

# **The aspirations of Maori: An exploratory study**

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## DEDICATION

For my mother, Awhina Grooby – who passed away in the final weeks before this project was completed. You will always be a source of inspiration and beauty to me. Piki te ora.

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*Whakamoemiti ki a ihoa*

*E nga mano*

*Matua Tama, Wairua Tapu me nga Anahera Pono me Te Mangai*

*Hei Tautoko mai*

*Aia nei, ake nei,*

*Ae*

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## ABSTRACT

This exploratory research examined the contributing influence of a range of contextual and individual variables on the prediction of education, occupation and income aspirations for Maori. Such variables included parental support, parental aspirations, personality, socio-economic status, age, and Treaty of Waitangi claims settlements. Of particular interest was determining whether Treaty of Waitangi settlements to Maori had influenced the aspirations of individual Maori affiliated to such iwi, compared to those Maori affiliated to iwi that had not received settlement. Two studies were conducted. A small qualitative study of ten Maori was first performed to ascertain participant subjective experiences related to their aspirations. In the second larger study, 225 Maori completed a questionnaire designed to determine participant aspirations and the variables that may influence them. Multiple regression analyses revealed that, education aspirations were predicted by parental education aspirations and age; occupation aspirations were predicted by parental occupation aspirations; and income aspirations were predicted by iwi settlement status. This last finding however was treated with caution. It is hoped that that the present study of variables influencing the aspirations of Maori will provide a comprehensive reference base of comparison for any future related research.

## INTRODUCTION

As we begin the 21<sup>st</sup> century, the government settlements made to Maori in recompense for breaches to the Treaty of Waitangi may herald a major change for Maori. Although a small number of claims by Maori have been settled, a larger number of claims are still progressing through the process and have yet to be settled. Despite the lengthy process and the general recency of settlements at this time, it is still prudent to perform an early examination of the effect of the economic and social changes resulting from Treaty settlement on the aspirations of Maori. It is speculated that in the future, settlement of Treaty of Waitangi claims may provide Maori with new found ability and means to effectively pursue and realise their aspirations and goals.

This claim is speculative in nature due to the differing manner in which iwi (Maori regional tribal groupings) use the varying resources received in their respective settlement packages and the important implications this might have for the achievement of aspirations by Maori. It is also recognised that a wide range of social environmental and individual variables apart from Treaty settlement will influence the education, occupation and income aspirations of Maori. Consequently, the influence of age, gender, parental aspirations and socio-economic status are also examined in this research to determine whether they predict the aspirations of Maori.

Aspirations and expectations as examined in social-psychological research refer to forms of attitude. This is certainly the case with respect to educational and occupational aspirations or expectations. According to Saha (1997), both educational and occupational aspirations or expectations signal a readiness to act toward the educational and occupational goal. The distinction between the two is that aspirations reflect what people would like, while expectations represent what the person perceives as reasonable or likely. The implication is that expectations appear more reality based and concrete than aspirations.

The primary aim of this exploratory research was to investigate the influence of a range of contextual and personal variables on the education, occupation and income aspirations of Maori. This research is considered exploratory because to date, relatively few iwi have completed the settlement process. As a consequence, there is a paucity of research concerning the implications of the Treaty settlement process on a number of psychological and social indices relating to Maori. This includes the study of aspirations for Maori.

It is primarily due to the lack of research that the theoretical framework of this thesis originates from a variety of relevant and related sources of social-psychological literature. The structure of the following introduction is comprised of three sections. In the first section a review of theory and research is provided that is derived primarily from three sources of literature directly related to the study of aspirations. Specifically I review studies of economic psychology, subjective well-being and other fields of psychological research related to personality, education and behaviour. A short description and summary of aspirations is also offered in this section.

The second section of the introduction presents a brief overview of current Maori performance on a variety of social and economic indices. It is proposed that there might be an association between high aspiration levels and the improvement of the current positioning of Maori relative to education, occupation and income. The final part of the introduction gives a concise summary of the Treaty of Waitangi settlement process. The respective roles of the government and Maori claimant groups are outlined, and a summary of settlement progress is also reported.

## **Literature Review of Relevant Theory and Research**

### **Aspirations**

Kurt Lewin described key characteristics of aspirations, and Katona (1975) summarised these characteristics as being:

- “1. Aspirations are not static; they are not established once for all time.
2. Aspirations tend to grow with achievement and decline with failure.

3. Aspirations are influenced by the performance of other members of the group to which a person belongs and by that of reference groups.
4. Aspirations are reality oriented; most commonly they are slightly higher or slightly lower than the level of accomplishment rather than greatly different from it" (p. 154).

The above characteristics of aspirations are analogous to the aspirations one may have about occupation and income. For instance, one might think that a job promotion will bring a degree of satisfaction and achievement if obtained. However, after obtaining the higher job and the resulting income, one's outlook might change because the new position may provide another step towards further advancement and gratification and then new, higher aspirations are formed. In this example, the level of aspiration may increase with accomplishment. Rising aspirations are most commonly the result of the arousal of new wants and desires, after more urgent wants have been satisfied (Katona, 1975). Conversely, aspirations may decline in response to the increasingly lower number of successfully obtained goals an individual may have set for themselves.

### **Economic Psychology and Aspirations**

Treaty of Waitangi settlement of Maori claims represent government acknowledgement of past Treaty breaches by the Crown against Maori. The distribution of economic resources received by Maori in Treaty settlement packages, represents a form of economic change in contemporary New Zealand society. Within this context, the Treaty settlement process clearly has economic and political implications. It follows in the tradition of economic psychology that the distribution of economic resources is a psychological issue as well, since the lives of individual Maori may well be influenced by the economic changes brought about by settlement of Treaty claims. More explicitly, a possible relationship between the economic changes derived from settlement packages to Maori and the realisation of aspirations, might be better explained using economic psychology.

Of particular relevance is the economic deterministic school of thought. Within this school of thought, Lea, Tarpy, & Webley (1987) state that individual ways of thinking may be

influenced by the economy. They also argue that economic psychology studies a dual process of causation. Whilst it is possible for the behaviour of individuals to influence the economy, the reverse may also occur. Similar views relating to a circular process of dual causation are also forwarded by others (Lea, Kemp, & Fussell, 1994; Van Raaj, 1981).

Aspirations, from an economic psychological perspective, play an important role in the study of economic behaviour. Aspirations are considered similar to motives and expectations, in that they influence or mediate the behaviour of individuals towards pursuing certain economic goals (Katona, Strumpel, & Zahn, 1971). That is, aspirations contribute towards personal progress in obtaining goals such as employment, education or the pursuit of cultural and spiritual interests. The implication is that from Lewin's perspective, it might be possible for the aspirations of Maori to be influenced by Treaty settlements.

### **Subjective Well-Being and Aspirations**

As well as literature derived from economic psychology, studies of subjective well-being have also been reviewed. The rationale is that the economic resources included in settlement packages to Maori might help Maori fulfil their aspirations, both individual and collective. It follows that the pursuit and the realisation of aspirations and goals are highly related to subjective well-being. Hence, a review of literature on subjective well-being is considered relevant to the research.

Diener (1998) offers a comprehensive explanation of subjective well-being:

“Subjective well-being is the psychological term for what in popular parlance is referred to as “happiness”. *Subjective well-being* is preferred to *happiness* because the latter term has many different meanings. Subjective well-being refers to people's evaluations of their lives – including cognitive judgements, such as life satisfaction; and affective evaluations (moods and emotions), such as positive and negative emotional feelings. When a person reports that her life is satisfying, that she is frequently experiencing pleasant affect and infrequently experiencing unpleasant affect, that person is said to have high subjective well-being” (p. 311).

The implication is that there exists a relationship between aspirations and their influence on the components of subjective well-being. Such components include life satisfaction and the pleasant affect one may feel towards work, education, oneself, one's family and one's reference group (Diener, Suh, Lucas, & Smith, 1999; Diener, 1998).

### **The Influence of Aspirations**

It is possible that for some people, high aspirations may lead to unhappiness because the distance between where the person currently is and where they would like to be is discouraging (Markus & Nurius, 1986). It has also been shown that either unrealistically high or low aspirations can decrease subjective well-being because they lead to anxiety and boredom, respectively (Emmons, 1992; Csikszentmihalyi & Csikszentmihalyi, 1988). This lends support to the observation made by Katona (1975) that aspirations are reality oriented and are more likely to be based on an individual's level of accomplishment and ability. It also suggests that aspiration levels on their own may not be a good indicator of subjective well-being. Rather, the critical issue may be whether the aspiration level that one sets and whether the aspiration is congruent with one's resources, such as parental support and socio-economic status, better determines whether aspirations are realised (Kasser & Ryan, 1996; Diener & Fujita, 1995; Kasser & Ryan, 1993).

Recent research by Carver & Scheier (1998) has found that intermediate steps taken towards realising an aspiration might be more important for achieving satisfaction, than obtaining the goal itself. This means that it is possible for individuals to experience satisfaction even in the event of low aspiration outcomes, on the condition they are satisfied they are making adequate progress towards their goals.

### **Education Aspirations**

In a longitudinal study, Marjoribanks (1995) examined the relationships between family environments and the education aspirations of adolescents from different social status backgrounds. The study revealed that the parents' aspirations and the adolescents' perception of

parental support for student learning significantly affected the educational and occupational aspirations of adolescents. The study also found that the aspirations of adolescents were not associated with the parents' level of education. Instead adolescent aspirations were related to the intensity of the parents' aspirations.

In a follow up study, Marjoribanks (1998) examined the relationships among the students' environmental contexts, individual characteristics and their likelihood of attending university. It was found that the fathers' education, the ability of the adolescent as a child, and the adolescents' aspirations significantly influenced the likelihood of the young adult attending university. In the same study, Marjoribanks (1998) also found that adolescent education aspirations were affected by early family environments and their own perceptions of their parents and teachers' support for learning.

### **Occupation Aspirations**

Schoon (2001) undertook a longitudinal study examining the predictive validity of teenage occupation aspirations and the impact of variables influencing the realisation of job aspirations. Teenage aspirations were measured first at age 16 and then finally at 36 years of age, when it was considered that their education and training had been completed and their careers established. It was revealed that teenage occupation aspirations predicted occupational attainments in adulthood specific to careers in the sciences, health professions and engineering.

However, other corresponding variables apart from teenage aspirations were also found to influence the realisation of aspirations towards these professions (Schoon, 2001). These included the influence of socio-economic status, parental interest in the child's education, gender, the belief in one's own ability, mathematic ability and personality characteristics. For instance, Schoon (2001) found that students with engineering aspirations were more likely male, came from a non-professional family background and were described as not very hardworking by teachers. Students aspiring to become health professionals had a good mathematic ability, and those aspiring to become scientists were more likely to be male, good at maths and had

withdrawn personality characteristics. The female students who aspired to be scientists more likely came from single sex schools. All students had a strong belief in their respective abilities to perform well in science related tasks at school. These findings suggest that aspirations operate in conjunction with both environmental and intrinsic factors of the individual to play a role in determining the realisation of teenage occupational aspirations in later life.

Saha (1982) studied the differences between the aspirations and expectations of students. The differentiation between aspirations and expectations was made on the basis of two questions; 'If you had a completely free choice, what occupation would you choose?' and 'Describe fully the occupation you expect to have during most of your working life.' He found that occupational expectations were more predictable than occupational aspirations. This finding suggests that despite having high aspirations, students are able to identify the limits of their own abilities in relation to what occupations and careers they hope to obtain in later working years. Saha (1982) concluded that 'realistic' occupational expectations were more closely related to social characteristics such as socio-economic status, gender and ethnicity than were occupational aspirations. Therefore, aspirations seem to be more based on what is socially desired than expectations, which seemingly are more based on the abilities and environment of the individual.

There is a paucity of literature regarding progressive occupational aspirations of individuals, who although currently employed, still desire an improvement in occupational status. However, in associated research, Tait, Padgett and Baldwin (1989) conducted a meta-analysis of 34 studies and found an average correlation of 0.44 between job satisfaction and life satisfaction. Occupation may be related to subjective well-being because it provides an optimal level of stimulation that people find pleasurable, and gives a sense of social identity and meaning (Csikszentmihalyi & Csikszentmihalyi, 1988). The reviewed studies seem to suggest that individuals who are satisfied with their lives tend to be more satisfied in their work.

## **Income Aspirations**

Ganzach (2000) analysed data from two education surveys conducted in the United States. He found that household income was the best predictor of educational expectations and attainment for young people. He concluded however, that since household income was highly correlated with parental education and cognitive ability, these could be more correctly perceived as the determinants of educational expectations and attainment, rather than income.

Two lines of research were identified in the investigation of the relation between income and subjective well-being. The first line of research found that increases in income were not inevitably associated with increases in well-being. One study of lottery winners found the winners to be happier than controls but this finding was not significant (Brickman, Coates, & Janoff-Bulman, 1978). A similar result was found by Diener, Sandvik, Seidlitz, & Diener (1993); no differences in happiness levels were found between groups of people whose income had either increased or decreased over a ten year period. These results suggest that individuals adapt to a certain level of income when the income remains stable over a fixed length of time.

The second line of research examined income change at a national level. Diener and Suh (1997) found no significant increases in subjective well-being from 1946 to 1989 in the United States, despite significant increases in income and economic growth. The researchers drew the conclusion that personal income changes are neither necessarily reflected in, nor predictive of, subjective well-being over an extensive period of time. Rather, it might be that an increase in income or economic growth is accompanied by a similar increase in goals and aspirations within the population (Diener & Suh, 1997).

Easterlin (2001) came to a similar conclusion in his study of income and happiness. He found that material aspirations are initially fairly similar between different income groups and an increase in income is related to a similar increase in happiness. He states that “over the life cycle, however, aspirations grow along with income, and undercut the favourable effect of income growth on happiness” (Easterlin, 2001, p. 465). In summation, the current research suggests that

an increase in personal income or wealth may initially contribute to subjective well-being by providing the means to meet certain basic needs. However, once these needs have been met, adaptation occurs whereby our goals and aspirations also increase along with income. These views are congruent with Katona's (1975) observation that aspirations are not fixed over time but vary according to the success or failure one has in the realisation of their aspirations.

### **Aspirations and Personality**

The five factor model (Goldberg, 1992) classifies personality traits on five dimensions: Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Openness to Experience. Roberts and Robins (2000) examined the influence of personality traits on the major life goals of students including their economic goals. Specifically, the researchers hypothesised that Extraversion and Conscientiousness were related to 'getting ahead' goals. For instance, achievement related goals such as wanting to obtain a high level occupation should be directly related to an individual viewing themselves as persistent, motivated and hard-working – or in other words, conscientious. High extraversion and low agreeableness were found to be the most common profile associated with the achievement of major life goals. Specifically, highly extraverted and disagreeable individuals desired higher economic status and found prosocial activities undesirable (Roberts & Robins, 2000).

Personality is recognised as one of the strongest and most consistent predictors in subjective well-being studies (Deiner et al., 1999). Of the theories (eg; Emmons, Diener, & Larsen, 1986; Diener, Larsen, & Emmons, 1984) that have been proposed to help explain the relation between personality and subjective well-being, the interaction between personality and environment is of most interest to this thesis topic. Broadly speaking, personality and environment interactions involve the influence of personality traits, and how these are mediated by the environment and the individual. The implication therefore is that one's personality traits may play an integral role in determining one's education, occupation and income aspirations.

## **Aspirations and Socio-Economic Status**

White (1982) performed a comprehensive meta-analysis of 200 studies examining the relation between the socio-economic status and academic achievement of children. It was revealed that although competing definitions of socio-economic status existed across a number of studies, socio-economic status was typically defined as comprising income, education, and/ or occupation of the head of the household. White (1982) found a positive but weak relationship between socio-economic levels and measures of scholastic ability and achievement of children. Specifically, children who came from high socio-economic homes (eg; ones in which parents had been educated to a high level) performed better on these measures than children from low socio-economic homes.

This finding suggests that socio-economic status alone does not predict the educational achievement of children, and that the influences of socio-economic status on education are more likely to be found when they are studied in conjunction with parental influences and the education and occupation aspirations of students. Kellaghan (1997) acknowledges that parental encouragement in addition to socio-economic status and parents education levels influence student education attainment.

## **Culture**

Culture may also influence the goals people select which has implications for the sources of subjective well-being. According to Triandis (1989), individualism-collectivism is one dimension of culture commonly used to identify cultural differences in well-being. Triandis (1989) suggests the defining difference here is that individualist cultures view the self as an autonomous, self-sufficient entity that is distinct from the group. In contrast, collectivist cultures view the individual as being part of a group, and personal desires come second to the needs and desires of the group. Put simply, what is considered important in one culture may be less important in another due to differing goals across cultures. It is surmised that culture can have a

profound effect on well-being by influencing the goals and aspirations people pursue as well as the resources available to obtain them.

In related research, Bennett (2001) investigated the relationship between cultural identity and academic achievement of Maori university students. One of the major findings was that cultural identity was associated with a number of positive educational outcomes. There was a positive relation between “feeling good about your ethnic group membership, and motivation to seek higher qualifications” (Bennett, 2001, p. 75). It seems then that ethnic identity may contribute to adolescents’ perceptions of their ability to attain educational goals.

The most significant conclusion drawn from reviewing the relevant literature for the present research is thus as follows. It seems that one’s aspirations for education, occupation and income are influenced to an extent by a range of factors, which include the effects of parental attitude, socio-economic status and personality traits. Furthermore, the review of the research also shows that there is a degree of correlation between education, occupation and income aspirations. Similarly, the research also suggests there is a close relationship between an individual’s educational attainment and their income and occupational status (Schoon, 2001; Saha, 1982; Zuckerman, 1977; Sewell, Haller, & Ohlendorf, 1970). For instance, education may contribute to the formation of occupation and income aspirations by enabling individuals to progress toward their goals or to adapt to changes in the environment. This indicates the presence of a close relationship between the correlates of education, occupation and income and an individual’s aspirations for them.

### **Maori Trends in Education, Occupation and Income**

The following section of the introduction provides an overview of the current disparities and trends related to Maori education, occupation and income. This is considered relevant to the research because aspirations may play an important role in alleviating the social and economic disadvantages that currently exist for Maori.

*Education:* Education is an important predictor of an individual's social and economic well-being. Te Puni Kokiri (2001) noted there were two alarming key facts in relation to Maori secondary school education. First, Maori were less likely than non-Maori to stay on as senior high school students and second, they were also more likely to leave school without a qualification. This has far-reaching implications given that the possession of tertiary education qualifications increases the employment and income opportunities that are available to most people. According to Te Puni Kokiri (2000a), almost 7,500 Maori gained a tertiary education qualification in 1998 (65% from polytechnics, 26% from universities, 6% from wananga and 4% from colleges of education). These figures are an improvement on previous years, however, they show that Maori are over-represented at polytechnic and under-represented at universities.

The majority of Maori with tertiary education qualifications are women and also tend to be older than non-Maori graduates (Te Puni Kokiri, 2000a). Data from the 1996 census shows that, of all Maori, those with a higher degree were the most likely to be employed (85%), followed by Maori with a Bachelor degree (82%) and Maori with an advanced vocational qualification (78%). Similarly, Maori with a skilled, intermediate or advanced vocational qualification had low unemployment rates, especially when compared to Maori with basic vocational qualifications, school qualifications or no qualifications. It was reported by Te Puni Kokiri (2000a) that Maori with a Bachelor degree or higher had a median gross weekly income of \$652.00, compared to \$259.00 for Maori with no qualification in 1999. Overall, Maori with tertiary qualifications had a higher weekly income than Maori with either school qualifications or no qualifications.

*Personal Income:* Household income levels are an important measure of the social and economic well-being of Maori families. Essentially, lower levels of labour force participation, under-representation in higher occupations and higher rates of unemployment have contributed to the disparities between Maori and non-Maori household incomes (Te Puni Kokiri, 1998). The average annual income of Maori households has increased from \$26,200 in 1987 to \$37,200 in

1997, an increase of 42%. By comparison, non-Maori household incomes rose from \$31,800 to \$47,000, or 48% over the same period. This shows a widening gap between average incomes of Maori and non-Maori households.

In 1997, just under half (48%) of Maori households earned less than \$27,000 compared to 39% of non-Maori households (Te Puni Kokiri, 1998). Conversely, only 12% had incomes greater than \$68,200, compared with 21% of non-Maori households. The most common source of income for both Maori and non-Maori households in 1997 was wages and salaries. However, Te Puni Kokiri (1998, 2000b) reported Maori households were much more likely than non-Maori households to depend on a social welfare benefit as a key source of income.

*Occupation:* Maori are over-represented in low skilled occupations and have less work experience, due in part to the younger age structure of the Maori population. As such, they are less adaptable to changing labour market needs. The low educational status of the Maori labour force means that even in times of economic growth, Maori are ill equipped to compete for limited job opportunities in the marketplace (Te Puni Kokiri, 1998).

The low concentration of Maori in growth industries (such as business and financial services) and occupations (such as legislators, administrators and managers) means that Maori will not benefit to the same degree by future expansion and employment growth in these areas (Te Puni Kokiri, 1998). Conversely, Maori will be particularly vulnerable to any future declines in the manufacturing, building and transport industries, and low skilled occupations.

It is evident from the study of these trends that, Maori compared with non-Maori, are disadvantaged in achieving comparable levels of education, occupation and income attainment. Of the three measures of economic and social well-being examined, education has often been touted as being the fundamental cornerstone of Maori social and economic development (Te Puni Kokiri, 2001).

## **History of Maori Treaty Claims and the Settlement Process**

This final section of the introduction presents a very brief summary of the history of Maori land loss, grievances and the Treaty claims settlement process. There are many available books and articles that give a more detailed account of these complex events and processes for those who would like to further explore the topic.

### **The Treaty of Waitangi**

The texts of the Treaty of Waitangi were signed by representatives of the British Crown and by Maori Rangatira on behalf of their people, between February and September 1840. The Treaty was drawn up in an attempt to protect the interests of the British and Maori, at a time of increasing land speculation and uncontrolled settlement by the British. The three key features of the Treaty were:

“Article 1: Sovereignty (English text) or kawanatanga (Maori text) was conveyed to the Crown.

Article 2: Maori retained rangatiratanga or ‘chieftainship’ over their resources and taonga for as long as they desired, but yielded to the Crown the right of pre-emption, which gave the Crown the sole right to purchase land from Maori.

Article 3: Maori were also guaranteed all the rights and privileges of British citizens.” (Office of Treaty Settlements, 1999a, p 10)

Although the Treaty is not directly enforceable in New Zealand courts, specific legislation does provide for the principles of the Treaty to be given some effect (for example, the State-Owned Enterprises Act 1986). That is, the Court should interpret laws in accordance with the principles of the Treaty – see Appendix A (Office of Treaty Settlements, 1999a). The Treaty is therefore very significant in New Zealand’s legal framework.

### **Loss of Maori Land as the Basis of Claims**

Large-scale loss of Maori land occurred during the years following the signing of the Treaty of Waitangi. In 1995 Te Puni Kokiri reported that only 6 percent of Maori land remained in Maori hands (Office of Treaty Settlements, 1999a). This loss of land was also accompanied by the loss of access to waterways, forests, food resources, sites of cultural significance (wahi tapu)

and other taonga. The government now recognises the harmful impact land loss has had on Maori social and economic development in general (Office of Treaty Settlements, 1999b).

Consequently:

“The Government accepts that the confiscation of land breached the Treaty of Waitangi. The Government now also accepts that in many cases the Crown breached the Treaty when it bought Maori land between 1840 and 1865, and that in many cases the way the Native Land Court operated after 1865 amounts to a Treaty breach. This means that the Crown is now willing to negotiate on claims which fall into any of these types of land loss.” (Office of Treaty Settlements, 1999b, p. 4)

### **The Waitangi Tribunal and the Office of Treaty Settlements**

The Waitangi Tribunal is a permanent commission of inquiry that was set up in 1975 (Durie, 1998). Its role is to make recommendations about claims brought by Maori relating to the practical application of the Treaty of Waitangi and to determine inconsistencies with the principles of the Treaty. The Tribunal inquires into claims by Maori against any Crown Act, policy, action or omission that prejudicially affects the claimant.

To make a claim to the Tribunal, a claimant must be Maori and claims must be brought by an individual or individuals, who in turn may claim on behalf of a group such as iwi. The basis of the claim must be against the Crown and claims against other Maori or individual non-Maori cannot be inquired into by the Tribunal.

The major role of the Tribunal is to decide whether a claim is well founded or not. If it sees fit, the Tribunal may make recommendations about the settlement of the claim to Government. It is important to note that the Tribunal has no legislative power, thus the implementation of Tribunal recommendations remains at the discretion of the Government.

The Office of Treaty Settlements (OTS) that reports to the Minister of Treaty Settlements is essentially responsible for settling historical claims. The Office of Treaty Settlements was set up in 1995 and operates as a separate unit within the Ministry of Justice. Two key functions of the OTS are to:

- “Negotiate settlements of historical claims directly with claimant groups, under the guidance and direction of Cabinet
- Oversee the implementation of settlements” (Office of Treaty Settlements, 1999a, p. 47)

Thus, the OTS is the main point of contact for Maori claimants wanting to resolve historical grievances through direct negotiations with the Crown.

### **Historical and contemporary claims**

There are two types of claims differentiated by the Crown; ‘historical claims’ and ‘contemporary claims’. Historical claims are those that concern breaches of the Treaty by the Crown before 21 September 1992. They usually concern historic land loss suffered by Maori that occurred through the Maori Land court and confiscation (Durie, 1998). In addition, historical claims are determined by the date when the Treaty breach occurred, not when the Treaty claim was lodged with the Tribunal.

Contemporary claims arise out of Crown actions or omissions after 21 September 1992. These relate to social and cultural issues that affect Maori such as Maori language, resource management and education (Durie, 1998). The date 21 September 1992 is significant because that is when Cabinet agreed on the general principles for settling Treaty claims. An example of a contemporary claim is the recent claim relating to Maori television and broadcasting rights.

Historical claims can be pursued through the Waitangi Tribunal, the courts, or through direct negotiations with the Office of Treaty Settlements. Contemporary claims are pursued through the Waitangi Tribunal and the courts, or the relevant government agency – not the OTS.

### **Resolution of Treaty claims**

The settlement of historical claims does not remove the Crown’s ongoing obligations under the Treaty. However, greater awareness today of Treaty obligations is likely to reduce the risk of contemporary breaches. Contemporary claims may be resolved in a number of ways, depending upon what type of Treaty breach (ie: Crown action or omission) initiated the

grievance. As with historical grievances, any Maori may bring a claim about a contemporary matter to the Waitangi Tribunal.

As mentioned earlier, the OTS is not responsible for contemporary claim negotiations. Instead, any response by the Crown to contemporary claims would involve negotiation with the relevant government department or agency specific to the alleged Treaty breach, such as the responses made by the Ministry of Commerce regarding contemporary claims about Maori television and broadcasting rights.

### **The Claims Settlement Process**

The Office of Treaty Settlements (1999a) has outlined four main steps to the direct negotiations process, which are briefly summarised below.

*Step 1: Preparing a Claim for Negotiations:* Essentially, this involves establishing the claim by the claimant group. Here, the claimant group decides that it wishes to pursue direct negotiations by providing the Crown with sufficient research to show that they have been harmed by Crown actions or omissions which breach the principles of the Treaty of Waitangi. Also, the Crown must assess whether the claimant group and the claim meet the criteria for comprehensive and iwi level negotiations, and that the representatives of the claimant group have obtained a mandate to negotiate the claim on behalf of the claimant group.

*Step 2: Pre-Negotiations:* During the pre-negotiation stage the Crown decides how much funding it will provide to help the claimant group with the cost of negotiations. The Crown and claimant group discuss and agree on the way they will negotiate, and they also prepare 'negotiating briefs'. This is information concerning the issues, assets and resources to be discussed in negotiations.

*Step 3: Formal Negotiations:* The Crown and claimant representatives put forward their proposals for settling the claim and try to reach an agreement. If there is broad agreement, the discussions then concentrate on the details of those proposals. Usually the Crown and the mandated claimant group representatives sign the Heads of Agreement document, which

indicates agreement on the monetary value of the settlement and the scope and type of other redress to be provided in the settlement package.

When all the details of the redress have been agreed, the claimant group sets these out in a draft Deed of Settlement, for approval by Cabinet and for ratification. This means that the remaining issues to be included in the final Deed of Settlement are matters of detail and implementation. However, neither party is legally bound until both parties have ratified (ie, approved) and signed the Deed of Settlement.

*Step 4: Ratification and Implementation:* The Deed of Settlement sets out in detail the redress that the Crown will give to the claimant group in order to settle their claims as outlined in the Heads of Agreement. This redress may include the Crown's acknowledgements and apology, cash payment, the return of lands, and options for recognising other important requirements that the claimants might have. Cabinet must approve the content of a Deed of Settlement before it can be finalised for ratification by the claimants. The claimant negotiators seek ratification of the Deed of Settlement from the claimant group through postal ballot and/ or hui.

If the Deed is ratified, the Crown and claimants sign the final Deed of Settlement. Finally, nearly all Deeds of Settlement require settlement legislation to be passed which means the settlement does not take effect (ie, becomes unconditional) until Parliament has passed an Act legislating the Deed (ie, becomes conditional).

The OTS oversees the implementation of settlements on behalf of the Crown. They also ensure that all agreed deadlines for handing over settlement assets to the claimants are met and that the Crown fulfils the terms of the settlement. The Crown and claimants also develop work plans for implementation such as notifying other parties that are affected by the settlement. Once the initial implementation phase is over, the future is largely in the hands of the claimant group.

### **A Summary of Treaty Settlements**

A number of settlements have been reached in recent years. These range from the large Tainui and Ngai Tahu settlements to the smaller Hauai and Ngati Rangiteaorere claims (Office

of Treaty Settlements, 2001). The type and amount of compensation or redress for each settlement package is dependent upon the amount of land unfairly taken by the Crown and the type of Treaty breach that occurred (ie; through confiscation or purchase). Table 1 and Table 2 (as follows) provide a summary of Treaty settlement progress. Table 1 shows the Treaty settlement progress and Table 2 lists those iwi that have reached the Heads of Agreement negotiation stage, until the 30 September 2001.

**Table 1. Summary Table of Treaty Settlements From 21 September 1992 to 30 September 2001**

Claimant Group	Year Settled	Value of Settlement (\$)
The Fisheries Settlement	1992/1993	\$170,000,000
Ngati Whakaue	1994/1995	\$5,210,000
Ngati Rangiteaorere	1993/1994	\$760,000
Hauai	1993/1994	\$715,682
Waikato/ Tainui raupatu	1995/1996	\$170,000,000
Waimakuku	1995/1996	\$375,000
Rotoma	1996/1997	\$43,931
Te Maunga	1996/1997	\$129,032
Ngai Tahu	1996/1997	\$170,000,000
Ngati Turangitukua	1998/1999	\$5,000,000
Te Uri o Hau	1999/2000	\$15,600,000
Ngati Ruanui	2000/2001	\$41,000,000
Total Settlement Redress		\$581,483,645
Other expenses against the MYA		\$32,643,192
Other expenses Departmental & other votes		\$508,361
Total		\$614,635,198

[Source: Quarterly Report to 30 September 2001: Office of Treaty Settlements]

**Table 2. Heads of Agreement Reached by 30 September 2001 (Still to Reach Signed Deed of Settlement)**

Claimant Group	Year Heads Agreed	Agreed Quantum (\$)
Ngati Awa	1998/1999	42,390,000
Ngati Tama	1999/2000	14,500,000
Ngati Mutunga	1999/2000	14,500,000
Rangitaane o Manawatu	1999/2000	8,500,000
Te Atiawa	1999/2000	34,000,000

[Source: Quarterly Report to 30 September 2001: Office of Treaty Settlements]

It is currently expected that most claims settled apart from financial redress will comprise a Crown Apology, cultural redress and commercial. See Appendix B for a summary table of Treaty settlement progress. Additionally, there have been several part-settlements. These include Crown purchase of property with particular cultural significance to claimant groups, and the transfer of certain properties to the relevant claimant groups as part of their future Treaty settlement package (Office of Treaty Settlements, 1999a). As at 3 October 2000, 870 claims had been registered with the Waitangi Tribunal.

At the time of writing, the most recent signing of a Deed of Settlement occurred between representatives of Ngati Tama and the Crown on 20 December 2001. The settlement provides a formal apology from the Crown, a payment of \$14.5 million and cultural redress including the transfer of 1870 hectares of land<sup>1</sup>. The settlement is binding on both Ngati Tama and the Crown and subject only to the passage of settlement legislation and establishing a suitable governance entity to receive and manage the settlement on behalf of Ngati Tama. The settlement was ratified by 98 percent of iwi members who participated in a postal ballot on the settlement proposal. 61 percent of eligible members cast a vote.

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<sup>1</sup> Source: Media Statement – Ngati Tama Deed of Settlement Celebration (2 February 2002). Ministerial Announcements: [announce@ministers.govt.nz](mailto:announce@ministers.govt.nz)

## **RESEARCH METHODOLOGY**

The research design incorporated a combination of qualitative and quantitative methods using a Priority-Sequence Model (Morgan, 1998). The idea is that the sequential combination of both qualitative and quantitative methods maximises the strengths of both methods in the same research. In this research, a small preliminary qualitative study was first conducted, which assisted in developing a second larger quantitative study. Thus, the research is principally quantitative research but qualitative methods were used in the beginning to improve the effectiveness of the quantitative research that followed. The advantage of this type of research design is that it may provide the basis for a more complex and precise research analysis to be designed and conducted in the future (Morgan, 1998).

### **Method for Study I**

The first study utilised qualitative interviews. Ten participants were interviewed with the aim of developing and generating content for the questionnaire used in Study II. The interviews aimed to give an improved understanding of the circumstances of individual Maori participants as the questions tried to determine the aspirations of Maori for education, occupation and personal finance. Another objective of the interviews was to determine whether personality, personal goal setting, socio-economic status, family environment and Treaty settlements to iwi played contributing roles in predicting the aspirations of the people interviewed. The analysis revealed consistent data patterns and trends in the interview responses (Burns, 1997), and provided the basis on which the questions in the questionnaire for the second study were asked and measured.

### **Participants**

Seven female and three male participants of Maori descent were interviewed. All participants had completed some form of tertiary study at some point in time. Seven participants had either completed or were currently completing tertiary study at the University of Canterbury,

whilst the remaining three participants had completed study at other tertiary training institutes such as Polytechnics or Private Training Establishments. The researcher and the majority of the ten participants were previously acquainted through the Maori student community at the University of Canterbury. Participant ages ranged from 23 to 49 years and the mean participant age was 32.1 years. Of the sample, three were married, three were in long-term relationships and four were single. All participants knew their respective iwi affiliations and identified themselves as being of Maori descent.

### **Procedure**

The researcher initially contacted participants by telephone. A brief explanation of the research was given, and then potential participants were asked whether they were willing to be interviewed. All participants contacted agreed to the interview. Four interviews were conducted on the University of Canterbury campus, and the remaining six were conducted in the participants homes. The interviews were conducted in a 'kanohi ki te kanohi' context, otherwise known as face to face. This was considered an important aspect of the research design allowing the formation of a working research relationship between the researcher and the participant.

During the first ten minutes of the interview, the researcher gave a more detailed explanation of the research to the participants. It was explained that the interview was concerned with discussing whether five variables (personality, personal goal setting, socio-economic status, family environment, and Treaty settlements to iwi), had contributed to the three types of aspirations (education, occupation, income), for each of the participants. Participants were also shown a diagram depicting the variables under study to provide a better understanding of the proposed research

The interviews were semi-structured, allowing the researcher to adjust questions and general conversation to the individual level and style of each participant. In most of the interviews, participants were first asked about each of the three aspirations and how much the five variables influenced each of the three aspirations under study. Then participants were asked

to comment on interesting points that had been detected from previous interviews. The interviews were tape recorded and lasted between 30 and 70 minutes. The interviews were later transcribed by the researcher.

## **Results for Study I**

### **Aspirations for Education**

The participants who still had to complete their studies commented that they enjoyed learning and had a great desire to finish their study and move out into the workforce. One participant mentioned that:

“I love education so that’s why I am going to university and I expect to always be involved in learning whether it be formal or not.”

The participants who were students at the University of Canterbury said that they were either the first or second in both their immediate and extended family to gain a university education. However, it was common for these participants to have siblings who might have had or were undergoing training at polytechnic or at Private Training Establishments.

Participants also mentioned the ‘flow-on effect’ that their respective decision to enter university study had on other family members, as commented on by one participant:

“I also know that my coming here has changed my whanau’s attitude – I have a cousin enrolled in a fine arts course in Auckland... It just broke down the doors and someone told me that if you have an academic in the family then others will go to university.”

Some participants reported that respective family members had realised their own abilities and desires to attend a tertiary education or training institution, and had forced them to more closely examine what they themselves wanted to do.

## **Aspirations for Occupation**

Some participants recounted that when they were younger they aspired to be a 'professional' and thus be qualified to perform a certain role. Two participants recalled:

“My only one [occupational aspiration] when I was young was to join the military... A motivating factor was that it would provide money to do what you wanted with it. To an extent, this was shaped by desired images and symbols portrayed in society.”

“When I was younger I thought a job with heaps of money would be really good but as I have gotten older I have found that money is not what I look for, although you do need a good amount to survive and support your family.”

The participants expressed the importance of working in an occupation that they enjoyed. It was also important that the job in some way might directly or indirectly contribute to the betterment or support of Maori. The participants with or studying towards teaching degrees wanted to become teachers. However, the participants with Arts degrees and those with no formal university qualifications were not so specific in stating which occupations they might pursue in the future.

## **Aspirations for Income**

In terms of aspirations for income and financial well-being, the participants responded that they wanted a comfortable lifestyle, whereby they had the earning capacity to own their own home, a car and to provide material items for their family. Although the participants wanted financial security, they also emphasised that money was not the main motivating factor in their pursuit of satisfaction and fulfilment. One participant who commented sums up this common observation:

“I want to be financially secure as opposed to really rich or in the same respect I don't want to sell up all my possessions and go and live in the boon docks with no electricity either. I want the middle ground – to be secure mentally, physically and spiritually.”

Another participant similarly commented:

“I want to earn enough to have a comfortable lifestyle and to be able to give money to those who need it, but also not just to give money, but to give of myself which might help others as well.”

### **The Influence of Personality on Aspirations**

A common pattern was detected in the adjectives used by participants to describe their respective personality characteristics. These included; independent, determined, motivated, possessed a belief in oneself and strong-willed. One participant who commented best sums this up:

“I have always been independent. I am the youngest in a family of four and the eldest in a family of seven – I was a whangai. We had a low socio-economic background and I am the first in two whanau to come to university. But I worked out from a really early age that there was not much money in the house so if I wanted anything then I was actually going to have to work for it. I started work at twelve years old in a kiwifruit orchard... yeah, I have always been a determined sort of person and I like to think where there is a will, there is a way – but I don't like to walk over people to get to my destination. I like to believe that we can think our way through and around problems.”

### **The Influence of Personal Goal Setting on Aspirations**

The participants were of the opinion that their aspirations had been influenced by their ability to set goals and achieve them. Most participants thought that they set high goals for themselves but given the knowledge of their respective ability to realise their respective goals, participants maintained that the goals were realistic. According to one participant:

“I have always had long term goals and tried to break them down into more short term goals... I find I try and set quite high goals and generally they have been realistic as I have been able to achieve them.”

One participant remembered that they had set high goals for themselves even as a child:

“I had high goals for myself when I was a kid, always have... I really believe that if you want the best out of life then you have to set goals like aims, objective and goals and a plan of how to get there, and ultimately you achieve your goals and sometimes your goals change but they don't usually change – what happens is they just go in a different way.”

### **The Influence of Socio-Economic Status on Aspirations**

Although the socio-economic status of participants' family's was not asked, it became evident during the interviews that most participants came from middle to low socio-economic families. Some participants also came from one-parent families. As one participant stated:

“My goals at the broad level have been to better myself. That is based on where I come from – a one-parent family in a low socio-economic area. That is a place where I did not want to stay so my whole life has been about getting one step better so I can move away from that.”

Another participant remarked:

“I think that yes, part of my aspirations were influenced by our socio-economic status. We were a low socio-economic family but I think I did not want to be in the same situation that my parents were in and that is part of the reason why I came to varsity, to get a good job, get a decent income and also be able to support my parents when they finish working.”

These comments indicate that participants from low or lower-middle socio-economic backgrounds identified at an early age that they wanted an improved socio-economic level of living in comparison to their parent/s. As such, they set about orienting their lives in such a manner that involved improving their socio-economic status in a systematic fashion.

### **The Influence of Family Support on Aspirations**

The participants defined 'family' as meaning their parents and siblings, and older participants also included their partners and children in this definition. Participants responded

that their families had been supportive of their intentions to gain further education. One participant noted:

“My partner has been supportive and says ‘just go and do the best you can’ and those little things have always pushed me further... And this is the same with my two children – it’s been really inspiring – for the times you are working late and you get home and you have an essay to write and you work all night and get up early – the kids have been really good, cooking their own meals and stuff like that.”

All participants mentioned the emotional support they had received from their family and how the family in general was supportive of the individual pursuit of education. This occurred even if the family were unfamiliar with the specific courses of study undertaken by their family members. Several participants also observed that their respective families were very proud of their academic achievements even though the family might not have comprehensive knowledge concerning the process and content of academic study at university. This is best summed up by one participant who remarked:

“They (*family*) have been supportive. University is probably a little outside their sphere but they are immensely proud... They are the sort of people who would not understand what you are doing and they don’t have a bean to rub together, but if you rang them and told them that you were in trouble they would sell everything they owned in the world and then come to actually help you out.”

### **The Influence of Treaty Settlement to Iwi on Aspirations**

All participants responded that Treaty settlements had not influenced their aspirations for education, occupation and income – regardless of whether their respective iwi had settled or not. Five participants affiliated to iwi that had settled and the other five affiliated to iwi that had not settled Treaty claims. Most participants alluded to the recency of the Treaty settlement process and the fact that relatively few iwi had completed the settlement process. As a consequence, they had little knowledge of how to access information about education

grants and scholarships, or other assistance and services offered by their affiliate iwi. As two participants observed:

“No, Treaty settlement has not influenced my aspirations. Nga Puhī have not settled, they don’t have any claims at all before the Tribunal... no, it has not been a big motivation factor.”

“No, what the settlements did for me was to encourage me to look into my whakapapa because I was interested in how I could tap into those settlements with Tainui and Ngai Tahu - but I haven’t used it.... It started off asking how I can get more funding for my studies but it made me look at the wider picture and made me find out more about my Tainui side, so the funding side of things kind of sat on the back burner. So if you look at it in that way, yes it has, but this is not the way most people would think of the settlements helping them in this way.”

Although participants noted that Treaty settlements had not directly affected them, some participants did mention an indirect effect. Specifically, it was observed that it was encouraging to see iwi that had settled constructively investing resources and implementing processes which would benefit Maori in the future. Participants viewed these actions by iwi as being positive for Maori, but participants were also concerned about how resources were invested. It was important that positive effects filter down to the people with a low socio-economic status at a flax roots level. Two observations best convey these sentiments:

“Yes, Treaty settlements will play a role in the future when things are being resolved more and more. Also, the knowledge is being put out there and a lot of people have access to that knowledge. I think that Treaty settlements will play a larger part in that – I would like to hope so anyway.”

“Hopefully they [Treaty settlements] will play a role but I have not looked into it much for me and the kids. I did use one grant I got when I went to polytech but from what I read in the paper and see on TV, I can see they are really trying and starting to do things for people especially young Maori. So I hope that continues so they can provide for the next generation – and they are not targeting a certain group of Maori in the iwi, say like intellectual Maori and forgetting about other everyday people. There is (*sic*) different

types of help they can give, not just education grants but for other needs that families have. I mean education is great but it is not for some people and some people just can't learn or won't learn – or until they are older and then they seek out further education.”

### **Other Consistent Patterns and Trends**

*Role models:* Most participants noted the importance of role models in the way they set their aspirations. It was important to participants that the role models be Maori, although one participant had both Maori and non-Maori role models. Participants also perceived there to be a lack of Maori role models especially Maori male role models. Two types of role models were identified – primary and secondary role models. Primary role models comprised immediate family such as parents and siblings. Some participants mentioned that their parent/s provided an example to them of how it was possible to improve your socio-economic status through possessing a strong work ethic and motivation to succeed. Secondary role models included either other similar Maori around them or Maori public figures, who they used as reference points to compare the pursuit and realisation of their own personal goals. The common aspect between primary and secondary types of role model being that participants upheld and admired certain qualities and characteristics of individuals they selected as role models for themselves. One participant recalled:

“...a lot of my role models are from the past; Peter Buck, George Nepia, Apirana Ngata, Whina Cooper, Princess Te Paea, they are the ones I looked up to and the legacy of resilience and strength...that is missing today. Look to the role models in your family, whanau, close friends and if there are no role models then be your own role model so you can actually help others – that's the way I look at it.”

*The value of money:* It was found that participants knew the value of money from a young age. The participants came from middle or lower socio-economic backgrounds and referred to financial hardship in their early upbringing, and the subsequent implications for their family and themselves. One participant recalled:

“Everything you do you have to do for yourself and earn it for yourself. I learnt the value of money because of the fact that my family did not have it, and I went to a school where most of my peers came from families with more money than mine. And I learned if you wanted something you had to earn money to get it.”

*Welfare of parents:* It was also interesting to find that the majority of participants whose parents were still living, expressed the strong importance they felt towards contributing to the future welfare of their family, especially the future care of their respective parent/s and also sibling/s. Most of these participants thought that an occupation obtained from a tertiary education would provide them with a likely opportunity to achieve this goal. Participants also attached a strong importance towards supporting and improving the status of their immediate family.

*Individual style of tertiary learning:* Many participants commented on the individual learning style of study at tertiary institutions. Some participants spoke of their personal preference for inclusion of a more collective learning orientation in the curriculum. Two participants remarked:

“... when I was working, I was constantly getting positive feedback from others and here [university] it is quite individual and I am used to being a bit more group oriented.”

“I would like to see, instead of individual Maori going through school or university, clusters of Maori, and it comes back to whakawhanaungatanga – support of each other... I am one of a collective of similar minded people working in a system that is ours, not anybody else’s, not tauwiwi but ours as Maori. I have that as aspiration for an education system for us.”

A possible reason for these comments may be the importance participants attributed to their provision of continuing welfare to both the family and the larger social group, which conflicted with the individual orientation of academic achievement they had experienced at university. It was also found that participants exhibited a high level of pride toward their own diverse individual and collective social identities.

## Method for Study II

The second larger study utilised quantitative research methods. The aim of Study II was to examine the contribution of the five independent variables: personality, goal-setting, socio-economic status, family support and iwi settlement status, on the prediction of education, occupation and income aspirations of Maori (Aron & Aron, 1994).

### The Questionnaire Design

Essentially, both the questions and the responses from the first study gave an indication of the relevance and suitability of proposed questions intended for the questionnaire in the second study (see Appendix C). Questions that arose from other consistent patterns found in the qualitative analysis were also included.

The questionnaire comprised questions and statements that were responded to with 7-point rating scales. Participants indicated their respective level of support to questions and statements on the 7-point scales. Each 7-point scale contained verbal anchors at the two extreme ends of the scale. The basic idea here is that the format itself strongly implies that participants should regard the rating levels as exactly or approximately evenly-spaced. Participants were instructed to indicate the degree to which the questions and statements in the questionnaire reflected their own thoughts and feelings, by circling the number corresponding to the way they felt.

The final page of the questionnaire contained questions related to the demographic data for each participant. The required demographic information asked that participants record their sex, age, iwi affiliation, education qualifications, employment/ income status and parents' occupation. Participants were also instructed to record whether they knew if their respective iwi had received Treaty settlements by circling either 'yes', 'unsure' or 'no'.

*Personality Measure:* The questionnaire also featured a personality scale that examined the influence of personality on aspirations. The five broad dimensions of personality known as the Big-5: extraversion, agreeableness, conscientiousness, emotional stability and intellect

(Goldberg, 1992) were examined using a five 3-item bipolar scale. The 15 items are derived from a 20 item scale developed by Thomas (1999), which in turn was derived from a 50 item scale developed by Goldberg (1992) to measure the Big-Five dimensions of personality (Norman, 1963). Three items were selected from each one of the Big-Five personality factors, based on the factor loadings obtained in the factor analysis reported by Goldberg (1992), as illustrated in Appendix D. Examples of items measuring each factor were: silent-talkative (Extraversion); uncooperative-cooperative (Agreeableness); disorganised-organised (Conscientiousness); insecure-secure (Emotional Stability); and unintelligent-intelligent (Intellect). The scores from the three items for each personality dimension were added together and divided by three to give a mean score for each dimension. Mean scores greater than 4 were classified as characterising that particular dimension and mean scores less than 5 were not.

A separate information sheet was also devised. This explained the research aims, the participation requirements and the anonymity reassurances to the participant. The contact details of the researcher were also included and participants were informed that they could retain the information sheet for future reference if they so desired.

### **Pilot study**

A small pilot study was conducted on five participants. The subjects were of Maori descent and comprised one University of Canterbury student and four non-students from the local Christchurch community. The pilot study was conducted to obtain participant feedback regarding how easily participants understood the wording and formatting of questions, and that the instructions and formatting were clear for both the questionnaire and the information sheet. Each participant was first given a copy of the information sheet to read, and then a copy of the questionnaire sheet to complete. A mean time of 13 minutes was calculated for participants to complete the questionnaire.

Following participant feedback, changes were made to the format and wording of some questions in the questionnaire. Changes were also made to the wording of the information sheet

and the research project was then submitted to the University of Canterbury Human Ethics Committee for review and subsequent approval.

## **Participants**

The criteria for research participation dictated that participants were of Maori descent. Participants were sourced in two main ways utilising either the snowball sampling procedure or the Maori electoral roll. The snowball sampling procedure involved the researcher contacting a potential participant and asking them whether they knew of any other likely subjects that fulfilled the participant criteria. The researcher then contacted these likely subjects to obtain their participation in the study. Secondly, participants were sourced from the Maori electoral roll whereby Maori descent is a requirement for inclusion on the roll. As such, participants were resident throughout the country and ranged in age from 18 years and above.

## **Procedure**

A total of 515 questionnaires were posted to potential participants. The information sheet, a self-addressed stamped envelope for the return of the questionnaire and a \$1.00 lottery scratch ticket were also included with the postal questionnaire. A high number of questionnaires were posted to compensate for the predicted low participant response rate associated with postal questionnaires. The \$1.00 lottery scratch ticket was included as a small incentive to increase the participant response rate. The questionnaires were posted on September 2, 2001 and all of the questionnaires analysed were received by October 1, 2001. A total of 232 questionnaires were returned, but seven questionnaires were completed incorrectly and were not included in the analysis. A 44 percent response rate was calculated from the remaining 225 questionnaires.

The returned questionnaires were then numbered and the raw data was coded and classified. Participants highest level of education was scaled as 1 = High School, 2 = Polytechnic, 3 = University, 4 = Private Training Establishment, 5 = College of Education and 6 = Wananga. Participant occupation was coded according to the New Zealand Standard Classification of Occupations 1995 (Statistics New Zealand, 1995). This classification structure

(see Appendix E) is divided into nine major groups each with its own characteristics. It groups occupations together by a similar skill requirement rather than by the similarity of the type of work performed. However, for the purposes of this study, a further four major groups were added because they were considered to be more representative of the sample. The four additional groups were: Housewife/ Mother, Unemployed, Students and Retired. The raw data was then entered into a software spreadsheet and descriptive, ANOVA and multiple regression statistical analyses (Howell, 1997) were then performed.

### **Participant Socio-Demographic Information**

A total of 225 Maori participated in the study and of these 111 were male and 114 were female. The mean participant age was 35.92 years. The minimum age was 18 years and the maximum age was 71 years. The mean male age was 38.28 years and the mean female age was 33.61 years. Participants were instructed to identify their respective iwi affiliation if known to them. A total of 33 affiliate iwi were recorded by participants<sup>2</sup>.

**Table 3. Participant Knowledge of Iwi Affiliation.**

Number of affiliate iwi belonging to participants	Count	%
One iwi	125	55.56
Two iwi	60	26.67
Three iwi	19	8.44
Four iwi	4	1.78
Five iwi	6	2.67
Unknown iwi affiliation	11	4.89
Total	225	100.01 (due to rounding)

As shown in Table 3, the majority of participants (125) affiliated to one iwi. The number of participants able to affiliate to multiple iwi declined as the number of iwi increased. 11 of the

<sup>2</sup> Any iwi subgroups were reclassified under the one single 'parent' iwi, simplifying the coding of the raw data and the analysis. For example, participants who recorded either Ngati Kahungunu/ ki Wairoa/ ki Heretaunga/ ki Wairarapa as their affiliate iwi, were collectively reclassified as Ngati Kahungunu.

225 participants were unable to identify their respective affiliate iwi. The five most common affiliate iwi are recorded in Table 4 in descending order<sup>3</sup>.

**Table 4. List of the Five Most Common Iwi Affiliated to by Participants.**

Iwi	Count	%
Ngai Tahu	44	19.56
Nga Puhi	26	11.56
Ngati Porou	18	8.00
Ngati Kahungunu	17	7.56
Waikato	12	5.33
Unsure	11	4.89
<b>Total</b>	<b>128</b>	<b>56.90</b>

86 participants recorded that their respective iwi had received Treaty settlements. 75 participants were unsure of the settlement status of their iwi and 64 participants recorded that their iwi had not settled. The employment status and details of participants are presented below.

**Table 5. Participant Classification of Occupation.**

Occupation	Count	%
Group 1: Legislators, administrators, managers	12	5.33
Group 2: Professionals	60	26.67
Group 3: Technicians and associate professionals	41	18.22
Group 4: Clerks	11	4.89
Group 5: Service and sales workers	22	9.78
Group 6: Agriculture and fishery workers	8	3.56
Group 7: Trades workers	6	2.67
Group 8: Plant and machine operators & Elementary workers	8	3.56
Group 9: Housewife, mother	3	1.33
Group 10: Unemployed	12	5.33
Group 11: Students	36	16.00
Group 12: Retired	6	2.67
<b>Total</b>	<b>225</b>	<b>100.01</b> (due to rounding)

Table 5 shows the three most common occupation classifications in descending order belonged to 'professionals', 'technicians and associate professionals', and 'students'.

<sup>3</sup> For coding purposes, the first iwi recorded by those participants listing more than one affiliate iwi, was prioritised as the main affiliate iwi.

The level of education either obtained or being currently obtained by participants is depicted in Table 6 below.

**Table 6. Education Institutes Where Highest Qualification is or has been Obtained.**

Institute from which the highest qualification has been/ is currently being sought	Count	%
University	79	35.11
High School	60	26.67
Polytechnic	52	23.11
Private Training Establishment	15	6.67
College of Education	11	4.89
Wananga	4	1.78
Unknown	4	1.78
Total	225	100.01 (due to rounding)

The three most common Education Institutes from which participants have either obtained or are currently obtaining their respective highest educational qualification are University (79%), High School (60%), and Polytechnic (52%). This finding is the reverse of what we would expect because it is more common to find that many more Maori attend polytechnics compared to university. Admittedly, the participant demographics for employment and education indicate that the sample is a little biased towards 'professionals' and the more highly educated.

Participants were also asked to speculate whether they expected to increase their respective educational achievements through further study in five years time. 133 participants (59.11%) indicated they that they did expect to further their educational achievements, whilst the remaining 92 participants (40.88%) did not.

Participants were required to indicate their respective level of income per annum from one of seven income ranges provided. These can be seen in Table 7 below.

**Table 7. Participant Levels of Income Per Annum.**

Income range	Count	%
Less than \$10,000	22	9.78
\$10,000 - \$20,000	40	17.78
\$21,000 - \$30,000	28	12.45
\$31,000 - \$40,000	37	16.45
\$41,000 - \$50,000	35	15.56
\$51,000 - \$60,000	20	8.89
Greater than \$60,000	43	19.11
Total	225	100.02 (due to rounding)

The four most common income ranges held by participants in Table 7 in descending order are: 'greater than \$60,000', '\$10,000 - \$20,000', '\$31,000 - \$40,000', and '\$41,000 - \$50,000'. Most participants reported incomes greater than \$60,000, which is indicative of most participants belonging to the 'professional' occupation classification. Participants were also asked to speculate whether they expected to increase their respective income per annum within five years time. 178 participants (79.11%) indicated that they expected an increase in their income per annum in five years time. 12 participants (5.33 %) indicated that they expected a decrease their income per annum in five years. 35 participants (15.56%) indicated that they expected no change in their income range in five years time.

### **Results for Study II**

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

- 1) Participant ratings describing the subjective affect of five variables thought to influence their overall aspirations are first presented. A repeated measures ANOVA was then performed to determine whether there was a difference between the mean ratings of subjective affect for the variables thought to influence overall aspirations. Appropriate post-hoc tests are also reported.

- 2) The participant ratings of importance for education, occupation and income aspirations are reported and a correlation matrix showing the close relationship between the three aspirations follows.
- 3) Next, the results from three multiple regression analyses testing the effects of a range of independent variables on the prediction of education, occupation and income aspirations, are given. Finally, some interesting participant agreement responses to some of the questionnaire statements are presented.

### **Participant Subjective Ratings of Variables Affecting Overall Aspirations**

Participants were instructed to subjectively rate how they thought their aspirations had been affected by five variables: personality, goal setting, socio-economic status, family support and iwi settlement. The participant ratings for each of these variables are displayed in Table 8.

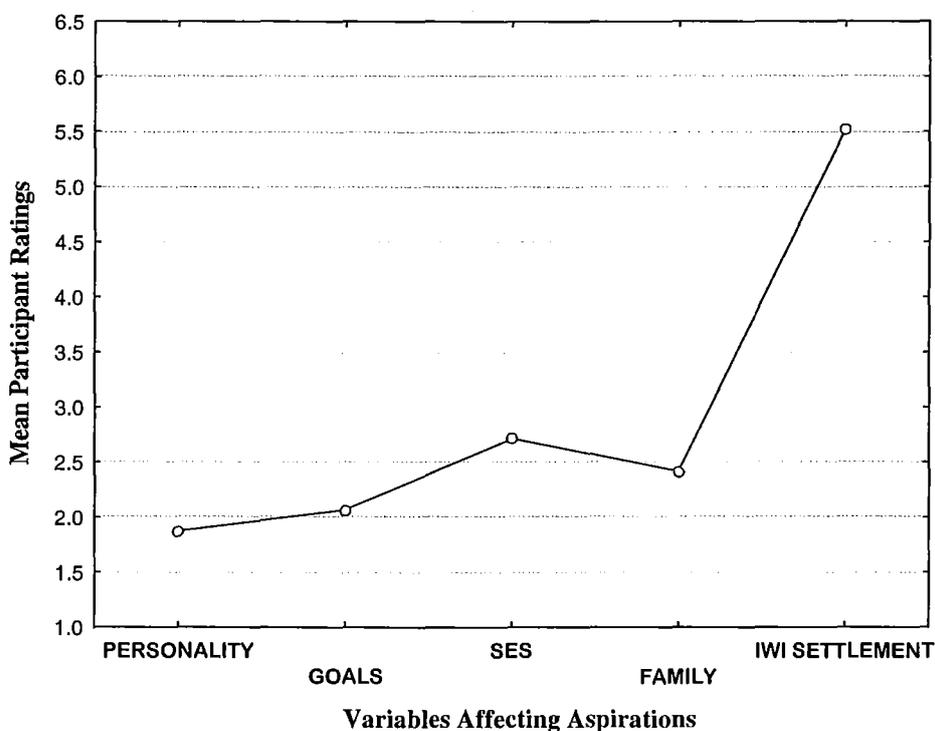
**Table 8. Participant Ratings for the Subjective Affect of Five Variables on Overall Aspirations.**

Rating	Personality		Goal Setting		Socio-economic status		Family Support		Iwi Settlement	
	Count	%	Count	%	Count	%	Count	%	Count	%
Very affected	122	54.22	96	42.67	60	26.67	91	40.44	11	4.89
Affected	51	22.67	64	28.44	57	25.33	47	20.89	18	8.00
Slightly affected	28	12.44	40	17.78	50	22.22	36	16.00	17	7.56
Neutral	12	5.33	11	4.89	32	14.22	27	12.00	24	10.67
Slightly unaffected	8	3.56	8	3.56	7	3.11	10	4.44	11	4.89
Unaffected	2	0.89	4	1.78	9	4.00	4	1.78	14	6.22
Not affected at all	2	0.89	2	0.89	10	4.44	10	4.44	130	57.78
Total	225	100.00	225	100.01	225	99.99	225	99.99	225	100.01

At a glance, Table 8 shows that more participants subjectively rated personality (122), goal setting (96), socio-economic status (60) and family support (91) as very much affecting their overall aspirations in comparison to iwi settlement (11). Conversely, more participants

subjectively rated iwi settlement as having 'not at all affected' their overall aspirations compared to the other four variables.

The results of the table above were analysed further. A repeated measures ANOVA was conducted and the means for each of the five variables were examined. A significant difference between the means of the five variables was found:  $F(4,896) = 270.48, p < 0.01$ . This indicates there is a statistically significant difference between the mean participant ratings for the subjective effect of; personality, goal setting, socio-economics status, family support and iwi settlement on overall aspirations. These results are graphically displayed in Figure 1. The mean participant ratings of affect on the y axis are scaled from 1 ('very affected') through to 6.5 (lies between 'unaffected' and 'not affected at all').



**Figure 1. Mean Participant Subjective Ratings of Variables Affecting Overall Aspirations**

Post hoc testing using the Tukey HSD method was performed to determine which means of the five variables were statistically different from each other. Eight pairwise comparisons were found to be significant at either 0.01 or 0.05 levels.

**Table 9. Tukey HSD Test Results of Variables Thought to Affect Overall Aspirations**

	Personality ( <i>m</i> = 1.88)	Goal Setting ( <i>m</i> = 2.07)	Socio-Economic Status ( <i>m</i> = 2.72)	Family Support ( <i>m</i> = 2.42)	Iwi Settlement ( <i>m</i> = 5.52)
Personality	--	0.545	0.001**	0.001**	0.001**
Goal Setting		--	0.001**	0.048*	0.001**
Socio-Economic Status			--	0.148	0.001**
Family Support				--	0.001**
Iwi Settlement					--

\* sig < 0.05      \*\*sig < 0.01      means in parentheses

Statistical differences were found between the mean participant ratings of subjective affect on overall aspirations for the following variables:

- The mean participant rating for the subjective effect of personality (*m* = 1.88) was significantly different to the mean participant ratings for the effects of socio-economic status (*m* = 2.72), family support (*m* = 2.42) and iwi settlement (*m* = 5.52).
- The mean participant rating for the subjective effect of goal setting (*m* = 2.07) was significantly different to the mean participant ratings for the effects of socio-economic status (*m* = 2.72), family support (*m* = 2.42) and iwi settlement (*m* = 5.52).
- The mean participant rating for the subjective effect of socio-economic status (*m* = 2.72) was significantly different to the mean participant rating for the effect of iwi settlement (*m* = 5.52).
- The mean participant rating for the subjective effect of family support (*m* = 2.42) was significantly different to the mean participant rating for the effect of iwi settlement (*m* = 5.52).

Overall, the post-hoc testing clearly showed that the mean participant ratings of subjective affect for iwi settlement differed significantly from the mean ratings of affect for the other four variables – personality, goal setting, socio-economic status and family support. The

results clearly show that the participants thought that the subjective effect of iwi settlement least affected their overall aspirations.

The post-hoc testing also showed participants thought that the subjective affect of personality more highly influenced their overall aspirations than either socio-economic status ( $p < 0.01$ ) and family support ( $p < 0.01$ ). Finally, participants thought that the subjective effect of goal setting more highly influenced their overall aspirations than either socio-economic status ( $p < 0.01$ ) or family support ( $p < 0.05$ ).

### **Ratings of Importance for Education, Occupation and Income Aspirations**

Participants were instructed to rate how important it was for people to have aspirations for their education, occupation and income, as displayed in Table 10.

**Table 10. Participant Ratings of Importance for Education, Occupation and Income Aspirations (N = 225)**

Rating	Education Aspirations		Occupation Aspirations		Income Aspirations	
	Count	%	Count	%	Count	%
Very important	166	73.00	119	52.89	70	31.11
Important	48	21.33	65	28.89	54	24.00
Slightly important	9	4.00	31	13.78	64	28.44
Neutral	1	0.44	6	2.68	25	11.11
Slightly unimportant	1	0.44	1	0.44	7	3.11
Unimportant	0	0	2	0.89	1	0.44
Not very important	0	0	1	0.44	4	1.78
Total	225	99.21	225	100.01	225	99.99

Table 10 clearly shows that the majority of participants rated education aspirations more importantly than either occupation or income aspirations. In descending order; 214 participants (95%) rated education aspirations as either ‘very important’ or ‘important’ to them; 184 participants (82%) rated occupation aspirations as either ‘very important’ or ‘important’ to them; and 124 participants (55%) rated income aspirations as either ‘very important’ or ‘important’ to them.

These results also indicate the presence of a close relationship between education, occupation and income aspirations. Hence, the correlations between the aspirations were calculated and are displayed in Table 11.

**Table 11. Correlation Matrix for Education, Occupation and Income Aspirations ( $N = 225$ )**

<i>Variable</i>	Education Aspirations	Occupation Aspirations	Income Aspirations
Education Aspirations	--	0.44*	0.34*
Occupation Aspirations		--	0.63*
Income Aspirations			--

\*Marked correlations are significant at  $p < 0.05$

Table 11 clearly shows that all three aspirations were highly correlated with each other.

### **Multiple Regression Analyses of Education, Occupation and Income Aspirations**

The following series of regression analyses examined the influence of a number of independent variables on the education, occupation and income aspirations of participants. The independent variables included the five dimensions comprising personality, parental support and iwi settlement status. Participant settlement status was scaled as 1 = iwi has settled, 2 = unsure if iwi has settled, 3 = iwi not settled. Participants had self-identified their respective iwi settlement status in the questionnaire. The results of the three regressions examining education aspirations, occupation aspirations and income aspirations follow.

*Education Aspirations:* The first multiple regression examined the influence of ten independent variables on the dependent variable, education aspirations. The independent variables were: parental education aspirations for participants (P.Ed.Asp), parental support of education aspirations (P.Ed.Sup), iwi settlement status (Settle), gender, age, extraversion, agreeableness, conscientiousness, emotional stability and intellect.

**Table 12. Regression Results for Variables Predicting Education Aspirations (N = 225)**

Variable	Unstandardised Coefficient	Standard Error	Beta	Significance of <i>t</i>
P.Ed.Asp	0.084*	0.038	0.220*	0.027
P.Ed.Sup	-0.065	0.037	-0.173	0.082
Settle	-0.038	0.051	-0.050	0.452
Gender	-0.045	0.084	-0.037	0.590
Age	-0.012*	0.004	-0.215*	0.002
Extra	0.008	0.085	0.007	0.921
Agree	-0.167	0.296	-0.040	0.573
Conscien	0.047	0.247	0.013	0.848
E.Stability	0.129	0.190	0.051	0.499
Intellect	0.309	0.447	0.047	0.490

Constant = 1.171

 $R^2 = 0.075$  $F = 1.743$ Significance of  $F = 0.073$ \*  $p < 0.05$ 

Two significant predictors were revealed in the regression analysis of education aspirations. The significant predictors were parental education aspirations of participants and age. High education aspirations held by parents of participants significantly predicted higher education aspirations of the participants (beta = 0.220). Conversely, lower participant age significantly predicted higher education aspirations (beta = -0.215).

*Occupation Aspirations:* The second multiple regression examined the influence of ten independent variables on the dependent variable, occupation aspirations. The independent variables were: parental occupation aspirations for participants (P.Oc.Asp), parental support of occupation aspirations (P.Oc.Sup), iwi settlement status (Settle), gender, age, extraversion, agreeableness, conscientiousness, emotional stability and intellect.

**Table 13. Regression Results for Variables Predicting Occupation Aspirations (N = 225)**

Variable	Unstandardised Coefficient	Standard Error	Beta	Significance of <i>t</i>
P.Oc.Asp	0.131*	0.062	0.211*	0.035
P.Oc.Sup	-0.045	0.060	-0.075	0.456
Settle	-0.087	0.084	-0.071	0.301
Gender	0.069	0.139	0.035	0.618
Age	-0.007	0.006	-0.078	0.256
Extra	-0.004	0.141	-0.002	0.979
Agree	-0.009	0.489	-0.001	0.985
Conscien	-0.121	0.407	-0.021	0.767
E.Stability	0.422	0.314	0.102	0.180
Intellect	0.234	0.736	0.022	0.751

Constant = 0.758

 $R^2 = 0.042$  $F = 0.928$ Significance of  $F = 0.508$ \*  $p < 0.05$

Only one significant predictor – parental occupation aspirations for participants was found in the regression analysis of occupation aspirations. Thus, high occupation aspirations held by parents for participants significantly predicted higher occupation aspirations of the participants (beta = 0.211).

*Income Aspirations:* The third multiple regression examined the influence of eight independent variables on the dependent variable, income aspirations. The independent variables were: iwi settlement status (Settle), gender, age, extraversion, agreeableness, conscientiousness, emotional stability and intellect.

**Table 14. Regression Results for Variables Predicting Income Aspirations (N = 225)**

Variable	Unstandardised Coefficient	Standard Error	Beta	Significance of <i>t</i>
Settle	-0.240*	0.108	-0.150*	0.027
Gender	-0.002	0.179	-0.001	0.992
Age	-0.013	0.008	-0.114	0.098
Extra	-0.086	0.180	-0.032	0.635
Agree	-0.526	0.627	-0.060	0.403
Conscien	-0.175	0.524	-0.024	0.738
E.Stability	0.566	0.404	0.106	0.162
Intellect	0.148	0.943	0.011	0.876

Constant = 3.461  
 $R^2 = 0.044$   
 $F = 10233$   
Significance of  $F = 0.281$

\*  $p < 0.05$

Only one significant predictor – iwi settlement status was found in the regression analysis of income aspirations. Low settlement status of participants predicted significantly higher income aspirations (beta = -0.150). Alternatively stated, this regression revealed that participant affiliation to iwi that had not settled significantly predicted higher income aspirations, compared to participants affiliated to iwi that had settled.

Interestingly, neither gender nor any of the Big-5 personality traits were found to have any significant influence on any of three aspirations studied. It was also interesting that parental support was not found to significantly predict either education or occupation aspirations.

## Other Results

Participants were also asked to rate other questions and statements related to the research topic. These questions and statements were designed to ascertain participant attitudes to such things as spiritual well-being and cultural identity. The responses are presented below.

Participants were instructed to rate their agreement with the following two statements: “Is spiritual well-being more important to you than a high income?” and “How important is your Maori identity to you?”.

**Table 15. Participant Ratings of Importance for Spiritual Well-Being vs High Income and Cultural Identity.**

Rating	Spiritual Well-Being vs High Income		Cultural Identity	
	Count	%	Count	%
Very important	77	34.22	109	48.44
Important	49	21.78	51	22.67
Slightly important	33	14.67	31	13.78
Neutral	33	14.67	14	6.22
Slightly unimportant	9	4.0	10	4.44
Unimportant	9	4.0	7	3.11
Not very important	15	6.67	3	1.33
Total	225	100.01 (due to rounding)	225	99.99 (due to rounding)

As observed in Table 15, spiritual well-being was considered either ‘very important’ or ‘important’ by 126 of the participants (cumulative percentage of 56%). In contrast, only 24 participants (cumulative percentage of 10.67%) rated spiritual well-being as either ‘not very important’ or ‘unimportant’.

Participants were asked to rate how important their cultural identity was to them. 160 participants (cumulative percentage of 71.11%) rated their cultural identity as being either ‘very important’ or ‘important’ to them. In contrast, only 10 participants (cumulative percentage of 4.44%) rated their cultural identity as being either ‘not very important’ or ‘unimportant’ to them. Table 15 shows that participants considered both spiritual well-being and cultural identity as important factors in their lives.

Participants were also instructed to rate their agreement in relation to the statement: “It is likely that as more iwi settle Treaty claims over time, that Maori will set higher goals and aspirations for themselves”, as displayed in Table 16.

**Table 16. Participant Agreement in Maori Setting Higher Goals and Aspirations for Themselves, as More Treaty Claims are Settled.**

Rating	Count	%
Strongly agree	41	18.22
Agree	51	22.67
Slightly agree	58	25.78
Neutral	41	18.22
Slightly disagree	12	5.33
Disagree	10	4.44
Strongly disagree	12	5.33
Total	225	99.99 (due to rounding)

Table 16 illustrates a wider distribution of participant responses for this statement. 92 participants (cumulative percentage of 40.89%) either ‘strongly agreed’ or ‘agreed’ that there would be an increased likelihood of Maori setting higher goals and aspirations for themselves, as more iwi settle Treaty claims over time. In contrast, only 22 participants (cumulative percentage of 9.77%) either ‘strongly disagreed’ or ‘disagreed’ with the likelihood of this event taking place. This indicates that most participants felt Treaty settlements would likely result in Maori setting higher aspirations for themselves.

## **GENERAL DISCUSSION**

In the general discussion I will first recapitulate the major research objective and the results from each of the two studies of this thesis. A discussion of the findings and the implications for each of the three aspirations studied and the related variables of influence will then be presented. Next, general findings, research limitations and suggestions for future research are discussed. Finally, I conclude with comments concerning this research.

### **The Research Objective**

The major goal of this exploratory research was to examine the influence of a range of contextual and individual variables on the prediction of education, occupation and income aspirations for Maori. Such variables included: personality, personal goal setting, socio-economic status, family environment, parental education and occupation aspirations, parental support for education and occupation aspirations, age, gender and Treaty of Waitangi settlements. No hypotheses were stated due to the exploratory design of the research. A small qualitative study followed by a larger quantitative study were conducted to achieve this end.

### **Summary of Major Results**

Consistent patterns were observed in the participant responses gathered from the first study. These included that:

- 1) Participant education aspirations had a 'flow-on effect' for other family members.
- 2) Participants reported it was important to be employed in an occupation they enjoyed.
- 3) Although participants desired financial security, money was not the main motivating factor in their pursuit of satisfaction and fulfilment.
- 4) Participant aspirations had been influenced by their ability to set goals.
- 5) Participants with a low socio-economic status background identified they wanted an improvement in status from an early age.
- 6) Participants' families were supportive of their aspirations.

- 7) Iwi settlements had not influenced participant aspirations for education, occupation or income.
- 8) Most participants mentioned the importance of role models in how they set their aspirations.
- 9) Participants knew the value of money from a young age.
- 10) Participants expressed the importance they attached to contributing to the welfare of their parents and/ or siblings (if still living).

Analyses of raw data gathered for the second study revealed the following results:

- 1) Participants thought that the subjective effect of iwi settlement least influenced their overall aspirations, compared to personality, goal setting, socio-economic status and family support which they rated more highly.
- 2) Significant correlations were found between education, occupation and income aspirations.
- 3) Three multiple regressions for education, occupation and income aspirations revealed that:
  - Education aspirations were influenced by parental education aspirations and age.
  - Occupation aspirations were influenced by parental occupation aspirations.
  - Income aspirations were influenced by Treaty settlement status. More specifically, the affiliation of Maori to iwi that had not yet settled Treaty claims predicted higher income aspirations for these individuals.

At first glance the results summary seems to reflect an assortment of findings. However, the literature from studies of economic psychology, subjective well-being and various social-psychological research will be used to explain and contextualise these findings. I next discuss these findings and the ensuing implications.

## Research Findings and Implications

### The Influence of Iwi Settlement

The findings regarding the influence of iwi settlement were of particular interest to the research. Conflicting findings about the influence of iwi settlement were found from the results of the two studies. Findings from both the first study and the ANOVA post-hoc testing from the second study suggested that participants did not perceive the influence of iwi settlement to subjectively affect their overall aspirations to a large degree. However, the regression analyses examining participant education, occupation and income aspirations found that income aspirations were predicted by the iwi settlement status of participants. It is important here to be aware that iwi settlement was examined differently in the regression analyses compared to the other analyses in this research. The regression analyses examined iwi settlement according to the iwi settlement status of participants whereby participants were classified as belonging to iwi that had settled claims, not settled claims, or were unsure of their settlement status. The regressions also specifically examined education, occupation and income aspirations. In contrast, the other previous analyses examined how participants rated the effect of iwi settlement as influencing their overall aspirations. Thus, there is a subtle distinction in how iwi settlement was examined in the analyses which may affect both the interpretation of the findings and their implications.

In the first study, it was very obvious from participant responses that iwi settlements had not influenced overall aspirations. Rather, participants remarked that a range of contextual and individual variables had influenced any aspirations and goals they might have. These included the influence of family background and personal qualities such as motivation, perseverance and a drive to succeed.

Furthermore, overwhelming participant agreement in the first study suggested Treaty settlements had not directly influenced their education, occupation or income aspirations, regardless of the settlement status of the participants. Despite these findings however, participants still expressed vast support for the continued settlement of Maori claims, which were

viewed as a positive step forward for Maori. It was also commonly believed that the future social and economic status of Maori could improve as a result of the current and future Treaty settlements. The participants expressed a degree of assurance that the economic resources comprising settlement packages may provide a possible future means of alleviating Maori disparities within a range of social and economic indices – if wise investment and careful forward planning of resources was adhered to.

It was also thought important that the positive effects of Treaty settlement flow-on to the wider Maori community and the economic resources were not focused on either, particular groups of Maori or social issues from which only a small number of Maori would benefit. Broadly speaking then it is seen as important that a large percentage of Maori are able to access any perceived future benefits resulting from Treaty settlement, rather than a small select group.

Importantly, participants in the first study noted the difficulty in gauging any benefits of Treaty settlement to the wider Maori population because at the present time, only a few iwi have received settlement and the settlement process as a whole is a recent social phenomenon. That is, the recency of the Treaty settlement process indicates that much still remains to be known concerning the implications arising from settlement.

The findings from the first study regarding the small effect of iwi settlement on aspirations were supported by an analysis performed in the second study. In this particular analysis, participants were asked to rate subjectively whether they thought the effect of personality, goal setting, socio-economic status, family support and iwi settlement had influenced their overall aspirations. It was found that iwi settlement less affected overall aspirations than the other four variables.

In the final analysis of the second study, three multiple regressions examined the influence of a range of independent variables on the education, occupation and income aspirations of participants. As mentioned earlier, the way in which iwi settlement was examined in this analysis differed to previous analyses. Here, iwi settlement was examined according to the

settlement status of participants. There were three classifications of settlement status – settled iwi, not settled iwi and unsure of iwi settlement status. It is proposed that the examination of participant settlement status rather than the subjective effect of the influence of iwi settlement, allowed a more salient examination of aspirations to be undertaken.

The regressions found that of the three aspirations examined, iwi settlement status predicted income aspirations. Specifically, Maori belonging to iwi that had not yet settled were more likely to have higher income aspirations than those Maori who were either affiliated to settled iwi, or were unsure of their respective iwi settlement status. In contrast, no significant results were found for iwi settlement status in the examination of education or income aspirations in the final analysis. A possible explanation for the significant finding might be that Maori affiliated to unsettled iwi may have used Maori affiliated to settled iwi as a reference point of comparison to set their income aspirations. This may have inspired an increase in income aspirations (Diener et al., 1998; Katona, 1975). This claim is tentative however, as the full implications of Treaty settlement to Maori have yet to be studied, documented and understood.

In summary, the regressions for the three aspirations found that iwi settlement status predicted income aspirations, but did not predict education or occupation aspirations. It was also found that iwi settlement did not subjectively effect the influence of overall aspirations. Generally, the findings suggest iwi settlement does not play a significant role in the education aspirations, occupation aspirations and overall aspirations of Maori at this particular point in time. This was also found regardless of whether iwi settlement was examined according to either participant ratings of subjective affect on aspirations, or to the settlement status of individual participants.

### **The Influence of Parents on Aspirations**

The examination of parental influence on aspirations revealed three interesting findings. First, parental occupation aspirations influenced the occupation aspirations of participants. That is, parents' high occupational aspirations for participants predicted high occupation aspirations

for the participants themselves. Second, parental education aspirations also influenced the education aspirations of participants. In other words, parents' high educational aspirations for participants predicted high education aspirations for the participants themselves. Collectively, these findings support the earlier claims by Schoon (2001), Marjoribanks (1998; 1995), and Kellaghan (1997) regarding the prominent role of parents in the development of education aspirations for their children. These results combined suggest that parental support is influential in guiding the individuals' aspirations, and demonstrates the importance of parents in the continuing future social development of their children. It is proposed that parental support and the aspirations they have for their children, significantly effect the way in which Maori formulate education and occupation aspirations for themselves.

Another interesting pattern was found with regard to education. Those participants with experience of tertiary study reported the flow-on effect their decision to enter university study had on other family members. Specifically, they reported that other family members had expressed interest in tertiary education, and that they had provided an incentive for other family members to pursue tertiary education. This finding fits with the summary of Lewin's general characteristics comprising aspirations (Katona, 1975). It implies Maori use similar others within their social group as references to measure their own progress in appraising the state of their own personal aspirations.

Many participants in the first study reported that they understood the value of money at a young age. This was attributed to their subjective experience of environmental factors in their respective upbringing. For instance, parental factors such as income and education, social and political beliefs, and work ethic values contribute to how early a child learns the implications of earning and saving, as well as achievement and motivation. A similar view is held by Lewis, Webley, & Furnham (1995). The conclusion drawn here is that early childhood socialisation importantly affects an individual's monetary habits, beliefs and their subsequent aspirations.

In a related finding, a consistent pattern found in the first study indicated that role models were important to the formulation of aspirations. It was commonly found that participants perceived their parents, amongst others, to be role models. The role models assisted the formulation of aspirations in two ways. They offered tangible examples of what could be achieved by utilising such qualities as motivation, a strong work ethic and perseverance to progress to a desired state of well-being (Diener et al., 1999). Role models were found to provide examples illustrating how aspirations could be realised. They also provided reference points from which individuals could monitor their own progress between their aspirations and the realisation of those aspirations (Katona, 1975). It was also considered extremely important that the role models themselves be of Maori descent.

### **The Influence of Age on Aspirations**

Education aspirations were also influenced by age. Educational aspirations are more likely to be found in younger people rather than the old. Upon reflection, the prevalence of education aspirations in younger people seems quite straightforward and expected. After all, aspirations are future oriented and concern the desirable goals people hope to achieve or obtain over a period of time for future benefit. With education aspirations, it is more likely that one has accounted for their respective age and the extended amount of time needed to obtain an education qualification, to attain one's aspiration. As such, it seems both logical and more likely that one's long term aspirations for education will decline as one gets older.

### **The Influence of Personality on Aspirations**

In the first analysis of the second study, participants highly rated the subjective effect of personality on their overall aspirations, but later regression analyses for the three aspirations revealed that personality, when reduced down to the five core dimensions, did not significantly predict education, occupation or income aspirations. These non-significant findings are inconsistent with related research conducted on personality and education (Robert & Robins,

2000) and studies of subjective well-being (Diener et al., 1999; Emmons et al., 1986; Diener et al., 1984).

On reflection it might be more the case that for Maori, aspirations are more influenced by optimism or self-efficacy rather than extraversion or personality traits. Perhaps, examining the intention and conviction that individuals' possess to pursue and obtain desired goals, might better predict aspirations for Maori rather than the study of personality dimensions.

### **The Collective Dimensions of Culture and Aspirations**

Other findings were related to individuals' overall aspirations for Maori culture. These findings were considered to illustrate and reinforce the collective dimensions of culture (see Triandis, 1989 and Durie, 1998). There was wide agreement that Maori, as a social group, would set higher goals and aspirations in the future as more Treaty claims were settled. Maori cultural identity was considered very important to nearly half of the sample, and spiritual well-being was frequently reported as more important than income – which was not considered the main motivating factor in the pursuit of satisfaction and fulfilment. Strong family values were also evident as it was common to find that while individuals held aspirations for themselves, it was important that they also contribute to the continued welfare and improved status of their family. These individual findings lend support to the existence of a collective dimension to Maori culture because, as well as individuals having aspirations for themselves, they also expressed collective aspirations for the family and the social group as a whole (Triandis, 1989).

### **General Research Observations**

On reflection it is evident that the variables that obtained significance in the regression analyses such as parental educational and occupational aspirations, age and settlement status, were more tangible or objective than non-significant variables such as goal setting and the five dimensions of personality. It is suggested that people are more easily able to appraise, measure and self-report the influence of objective variables such as parents' education or occupation

aspirations, than intangible variables such as personality dimensions, which are more subjective and intra-psychological.

It was also noticed that there was a close relationship between education, occupation and income aspirations, which was evident from the correlation results in the second study. This finding was not surprising as it is well documented that one's social environment and background is associated with one's occupational and educational aspirations, and occupational and income attainment (Schoon, 2001; Sewell, Haller, & Ohlendorf, 1970; Zuckerman, 1977; Saha, 1997; and others). It is possible that the close relationship between the three aspirations may have made it difficult to determine a distinction between some variables and their influence on each aspiration.

Despite these problems, it was nonetheless considered appropriate that a study of aspirations relative to iwi settlement was undertaken. As the full impact of Treaty settlement is still uncertain at this early stage, it is currently difficult to outline the association between settlement status and expectations. Therefore, it is probably more appropriate that the association between Treaty settlement and aspirations which are less discrete were examined, rather than expectations, which are more suggestive of a predetermined outcome. In other words, aspirations appear to be more based on social desires formulated on less substantiated information than to the more salient expectations, which are formed on more certain knowledge (Roberts & Robins, 2000).

### **Research Limitations and Directions for Future Research**

The main research limitation concerned the biased composition of the sample. A large number of participants were university educated and subsequently occupied the higher income brackets. The reason for the higher response rate from more highly educated Maori is unclear. A high number of students also participated in the research, which is reflective of the university context in which the research was carried out affording easy access to potential participants. These sample participant demographics are not representative of the Maori population and

therefore, some groups such as unemployed Maori and those with a low income were under-represented in the research sample. Consequently, the research findings have to be interpreted with care and are limited in their generalisability to the Maori population. Future research with improved sample representation would more likely yield results that could be generalised to the population under study.

In retrospect, the investigation of education, occupation and income aspirations and a number of influencing variables, particularly the influence of Treaty settlement, was a large project to undertake. For instance, a more focused study of aspirations concentrating on a specific subset of the Maori population such as adolescent Maori might have been undertaken instead. This would have eliminated the confounding effect of age that may have occurred in the present study.

A similar suggestion is also forwarded for the study of a specific 'aspiration' instead of selecting three separate aspirations to collectively study, as in the present research. Any findings could be more readily be interpreted as being related to the particular aspiration under study. Future research might also do better to examine Treaty settlement within the context of other contextual and individual variables such as school environment (Schoon, 2001) and optimism or self-efficacy (Katona, Strumpel, & Zahn, 1971), in determining their influence on the aspirations of Maori.

Another recommendation concerns the emphasis of the present study, which has focused on the variables that affect the realisation of aspirations, rather than the developmental process involved with the realisation of aspirations. Perhaps a future study that documents the developmental process associated with the individual progress made toward the realisation of aspirations, might offer an increased level of explanation (Schoon, 2001; Carver & Scheier, 1998).

## Concluding Comments

It is recognised that a range of social environmental and personal variables mediate the prediction of education, occupation and income aspirations for Maori. The research has found that the three aspirations studied are mediated by a range of variables, which included parental support for aspirations, iwi settlement status, parental aspirations for their children and age.

Upon reflection, one might sum up the impact of the social environment and personal intrinsic qualities on the realisation of aspirations as follows. The intention to perform an action is the best predictor of that action, but this is affected by a range of social and individual influences, which may influence how aspirations are realised (Saha, 1997). Education and its relation to both occupational and income status are considered determinants of upward social mobility. It is proposed that the attainment of aspirations related to these major keys of social mobility may especially benefit Maori who are currently negatively over-represented on a number of social and economic indices.

Whether settlements made to Maori for past breaches to the Treaty of Waitangi by the Crown will play a contributing role in the social and economic advancement of Maori still cannot be foreseen. Importantly it is recognised that any hypothesised social advancement will not occur in a vacuum and a nebula of social, economic and political variables, as well as individual traits may significantly influence the occurrence of this event.

Indeed, it has not been the purpose or intent of this thesis to present Maori Treaty settlements as a possible panacea for the range of social disparities facing contemporary Maori society. Rather, this thesis is perceived to be of value and utility in that it offers a comprehensive record of findings relative to variables influencing Maori aspirations (that include Treaty settlement), which may be used as a reference base of comparison for future related research.

In conclusion, it appears that aspirations for Maori can be decided on with relative ease. However, the critical issue lies more in determining how one's social environment and personal qualities can affect the realisation of one's aspirations.

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## Appendix A

### The Principles of the Treaty of Waitangi

- The principle of government (kawanatanga): the Government has the right to govern and make laws.
- The principle of self-management (rangatiratanga): iwi have the right to organise as iwi and, under the law, control the resources they own.
- The principle of equality: all New Zealanders are equal under the law.
- The principle of reasonable co-operation: both the Government and iwi are obliged to accord each other reasonable co-operation on major issues of common concern.
- The principle of redress: the Government is responsible for providing effective processes for the resolution of grievances in the expectation that reconciliation can occur.

NB: These principles do not replace the Treaty but guide the Crown in applying it today.

[Source: Principles for Crown Action on the Treaty of Waitangi, Department of Justice, Wellington, 1989.]

## Appendix B

### Summary Table of Treaty Settlement Progress

Claimant	Milestone					
	Mandate Recognised by Crown	Terms of Negotiations	In Negotiations	Heads of Agreement Signed	Deed of Settlement Signed	Enacted Through Legislation
Pouakani	*	*	*	N/A	*	*
<i>Taranaki Claims:</i>						
Ngati Tama	*	*	*	*		
Ngati Mutunga	*	*	*	*		
Te Ati Awa	*	*	*	*		
Ngati Ruanui	*	*	*	*	*	
Ngati Rauru	*	*	*			
Ngati Awa	*	*	*	*		
Te Uri o Hau	*	*	*	*	*	
Rangitaane o Manawatu	*	*	*	*		
Te Arika	*	*	*	N/A		
Tuwharetoa ki Kawerau	*	*	*			
Te Arawa lakes	*	*	*			
Waikato – Tainui (raupatu claim)	*	*	*	*	*	*
Ngai Tahu	*	*	*	*	*	*
Te Roroa	*	*	*			
Ngati Makino	*	*	*			
Waikato River	*					
Turangitukua	*	*	*	N/A	*	*
<i>Muriwhenua:</i>						
Te Aupouri	*	*	*			
Ngati Kuri	*	*	*			

[Source: Quarterly Report to 30 September 2001: Office of Treaty Settlements]

\* Denotes that particular milestone has been obtained

## Appendix C

### Questionnaire

Listed below are a number of questions and statements. Please read them and indicate to what degree each question reflects your own thoughts and feelings by circling the number that corresponds to the way you feel.

1. How important is it for people to have aspirations for their education?
 

Very important	1	2	3	4	5	6	7	Not important
----------------	---	---	---	---	---	---	---	---------------
  
2. How important is it for people to have aspirations for their occupation?
 

Very important	1	2	3	4	5	6	7	Not important
----------------	---	---	---	---	---	---	---	---------------
  
3. How important is it for people to have aspirations for their incomes?
 

Very important	1	2	3	4	5	6	7	Not important
----------------	---	---	---	---	---	---	---	---------------
  
4. **How much do you think your own aspirations have been affected by the following factors?**

The type of personality you have	Very affected	1	2	3	4	5	6	7	Not affected
The types of goals you set	Very affected	1	2	3	4	5	6	7	Not affected
Your socio-economic status	Very affected	1	2	3	4	5	6	7	Not affected
The supportive nature of your family	Very affected	1	2	3	4	5	6	7	Not affected
Treaty settlements that may have been made to your iwi	Very affected	1	2	3	4	5	6	7	Not affected
  
5. Did/ do your parents have high aspirations for your education?
 

Very high	1	2	3	4	5	6	7	Very low
-----------	---	---	---	---	---	---	---	----------
  
6. Were/ are your parents supportive of your educational aspirations?
 

Very supportive	1	2	3	4	5	6	7	Not supportive
-----------------	---	---	---	---	---	---	---	----------------
  
7. Did/ do your parents have high aspirations for your occupation?
 

Very high	1	2	3	4	5	6	7	Very low
-----------	---	---	---	---	---	---	---	----------
  
8. Were/ are your parents supportive of your occupational aspirations?
 

Very supportive	1	2	3	4	5	6	7	Not supportive
-----------------	---	---	---	---	---	---	---	----------------
  
9. Do you think you are making/ or have made good progress towards reaching your educational aspirations?
 

Very good progress	1	2	3	4	5	6	7	Poor progress
--------------------	---	---	---	---	---	---	---	---------------

10. Do you think you are making/ or have made adequate progress towards your occupational aspirations?
- |                    |   |   |   |   |   |   |   |               |
|--------------------|---|---|---|---|---|---|---|---------------|
| Very good progress | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Poor progress |
|--------------------|---|---|---|---|---|---|---|---------------|
11. How important is to you that your occupation in some way directly contributes to the improved social status/ well-being of Maori? (If you don't have a job, your desired or intended job)
- |                |   |   |   |   |   |   |   |               |
|----------------|---|---|---|---|---|---|---|---------------|
| Very important | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Not important |
|----------------|---|---|---|---|---|---|---|---------------|
12. How important is to you that your occupation in some way indirectly contributes to the improved social status/ well-being of Maori? (If you don't have a job, your desired or intended job)
- |                |   |   |   |   |   |   |   |               |
|----------------|---|---|---|---|---|---|---|---------------|
| Very important | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Not important |
|----------------|---|---|---|---|---|---|---|---------------|
13. Is spiritual well-being more important to you than a high income?
- |                |   |   |   |   |   |   |   |               |
|----------------|---|---|---|---|---|---|---|---------------|
| Very important | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Not important |
|----------------|---|---|---|---|---|---|---|---------------|
14. Has your iwi have received Treaty settlements? (Please circle one)      Yes                      No                      Unsure
15. **If you answered 'Yes' to the previous question, please indicate the degree to which you agree or disagree with the following statements. If you answered 'No' or 'Unsure' go straight to question 16.**
- The Treaty settlements made to my iwi have increased my aspirations for education.
- |                |   |   |   |   |   |   |   |                   |
|----------------|---|---|---|---|---|---|---|-------------------|
| Strongly agree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly disagree |
|----------------|---|---|---|---|---|---|---|-------------------|
- The Treaty settlements made to my iwi have increased my aspirations for occupation.
- |                |   |   |   |   |   |   |   |                   |
|----------------|---|---|---|---|---|---|---|-------------------|
| Strongly agree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly disagree |
|----------------|---|---|---|---|---|---|---|-------------------|
- The Treaty settlements made to my iwi have increased my aspirations for my income.
- |                |   |   |   |   |   |   |   |                   |
|----------------|---|---|---|---|---|---|---|-------------------|
| Strongly agree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly disagree |
|----------------|---|---|---|---|---|---|---|-------------------|
16. What services, programmes, grants or scholarships does your iwi provide?
- |                |   |   |   |   |   |   |   |                     |
|----------------|---|---|---|---|---|---|---|---------------------|
| A great number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | None that I know of |
|----------------|---|---|---|---|---|---|---|---------------------|
17. Do you think that given time, iwi investment of resources will greatly benefit more Maori in the future?
- |                 |   |   |   |   |   |   |   |                  |
|-----------------|---|---|---|---|---|---|---|------------------|
| Greatly benefit | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Will not benefit |
|-----------------|---|---|---|---|---|---|---|------------------|
18. **Please indicate the degree to which you agree or disagree with each of the following statements.**
- It is important to me to see an improvement in the social status of Maori in the future.
- |                |   |   |   |   |   |   |   |                   |
|----------------|---|---|---|---|---|---|---|-------------------|
| Strongly agree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly disagree |
|----------------|---|---|---|---|---|---|---|-------------------|
- I am hopeful that as more iwi settle Treaty claims over time, that the social status of Maori will begin to improve.
- |                |   |   |   |   |   |   |   |                   |
|----------------|---|---|---|---|---|---|---|-------------------|
| Strongly agree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly disagree |
|----------------|---|---|---|---|---|---|---|-------------------|
- It is likely that as more iwi settle Treaty claims over time, that Maori will set higher goals and aspirations for themselves.
- |                |   |   |   |   |   |   |   |                   |
|----------------|---|---|---|---|---|---|---|-------------------|
| Strongly agree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly disagree |
|----------------|---|---|---|---|---|---|---|-------------------|

19. How important is it that you contribute in some way to the future welfare of your parents?

Very important
1
2
3
4
5
6
7
Not important

20. Please rate your own personality by circling a number which you think best describes you on each of the following 15 scales.

Introvert	1	2	3	4	5	6	7	Extravert
Unassertive	1	2	3	4	5	6	7	Assertive
Silent	1	2	3	4	5	6	7	Talkative
Unkind	1	2	3	4	5	6	7	Kind
Uncooperative	1	2	3	4	5	6	7	Co-operative
Rude	1	2	3	4	5	6	7	Polite
Disorganised	1	2	3	4	5	6	7	Organised
Irresponsible	1	2	3	4	5	6	7	Responsible
Careless	1	2	3	4	5	6	7	Thorough
Tense	1	2	3	4	5	6	7	Relaxed
Insecure	1	2	3	4	5	6	7	Secure
Guilt-ridden	1	2	3	4	5	6	7	Guilt-free
Unintellectual	1	2	3	4	5	6	7	Intellectual
Unreflective	1	2	3	4	5	6	7	Reflective
Unimaginative	1	2	3	4	5	6	7	Imaginative

21. How important is your Maori cultural identity to you?

Very important
1
2
3
4
5
6
7
Not important

22. Please indicate whether you are male or female. (Please circle one)      Male                                      Female

23. Please state your age. \_\_\_\_\_

24. Please state your iwi/s. \_\_\_\_\_

25. Please indicate the level of education/ training you may have received at any of the following Tertiary Education Institutes. (please state the name of the qualification)

- High School \_\_\_\_\_
- Polytech \_\_\_\_\_
- University \_\_\_\_\_
- Private Training Establishment \_\_\_\_\_
- College of Education \_\_\_\_\_
- Wananga \_\_\_\_\_

26. Are you currently employed? (Please circle one)                      Yes                                      No

If yes, please state your occupation. \_\_\_\_\_

27. Please state your level of income per annum. (Please tick the box under the income range that describes you)

Less than \$10,000	\$10,000 to \$20,000	\$21,000 to \$30,000	\$31,000 to \$40,000	\$41,000 to \$50,000	\$51,000 to \$60,000	Greater than \$60,000
<input type="checkbox"/>						

28. What was/ is your father's occupation?

---

29. What was/ is your mother's occupation?

---

30. What income do you expect to have five years from now? (Please tick the box under the income range that describes you)

Less than \$10,000	\$10,000 to \$20,000	\$21,000 to \$30,000	\$31,000 to \$40,000	\$41,000 to \$50,000	\$51,000 to \$60,000	Greater than \$60,000
<input type="checkbox"/>						

31. What is your highest educational qualification at present?

---

32. What do you expect to be your highest educational qualification five years from now?

---

33. Please name the district/ region you are currently living in.

---

**Thank you for taking part in this research project. Please put the finished questionnaire in the self addressed envelope and post back to the researcher.**

## Appendix D

### Big-Five Varimax-Rotated Factor Loadings for 15 Bipolar Scales

Scale	I	II	III	IV	V
Factor I. Extraversion					
Intro.-extra.	<b>.86*</b>	.01	.02	.15	-.02
Unassert.-assert.	<b>.54*</b>	.19	-.09	<b>.50</b>	.09
Silent-talkati.	<b>.83*</b>	.01	.01	.15	.01
Factor II. Agreeableness					
Unkind-kind	.21	<b>.70*</b>	.16	.07	.15
Uncoop.-coop.	-.02	<b>.72*</b>	.15	.15	-.03
Rude-polite	-.09	<b>.72*</b>	.22	.05	.10
Factor III. Conscientiousness					
Disorg.-organ.	.01	.14	<b>.79*</b>	.15	.02
Irresp.-resp.	.02	<b>.34</b>	<b>.76*</b>	.10	.06
Careless.-thorough	.18	.16	<b>.72*</b>	.06	.16
Factor IV. Emotional Stability					
Tense-relaxed	.14	-.17	.18	<b>.65*</b>	-.10
Insecure-secure	.11	.14	.07	<b>.75*</b>	-.03
Guilt.-guiltfree	.05	.06	.11	<b>.68*</b>	.18
Factor V. Intellect					
Unitell.-intell.	.02	.28	-.09	.23	<b>.72*</b>
Unreflect.-reflec.	.02	.26	.11	-.24	<b>.70*</b>
Unimag.-imag.	.02	<b>-.38</b>	<b>.30</b>	.03	<b>.60*</b>

*Note.* Values equal to or larger than .30 are listed in boldface type.

\* Highest factor loading of each scale.

[Source: Thomas, G. (1999). Accuracy in empathic and trait judgements: The quest for the good judge, good target, good trait, good relationship. Christchurch: University of Canterbury.]

The results of an exploratory factor analysis (principal components analysis with orthogonal varimax rotations) of the 15 self personality scale items across the entire sample ( $N = 200$ ) were consistent with the Big-5 a priori factor structure. As can be seen, a few items loaded on more than one factor which is commonly found, eg; Goldberg, 1992. Five factors were produced with eigenvalues greater than 1, together explaining 58.8% of the variance.

## Appendix E

### The New Zealand Standard Classification of Occupations.

<b>Major Group 1</b>	<b>Legislators, Administrators and Corporate Managers</b>	Members of Parliament, Senior Central and Local Government Officials, Senior Business Administrators, General Managers, Production and Operation Managers, Finance and Administration Managers, Human Resources Manager, Sales and Marketing Manager, Advertising and PR Manager, Supply and Distribution Manager, Computing Services Manager.
<b>Major Group 2</b>	<b>Professionals</b>	Physicists, Chemists and Related Professions, Mathematicians, Statisticians, Computing, Architects, Engineers, Life Science Professionals, Health Professionals, Teachers, Business Professionals, Legal Professionals, Librarians, Social and Related Science Professionals, Religious Professionals.
<b>Major Group 3</b>	<b>Technicians and Associate Professionals</b>	Physical Science Technicians, Computer Equipment Controllers, Optical and Electronic Equipment Controllers, Ship and Aircraft Controllers, Safety and Health Inspectors, Life Science Technicians, Non-Ordained Religious Associate Professionals and other Associate Professionals in the following fields: Health, Nursing, Administration, Government, and Social Work, Careers and Employment Advisors, Writers, Artists, Entertainment and Sports.
<b>Major Group 4</b>	<b>Clerks</b>	Secretaries and Keyboard Operating, Numerical Clerks, Material Recording and Transport Clerks, Library, Mail and Related Clerks, Cashiers, Tellers, and Client Information Clerks.
<b>Major Group 5</b>	<b>Service and Sales Workers</b>	Travel Attendants and Tour Guides, Housekeeping and Restaurant Service Workers, Other Personal Services Workers, Protective Services Workers, Salespersons and Demonstrators, Street Vendors and Fashion and other Models.
<b>Major Group 6</b>	<b>Agriculture and Fishery Workers</b>	Market Farmers and Crop Growers, Market Oriented Animal Producers, Forestry and Related Workers, Fishery Workers, Hunters and Trappers.
<b>Major Group 7</b>	<b>Trades workers</b>	Building Framers and Related Trades, Building Finishers, Metal Moulders, Sheet Metal, Blacksmiths, Toolmakers, Machinery Mechanics and Fitters, Electrical/ Electronic Mechanics, Precision Instrument Makers, Glass Cutters, Printers, Food and Related Products Processing Trades Workers, Cabinet Makers, Tailors and Dressmakers, Leather Goods Makers.
<b>Major Group 8</b>	<b>Plant and machine operators and assemblers</b>	Mining, Mineral and Metal Processing Plant Operators, Glass and Ceramics, Wood Processing and Papermaking, Chemical Processing, Power Generation, Textile Products, Food Processing Operators, Assemblers, Drivers and Mobile Mobile Machinery Operators, Agricultural and Earthmoving Operators.
<b>Major Group 9</b>	<b>Elementary occupations</b>	Building Caretakers/ Cleaners, Messengers and Doorkeepers, Refuse Collectors, Packers and Freight Handlers, Labourers.

[Source: New Zealand Standard Classification of Occupations 1995. (1995). Wellington: Statistics New Zealand]

*Note:* An additional four major groups (Housewife/ Mother, Unemployed, Students and Retired) were added to this classification system when the occupation status data was being coded and entered. This was considered more representative of the sample occupation status.