most measures of academic self-concept are framed in such a way that they promote an external frame of reference where students compare their personal academic performance/ability with that of their peers, resulting in an altered academic self-concept. A specific phenomenon called the "Big-Fish-Little-Pond Effect" (BFLPE) was first proposed by Marsh and Parker (1984) and highlights the inaccuracy of using academic self-concept measures which promote external frames of reference. The expression "big fish" has been slang for an important or influential person since the early 1800's, with the addition of "in a small pond" as a metaphor for a limited audience. The relevance of this analogy is therefore highlighted if a student perceives that their peers possess less academic ability in comparison to their own, resulting in a higher academic self-concept. As they view themselves as academically "better" compared to only a small group of peers, they are described as being a "big fish in a little pond".

Measures of academic self-concept that allow for external frame of reference are therefore not as reliable, as it is less likely that students are focusing on their ideologies of their academic self-concept based on their actual ability. This highlights the strength in using measures that protect against external frames of reference, as they are more likely to give accurate representations of a student's academic self-concept. One such measure created to combat external frames of reference in academic self-concept is the Perceived Challenge and Academic Self-Concept Scale (PCASC) created by Wilson (2009). This scale will be used within this research as the measure of academic self-concept as it was created specifically to limit external frames of reference when assessing academic self-concept by using stems written to minimize students' comparison to others or to past experiences (i.e. "I am a good student" rather than items such as "I am a better student than most of my classmates.") rather than asking students to directly compare themselves with others to make judgements as in other measures.

The explanation of the relationship between academic self-concept and academic achievement derives from three key theories; the self-enhancement model, the skill development model, and the reciprocal effects model (REM). The causal ordering of academic self-concept and academic achievement has been one of the most critical issues in academic self-concept research (Guay, Marsh & Boivin, 2003) with the majority of previous research contrasting the self-enhancement and skill-development models proposed by Calsyn and Kenny (1977). The self-enhancement model is informed by the self-enhancement theory which is defined as a "mechanism that protects one's self-concept from negative information" (Kurman, Yoshihara-Tanaka, Elkoshi, 2003, p. 25) through the preservation of subjectively positive beliefs and emotions, irrespective of their objective nature (Tassell, Flett & Gavala, 2010). This protection against negative information means people are more likely to rate themselves more positively than objective measures would indicate. From the definition of self-enhancement we are able to see the theoretical underpinnings of this model. Students are more likely to rate their academic abilities higher than what is accurate, with this belief causing higher academic achievement. According to the self-enhancement model, academic self-concept is a determinant of academic achievement (Guay et al., 2003), a theory that was supported by research by Gonzalez-Pienda et al. (2002).

By contrast, the skill development model supports the theory that academic self-concept is a consequence of academic achievement (Guay et al., 2003), as supported by Chapman, Lambourne, and Silva (1990) and Newman (1984). Research which supports this view is informed by the theory that the student possesses and utilizes the necessary academic skills to cause academic achievement, and that this academic achievement consequently results in the formation of their academic self-concept. Though research has supported both the self-enhancement model and the skill development model (Marsh & Seaton, 2012), a growing body of literature shows support for the reciprocal effects model (REM) which dictates that academic self-concept and academic achievement are two mutually reinforcing constructs (Chen, Yeh,

Hwang, & Lin, 2013; Guay et al., 2003; Marsh, Byrne, & Yeung, 1999), with the complexity of the relationship being highlighted by Marsh and Martin (2011) who found that the relationship was mutually reinforced in both direct and indirect ways.

The roles of gender and ethnicity (Awad, 2007; Widaman, MacMillan, Hemsley, Little & Balow, 1992) have also been considered in the relationship between academic self-concept and academic achievement. The role that ethnicity plays in the relationship between academic achievement and academic self-concept has been a controversial one, with research finding support for both a negative relationship, in which the high levels of ethnic identity were associated with lower levels of achievement (i.e. Fordham & Ogbu, 1986; Harper & Tuckman, 2006; McWhorter, 2000), as well as a positive relationship, in which higher levels of ethnic identity were associated with higher levels of academic achievement (i.e. Chavous et al., 2003; Oyserman, Kemmelmeier, Fryberg, Brosh, Hart-Johnson, 2003; Sellers, Chavous & Cooke, 1998; Spencer, Noll, Stoltzful & Harpalani, 2001). In research done by Awad (2007), ethnic identity was not a direct predictor of academic achievement, but instead suggested that ethnic identity could be indirectly linked to academic achievement through academic self-concept. This relationship was investigated by Cokley and Chapman (2008) who confirmed Awad's hypothesis by showing that students with more positive ethnic identities had higher academic self-concepts, predictive of higher grades. This suggests that ethnic identity is an important component in a model of academic achievement, as when the role of ethnic identity was removed from the model, fit index values indicated a significantly poorer fit to the data. Findings from research such as this lends support for the potential moderating role of ethnic identity in the relationship between academic self-concept and academic achievement. As the results highlight, ethnic identity alters the strength (in the case of Cokley & Chapman, increased the relationship) of the already established positive correlation between academic self-concept and academic achievement.

The inconsistency of such results may be explained by whether members of the ethnicities

perceive inclusion in their ethnic group as either positive or negative. Using Māori identity as the example, post colonisation it was perceived as negative to identify as Māori, with attempts at genocide, and the near extinction of many Māori traditions, including the language (Ka'ai-Mahuta, 2011), beatings, imprisonment and even death used to reinforce that ideology. The effects of such actions for Māori people have only recently started to decrease within the last 10–20 years, due to the revitalisation of Māori culture, which has now made it a positive experience to identify and engage within Māori culture and identity. Though studies now show Māori identity as being positively correlated to better health and educational outcomes, had these studies of been conducted in times where identifying as Māori was negative it is highly likely the opposite would be found, which highlights the importance of whether cultural membership is perceived positively or negatively.

Informed by the findings of Cokley and Chapman (2008), this research looks to replicate the findings within a New Zealand context, in which it is hypothesised that Māori identity will moderate the relationship between academic self-concept and academic achievement.

1.3. Wellbeing, Academic Self-Concept, Academic Engagement and Ethnic Identity

The contribution of positive mental health to all aspects of life has recently gained increasing international interest. As defined by The World Health Organisation (WHO) (2004) positive mental health is a state "which allows individuals to realise their abilities, cope with the normal stresses of life, work productively and fruitfully, and make a contribution to their community" page. Other names for positive mental health within the literature include wellbeing, and general happiness (Norriss, 2011). Kammann and Flett (1983) define happiness as the overall balance between positive and negative feelings or emotions, as informed by research undertaken by Bradburn and Caplovitz (1965) in the development of their Affect Balance Scale. This is the definition of general happiness which will be used in this research.

The notion of subjective wellbeing or 'happiness' has occupied psychologists and philosophers

for many years, with suggested definitions and alternative ways of conceptualising and measuring these constructs being proliferated (Kammann & Flett, 1983). It is beyond the scope of this thesis to provide an extensive review of this area, but a consideration of the role of happiness in the academic self-concept, engagement, achievement, and cultural identity space seems warranted. It is unlikely that a student will flourish if they are unhappy.

1.3.1. Academic Self-Concept and Wellbeing

Though the relationship between academic self-concept and happiness is not well documented, results show a positive correlation between the two constructs. Cheng and Furnham (2002) showed that self-evaluated academic performance predicted adolescents' self-reported happiness. Craven and Marsh (2008) also found that people who think positively about themselves achieve more, are healthier, happier and get more out of life.

Though limited, these initial results indicate that academic self-concept has the potential to positively influence wellbeing and general happiness. As the majority of the literature focuses on reducing psychiatric morbidity and other negatively framed relationships, limited studies such as these highlight the need for continued research within positive psychology frameworks in order to discover and promote factors that allow individuals and communities to thrive. As this is a key aim of this research, the relationship between academic self-concept and general happiness will be investigated. Though it is not well supported within the literature at this time, it is intended that any results from this research will help contribute to and promote future research within this domain.

1.3.2. Academic Engagement and Wellbeing

Another fairly new relationship within the literature is that between academic engagement and happiness. Research carried out by Low (2011) with American high school students was based on the concept of wellbeing or 'flourishing' and found that certain kinds of student community engagement were associated with flourishing, and those that were flourishing were more likely to be engaged in the community (such as volunteering). Other more specific types of

engagement, such as academic engagement have also been highlighted within a small amount of literature to be related to flourishing or general happiness. Though limited, these initial results indicate that academic engagement has the potential to positively influence wellbeing and general happiness, also highlighted by Frisch et al., 2005. Results from this study showed a statistically significant relationship between cognitive engagement and life satisfaction. As cognitive engagement has been shown within research to be central in the construct of academic engagement (Frederick, Blumenfeld, & Paris, 2004), these results show support for the hypothesised relationship between academic engagement and general happiness. Further support was found in a more specific example of the relationship between academic engagement and happiness by Steele and Fullagar (2009). Findings suggested that engaging academic course work was positively correlated with psychological wellbeing.

Within a New Zealand context, Flett and Gavala (2005) assessed the moderating effects that cultural identity had upon the relationship between general stress and psychological wellbeing. Though results found that cultural identity was not a predictor or moderator of academic enjoyment and wellbeing, it was suggested that these findings may be reflective of the differences in conceptualisation and measurement of cultural identity. This study provides a more nuanced measure as used within NZLSA research, which stems from the highly regarded MEIM-R. This study will therefore look to re-evaluate the moderating effect of Māori identity on wellbeing outcomes by using a more pronounced measure of Māori identity.

As an extension to previously documented research and to align with the overall aim of this thesis in contributing towards positive outcomes for Māori, two hypotheses will be investigated. This research aims to discover if the moderating effects of Māori identity are present in the relationship between academic engagement and happiness, as well the relationship between academic self-concept and happiness when moderated by Māori identity.

1.3.3. Cultural Identity, Māori Identity, and Iwi Identity
Cultural identity stems from the theoretical concept of "social identity". The Social Identity

Theory (SIT) was developed in the 1980's by Henri Tajfel (1982) who proposed that the groups in which we belong to are an important source of pride and self-esteem which help to form a sense of belonging to the social world, thus giving a sense of social identity. People establish categories in the form of stereotypes in an effort to structure and systematise their environment (Hogg & Turner, 1987). According to Tajfel (1982) stereotyping helps to assess and allocate social contexts and social distinctions, providing for a clear distinction to be made between members and non-members of a category. In the course of this social categorisation, people not only classify others as members of specific categories, but at the same time also categorise themselves (Ashforth & Mael, 1989). In this way, categories provide their members with a self-referential system placing individuals within their social environments and, consequently, contributing to the development of social identity.

The development and connection of cultural identity to the social identity theory is through the term 'identification'. As seen from the identification concept, identity mostly means three things; identifying others, being identified oneself, and identifying with others (Phinney & Ong, 2007). As highlighted by Proshansky (1978) any social identity is incorporated in interpersonal-interactive frameworks, and in the symbolism of locations and things, all of which are values that then define a culture. This highlights the importance of values within both identity and identification, which is shown through the identification of groups sharing the same values.

As a basic definition, cultural identity can be seen as membership in the groups representing like-minded values. Cultural identity can also be built on non-identification or negation of other values and their symbolic expressions, which allows a distinction to be made between positive identification through inclusion due to acceptance of cultural values, and negative cultural identification, or exclusion due to differing values (Sparks & Shepherd, 1992). Cultural identity has both a negation and an integrating effect (Smith, 1991) which both exist to mark group members and exclude non-members.

Where the term 'race' is derived from a biological or physical perspective (Witzig, 1996), 'culture' is a socially constructed term and refers to the attitudes, values, customs and behaviour patterns that characterise a social group (Heine, 2008). Ethnicity is thought to be a combination of race and culture (Heine, 2008; Mio, Barker-Hackett & Tumambing, 2006). Though the differences between race, culture and ethnicity as psychological constructs have been highlighted, the terms 'cultural' and 'ethnic' identity are most commonly used interchangeably within the literature, therefore this review will look at articles which use both terms 'cultural identity' and 'ethnic identity'.

Recent literature has explored both the direct and moderating role of cultural identity in outcomes including depression and anxiety (Hamill, Scott, Dearing & Pepper, 2009; Tynes, Umaña-Taylor, Rose, Lin & Anderson, 2012), with higher levels of cultural identity being associated with lower levels of both depression or anxiety in the respective studies. Cultural identity has also been found to protect against the negative effects of discrimination (Umaña-Taylor, Wong, Gonzales & Dumka, 2012), and initiation and continuation of risky behaviours such as alcohol and substance use, abuse and dependence (Brook, Whiteman, Balka, Win & Gursen, 1998; Gazis, Connor, & Ho, 2010; Umaña-Taylor, Updegraff & Gonzales-Backen, 2011). Other well documented positive relationships have also been found between cultural identity and self-esteem, wellbeing, and other positive psychosocial outcomes esteem (Kiang, Gonzales-Backen, Yip, Witkow & Fuligni, 2006; Phinney & Chavira, 1992; St. Louis & Liem, 2005; Umaña-Taylor & Updegraff, 2007; Umaña-Taylor, Vargas-Chanes, Garcia & Gonzales-Backen, 2008; Usborne & Taylor, 2010).

The term 'ethnic identity' has been used throughout the majority of cited research. This solely measures the self-reported ethnicity of the respondents and therefore fails to take into account the psychological level of identification participants may have with their stated ethnicity. The difference between simply reporting the ethnicity of a participant compared to measuring the

level of identification with their ethnicity is highlighted within a New Zealand context, with higher levels of Māori identity and security being linked to better psychological wellbeing and positive educational outcomes (Bennett, 2008; Durie, 1998, Stevenson, 2001). Therefore when investigating the role of Māori identity in the relationship between academic engagement and academic achievement, this research will attempt to measure the level of identification participants have with their Māori identity. This will be done by separating the general construct of Māori identity into three levels; low identity, moderate identity, and high identity.

Māori cultural identity was investigated by Stevenson (2001) whose study found that there was no direct relationship between Māori cultural identity and health indicators. As a limitation to his own study, Stevenson discussed how the differences between lived Māori culture (such as growing up around the language and tikanga) and learned Māori culture (learning about language and tikanga institutionally) should be investigated within future research. Those with a 'lived' Māori identity may show more positive outcomes through a stronger and more intrinsic depth of cultural knowledge compared to those of 'learned' Māori identity. Bennett (2008) looked at the relationship between Māori cultural identity and academic achievement. Findings indicated that cultural identity acted as a moderator of the relationship between student problems and academic achievement, in which student problems had little negative effect on academic achievement when students had a high level of Māori identity. Research by Bevan-Brown (1999; 2005) also supports the idea of Māori cultural identity being able to assist in positive educational outcomes, as the findings showed cultural identity was positively correlated with increase academic learning, self-esteem, confidence and the development of learning potential. The positive effect of cultural identity through culturally relevant practices such as kapa haka has been shown to have direct positive effects on student participation levels at school (Rubie, 1999) and increase their desire to succeed at school and participate in the learning environment (Whitinui, 2008). These are culturally relevant practices which encourage engagement within Māori culture, allowing for a chance to reconnect or reaffirm their identity

as Māori, or create a secure cultural identity, which is theorised by Durie (1997) to be crucial for the educational advancement and academic achievement of Māori, a view supported by Webber (2011).

Though the literature suggests that identification with Māori identity can affect several outcomes across a broad range of sectors, it is at its heart, a point of differentiation stemming only from the arrival of Europeans. Prior to the arrival of non-Māori, there was no need for a categorisation for us as a 'nation', with Iwi being the dominant means of group identification (Department of Labour, 1985).

Therefore, perhaps a more relevant and specific level of engagement for Māori (which has been untouched within the literature) is the idea of Iwi identity. As each Iwi is varied in its tikanga, reo, whakapapa and many more variables, research should look to examine how psychological engagement with one's Iwi could influence positive outcomes for Māori. It is theorised that those with higher levels of Iwi identity are therefore more strongly connected to Te Ao Māori. Individuals with higher levels of Iwi identity would therefore possess a stronger sense of cultural identity and security, which has the potential to influence positive outcomes across a range of measures, as informed by Durie (1997) who has long discussed the importance of cultural identity in relation to positive outcomes for Māori.

1.4. Research Goals

The remainder of this introduction will cover the research goals to be examined within this study. These will all be investigated by using a positive psychology framework and employing the use of a quantitative online based survey.

1. An examination of the relationship between academic engagement and academic achievement, and the extent to which that relationship might be moderated by Māori identity.

The positive relationship between academic engagement and academic achievement is well documented within the literature (Greene, Marti, & McClenney, 2008; Kuh et al., 2008), but the role of ethnicity within that relationship is ambiguous. In order to help clarify the role of ethnicity, this research will examine the moderating role of Māori identity in the relationship between academic engagement and academic achievement. As Māori culture has been defined and generally accepted as collectivistic (Haar, Brougham, & Roche, 2011), it is hypothesized that fundamental factors, such as social and family responsibility, relevant to collectivistic cultures will create a pathway by which Māori identity will positively influence and moderate the relationship between academic engagement and academic achievement.

2. An examination of the relationship between academic self-concept and academic achievement and the extent to which that relationship might be moderated by Māori identity.

The relationship between academic self-concept and academic achievement was first investigated in terms of the direction of causality between the two variables, with current literature now accepting the reciprocal influence they have on each other (Chen, Yeh, Hwang, & Lin, 2013; Guay et al., 2003; Marsh, Byrne, & Yeung, 1999). A more ambiguous relationship is the role that ethnicity plays within this relationship, with reports of both positive and negative correlations for ethnic minorities (Chavous & Cook, 1998; Fordham & Ogbu, 1986; Harper & Tuckman, 2006; McWhorter, 2000). Though limited, literature has also explored the moderating role of ethnicity on the relationship between academic self-concept and academic achievement. Findings show support for ethnicity as a moderator in the relationship, as students with more positive ethnic identities had higher academic self-concepts predictive of higher grades (Awad, 2007). Following on from such findings, it is hypothesized that Māori identity will positively influence and moderate the relationship between academic self-concept and academic achievement.

3. An examination of the relationship between academic engagement, academic self-concept and positive life outcomes (as defined by wellbeing, life meaning and life satisfaction), and the extent to which those relationships might be moderated by Māori identity.

Both constructs of academic engagement and academic self-concept have been linked to positive life outcomes such as happiness, life meaning and life satisfaction (Cheng & Furnham, 2002; Craven & Marsh, 2008; Low, 2011), with current literature looking at these relationships within ethnic minorities, but not investigating the extent to which ethnicity may moderate those relationships. As Māori identity has been shown by Durie (1998) to be related to positive wellbeing and academic achievement, it is hypothesized that Māori identity will positively influence and moderate the relationship between the independent variables of academic self-concept and academic achievement, and the positive life outcomes of wellbeing, life meaning and life satisfaction.

4. The validity of iwi identity as more specific and independent measure of Māori identity.

Due to differences between Iwi in areas such as whakapapa, Māori dialect, geographical location, and resources amongst other things, it is hypothesized that Iwi identity is a more specific and independent measure of Māori identity. As there is no research to date which examines this possibility, the exploratory nature of this research question will provide direction for future research on the validity of an independent Iwi identity construct.

CHAPTER TWO: METHOD

2.1. Participants

A non-probability sample was recruited for this study to complete the online survey on which

the current study is based. Due to third-party error, the recruitment email was initially sent to

people not included within the researchers' selection criteria (undergraduate, internal, full-time,

Māori students). Another recruitment email was then sent at a later date to those identified as

meeting the selection criteria, however some emails sent from Massey's email server were being

blocked by Hotmail, a provider that most students were registered with. Due to these

complications, it is not possible to calculate a response rate for this survey. These recruitment

issues will be expanded on within the procedures section.

2.2. Measures

These included:

- Demographic variables

- Māori and Iwi identity

- Academic self-concept

- Academic engagement

- Wellbeing

- Life meaning

- Life satisfaction

- Academic achievement

2.2.1. Demographic Information

Demographic information included age, gender, marital status, number of dependents, study

mode (full-time/part-time), study experience (no experience studying at university/previous

experience at studying at university), programme level (undergraduate/postgraduate) and study

method (internal/extramural).

2.2.2. Māori and Iwi Identity

The Māori identity element from the New Zealand Longitudinal Study of Ageing (NZLSA) was used to measure Māori identity. The scale used within this study consists of eight items which ask respondents to provide information on sense of belonging, attachment and understanding in relation to being Māori. For the first 6 items, respondents were asked to indicate their level of agreement with the 6 statements on a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. An example of a statement used within the measure is "I have a strong sense of belonging to my Māori culture". The seventh item asked respondents about their Māori language ability on a 6-point Likert scale ranging from 'excellent' to 'not applicable'. This question was then recoded to match the wording of the other items in the scale to ensure that a higher score was indicative of higher Māori identity. The final item included within this measure asked respondents how many generations of their Māori ancestry they were able to name on a 4-point Likert scale, ranging from 'one generation' to 'more than three generations'. Within this sample a Cronbach's alpha of .88 was attained for the Māori identity scale.

The Iwi identity measure used within this study originated from the Multigroup Ethnic Identity Measure—Revised (MEIM—R) developed by Phinney & Ong (2007). The scale was reworded within this study to specifically assess Iwi identity by replacing the word "ethnicity" from the original scale to "Iwi" to reflect a measure of Iwi identity. The scale used within the study consists of six items which ask respondents to provide information on sense of belonging, attachment and understanding in relation to being part of their Iwi, as well as items which ask about the respondent's behaviours and actions to finding out more information about their Iwi. All scale items are rated on the same metric scale, with respondents asked to indicate their level of agreement with the six statements on a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree', with a higher score indicative of higher Iwi identity. An example of a question used within this study is "I understand what being part of my Iwi means to me". Within this study a Cronbach's alpha of .93 was attained for the Iwi identity scale.

2.2.3. Academic Engagement

Academic engagement was assessed using the Student Course Engagement Questionnaire (SCEQ) developed by Handelsman, Briggs, Sullivan and Towler (2005). This measure was included within the present study as it specifically focuses on activities in and immediately surrounding class, which was found to be reliably related to various measures of college success, such as academic achievement and retention (Robbins et al., 2004). This was originally a 27-item scale used to assess individual course engagement. Within this study only 22-items were used for internal students in order to reflect general engagement across all papers instead of individual papers. To measure the academic engagement of extramural students, only 15-items were used, as items that were specific to internal students were removed due to irrelevance (e.g. I attend all my lectures). An example of a question used within this measure is "I find ways to make my papers interesting to me". This measure asked respondents to indicate on a 4-point Likert scale the extent to which the statements described their behaviours at university. This ranged from 'not at all characteristic of me' to 'very characteristic of me'. The present sample produced a Cronbach's alpha of .92 for internal students, and .89 for extramural students. Full item wordings for this scale are given in Appendix 6, pages 111-113.

2.2.4. Academic Self-Concept

Academic self-concept was assessed using the Perceived Challenge and Academic Self-Concept developed by Wilson (2009), however, only questions reflective of academic self-concept were used within this research as perceived challenge was not a construct of interest within this study. This saw the measure reduce from the original 19-item scale to a 6-item scale. This measure asked respondents to indicate on a 7-point Likert scale the extent to which they agreed with statements about themselves in an educational context. This ranged from 'strongly disagree' to 'strongly agree'. The measure was selected for use in this study as it appeared superior to other scales in that it was more concise, a necessity when administering a survey with multiple measures. An example of a question used within this measure is "learning new things is easy for me". Within the current sample a Cronbach's alpha of .88 was attained, indicating satisfactory

reliability. Full item wordings for this scale are given in Appendix 6, page 111.

2.2.5. Wellbeing

Wellbeing was assessed using the Affectometer 2 developed by Kammann and Flett (1983). In a recent meta-analysis reported in *Psychological Bulletin* (Steel 2008), the scale was seen as one of the "top three" measures of overall affect, and was selected for use within this study as it was developed within New Zealand, therefore is the most contextually relevant measure available. This measure asked respondents to indicate on a 5-point Likert scale how often in the past few weeks they had felt the positive and negative emotions stated. This ranged from 'not at all' to 'all the time'. The Affectometer 2 had a total 40-item inventory comprising of 20 sentences (e.g. my life is on the right track) and 20 adjectives (e.g. clear-headed). For this study, adjectives were used for their brevity. The flexibility of this measure allows the researcher to decide the number of items to use when administered, so long as an equal number of positive and negative affect items are included. For this study, 5 positive emotions (e.g. satisfied) and 5 negative emotions (e.g. depressed) were selected, compromising a 10-item scale. The score used within this study was the 'net all' which is the difference between the mean positive affect score and the mean negative affect score. Within the current sample a Cronbach's alpha of .89 was attained, indicating satisfactory reliability. Full item wordings for this scale are given in Appendix 6, pages 108-109.

2.2.6. Life Meaning

Life meaning was assessed using the 10-item Meaning in Life Questionnaire (MLQ-10) developed by Steger, Frazier, Oishi and Kaler (2006). This measure asks respondents the extent to which they agree with statements about their life existence and significance on a 7-point Likert scale ranging from 'absolutely untrue' to 'absolutely true'. Negatively worded items were recoded to ensure higher scores were indicative of higher levels of life meaning. An example of a question used within this measure is "I understand my life's meaning". This measure was selected as it not only assesses the extent to which respondents feel their lives are full of meaning, but also

as it assesses how engaged respondents are in finding meaning in their lives. With the current sample an acceptable Cronbach's alpha of .65 was attained. Full item wordings for this scale are given in Appendix 6, pages 109-110.

2.2.7. Life Satisfaction

Life satisfaction was assessed using the 5-item Satisfaction with Life Scale (SWLS) developed by Diener, Emmons, Larsen and Griffin (1985). This measure asks respondents the extent to which they agree with the five statements about their life using a 7-point Likert scale, with possible ranges from 'strongly disagree' to 'strongly agree'. Higher scores are indicative of higher levels of satisfaction with life. An example of a question used within this measure is "I am completely satisfied with my life". This measure was selected as it assessed satisfaction with people's lives as a whole, allowing for subjective interpretations—deemed as necessary due to differing ideas of life satisfaction. Cronbach's alpha of .85 was attained for the present sample. Full item wordings for this scale are given in Appendix 6, pages 110-111.

2.2.8. Academic Achievement

Academic achievement was assessed through accessing the Massey University database and retrieving the grade point average (GPA) of respondents for Semester 1, 2013. The method used for calculating the GPA is presented in Appendix 1, page 95. A single question asked what the experience of the respondent was within tertiary education in Semester 1, 2013. This was answered on a 4-item scale ranging from 'no experience—Semester 1 was my first time studying at university' to 'Semester 1 was my final Semester—I have now left university for other reasons'. Respondents were also asked to indicate the grades they expected to achieve for Semester 2, 2013 on a 4-item scale with responses ranging from 'mostly A's' to 'I am not studying this semester'. Of those respondents who were continuing with study into Semester 2, 2013, a question was also included which asked the respondents if they thought they would achieve better grades than last semester. This was assessed on a 3-item scale with responses ranging from 'yes', 'no', or 'about the same'.

2.3. Procedure

The procedure undertaken in the current study is as follows:

2.3.1. Ethical Approval

A full Massey University Human Ethics Application was completed and submitted to the Massey University Human Ethics Committee for ethical approval. Following the application, the board requested a minor adjustment to be made, following which ethical approval was granted for this study.

2.3.2. Recruitment of Survey Participants

Selection criteria for participant inclusion within the research were determined by the researcher. Participants would be those who were undergraduate, full-time, internal, Māori students in Semester 1, 2013. These criteria were then given to the Student Administrator at Massey University who requested the email addresses of all Massey University students who matched the set selection criteria. These email addresses were then given to the Computer Analyst in the School of Psychology. A recruitment email created by the researcher was then sent to each potential participant by the computer analyst. This was to ensure anonymity and the protection of student information from the researcher. Within the email (in appendix 3, page 99) was a brief overview about the study, with a link to the survey. Those who accessed the survey link were then taken to an information sheet which provided more in-depth information about the researcher and the research (appendix 5, page 103-105). As was stated within the recruitment email and within the information sheet, completing the survey and submitting it meant implied consent to retrieving their grade point average (GPA) for semester 1, 2013. In addition, before the participant was able to begin the survey, they were asked if they understood the information sheet and if they consented to the collection of their responses and GPA for Semester 1, 2013, after which the student then had to physically select either 'yes' or 'no'. Those individuals who expressed an interest and agreed to the collection of their responses and GPA by selecting 'yes' were then able to access and complete the survey online.

Due to circumstances beyond my control, the recruitment email was also sent out to students who did not meet the selection criteria. As a result, the participant selection criteria were resent to the student administrator to collect the email addresses for the correct participants. Students who met the criteria and had already filled out the survey were removed from the new email list to ensure they were not sent the email a second time, and another email was sent out to the correct participants. As exams had just started, the second round of recruitment emails was delayed by two weeks before they could be sent. This was to ensure exams were finished, which would increase the likelihood of gaining responses from students. The survey was then reopened for two weeks. During this period, the computer analyst advised the researcher that emails sent from the Massey servers were being blocked by many Hotmail accounts, a provider with which the majority of students had email addresses with. This issue was not resolved during the period in which the survey was reopened, meaning the researcher is unable to identify how many participants received the request to participate.

2.3.3. Procedure to Preserve Anonymity and Confidentiality
As the accessing of student grades raises ethical issues relating to the privacy, anonymity and confidentiality of participants, independent third-parties were used to access records, ensuring personal and identifying information was not within reach of the researcher. The identification of students who matched the participation criteria set out by the researcher were identified by the Student Administrator who requested IT staff at Massey University to provide their email addresses. These email addresses were then sent to another independent third-party, the computer analyst for the School of Psychology, who sent out the request to participate to each potential participant on behalf of the researcher. This was to ensure again that the researcher had no access to identifying information, which ensures student privacy, confidentiality and anonymity. All participants were given the link to where the summary of findings for the research would be accessible online, and a date at which the findings would be available. Data was presented in summary form, stratified across relevant demographic variables, but grouped

in a way that no individuals were able to be identified.

Each survey was coded electronically to match each email address to ensure confidentiality and also ensure that only the selected participant could complete the survey. Completed surveys were sent back to the computer analyst at the School of Psychology (online), who then sent a list of the completed participants to the Student Administrator. The Student Administrator then requested the GPAs for the participants who completed the survey, and sent this information back to the computer analyst in the School of Psychology. The analyst then matched the GPAs with the correct responses, and then deleted all identifying information. This information was kept only on the analyst's computer to which only he is able to access through his Massey University staff user ID and password. Once all identifying information was removed and GPAs were linked to appropriate survey responses, the information was made available to the researcher.

2.4. Analysis

Independent samples t-tests and correlational analyses were used to assess the relationships between key demographic variables and dependent variables. Significant relationships were then able to be controlled for in subsequent analyses. Investigations of the relationships between all variables were undertaken using correlation coefficients (Pearson's r). Finally, a series of hierarchical multiple regression analyses were conducted. Where appropriate, further analysis was undertaken to ensure significant relationships could be easily understood.

CHAPTER THREE: RESULTS

All analyses presented within this section have been completed separately for internal and extramural students as previous research has highlighted the fundamental differences between these two groups of students (Australian Council for Educational Research, 2011), a finding supported within this research as t-tests revealed a statistically significant difference between internal and extramural students against the measured variables. This, therefore, justified the need to analyse the two groups separately. Other variables of study mode, study experience and programme level were also tested, however, differences were not significant.

The results of this study are presented in the following format:

1. Socio-demographic details of respondents are presented in Table 1, with the descriptive statistics for study variables presented in Table 2.

2. Independent samples t-test results are presented to assess the relationships between key demographic variables and the dependent variables of the research. Table 3 presents the information for internal students, and Table 4 for extramural students. Significant relationships are then controlled for within hierarchical regressions where appropriate.

3. A correlational analysis is presented where the relationships between the dependent variables and the demographic variables of age and dependents are examined. This is done separately for both internal and extramural participants. Significant relationships are then controlled for within hierarchical regressions where appropriate.

4. A correlational analysis is presented to assess the relationships between the dependent variables and the independent variables.

5. Hierarchical multiple regression analyses are then presented to test the moderating effects of both Māori and Iwi identity across a variety of relationships. Regressions have been separated into sections according to dependent variables. Both independent

variables of academic engagement and academic self-concept are include within each

regression to minimise the number of analyses where possible in order to reduce Type

I Error rate. Each section contains four regressions which are presented in the following

order:

- Māori identity moderation effects for internal students

- Māori identity moderation effects for extramural students

- Iwi identity moderation effects for internal students

- Iwi identity moderation effects for extramural students

Data was coded and transferred to the Statistical Package for Social Sciences (SPSS) version 21.

Reverse scored items were re-recoded and scale totals were then calculated. Missing data

imputation methods were not considered as overall levels of missing data were low and

standard SPSS default listwise deletion of missing data was used.

3.1. Descriptive Statistics

By viewing the demographic statistics, a broad overview of the participants can be gained. The

following table presents the demographic details for all participants who completed the survey.

Although initial interest was in undergraduate, internal, full-time Māori students, this is not the

only data that was collected due to third-party error as explained within the procedures section

of this thesis. In order to maintain a level of homogeneity within the sample in regards to

analysis, only internal and extramural participant responses were used.

Table 1

Demographic Characteristics of Survey Respondents

Variable	Level	n	%
Gender	Female	128	75
	Male	43	25
Age	17-23	55	32
	24-30	28	17
	31-40	41	24
	41-50	30	18
	51-61	15	9
Partner status	No partner	67	39
	Partner	104	61
Dependents	0	99	57
	1-2	51	30
	3-4	19	11
	5+	3	2
Study mode	Full-time	81	37
	Part-time	135	62
Study experience	No experience	26	12
	Previous experience	190	88
Programme level	Undergraduate	169	79
	Postgraduate	45	21
Study method	Internal	82	38
	Extramural	114	53
	Block	20	9

As indicated in Table 1, the majority of respondents were females of varying ages. The majority of respondents (61%) had a partner, with slightly more than half of the respondents having no dependents (57%). It was more common for respondents to be studying part-time (62%), with the majority studying at undergraduate level (79%). A slightly higher percentage of respondents studied extramurally (53%), with the majority of respondents having studied previously at university prior to Semester 1, 2013 (88%).

Table 2 presents the descriptive statistics for all the measures used within this research.

Table 2

Summary of Means, Standard Deviations and Coding Algorithms for Variables

Variable	Coding Algorithm	Mean	SD	a
Cultural Identity	Score from Māori Identity measure (Min-8, Max-40)	24.88	5.38	0.88
	Score from Iwi Identity measure (Min-5, Max-25)	17.82	4.92	0.93
Academic Engagement	Score from SCEQ[1] (Internal) (Min-23, Max-116)	80.23	15.12	0.92
	Score from SCEQ (Extramural) (Min-15, Max-81)	52.60	10.08	0.89
Academic Self-Concept	Score from PCASC[2] subscale (Academic Self-Concept) (Min-6, Max-42)	28.92	6.67	0.88
Wellbeing	Score from Affectometer 2 total (Min-0, Max-40)	1.76	1.28	0.89
Life Meaning	Score from Life Meaning scale (Min-10, Max-70)	44.42	7.96	0.65
Life Satisfaction	Score from Life Satisfaction scale (Min-5, Max-35)	23.20	6.40	0.85
Academic Achievement	Grade Point Average (Min-0, Max-9)	4.37	2.23	-

Overall, respondents perceive themselves as being at the higher end of both the Māori identity and Iwi identity scales. The mean score for the Academic Engagement scales indicate that the majority of respondents report having higher levels of academic engagement. On average, respondents identify themselves at the higher end of the Academic Self-Concept scale. The mean score for the Wellbeing scale indicates that the majority of respondents are relatively happy, a finding similar to that found by Kammann and Flett (1983) in a community sample of New Zealand adults (Māori=1.43, SD=1.08). Meanwhile, the majority of respondents perceive their lives to have meaning, however due to the low internal reliability (see Table 2) responses for this measure should be interpreted with caution. The mean score for Life Satisfaction indicates that the average respondent is fairly satisfied with their life. Grade point averages indicated that the majority of respondents were achieving between a B to a B minus grade, a finding that is consistent with research done by Bennett (2001), where Māori participants were

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[1] Student Course Engagement Questionnaire
[2] Perceived Challenge Academic Self-Concept

achieving between a B and C grade.

3.2. Testing Relationships between Demographic Variables and Dependent Variables

By administering independent samples t-tests between the key demographic variables (study mode, study experience, gender, programme level, marital status) and the dependent variables, identification of variables that need controlling within the hierarchical regressions is possible. These relationships are highlighted in Table 3 for internal respondents, and in Table 4 for extramural respondents. It should be noted that where t-tests were performed, an F test of sample variances was carried out for each comparison, and if the probability of F was >.05 then it was assumed that the sample variances were equal and t statistics based on pooled variance estimates were used. If the probability of F was <.05 then it was assumed that the sample variances were unequal and t statistics based on separate variance estimates were used (Snedecor & Cochrane, 1980). Cohen's *d* has also been included within the tables to show the effect size of any significant relationships.

Table 3 shows that for internal students, none of the key dichotomous demographic variables measured within this research had a statistically significant relationship with any of the dependent variables.

Table 3

Results of independent samples t-tests between key demographic variables and dependent variables for internal students showing mean, standard deviat
significance level (2-tailed) and Cohen's d for internal students.

Variable	Level	GPA				Wellbeing				Life Meaning				Life Satisfaction			
		M	SD	p	d	M	SD	p	d	M	SD	p	d	M	SD	p	d
Study mode	Part time	5.00	2.26	.308	.256	2.02	1.70	.313	.323	40.22	8.80	.101	.573	23.44	7.40	.882	.049
	Full time	4.42	1.85			1.53	1.31			45.05	8.03			23.10	6.32		
Study experience	No experience	4.59	1.71	.892	.036	1.68	1.66	.731	.082	44.11	10.45	.843	.048	23.95	6.53	.526	.172
	Previous experience	4.52	2.11			1.56	1.25			44.55	7.35			22.84	6.41		
Gender	Male	4.53	2.03	.797	.178	1.98	1.30	.126	.421	42.16	8.83	.137	.394	22.32	6.57	.542	.164
	Female	4.67	1.91			1.42	1.36			45.46	7.88			23.39	6.44		
Programme level	Undergraduate	4.56	1.95	.605	.188	1.57	1.38	.525	.645	44.22	8.25	.220	1.146	23.20	6.44	.635	.325
	Postgraduate	4.03	3.47			2.20	0.00			51.50	3.54			21.00	7.07		
Marital status																	
	No partner	4.68	1.87	.804	.056	1.55	1.39	.874	.036	44.81	7.09	.769	.071	23.08	7.00	.989	.003
	Partner	4.57	2.04			1.60	1.35			44.23	9.13			23.10	5.78		

*p<.05, **p<.01, ***p<.001

Table 4 highlights two statistically significant relationships for extramural respondents. For the dependent variable of GPA, there was a significant difference in the scores for male (Māori=5.29, SD=1.84) and female (Māori=3.91, SD=2.55) conditions; t(83)=2.21, p<.05, with a Cohen's effect size value (d = .621) which suggests a moderate to high effect size. Māori male extramural respondents have significantly higher GPAs than Māori female extramural respondents. For the dependent variable of wellbeing, there was a significant difference in the scores for part-time students (Māori=1.81, SD=1.33) and full-time students (Māori=2.33, SD=0.45); t(81)=-1.28, p<.05, with a Cohen's effect size value (d = .523) which suggests a moderate to high effect size. Māori extramural respondents who studied part-time have higher levels of wellbeing compared to Māori extramural respondents who study full-time.

Table 4

Results of independent samples t-tests between key demographic variables and dependent variables for internal students showing mean, standard deviat
significance level (2-tailed) and Cohen's d for extramural students.

Variable	Level	GPA				Wellbeing				Life Meaning				Life Satisfaction		
		M	SD	p	d	M	SD	p	d	M	SD	p	d	M	SD	p
Study mode	Part time	4.25	2.36	.884	.042	1.81	1.33	**.016***	.523	44.53	8.24	.291	.355	23.49	6.47	.815 .
	Full time	4.15	2.38			2.33	0.45			41.72	7.60			23.00	6.08	
Study experience	No experience	2.93	2.39	.208	.573	1.80	1.16	.892	.065	45.20	10.47	.773	.118	22.60	7.83	.768 .
	Previous experience	4.29	2.35			1.88	1.27			44.10	8.08			23.48	6.34	
Gender	Male	5.29	1.84	**.012***	.621	2.00	0.96	.637	.137	41.84	5.36	.073	.415	23.95	7.33	.687 .
	Female	3.91	2.55			1.84	1.34			44.85	8.74			23.27	6.14	
Programme level	Undergraduate	4.15	2.35	.387	.208	1.92	1.30	.617	.169	43.75	8.43	.417	.254	23.31	6.72	.746 .
	Postgraduate	4.64	2.35			1.72	1.06			45.71	6.89			23.93	4.83	
Marital status	No partner	4.63	2.45	.359	.228	1.74	1.12	.551	.147	46.27	10.02	.231	.324	21.82	7.76	.241 .
	Partner	4.07	2.47			1.92	1.31			43.42	7.35			23.98	5.80	

*p<.05, **p<.01, ***p<.001

By administering a correlational analysis between continuous demographic variables and the dependent variables, identification of variables that need controlling within the hierarchical regressions was possible. These relationships are highlighted in Table 5.

Table 5
Correlations among the continuous variables of dependents and age with all dependent variables for internal and extramural respondents.

		GPA	Wellbeing	Life Meaning	Life Satisfaction
Internal	Age	-.011	**.238***	-.070	.120
	Dependents	.040	**.298***	-.174	**.285***
Extramural	Age	.025	.129	-.173	.155
	Dependents	-.067	-.112	-.197	.083

*p<.05, **p<.01, ***p<.001

A Pearson product-moment correlation coefficient was computed to assess the relationship between the dependent variables included within this research and the continuous demographic variables of age and dependents. As highlighted in Table 5, three significant relationships were found for internal respondents; two for the wellbeing variable, and one for the life satisfaction variable. There was a slight positive correlation between wellbeing and dependents, (r=0.298, n=70, p=0.012). Overall, increases in the number of dependents, as well as increased age was correlated with increased wellbeing for internal respondents. Another slight positive correlation was found between life satisfaction and dependents (r=.285, n=69, p=0.018). This suggests that increases in the number of dependents that internal respondents had was positively correlated with increased life satisfaction. No significant correlations were found for extramural respondents.

3.3. Hypothesis Testing via Regression Analyses

A table of bivariate correlations are presented in Table 6.

As expected, Māori identity and Iwi identity were significantly associated, with both constructs

also being related to positive psychology measures of life satisfaction and wellbeing. Interestingly however, life meaning was the only positive psychological construct that was not significantly related to either Māori identity or Iwi identity.

The positive psychological measures of wellbeing and life satisfaction were correlated with all constructs except GPA and life meaning. In contrast, the positive psychological construct of life meaning was not significantly associated with any variables included within this study.

Lastly, at this level of analysis GPA was only associated with academic engagement and academic self-concept, the only academically related variables to be included within the study.

Table 6. Correlation coefficients values between independent and dependent variables.

	Academic Engagement (Internal)	Academic Engagement (Extramural)	Academic Self-Concept	GPA	Wellbeing	Life Meaning	Life Satisfaction	Māori Identity	Iwi Identity
Academic Engagement (Internal)									
Academic Engagement (Extramural)	.962***								
Academic Self-Concept	.599***	.635***							
GPA	.305***	.366***	.388***						
Wellbeing	.262**	.247**	.232**	.040					
Life Meaning	.028	.020	-.038	.037	-.123				
Life Satisfaction	.303***	.301***	.283***	.059	.647***	-.057			
Māori Identity	.012	-.021	-.051	-.032	.205**	.131	.197*		
Iwi Identity	.089	.079	-.029	-.042	.305***	.052	.217**	.808***	

*p<.05, **p<.01, ***p<.001

Hierarchical regressions were used to investigate the relationships between the independent variables of academic engagement and academic self-concept with the dependent variables of GPA, wellbeing, life meaning and life satisfaction when moderated by both Māori identity and Iwi identity. Tabachnik and Fidell (1989) suggest the use of conventional but conservative alpha levels to evaluate the significance of skewness and kurtosis. Two cases were found to be univariate outliers and were deleted from subsequent analyses. Multivariate outliers were screened for using Mahalanobis distance and found no cases in violation of this assumption with $p<.001$.

3.3.1. Grade Point Average (GPA)

The research questions being tested within the following section are as follows:

- The moderating effects of Māori identity on the relationship between academic engagement and academic achievement for internal and extramural students.

- The moderating effects of Māori identity on the relationship between academic self-concept and academic achievement for internal and extramural students.

- The moderating effects of Iwi identity on the relationship between academic engagement and academic achievement for internal and extramural students.

- The moderating effects of Iwi identity on the relationship between academic self-concept and academic achievement for internal and extramural students.

Internal students – Māori identity moderation effects

Table 7 presents a two-step hierarchical multiple regression, conducted to examine the moderating effects of Māori identity in relation to both independent variables of academic engagement and academic self-concept, and the dependent variable of GPA for internal students. Earlier t-tests (Table 3) and correlational analyses (Table 5) indicated no key demographic variables would need to be controlled for within the regression. Table 7 shows that Māori identity and both independent variables were entered at step one, in which academic self-concept was a significant predictor of GPA. Interaction terms between both independent

variables and Māori identity were added at step two. In this way the variance accounted for by the interaction of Māori identity with the two independent variables was assessed while controlling for their main effects (Flett, Biggs, & Alpass, 1995). At step two the interaction term involving Māori identity and academic engagement produced a significant F change, $F(5,60) = 5.727$, $p<.01$. The interaction between Māori identity and academic engagement was significant in the prediction of GPA. A total of 27 per cent of the variance in GPA could be predicted by knowing scores on these variables. It should be noted that the academic engagement variable shows a suppression effect (Tabachnick & Fidell, 1989).

Table 7
Hierarchical multiple regression of individual and contextual variables and the interaction of Māori identity on Grade Point Average showing standardized beta coefficients, R, R2, and adjusted R2 for internal students.

PREDICTOR	Step 1: Beta	Step 2: Beta
Academic Engagement	.205	**.287***
Academic Self-Concept	**.371****	**.317***
Māori Identity	.085	.109
Māori identity X Academic Engagement		**.267***
Māori identity X Academic Self-Concept		-.142
R	.525	.568
Total R2	.275	.323
Adjusted R2	.240	.267
R2 change		.048

*p<.05, **p<.01, ***p<.001

A schematic representation of the interaction between Māori identity and academic engagement is presented in Figure 1. This data was derived by conducting a median split on the measures of Māori identity and academic engagement.
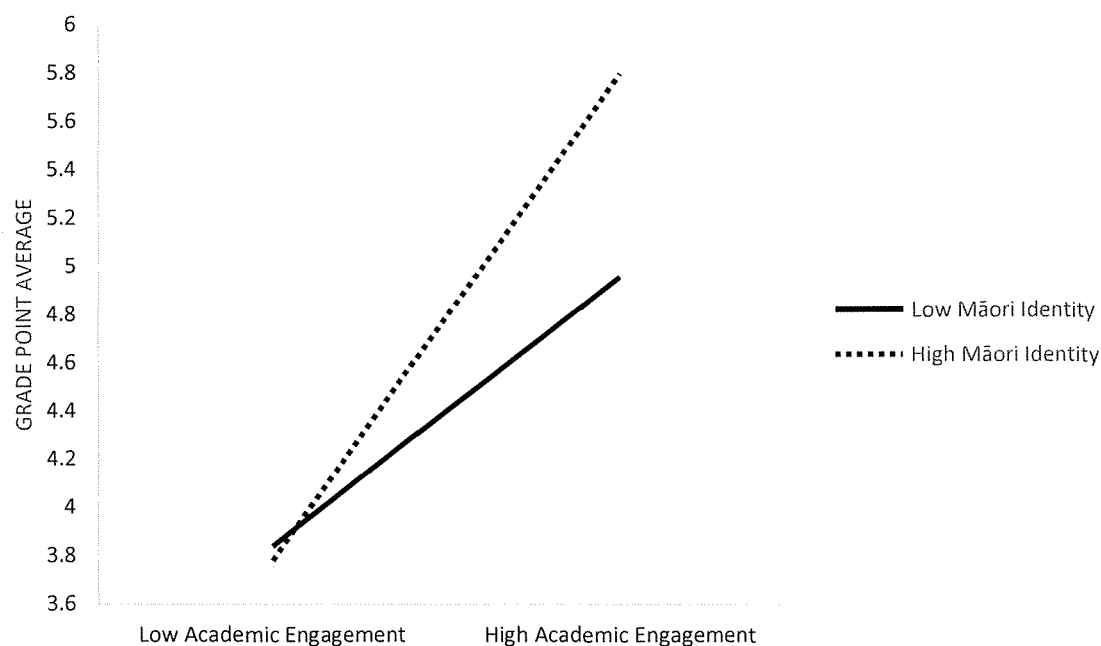
Figure 1. Schematic representation of the Māori identity X Academic Engagement interaction in the prediction of GPA for internal students.

Figure 1 illustrates that Māori identity moderates the relationship between academic engagement and GPA. At low levels of academic engagement, there appears to be little relationship between levels of Māori identity and GPS. However at high levels of academic engagement, students with high levels of Māori identity had higher GPAs than those with low levels of Māori identity.

Extramural students – Māori identity moderation effects
As show in Table 8, gender was entered at step one of the regression as earlier t-tests (Table 3) indicated gender was significantly related to GPA for extramural students. Māori Identity and both independent variables were entered at step two. The addition of these variables produced a significant F change $F(4, 69) = 5.198$, p<.01. At step three, the interaction terms between both independent variables and Māori Identity were added producing a significant F change, $F(6, 67) = 3.677$, p<.01, however neither interaction term was significant in the prediction of GPA. It should be noted that the academic engagement variable shows a mediation effect between steps two and three of the regression analysis.

Table 8

Hierarchical multiple regression of individual and contextual variables and the interaction of Māori identity on grade point average showing standardized beta coefficients, R, R2, and adjusted R2 for extramural students.

PREDICTOR	Step 1: Beta	Step 2: Beta	Step 3: Beta
Gender	-.248*	-.231*	-.251*
Academic Engagement		.295*	.228
Academic Self-Concept		.148	.130
Māori Identity		-.072	-.081
Māori identity X Academic Engagement			.136
			.023
Māori identity X Academic Self-Concept	.248	.481	.498
R	.061	.232	.248
Total R2	.048	.187	.180
Adjusted R2		.170	.016
R2 change			

*p<.05, **p<.01, ***p<.001

Internal students – Iwi identity moderation effects

Earlier t-tests (Table 3) and correlational analyses (Table 5) indicated no key demographic variables would need to be controlled for within the regression. Table 9 shows that Iwi identity and both independent variables were entered at step one, in which academic self-concept was a significant predictor of GPA. Interaction terms between both independent variables and Iwi identity were added at step two, producing a significant F change, $F_{(5,60)} = 5.555$, p<.001. Only the academic self-concept variable was significant in the prediction of GPA in step two, with both interaction terms highlighted as not significant. It should be noted that the academic engagement variable shows a suppression effect (Tabachnik & Fidell, 1989).

Table 9
Hierarchical multiple regression of individual and contextual variables and the interaction of Iwi identity on grade point average showing standardized beta coefficients, R, R2, and adjusted R2 for internal students.

PREDICTOR	Step 1: Beta	Step 2: Beta
Academic Engagement	.203	**.282***
Academic Self-Concept	**.372****	**.346***
Iwi Identity	.012	.072
Iwi identity X Academic Engagement		.307
Iwi identity X Academic Self-Concept		-.145
R	.518	.563
Total R2	.268	.316
Adjusted R2	.233	.259
R2 change		.048

*p<.05, **p<.01, ***p<.001

Extramural students – Iwi identity moderation effects

As show in Table 10, gender was entered at step one of the regression as earlier t-tests (Table 3) indicated gender significantly GPA for extramural students. Table 10 shows that Iwi identity and both independent variables were entered at step two, which resulted in a significant F change $(4,69) = 5.523$, $p<.01$. At this step, academic engagement was a significant predictor of GPA. At step three, the interaction terms between both independent variables and Iwi identity were added producing a significant F change, $F_{(6, 67)} = 3.749$, $p<.01$, however neither interaction term was significant in the prediction of GPA. Gender and academic engagement were the only variables to be significant in the prediction of GPA at each of their included levels.

Table 10
Hierarchical multiple regression of individual and contextual variables and the interaction of Iwi identity on grade point average showing standardized beta coefficients, R, R2, and adjusted R2 for extramural students.

PREDICTOR	Step 1: Beta	Step 2: Beta	Step 3: Beta
Gender	-.248*	-.242*	-.224*
Academic Engagement		.335*	.373*
Academic Self-Concept		.126	.118
Iwi Identity		-.132	-.147
Iwi Identity X Academic Engagement			-.125
Iwi Identity X Academic Self-Concept	.248	.492	.087 .501
R	.061	.243	.251
Total R2	.048	.199	.184
Adjusted R2		.181	.009
R2 change			

*p<.05, **p<.01, ***p<.001

3.3.2. Wellbeing

The research questions that are being tested within the following section are as follows:

- The moderating effects of Māori identity on the relationship between academic engagement and wellbeing for internal and extramural students.

- The moderating effects of Māori identity on the relationship between academic self-concept and wellbeing for internal and extramural students.

- The moderating effects of Iwi identity on the relationship between academic engagement and wellbeing for internal and extramural students.

- The moderating effects of Iwi identity on the relationship between academic self-concept and wellbeing for internal and extramural students.

Internal students – Māori identity moderation effects

The demographic variable of dependents was entered at step one of the regression, as correlations from Table 3 indicated this variable significantly affected wellbeing for internal students. Table 11 shows that Māori identity and both independent variables were entered at step two, which resulted in a significant F change (4,61) = 4.726, p<.01. The variable of academic self-concept was a significant predictor of wellbeing at this stage. At step three, the interaction terms between both independent variables and Māori identity were added producing a significant F change, F (6,59) = 3.864, p<.01, however neither interaction term was significant in the prediction of wellbeing. It should be noted that the academic self-concept variable shows a mediation effect between steps two and three of the regression analysis.

Table 11
Hierarchical multiple regression of individual and contextual variables and the interaction of Māori identity on wellbeing showing standardized beta coefficients, R, R2, and adjusted R2 for internal students.

PREDICTOR	Step 1: Beta	Step 2: Beta	Step 3: Beta
Dependents	.309*	.252*	.308*
Academic Engagement		.050	.033
Academic Self-Concept		.304*	.185
Māori Identity		.182	.217
Māori identity X Academic Engagement			-.018
Māori identity X Academic Self-Concept			-.245
R	.309	.486	.531
Total R2	.096	.237	.282
Adjusted R2	.081	.187	.209
R2 change		.141	.046

*p<.05, **p<.01, ***p<.001

Extramural students – Māori identity moderation effects

Study mode was entered at step one of the regression, as results from Table 2 indicated these variables significantly affected wellbeing for extramural students. Table 12 shows that Māori

identity and both independent variables were entered at step two, which resulted in a non-significant F change (4,69) = 2.125, p=.087. At step three, the interaction terms between both independent variables and Māori identity were added producing a non-significant F change, *F* (6,67) = 2.055, p= 0.070, however neither interaction term was significant in the prediction of wellbeing.

Table 12
Hierarchical multiple regression of individual and contextual variables and the interaction of Māori identity on wellbeing showing standardized beta coefficients, R, R2, and adjusted R2 for extramural students.

PREDICTOR	Step 1: Beta	Step 2: Beta	Step 3: Beta
Study mode	.175	.209	.169
Academic Engagement		.226	.289
Academic Self-Concept		.051	.087
Māori Identity		.109	.156
Māori identity X Academic Engagement			-.011
Māori identity X Academic Self-Concept			-.235
R	.175	.331	.394
Total R2	.030	.110	.155
Adjusted R2	.017	.058	.080
R2 change		.079	.046

*p<.05, **p<.01, ***p<.001

Internal students – Iwi identity moderation effects

The demographic variable of dependents was entered at step one of the regression, as correlations from Table 3 indicated this variable significantly affected wellbeing for internal students. Table 13 shows that Iwi identity and both independent variables were entered at step two, which resulted in a significant F change (4,61) = 6.532, p<.001. The variables of academic self-concept and Iwi identity were significant predictors of wellbeing at this stage. At step three,

the interaction terms between both independent variables and Iwi identity were added, producing a significant F change, $F(6,59) = 4.517$, p<.01, however neither interaction term was significant in the prediction of wellbeing. The Iwi identity variable remained a predictor of wellbeing at step three. The dependents variable is ambiguous in the sense that it was significant in steps one and three, but not significant at step two which renders the interpretation of the dependents effect difficult. It should also be noted that academic self-concept shows a mediation effect between steps two and three of the regression analysis.

Table 13
Hierarchical multiple regression of individual and contextual variables and the interaction of Iwi identity on wellbeing showing standardized beta coefficients, R, R2, and adjusted R2 for internal students.

PREDICTOR	Step 1: Beta	Step 2: Beta	Step 3: Beta
Dependents	**.309***	.225	**.260***
Academic Engagement		.069	.066
Academic Self-Concept		**.316***	.234
Iwi Identity		**.313****	**.326****
Iwi identity X Academic Engagement			.040
Iwi identity X Academic Self-Concept			-.175
R	.309	.548	.561
Total R2	.096	.300	.315
Adjusted R2	.081	.254	.245
R2 change		.204	.015

*p<.05, **p<.01, ***p<.001

Extramural students – Iwi identity moderation effects

Study mode was entered at step one of the regression, as results from Table 2 indicated this variable significantly affected wellbeing for extramural students. Table 14 shows that Iwi identity and both independent variables were entered at step two, which resulted in a non-significant F change (4,69) = 2.244, p=.073. At step three, the interaction terms between both independent

variables and Iwi identity were added producing a non-significant F change, $F(6,67) = 2.150$, p=.059, with neither interaction term showing as significant in the prediction of wellbeing for extramural students.

Table 14
Hierarchical multiple regression of individual and contextual variables and the interaction of Iwi identity on wellbeing showing standardized beta coefficients, R, R2, and adjusted R2 for extramural students.

PREDICTOR	Step 1: Beta	Step 2: Beta	Step 3: Beta
Study mode	.175	.218	.191
Academic Engagement		.187	.137
Academic Self-Concept		.069	.097
Iwi Identity		.138	.183
Iwi Identity X Academic Engagement			.230
Iwi Identity X Academic Self-Concept			-.264
R	.175	.339	.402
Total R2	.030	.115	.161
Adjusted R2	.017	.064	.086
R2 change		.085	.046

**p<.05, **p<.01, ***p<.001

3.3.3. Life Meaning
The research questions that are being tested within the following section are as follows:

- The moderating effects of Māori identity on the relationship between academic engagement and life meaning for internal and extramural students.

- The moderating effects of Māori identity on the relationship between academic self-concept and life meaning for internal and extramural students.

- The moderating effects of Iwi identity on the relationship between academic engagement and life meaning for internal and extramural students.

- The moderating effects of Iwi identity on the relationship between academic self-concept and life meaning for internal and extramural students.

Internal students – Māori identity moderation effects

Earlier t-tests (Table 3) and correlational analyses (Table 5) indicated no key demographic variables would need to be controlled for within the regression. Table 15 shows that Māori identity and both independent variables were entered at step one. Interaction terms between both independent variables and Māori identity were added at step two. The interaction term involving Māori identity and academic engagement was statistically significant, however the F change, $F (5,60) = 2.175$, p=.069 was not significant. A total of 8 per cent of the variance in life meaning could be predicted by knowing scores on these variables.

Table 15
Hierarchical multiple regression of individual and contextual variables and the interaction of Māori identity on life meaning showing standardized beta coefficients, R, R2, and adjusted R2 for internal students.

PREDICTOR	Step 1: Beta	Step 2: Beta
Academic Engagement	.169	.066
Academic Self-Concept	-.107	.007
Māori Identity	.241	.196
Māori identity X Academic Engagement		**-.326***
Māori identity X Academic Self-Concept		.269
R	.275	.392
Total R2	.075	.153
Adjusted R2	.031	.083
R2 change		.078

*p<.05, **p<.01, ***p<.001
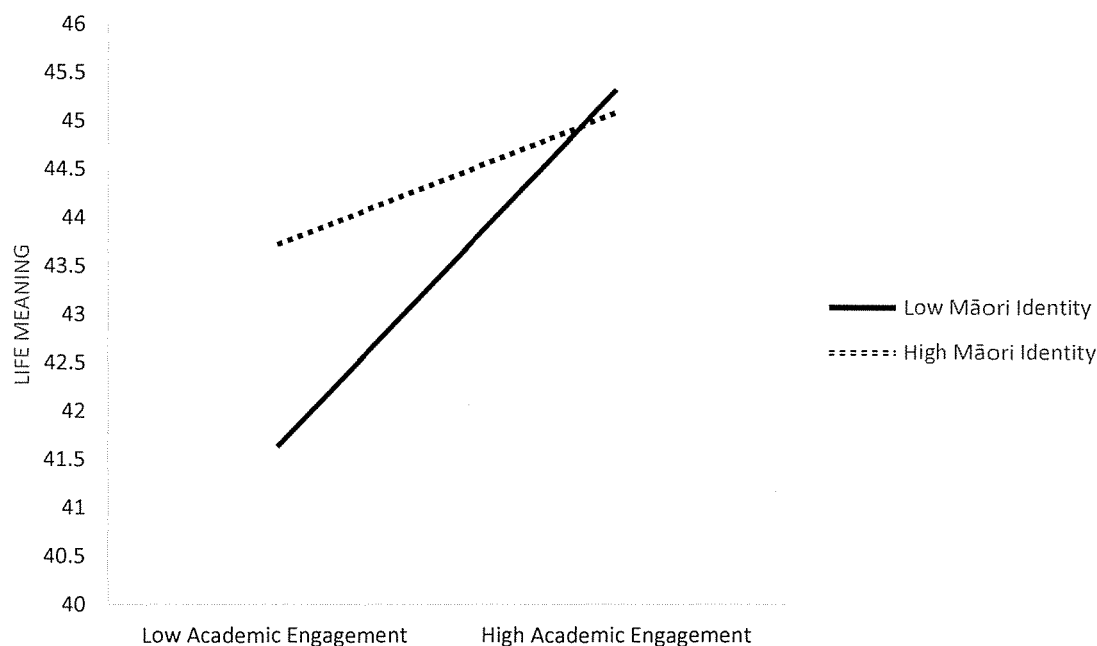
Figure 2. Schematic representation of the Māori Identity X Academic Engagement interaction in the prediction of life meaning for internal students.

Figure 2 illustrates that Māori identity moderates the relationship between academic engagement and life meaning for internal Māori students. At low levels of academic engagement, students with high Māori identity had more meaning in their life compared to those with low levels of Māori identity. However at high levels of academic engagement, there was no clear relationship between level of Māori identity and life meaning.

Extramural students – Māori identity moderation effects

Earlier t-tests (Table 3) and correlational analyses (Table 5) indicated no key demographic variables would need to be controlled for within the regression. Table 16 shows that Māori identity and both independent variables were entered at step one. Interaction terms between both independent variables and Māori identity were added at step two. The addition of the interaction terms at step two was not significant with a non-significant F change, $F_{(5, 68)}$ = 1.721, p=0.141.

Table 16
Hierarchical multiple regression of individual and contextual variables and the interaction of Māori identity on life meaning showing standardized beta coefficients, R, R2, and adjusted R2 for extramural students.

PREDICTOR	Step 1: Beta	Step 2: Beta
Academic Engagement	-.134	-.264
Academic Self-Concept	-.023	-.063
Māori Identity	.147	.116
Māori identity X Academic Engagement		.232
Māori identity X Academic Self-Concept		.105
R	.210	.335
Total R2	.044	.112
Adjusted R2	.003	.047
R2 change		.068

*p<.05, **p<.01, ***p<.001

Internal students – Iwi identity moderation effects

Earlier t-tests (Table 3) and correlational analyses (Table 5) indicated no key demographic variables would need to be controlled for within the regression. Table 17 shows that Iwi identity and both independent variables were entered at step one. Interaction terms between both independent variables and Māori identity were added at step two. The interaction term involving Iwi identity and academic engagement was statistically significant. The interaction term involving Iwi identity and academic self-concept was also statistically significant. The addition of the interaction terms at step two was significant with $F(5,60) = 2.395$, p<.05. A total of 10 per cent of the variance in life meaning could be predicted by knowing scores on these variables.

Table 17

Hierarchical multiple regression of individual and contextual variables and the interaction of Iwi identity on life meaning showing standardized beta coefficients, R, R2, and adjusted R2 for internal students.

| PREDICTOR	Step 1: Beta	Step 2: Beta
Academic Engagement	.173	.060
Academic Self-Concept	-.096	.044
Iwi identity	.220	.121
Iwi identity X Academic Engagement		**-.449***
Iwi identity X Academic Self-Concept		**.407***
R	.256	.408
Total R2	.066	.166
Adjusted R2	.020	.097
R2 change		.101

*p<.05, **p<.01, ***p<.001
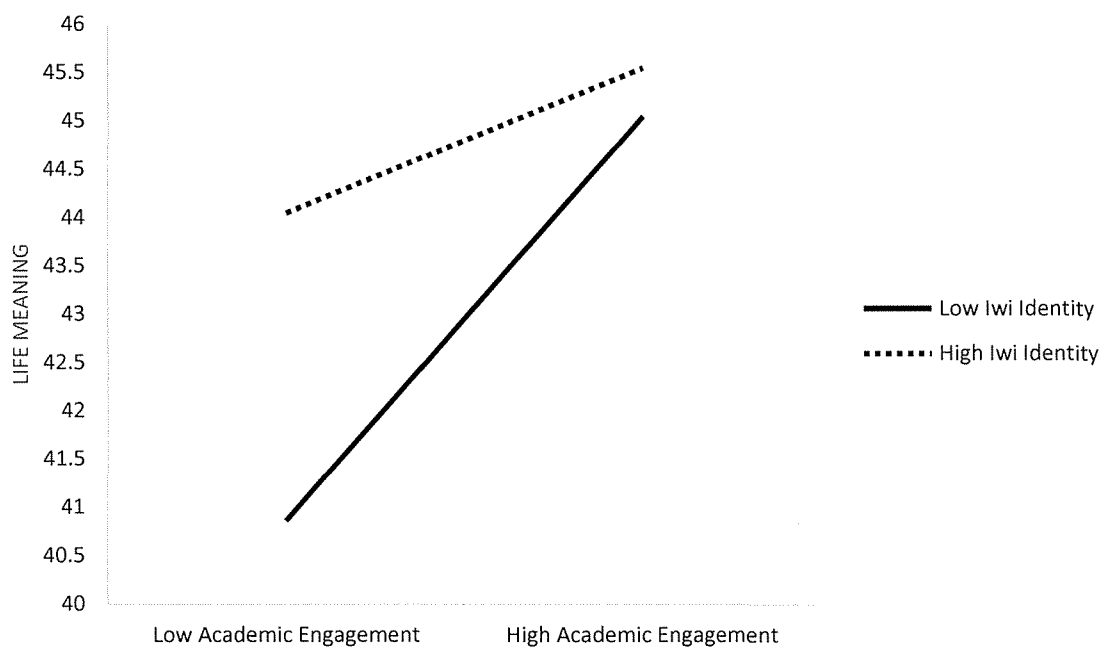
Figure 3. Schematic representation of the Iwi Identity X Academic Engagement interaction in the prediction of life meaning for internal students.

Figure 3 illustrates that Iwi identity moderates the relationship between academic engagement and life meaning for internal Māori students. At low levels of academic engagement, students with high Iwi identity had more meaning in their life compared to those with low levels of Iwi identity. The same trend was found for high levels of academic engagement, but the difference was less pronounced.
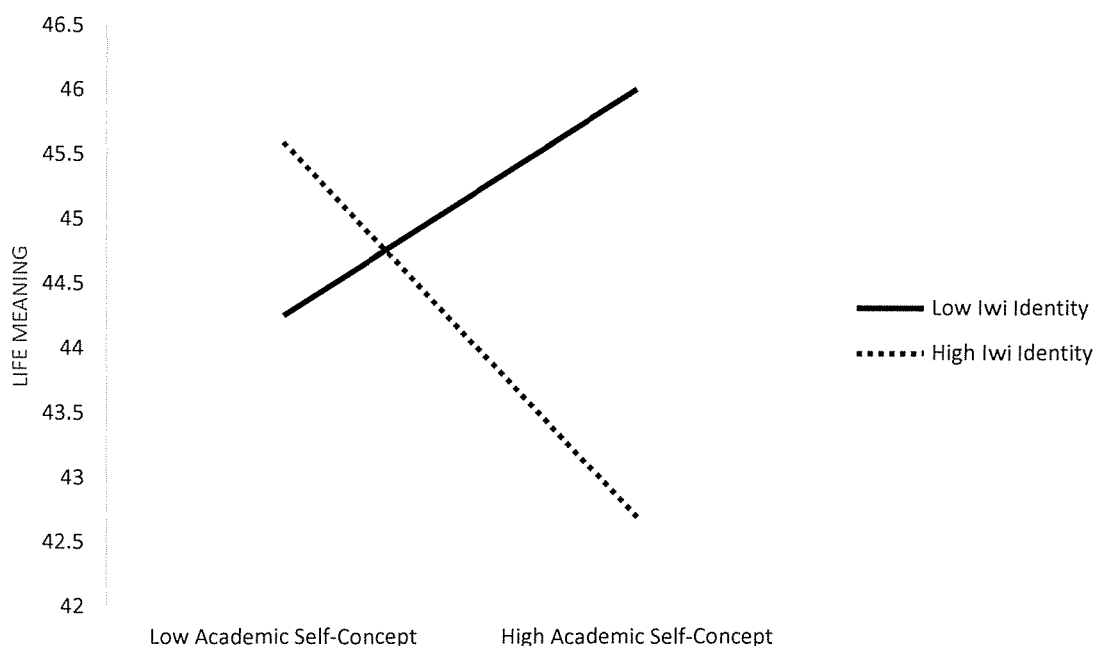
Figure 4. Schematic representation of the Iwi Identity X Academic Self-Concept interaction in the prediction of life meaning for internal students.

Figure 4 illustrates that Iwi identity moderates the relationship between academic self-concept and life meaning for internal Māori students. At low levels of academic self-concept, students with high Iwi identity had more meaning in their life compared to those with low levels of Iwi identity. However at high levels of academic self-concept, students with low levels of Iwi identity had more meaning in their life than those with high levels of Iwi identity.

Extramural students – Iwi identity moderation effects

Earlier t-tests (Table 3) and correlational analyses (Table 5) indicated no key demographic variables would need to be controlled for within the regression. Table 18 shows that Iwi identity and both independent variables were entered at step one. Interaction terms between both independent variables and Māori identity were added at step two. The addition of the interaction terms at step two was not statistically significant, producing a non-significant F change with $F(5,68) = 0.946$, p=0.457.

Table 18

Hierarchical multiple regression of individual and contextual variables and the interaction of Iwi identity on life meaning showing standardized beta coefficients, R, R2, and adjusted R2 for extramural students.

PREDICTOR	Step 1: Beta	Step 2: Beta
Academic Engagement	-.139	-.205
Academic Self-Concept	-.030	-.057
Iwi Identity	.054	.020
Iwi identity X Academic Engagement		.092
Iwi Identity X Academic Self-Concept		.154
R	.159	.255
Total R2	.025	.065
Adjusted R2	-.016	-.004
R2 change		.040

*p<.05, **p<.01, ***p<.001

3.3.4. Life Satisfaction

The research questions being tested within the following section are as follows:

- The moderating effects of Māori identity on the relationship between academic engagement and life satisfaction for internal and extramural students.

- The moderating effects of Māori identity on the relationship between academic self-concept and life satisfaction for internal and extramural students.

- The moderating effects of Iwi identity on the relationship between academic engagement and life satisfaction for internal and extramural students.

- The moderating effects of Iwi identity on the relationship between academic self-concept and life satisfaction for internal and extramural students.

Internal students – Māori identity moderation effects

The dependent variable was entered at step one of the regression, as results from Table 3 indicated that the number of dependents significantly affected life satisfaction for internal

students. This variable was a significant predictor of life satisfaction at this step. Table 19

shows that Māori identity and both independent variables were entered at step two, which

resulted in a significant F change (4,61) = 5.109, p<.01. At step three, the interaction terms

between both independent variables and Māori identity were added producing a significant F

change, F (6,59) = 3.814, p<.01. Only the dependents variable was a significant predictor of life

satisfaction at step three. It should be noted that the dependents variable is ambiguous in the

sense that it was significant in steps one and three, but not significant at step two which

renders the interpretation of the dependents effect difficult.

Table 19
Hierarchical multiple regression of individual and contextual variables and the interaction of Māori identity on life satisfaction showing standardized beta coefficients, R, R2, and adjusted R2 for internal students.

PREDICTOR	Step 1: Beta	Step 2: Beta	Step 3: Beta
Dependents	**.289***	.202	**.249***
Academic Engagement		.174	.151
Academic Self-Concept		.262	.176
Māori Identity		.154	.179
Māori Identity X Academic Engagement			-.043
Māori Identity X Academic Self-Concept			-.175
R	.289	.501	.529
Total R2	.084	.251	.279
Adjusted R2	.069	.202	.206
R2 change		.167	.029

*p<.05, **p<.01, ***p<.001

Extramural students – Māori identity moderation effects

Earlier t-tests (Table 3) and correlational analyses (Table 5) indicated that no key demographic

variables would need to be controlled for within the regression. Table 20 shows that Māori

identity and both independent variables were entered at step one. At step two the interaction

terms between both independent variables and Māori identity were added, however the addition of these variables was not statistically significant, and produced a non-significant F change, $F(5,68) = 1.628$, p=.164.

Table 20
Hierarchical multiple regression of individual and contextual variables and the interaction of Māori identity on life satisfaction showing standardized beta coefficients, R, R2, and adjusted R2 for extramural students.

PREDICTOR	Step 1: Beta	Step 2: Beta
Academic Engagement	.267	.309
Academic Self-Concept	-.004	.024
Māori Identity	.125	.159
Māori identity X Academic Engagement		-.017
Māori Identity X Academic Self-Concept		-.149
R	.295	.327
Total R2	.087	.107
Adjusted R2	.048	.041
R2 change		.020

*p<.05, **p<.01, ***p<.001

Internal students – Iwi identity moderation effects

The dependents variable was entered at step one of the regression, as correlations from Table 3 indicated the number of dependents a respondent had significantly affected life satisfaction for internal students. At step one the dependents variable was a significant predictor of life satisfaction. Table 21 shows that Iwi identity and both independent variables were entered at step two, which resulted in a significant F change (4,61) = 5.262, p<.01. At step three the interaction terms between both independent variables and Iwi identity were added producing a significant F change, $F(6,59) = 3.537$, p<.01, however neither interaction term was statistically significant in the prediction of wellbeing. It should be noted that the dependents variable is ambiguous in the sense that it was significant in step one, but not significant at steps two and

three, which renders the interpretation of the dependents effect difficult.

Table 21

Hierarchical multiple regression of individual and contextual variables and the interaction of Iwi identity on life satisfaction showing standardized beta coefficients, R, R2, and adjusted R2 for internal students.

PREDICTOR	Step 1: Beta	Step 2: Beta	Step 3: Beta
Dependents	**.289***	.189	.221
Academic Engagement		.182	.161
Academic Self-Concept		.270	.224
Iwi Identity		.173	.168
Iwi Identity X Academic Engagement			-.038
Iwi Identity X Academic Self-Concept			-.081
R	.289	.506	.514
Total R2	.084	.257	.265
Adjusted R2	.069	.208	.190
R2 change		.173	.008

*p<.05, **p<.01, ***p<.001

Extramural students – Iwi identity moderation effects

Earlier t-tests (Table 3) and correlational analyses (Table 5) indicated that no key demographic variables would need to be controlled for within the regression. Table 22 shows that Iwi identity and both independent variables were entered at step one. At step two the interaction terms between both independent variables and Iwi identity were added, however the addition of these variables was not statistically significant, and produced a non-significant F change, $F_{(5,68)}$ = 1.548, p=.187.

Table 22

Hierarchical multiple regression of individual and contextual variables and the interaction of Iwi identity on life satisfaction showing standardized beta coefficients, R, R2, and adjusted R2 for extramural students.

PREDICTOR	Step 1: Beta	Step 2: Beta
Academic Engagement	.249	.212
Academic Self-Concept	-.001	.023
Iwi Identity	.084	.121
Iwi identity X Academic Engagement		.164
Iwi Identity X Academic Self-Concept		-.191
R	.279	.320
Total R2	.078	.102
Adjusted R2	.038	.036
R2 change		.024

*p<.05, **p<.01, ***p<.001

CHAPTER FOUR: DISCUSSION

This study has examined the potential moderating effects of both Māori and Iwi identity on the relationship between academic engagement and academic self-concept with grade point average (GPA) and psychological wellbeing (conceptualised as affective wellbeing, life meaning and life satisfaction). The final chapter of this thesis will be presented in the following format:

1. A summary of findings will be presented within the context of the research goals. This will include an interpretation of the results and a consideration of how these findings relate to previous research.

2. Consideration of the implications of the findings.

3. Acknowledgements of the limitations of this research and recommendations for future research.

4.1. Findings: A Summary and Interpretation

4.1.1. The Moderating Effects of Māori Identity on the Relationship Between Academic Engagement and Academic Achievement.

The first objective of this research was to examine the relationship between academic engagement and academic achievement and the extent to which that relationship might be moderated by Māori identity. Māori identity was shown to moderate the relationship between academic engagement and academic achievement as measured by GPA for internal students, however for extramural students, no support was found for the proposed model.

There are a number of possible explanations for this finding. Internal students have available to them a number of academic related opportunities which allow them to engage with the coursework such as extra tutorials, as well as access to lecturers and tutors outside of class sessions. Engagement in such opportunities have been linked to higher levels of engagement, and ultimately higher academic achievement (Meece, Blumenfeld, Phyllis, & Hoyle, 1988). Many New Zealand tertiary institutes offer extra tutorials for Māori students run by Māori staff to

provide a culturally safe, relevant and appropriate opportunity for students to relate to the material within their coursework, which could be seen to increase engagement and understanding of coursework for Māori students. The "by Māori for Māori" approach could help in maintaining or increasing the level of identity that the student may have with their Māori culture, as previously highlighted by Bennett (2008).

In addition, such tutorials also provide opportunities for students to interact with other Māori students within an academic context, which was found by Lynch, Lerner, and Leventhal (2013) to be related to school engagement as well as individual academic outcomes. In a similar vein Smalls, White, Chavous and Sellers (2007) found that emphasizing commonalties with Blacks and other oppressed groups (minority ideology) related to positive engagement outcomes, providing further support for the proposed pathway.

In summary, Māori specific tutorials could be seen to increase academic engagement while maintaining or increasing students' Māori identity, resulting in higher academic achievement via GPA, providing a plausible explanation for the moderating role of Māori identity on the relationship between academic engagement and academic achievement for internal students found within the present research. This explanation also provides support for why this was not found for extramural students, as they do not have available to them the Māori specific tutorials or consistent engagement with fellow Māori students.

Though the explanation presented above is yet to be examined empirically it highlights the potential significance that Māori specific tutorials could have a part in increasing academic achievement for internal Māori students. As many tertiary institutes highlight the importance of increasing academic achievement for their Māori students and have incorporated goals to increase achievement in future strategic plans, such research on the efficacy of Māori focused tutorials would increase the accountability of the university to take action and implement proven ways to increase the achievement of Māori students.

In regards to extramural students, these findings highlight the need for future research to investigate ways in which extramural students are more able to engage with their coursework and material from a distance. Māori tutorials that are currently held could be extended for extramural students to attend either physically or virtually via Skype, or sessions could be recorded and made available to extramural students. Much work still needs to be done to find culturally relevant ways to engage extramural Māori students in order to try and replicate the results found with internal students.

4.1.2. The Moderating Effects of Māori Identity on the Relationship Between Academic Self-Concept and Academic Achievement.

The second objective of this research was to examine the relationship between academic self-concept and academic achievement and the extent to which that relationship might be moderated by Māori identity. For the purposes of this research academic self-concept was defined as an individual's perception about themselves in academic achievement situations (Wigfield & Karpathian, 1991). Findings for both internal and extramural students have not provided support for the proposed model.

For internal students, there was a main effect found between academic self-concept and academic achievement as measured by GPA, however there was no significant interaction with Māori identity. For extramural students, there was no significant relationship between academic self-concept and GPA.

There are a number of possible explanations for these findings. As internal students are more likely to receive conscious or subconscious feedback about their academic performance from interactions with lecturers and peers within the same papers, this could enable them to more accurately gauge their academic self-concept. Comparatively extramural students who are isolated and have limited if any contact with lecturers or peers within the same papers may not be able to gauge their academic ability as accurately, which could provide an explanation as to why the significant relationship between academic self-concept and GPA was found for internal

students but not extramural students.

Results from Awad (2007) highlighted those with stronger ethnic identity had a higher academic self-concept which led to higher academic achievement. Differences between Awad (2007) and the present study are primarily found within the measurement of academic self-concept. The present study used the Perceived Challenge Academic Self-Concept Scale, including only those questions relevant to academic self-concept (n=6 items) as perceived challenge was not a construct of interest within this study. This measure was selected for use within this study as it was created to minimise the likelihood of students comparing their own academic ability to their peers, thus resulting in a more accurate measure of the individual student's own academic ability. Alternatively, Awad (2007) made use of the Academic Self-Concept Scale, which was developed in 1988 and used to assess general aspects of college students' academic self-concepts through use of a 40-item scale, providing a more in-depth analysis of the academic self-concept. Also, the scale Awad used was created solely to measure academic self-concept, and was not a subscale of a larger measure like the measure used within this study. These differences could help to explain why the predicted significant interaction was not found within this study.

Another explanation of the findings of this research is the cultural mismatch between the Western-based academic self-concept construct and Māori identity, which is primarily collectivistic (Haar, Brougham & Roche, 2011), a theory presented by Fryberg et al. (2013). This theory states the importance of cultural mismatch between Aboriginal students' cultural background, which emphasises connectedness and interdependence, and the mainstream 'White' model of education, which focuses on independence and assertiveness, which can be seen between academic self-concept and Māori identity. Also, the measure used for academic self-concept was created to try and minimise any peer comparison, which means the questions are framed in such a way that it leads the individual to focus on their own personal academic

ability. While this may be relevant within Western worlds, cross-cultural research highlights the innate nature of collectivistic members to identify themselves in relation to others, or comparatively, whereas those in Western cultures are more likely to identify themselves individually (Kuhn, 1970) .More specifically, whakatauki such as "Kaore te kumara e korero I tona ana reka", which translated means "the kumara does not speak of its sweetness" and "Waiho ma te tangata e mihi" which means "Leave your praises for someone else" highlight the importance of humility within Māori culture. Cultural expectations, norms and values could have influenced the participants to underreport their academic self-concept which might explain in part why the hypothesized effects were not found in this research for internal or extramural students.

Future research could investigate whether other measures of academic self-concept that allow for external frames of reference (conscious or subconscious comparisons to other students) would produce the same results within a Māori sample. This would help to clarify if the results found within this research could be explained by a cultural mismatch (Fryberg et al. 2013), as a measure which allowed for external frames of reference could align to a collectivistic way of measuring academic self-concept, potentially allowing Māori participants to more accurately report their perceived academic ability, and minimizing the contradiction of core Māori values such as humility.

4.1.3. The Moderating Effects of Māori Identity on the Relationship Between Academic Engagement, Academic Self-Concept and Positive Psychological Outcomes.

The third objective of this research was to examine the relationship that academic engagement and academic self-concept have with positive psychological outcomes and the extent to which that relationship might be moderated by Māori identity. The findings and subsequent tentative explanations will be presented for wellbeing, life meaning and life satisfaction respectively.

4.1.3.1. The moderating effects of Māori identity on the relationship between academic engagement and wellbeing, and academic self-concept and wellbeing.

For both internal and extramural students, no support was found for this hypothesis.

Steele & Fullagar (2009) found a significant relationship between academic engagement and psychological wellbeing. Academic engagement correlated will wellbeing at the bivariate level in the present study but this relationship doesn't persist in the regressions, presumably as a function of the relationships between academic engagement and other independent variables in the analysis. A key difference between Steele & Fullagar (2009) research and the present study is the conceptualisation of academic engagement. The measurement of academic engagement within their study was based on a more specific domain of academic engagement called flow, defined as the "holistic sensation that people feel when they act with total involvement" (Csikszentmihalyi, 1975, p. 36). Flow as a short-term, acute absorption in a specific kind of activity, whereas engagement is a more pervasive and persistent involvement in a broad range of activities (Schaufeli & Salanova, 2007).

At bivariate level there was a correlation between academic self-concept and wellbeing for the sample as a whole (see Table 6, page 41) but the academic self-concept/wellbeing relationship became ambiguous in the regression analysis for internal students (possibly due to a suppression effect), and the relationship was not significant for extramural students. For both subgroups the academic self-concept x identity interaction was not significant (Tables 11 & 12, pages 48-49).

A possible explanation could be that Cheng and Furnham recruited participants who were senior pupils of secondary schools within the United Kingdom. These students may have a higher sense of academic self-concept due to their senior status and experience within those particular schooling environments. In contrast, the students in the present study were mostly extramural and part-time and have had less exposure to contexts and experiences within which to accurately assess their academic self-concept. Both the present study and Cheng and Furnham (2002) used the same measure (Affectometer 2) for wellbeing, but different measures for academic self-concept, which may also contribute to the differences in results.

4.1.3.2. The moderating effects of Māori identity on the relationship between academic engagement and life meaning, and academic self-concept and life meaning.
Māori identity was found to moderate the relationship between academic engagement and life

meaning for internal students. No support for the model was found for extramural students. For

both internal and extramural students, there was no support found for a moderating effect of

Māori identity on the relationship between academic self-concept and life meaning.

For internal students at low levels of academic engagement, those with high Māori identity had

higher life meaning than those with low Māori identity. However at high levels of academic

engagement, there was no real effect of Māori identity (Figure 2, page 53). A possible

explanation is that at low levels of academic engagement (as students are not consumed with

the university environment) they have more time to engage in activities that give their life

meaning. Those with high Māori identity are likely to be engaged in activities that reinforce their

high Māori identity, resulting in higher life meaning scores due to the importance of Māori

culture to those individuals. Individuals with low Māori identity and low academic engagement,

are possibly less certain about which activities give their lives meaning, as they do not have a

strong connection to their Māori identity or to the university environment, possibly explaining

why they have lower life meaning at levels of low academic engagement.

At high levels of academic engagement, Māori identity levels have no real effect, with both

groups having the same levels of life meaning. An explanation for this is that when those with

low Māori identity engage in university at high levels, it is because life meaning is inherently

linked to academic achievement. For those with high Māori identity, it is likely that their life

meaning is more determined by their Māori identity than academic engagement, possibly

explaining why when engaged at high levels, life meaning only slightly increases within this

group.

When looking at the demographic characteristics which comprise internal students, they are

more likely to be engaged in full-time study as opposed to extramural students who are more

likely to study part-time, be engaged in work and family life, and are more likely to seriously consider leaving study without completion (Australian Council for Educational Research, 2011). These key differences highlight a potential explanation for why there was a significant interaction for internal students that was not found for extramural students.

Findings such as these highlight the need for future research to further investigate the differences between internal students and extramural students, paying particular attention to the ways in which academic engagement may be constructed differently for the two groups. This is of high importance for Māori in particular, who are more likely to be engaged within tertiary level study at an extramural, part-time level (Australian Council for Educational Research, 2011).

When looking at the relationship between academic self-concept and life meaning, there was no significant relationship between the two constructs either independently or when moderated by Māori identity for internal or extramural students.

4.1.3.3. The moderating effects of Māori identity on the relationship between academic engagement and life satisfaction, and academic self-concept and life satisfaction.
For both internal and extramural students, no support was found for the moderating effects of Māori identity on the relationship between academic engagement and life satisfaction, or academic self-concept and life satisfaction. Significant bivariate correlations between academic engagement and life satisfaction, academic self-concept and life satisfaction, and Māori identity and life satisfaction were present.

Research by Lewis, Huebner, Malone and Valois (2011) found that school engagement fostered life satisfaction, and though this relationship was found at bivariate level, the finding was not supported within the hierarchical regressions either independently or when moderated by Māori identity. Both this research and that carried out by Lewis, Huebner, Malone and Valois used a measure of global life satisfaction instead of measures which assess life satisfaction in specific domains. Key differences in the measures of academic engagement could explain the

discrepancies between the contrasting findings. Within the research by Lewis et al. (2011), though three types of academic engagement were tested (cognitive, emotional and behavioural), only cognitive engagement was found to be significantly related to life satisfaction. The measure used within this study included four types of academic engagement (skills, emotional, participation/interaction and performance) and notably did not include a measure of cognitive engagement, which could explain why the results within this study did not produce significant results similar to Lewis et al. (2011). In order to determine whether the exclusion of a cognitive engagement component was related to the results found within this research, future studies could look to replicate this study using a measure that either contains a measure of cognitive engagement, or a measure that solely measures cognitive engagement. If after replication significant results were obtained, it would suggest that a key aspect of academic engagement is the cognitive aspect, thus providing evidence for its necessary inclusion in future measures. If, however, results remained consistent with the findings of this research, it would suggest further investigation is needed to determine the mechanism by which the relationship operates.

When looking at the relationship between academic self-concept and life satisfaction, there was a positive correlation was found at the bivariate level for the sample as a whole. A possible explanation for this is that viewing oneself positively in an academic sense is reflective of an overall positive attitude. Academic self-concept is also highly correlated with academic engagement at bivariate level, which could be a possible explanation as to why the effect is not found within the multivariate analysis either independently, or when moderated by Māori identity.

4.1.4. Iwi Identity as a More Specific Measure of Māori Identity.

Iwi identity was found to moderate the relationship between both academic engagement and life meaning, and academic self-concept and life meaning for internal students. No support for the model was found for extramural students.

As the Iwi identity measure used within this study has been adapted from the Māori identity scale, and both groups have produced the same significant results, it is likely that the same explanation mechanism that was proposed within the Māori identity section is relevant for the Iwi identity section, with the demographic characteristics of internal students (full-time) contributing to the difference in significant findings between internal and extramural students. It is possible that those students who are identified as having high Iwi identity are more collectivistic, and engage in activities which reinforce their Iwi identity and add meaning to their life. This explains why life meaning scores stay relatively similar for those with high Iwi identity at both low and high levels of academic engagement, as engaging within the university is done at an individual level, which does not reinforce their Iwi identity, which in turn has little effect on life meaning. This also helps to explain why students with low Iwi identity experience a large increase in life meaning at high levels of academic engagement, as they are more likely to be individualistic, with life meaning being inherently linked to academic achievement (as seen in figure 3, page 56).

Another significant relationship found within the present study was where Iwi identity moderated the relationship between academic self-concept and life meaning for internal students the relationship between academic self-concept and life meaning when moderated by Iwi identity for internal students. No support for the model was found for extramural students.

Though there is no literature to draw upon in explaining the current relationship, closer inspection of the Iwi identity and academic self-concept construct could unveil a possible pathway through which the interaction has occurred. As a more specific measure of Māori identity, Iwi identity is at its core a very collectivistic, with high levels of Iwi identity being indicative of aligning to a more collectivistic way of being, viewing and engaging within the world. The construct of academic self-concept has stemmed from the Western paradigm of psychology, and at its core necessitates individuals to be able to accurately identify their

individual ability within the academic world, a concept which in itself aligns to individualist characteristics. Perhaps the result of this relationship is the by-product of a collectivistic construct moderating an individualistic construct. Specifically, at low levels of academic self-concept those participants with high Iwi identity have more life meaning. Aligning to the previously proposed theory, as participants with high Iwi identity do not 'buy-in' to the individualistic construct of academic self-concept as it opposes their cultural values, they reject the notion of individualism and therefore engage in activities which give them life meaning. This is also supported when looking at participants who had low Iwi identity at low levels of academic self-concept, where if they do not think of themselves as being academically able, they feel disconnected from attaining their goals and giving their life meaning, as meaning within an individualistic sense in an academic environment is related to high achievement and increased ability to attain and achieve their own personal goals. However, participants with low Iwi identity and high academic self-concept exponentially increased in life meaning scores comparatively to those with high Iwi identity, potentially because as they are aligned to a more individualistic way of life, they associate their high academic ability with achievement and wealth, giving their life more meaning.

As both the significant findings for Iwi identity replicate those found when moderated by Māori identity, future research should firstly look to identify the differences between these two constructs and ascertain whether they are measuring different constructs or if the results are replicated because the constructs are ultimately the same. In order to do so, research could focus on investigating the differences between Iwi (such as tribal dialect, whakapapa, geographical location) and looking to create an Iwi Identity scale that is more specific and easily differentiated from the Māori Identity scale used in this study. If the significant findings are replicated it would provide evidence of the two being separate constructs. If support was found for a more specific construct, research could be carried out to observe the effects of Iwi identity i.e. whether it is beneficial to educational outcomes or wellbeing. This would be of high

importance to Iwi and rūnanga allowing them to seek ways to actively engage their people. From here, as previously highlighted, future research could then investigate further the differences between internal students and extramural students, paying particular attention to the ways in which academic engagement may be constructed differently for the two groups.

4.1.4.1. Plausibility of Iwi identity as a more specific measure of Māori identity.
Though it is necessary for future research to replicate research which uses both Māori and Iwi Identity scales in order to provide more evidence as to whether the two are able to be classed as separate constructs, findings within this study appear to support the proposed model in which Iwi identity is a separate construct from Māori identity. Expectedly the two constructs have a high correlation, as the measure of Iwi identity was adapted from the measure of Māori identity since currently no Iwi identity measure exists.

Also, though there is a high correlation between the two, the significant findings for Māori identity as a moderator were different from the significant findings for Iwi identity as a moderator. If both constructs measured the same mechanism, it would be logical that both constructs would therefore produce the same significant relationships. As this is not the case, this shows further support for the differentiation of the two constructs.

4.2. Implications of the Findings.
Though it was not an initial aim of this research to investigate both internal and extramural students, the difference between the two learning modes has been highlighted. This has implications for universities that currently offer both modes of study, as well as universities who plan to offer mixed study modes in the future.

As there is limited literature to date which looks at the differences between both modes of study, the approach to date for universities has been a universal one. However, Results from this study suggest that there are key differences between students who study internally and students who study externally, warranting further investigation. Māori identity only moderated certain relationships for internal students, with no findings for extramural students. Whether

this suggests that the construction and meaning of Māori identity differs for internal and extramural students, or if the extent to which students are engaged with their Māori identity dictates the way in which they are likely to study (i.e. either internally or extramurally), the difference in Māori identity and what that means specifically to internal and extramural students should be further investigated.

The associations between Māori identity and a range of positive psychosocial and academic outcomes is of particular significance. Māori students could be encouraged to engage more with their Māori culture, particularly those who may not know about their heritage. Increased engagement or re-engagement of students with their Māori identity is likely to lead to increased involvement with Iwi and rūnanga, which in turn increases the skills and qualified Iwi members that are available for Iwi to potentially utilise. These findings are also relevant to universities and other such tertiary institutes that aim to increase the rates of participation, completion and achievement of Māori students. Though the level at which students identify and engage with their Māori heritage is individually determined, these tertiary environments can provide opportunities for willing Māori students to enhance or maintain that sense of Māori identity in order to promote the likelihood of positive outcomes. Programmes and policies have been developed and implemented within many tertiary institutes to provide culturally safe spaces and opportunities (both academic and social) for Māori students, with rates of engagement, participation, enjoyment and achievement increasing annually (Massey University, 2013). Results such as these and the findings from this research justify the continuation of such programmes, and warrant further investigation into other opportunities that tertiary institutes can provide that may increase or maintain Māori students' sense of cultural identity.

As previously mentioned, findings within this research also highlighted differences between the roles of Māori identity and Iwi identity in moderating the relationships that were investigated. Relationships that were not moderated by Māori identity were found in some cases to be

moderated by Iwi identity. This suggests that there is an underlying difference between the two constructs, lending support to Iwi identity as an independent and more specific measure of Māori identity. As findings such as these have not been documented to date, there is a need for future research to continue to investigate the differences between Māori and Iwi identity, and their relationship to a range of other variables and outcomes. This will allow for the further validation of the idea presented within this research that there is a difference between Māori identity and Iwi identity, and the extent of those differences will also be documented. These findings also highlight the importance and significance of future research in developing a theoretical framework and measure that explains the specific mechanism by which Iwi identity operates. This should also investigate the more specific role of Iwi identity. Not only does this study provide support for the notion of Iwi identity as a more specific measure of Māori identity, it provides an opportunity for other research to investigate if this specificity is also found for other cultures around the world, something which has currently not been explored within the literature. Therefore these findings have presented support for many new and currently unmarked pathways in both Māori research, as well as indigenous research worldwide.

4.3. Limitations and Future Recommendations.

Within this study there were a number of limitations to be acknowledged. These limitations will be discussed in more detail, with suggestions for future research directions.

1. As this study was conducted with a specific student population, the findings presented within this piece of research are specifically relevant to this group. This therefore means that the application and relevance of these findings to other groups of Māori students are limited, and that it would be inappropriate to consider these findings as representative of the situation among the wider population of Māori tertiary students studying within New Zealand. Specifically these results are derived from Māori students who studied within a Western-based institute, so generalisations should not be made to Māori students studying within Māori-based institutes such as Wānanga. Future research could look to include

multiple institutes which are both Western-based and based on Māori values and ways of teaching and learning, thereby increasing the relevance of any findings.

2. Another issue was the method used to recruit participants. The use of a third-party (associated with the institute) to identify participants who met the researchers selection criteria was expected to be more efficient, accurate and increase the response rates of participants, as all students who met selection criteria would be sent the invitation to participate. The first issue with this method was that the researcher's selection criteria was not adhered to, resulting in the receipt of completed surveys from those not originally included within this research. This had implications for specific measures that were chosen due to their relevance to internal students, such as the academic engagement questionnaire. However, as highlighted previously, because surveys were sent to extramural students as well, it was too late to change the measure of academic engagement to a measure that was suited to both internal and extramural students. Instead, the researcher tailored the already chosen measure to suit extramural students by eliminating questions that were not relevant to extramural students, which totalled 5 out of 22 questions.

The second issue with the use of this method was that it was completed electronically. All invitations were sent out via email which required a project title. As Māori identity was included within the title, students who were more likely to participate were those who were more interested in their Māori identity. This saw the current study over-sampling in students who were on the higher end of Māori and Iwi identity, and a lower than expected response rate. Also related to the use of an electronic-based system was that the database used to email students had been blocked by a major email provider. This meant the researcher was unable to accurately identify how many students received the participation invitation, and therefore meant the response rate was unable to be accurately calculated. This also reduced the number of potential participants to the research. Future research

could look to recruit participants face-to-face via hui and other meetings, where the researcher could then hand out the link to the questionnaire to participants who were interested and met the selection criteria. This would ensure that all participants would adhere to the selection criteria as determined by the researcher. The researcher would also be able to explain the aims of the study in person which could increase the likelihood of recruiting students who rate low on the Māori identity scale, as they would have more information and any questions or judgements they have could be discussed. Also, face-to-face hui are beneficial in that the invitation is delivered in person allowing for correct numbers of participants to be recorded, thus the response rate could be calculated accurately. It is also a more culturally appropriate method that has been used in past research.

3. The statistical analyses which were utilised within the current study highlighted a number of significant relationships. By using hierarchical multiple regression analyses, this study has facilitated further exploration of the channel of association between variables (e.g. Tofi, Flett, & Timutimu-Thorpe, 1996; Seymour 1999). However it is important to note that any relationships highlighted do not imply causality, due to the cross-sectional nature of this research. By employing the use of a longitudinal study, future research would be able to help determine if the significant relationships found within this research would also be replicated at a later date.

4. The use of the PCASC scale in measuring academic self-concept was originally chosen due to its strength in controlling for external frames of reference (unnecessary comparisons to other students), therefore being seen as giving a more accurate representation of a person's true academic self-concept. As explained within the measures section, the scale was adapted so that only questions related to academic self-concept was input into the current study survey. This resulted in only 6 questions out of 19 being incorporated. On reflection, questions included may not have been in-depth enough to fully measure a

person's academic self-concept, or the adaptation of the scale may have meant that academic self-concept is only truly measured correctly in the context of the full scale. Future research should look to weigh up the positives and negatives for using a more detailed measure of academic self-concept that may contain questions that promote students to compare their abilities to other students, or a shorter measure that protects against external frames of reference.

In summary, the research reported in this thesis has achieved its key objectives, revealing positive moderating effects of both Māori identity and iwi identity, as well as providing early support for iwi identity as an individual and more specific measure of Māori identity. These results are of value to social scientists, policy makers, tertiary education institutes, as well as individual Māori students, and their whanau, hapū and Iwi respectively. The findings from this research have highlighted the importance of assessing the level of Māori identity within Māori university students, and the positive influence that Māori and Iwi identity may have on positive life outcomes both measures within this research, and the vast amount of variables yet to be examined.

The importance of this research highlights the ability of Māori students to maintain and strengthen their Māori and Iwi identity while achieving successfully within a Westernised education system, something which was once believed to be unattainable. This does however emphasize the importance that tertiary education providers have to ensure they allow culturally appropriate ways of engagement within the educational environment, thus fostering the best possible environments for academic achievement for Māori students.

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APPENDICES

Appendix 1: The Calculation of Grade Point Average

Each grade is assigned a numerical value according to the following scale:

- A+   9
- A   8
- A-   7
- B+   6
- B   5
- B-   4
- C+   3
- C   2
- C-   1
- R   1
- AEG   1
- D   0
- E   0
- F   0
- DNC   0

In calculating grade point average the formula is as follows:

$$\sum (\text{grade value X point value of the paper}) / \sum (\text{total points taken})$$

Appendix 2: Request to Use Online Survey

Help Desk, ITS
service.desk@massey.ac.nz
Attn: Clive Martis
Chief Information Officer
Massey University
P.O. Box 11222
Palmerston North
Phone: +(646) 350-5049
Fax: +(646) 350-5624

Dear Chief Information Officer / Clive Martis

Description of Research of Project and Topic:

1.   Investigate the relationship that academic engagement and academic self-concept have on academic achievement and general happiness when moderated by Māori identity.

2.   Investigate through exploratory questioning whether the effects of Māori identity are more pronounced at higher levels of Iwi identity, when compared to low levels of Iwi identity or Māori identity.

3.   To explore whether higher levels of Iwi identity are positively related to positive psychology measures such as life meaning and life satisfaction.

In order to do this, I am creating an online survey with the intention that this will be distributed to Māori students. The primary outcomes of the proposed research will be:

1.   The creation and further development of the Iwi identity construct as a mechanism for positive psychological outcomes.

2.   The further development of research which focuses on positive psychology approaches in relation to the role that Māori identity, and more specifically Iwi identity plays within the education sector.

I have received Human Ethics approval and their letter is attached.

        The Human Ethics Committee has approved this as Approval number 13/71

My supervisor is Dr Ross Flett

As per the requirements of Human Ethics Application (Section 25), we are requesting the authority to distribute access details to an electronic web-based survey and collect the data on-line into a data file for later analysis.

The survey will be hosted on the secure Qualtrics survey system (http://qualtrics.com) using

an existing School of Psychology Qualtrics licence operated by Mr Harvey Jones, Programmer/Analyst in the School. This survey system is secured under the https protocol and the survey anonymised when in use. The software has been used by our researching staff and students for a number of years in the School of Psychology. It has continued to provide safe and reliable means of survey distribution and data collection.

The survey pages will be set up with an opening information page describing the project and research along with any required contacts regarding the researcher and ethics requirements. Implicit consent is required by answering a question to proceed to this form of data collection.

The survey itself is based upon a web form system and the data is held by the Qualtrics server system for later collection by usercode/password access by Mr Jones only. This data file is not accessible by other external internet browsers.

A copy of the Questionnaire can be made available on request.

Thanking you for your time and kind consideration

Renee Smith

Appendix 3: Recruitment Email

Subject: Research Participation Invitation: Māori identity, Iwi identity, and academic outcomes.

Tena koe _____,

I am a postgraduate student in the Department of Psychology at Massey University. I would like to invite you one last time to participate in my research study to discover the connection between Māori identity, Iwi identity, and academic constructs such as achievement and academic self-concept.

Previously the invitation to participate in the survey was sent during the peak of exam preparation. I have decided to send the invitation once more in hopes that now exams are over, you will consider participating in this study.

Participants will be asked to complete a survey which is estimated to take 5-10 minutes.

By participating in the study, you agree to Massey University Information Technology Department collecting your Grade Point Average (GPA) for Semester 1, 2013. Your GPA will be made unidentifiable to me as the researcher, and your survey responses will be anonymous to ensure your privacy.

It is important to note that participation is voluntary, and only fully completed surveys that are submitted by participants will be used. If at any time you have started the survey and do not wish to complete the survey, your responses and GPA will not be collected.

If you decide to participate, you can access the survey from the following link ...... This will take you to an information sheet about myself as the researcher, as well as more in depth information about the research. At the end of the page will be the link to start the survey should you choose to participate.

If you would like to access the summary of findings once the data has been analyzed, a summary of the findings will be made available online on the following link.... It is expected the summary of findings will be available no later than the 1 December, 2013.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 13/71. If you have any concerns about the conduct of the research, please contact Dr Nathan Matthews, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 350 5799 x 80877, email <u>humanethicsouthb@massey.ac.nz</u>.

Thank you for your consideration.

Nga mihi,
Renee Smith
Ngapuhi, Te Rarawa, Waikato-Tainui

Appendix 4: Reminder Email for Potential Participants

Subject: Reminder: Māori identity, Iwi identity, and academic outcomes survey.

Tena koe,

This is a reminder that the survey about Māori identity, Iwi identity and academic outcomes will close in 1 week. Your participation would be greatly appreciated and would help with the advancement of Māori research which looks to contribute to the educational wellbeing of our future generations.

If you would like to participate, please click on the link to the survey that was sent in the original invitation to participate in research. Alternatively, if you have chosen to not to participate, please disregard this email.

If you would like to access the summary of findings once the data has been analyzed, a summary of the findings will be made available online on the School of Psychology web page no later than the 15th April 2014.

Nga mihi,
Renee Smith
Ngapuhi, Te Rarawa, Waikato-Tainui

Appendix 5: Information Sheet

KIA MAU KI TŌ IWITANGA: Māori IDENTITY, IWI IDENTITY, AND EDUCATIONAL OUTCOMES.

INFORMATION SHEET

The Researcher

Ko Ngatokimatahourua, ko Tainui ōku waka
Ko Rangikawarawara, ko Karioi ōku maunga
Ko Waihoehoe te awa, ko Aotea te moana
Ko Te Rarawa, ko Waikato-Tainui ōku Iwi
Ko Te Ihutai, ko Ngati Tahinga ōku hapū
Ko Renee Iritana Smith ahau

Tēnā koe,

Currently I am in my final year as a fulltime Master of Arts in Psychology student at Massey University, Palmerston North, under the supervision of Dr Ross Flett.

My initial interest in Iwi identity and its impact on educational outcomes arose from undertaking a summer internship with the Waikato-Tainui College for Research and Development, which consisted of creating education and employment profiles for the tribe. This made me wonder what the relationship with one's Iwi would have on educational outcomes, which then lead to the development of my thesis topic. This research will be used as a pilot study for my future PhD research.

I wish to conduct the research component of my Masters qualification on Māori identity, Iwi identity and educational outcomes, and ultimately, I hope to reveal a more specific Iwi identity construct that fosters positive educational outcomes, like that which has been found for the broader Māori identity construct. I will do this by creating a survey, in which I would like to invite you to participate in, if you choose do to so.

Participant Identification and Recruitment
You have been sent the email invitation to participate in this survey as you were identified as meeting the following participant requirements:
-Full time student in Semester 1, 2013
-Internal
-Māori
-Undergraduate

Students who fitted the above criteria were identified by the Information Technology Staff at Massey University. This then allowed for the invitation to participate in the research to be sent out to potential participants, such as yourself.

In order for the research to be statistically reliable, I am aiming for a minimum of 200 responses from a potential 700 students. It is not expected that undertaking this survey will bring you any discomfort or risk.

The survey is expected to take a maximum of 15 minutes.

Data Management

As was described briefly in the invitation to participate, by completing the survey, you are agreeing to allow the Information Technology staff at Massey University to access your GPA for Semester 1, 2013. Your GPA will be sent to the Analyst/Programmer in the School of Psychology, who will attach your GPA to your survey responses. He will ensure that no identifying information is accessible to me as the researcher. This is to ensure that your responses and your GPA is kept anonymous and confidential. Once I have obtained all the data, I will analyze the results using a statistical programme called SPSS. After this is done, I will then be able to disseminate my results through publications.

If you would like to access the summary of findings once the data has been analysed, a summary of the findings will be made available online on the following link. It is expected the summary of findings will be available no later than the 1 December, 2013.

Participants Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;
- withdraw from the study (by not completing the survey);
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- be given access to a summary of the project findings when it is concluded.
- Completion and return of the questionnaire implies consent. You have the right to decline to answer any particular question.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 13/71. If you have any concerns about the conduct of the research, please contact Dr Nathan Matthews, Chair, Massey University Human Ethics Committee: Southern B, telephone 06 350 5799 x 80877, email humanethicsouthb@massey.ac.nz.

If you have any further questions about the project, please do not hesitate to contact either myself, or my supervisor on the details provided below.

Renee Smith
Email:

Dr. Ross Flett
Phone: (06) 356 9099 extn 2051
Email: R.A.Flett@massey.ac.nz
I have read and understood the information sheet for this study and consent to collection of my responses and GPA from Semester 1, 2013.
(Please click on the 'Yes' choice if you wish to proceed.)

◌ Yes

◌ No

Thank you for your consideration. If you would like to participate in the survey, click here

Appendix 6: Questionnaire

DEMOGRAPHICS

1. How old are you? ☐

2. Are you male or female?
   - Male
   - Female

3. Do you currently have a partner?
   - Yes
   - No

4. How many dependents do you have in your care?
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7+

MĀORI IDENTITY

Please answer the following questions about your Māori identity

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
5. I have spent time trying to find out more about my Māori culture, such as its history, traditions, and customs.					
6. I have a strong sense of belonging to my Māori culture.					
7. I understand what being Māori means to me.					
8. I have often done things that will help me understand my Māori identity better.					
9. I feel a strong attachment towards my Māori identity.					

Māori Language Ability

10. How would you rate your overall ability with Māori language?

   - Excellent
   - Very good
   - Good
   - Fair

- Poor
- Not applicable

Whakapapa

11. How many generations of your Māori ancestry can you name?

- 1 generation (parents)
- 2 generations (grandparents)
- 3 generations (great grandparents)
- More than three generations

IWI IDENTITY

12. Are you aware of the Iwi you belong to?

- Yes
- No

If you answered yes please continue on to q13, if you answered no, please go to q18.

Please answer the following questions about the Iwi you most identify with

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
13. I have spent time trying to find out more about my Iwi, such as its history, traditions, and customs.					
14. I have a strong sense of belonging to my Iwi.					
15. I understand what being a part of my Iwi means to me.					
16. I have often done things that will help me understand my Iwi identity better.					
17. I feel a strong attachment towards my Iwi.					

WELLBEING

Over the last few weeks, how often have you felt:

	Not at all	Occasionally	Some of the time	Often	All of the time
18. Satisfied					
19. Depressed					
20. Understood					
21. Confident					
22. Discontented					
23. Withdrawn					
24. Clear-headed					
25. Insignificant					

26. Optimistic					
27. Helpless					

LIFE MEANING

Please take a moment to think about what makes your life and existence feel important and significant to you. Please respond to the following statements as truthfully and accurately as you can, and also please remember that these are very subjective questions and that there are no right or wrong <u>answers</u>. **Select how true or untrue each statement is for you.**

	Absolutely untrue	Mostly untrue	Somewhat untrue	Can't say true or false	Somewhat true	Mostly true	Absolutely true
28. I understand my life's meaning							
29. I am looking for something that makes my life meaningful							
30. I am always looking to find my life's purpose							
31. My life has a clear sense of purpose							
32. I have a good sense of what makes my life meaningful							
33. I have discovered a satisfying life purpose							
34. I am always searching for something							

that makes my life significant						
35. I am seeking a purpose or mission for my life						
36. My life has no clear purpose						
37. I am searching for my meaning in life						

LIFE SATISFACTION SECTION

Below are five statements that you may agree or disagree with. Read each one and then click on the dropdown list next to the statement and select the response that best describes how strongly you agree or disagree.

	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
38. In most ways, my life is close to ideal							
39. The conditions of my life are excellent							
40. I am completely satisfied with my life							
41. So far I have gotten the most important things I want in my life							
42. If I could live my life over, I would							

change nothing							

ACADEMIC SELF-CONCEPT SECTION

Below are six statements that you may agree or disagree with. Read each one and then select the response that best describes how strongly you agree or disagree.

	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
43. I am a good student							
44. I do well in school							
45. Learning new things is easy for me							
46. I am good at learning new things							
47. I learn things quickly							
48. I make good grades at university							

ACADEMIC ENGAGEMENT SECTION

To what extent do the following behaviours, thoughts, and feelings describe your behaviours at university?

	Not at all characteristic of me	Not really characteristic of me	Moderately characteristic of me	Characteristic of me	Very characteristic of me
49. I study on a regular basis					
50. I put in effort with my papers					
51. I complete all my internal coursework (readings					

and assignments)					
52. I stay up to date on my course readings					
53. I read class notes to ensure I understand the material					
54. I am organised					
55. I take good notes in lectures					
56. I listen carefully in lectures					
57. I attend all my lectures					
58. I find ways to make the course materials in my papers relevant to my life					
59. I apply the course materials from my papers to my life					
60. I find ways to make my papers interesting to me					
61. I think about my papers at times other than their lecture times					
62. I have a real desire to learn the					

course material					
63. I ask questions when I don't understand the lecturer					
64. I enjoy attending lectures					
65. I participate actively in small group discussions if they are available					
66. I engage with lecturers outside of lectures about assignments, tests, or questions.					
67. I help fellow students with course related questions when I can					
68. I get good grades					
69. I do well on tests					
70. I am confident that I can learn and do well in all of my papers					

71. How engaged are you in your papers?

Not at all engaged   o   o   o   o   o   o   Extremely

ACADEMIC ACHIEVEMENT SELF-REPORT

72. What was your experience of studying at university in Semester 1, 2013?

- No experience – Semester 1 was my first time studying at university
- Some experience – I have studied at university before Semester 1
- Semester 1 was my final Semester in order to obtain my qualification
- Semester 1 was my final Semester - I have now left university for other reasons

73. Please indicate the grades you expect to achieve for Semester 2, 2013

- Mostly A's
- Mostly B's
- Mostly C's
- Mostly D's
- I am not studying this semester

74. If you are still studying in semester 2, do you think you will achieve better grades this semester than you did in semester 1?

- Yes
- No
- About the same