Tongan Conceptions of Schooling in New Zealand: Insights and Possible Solutions to Underachievement

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ABSTRACT

An understanding of Tongans' conceptions of New Zealand secondary schooling is fundamental to behavioural and professional development interventions that may help promote academic achievement. The purpose of the thesis is to investigate Tongan attitudes, beliefs and intentions relating to their secondary schooling experiences in the context of New Zealand and how these constructs may or may not influence learning outcomes.

A mixed methods analysis of parents, students and teachers' qualitative and quantitative data identified beliefs about aims of schooling, their responsibilities and school preferences and their conceptions of reasons for Tongan students' low achievement. The three participants' conceptions of assessment, teaching and learning were also identified with students' conceptions being analysed against their NCEA results.

Measurement models for Tongan parents' conceptions of schooling were found for each of the seven domains investigated. Measurement models were also found for Tongan secondary school students' conceptions of assessment, teaching experiences and approaches to learning and teachers' conceptions of assessment, teaching and learning. The SEM analysis of Tongan students' conceptions of schooling and their NCEA results found that strength of predictors and proportion of variance explained was higher for the externally assessed component, there was a subject-based difference in how Tongan students' performance was influenced by their schooling conceptions and more Tongan students were doing internally assessed standards.

Behavioural changes to support academic success can happen when peoples' current beliefs and attitudes are identified and made explicit. From these, appropriate behavioural or professional development interventions can be developed and implemented to bring about positive changes. Under current conditions, Tongans beliefs and attitudes about schooling experiences do not seem to generate good academic outcomes for Tongan secondary school students in New Zealand. Teachers' deficit theorizing of Tongan students is still an issue and identifying these constructs and understanding them are central to the government and school efforts to improve the academic achievement for Tongan students.

In addition, schools should emphasize the competitive challenge of doing well in formal examinations as a means of leveraging Tongan community beliefs towards greater academic performance for Tongan students. This is to complement the current emphasis on cultural compatibility and responsive approaches already implemented.

DEDICATION

This thesis is dedicated to my late father Tevita Tukuafu ‘Otunuku and his legacy. His dream and passion for ‘an education’ was the driving force for my entire educational journey and the completion of this study. It is also dedicated to my children and their offspring, may this be cherished as a family legacy.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The purpose of this research was to find out why the majority of Tongan secondary school students did not perform well academically in the New Zealand educational system. New Zealand Tongans are a minority population that are frequently categorized under 'Pasifika peoples' by the Government of New Zealand. Along with Māori students, Pasifika students' academic performance levels in New Zealand education remain lower than the rest of the population and this continues to be a cause for national concern. While a small proportion of Pasifika students do achieve at very high levels, the majority of them do not. More evidence and ethnic based research and development is needed that focuses on improving academic performance in New Zealand. This research focuses on one aspect of this wider project; that of Tongan performance in New Zealand secondary schooling and the role that beliefs might play in academic success. Demir (2007) posits that

> Both the schooling process itself and the perceptions and expectations of each group participating in this process have an influence on the process of education and learning taking place in schools. Therefore, in order to better understand the multi-dimensional aspects of schooling, there is a need to understand the 'school' that real actors – students, teachers, principals, and parents – have in their minds when they reflect on their school experiences (p. 90).

Understanding conceptions of schooling especially assessment, teaching and learning has been identified as critical to students' academic achievement (Brown & Hirschfeld, 2007, 2008; Demir, 2007; Evans, 2007; Hadar, 2009). A comprehensive understanding of the conceptions of schooling of the three major participants in schooling namely, teachers, students and parents is much needed if we are to understand how best to improve students' academic achievement.

A clearer understanding of New Zealand Tongan conceptions will add to the national efforts to raise not only Tongan, but all Pasifika achievement in the New Zealand school

system. The term ‘Pasifika’ is used here collectively to refer to people living in New Zealand who have migrated from the Pacific Islands (i.e., Samoa, Tonga, Cook Islands, Niue, Tokelau, Tuvalu, and Fiji) or who identify with the Pacific Islands because of their ancestry or heritage. Pasifika is a minority group in New Zealand but one of the fastest growing populations. Tongans are a fast growing population among Pasifika and the third largest group with a total population of 51, 007 (Statistics New Zealand [SNZ], 2007).

Consequently, it is imperative that research be conducted to further our understanding and awareness of the diverse needs and possible education solutions to achievement in the Pasifika group. New Zealand government through its Ministry of Education has implemented national goals for raising Pasifika students’ achievement in schools and tertiary institutions (i.e., Tertiary Education Strategy [TES], Strengthening Education in Mangere and Otara [SEMO], Achievement in Multi-Cultural High Schools [AIMHI], Home-School Partnership [HSP], Literacy Pasifika Initiative, and Picking up the Pace). These ethnic based strategies have driven the Ministry of Education and all stakeholders to collect ethnic specific data to fully understand Pasifika diverse populations especially in urban areas such as Auckland where most Pasifika populations are concentrated. In addition, it is vital to understand how specific Pasifika populations conceptualize their schooling experiences and how conceptions research can contribute to raising Pasifika students’ achievements.

Tongan conceptions of New Zealand education are absent in the present literature. Thus it will be interesting to learn how the Tongan community conceptualises the purpose of their children’s schooling and whether the Tongan students share their parents’ conceptions, and whether those conceptions are similar to those of teachers, and furthermore whether there are any relationships between conceptual patterns and student outcomes.

This study hypothesizes that the conceptions of schooling of the New Zealand Tongan caregivers and students are likely to be different to those of the teachers and that the conceptions students, parents, and teachers have contribute significantly to the general lack of academic success observed among Tongan secondary school students. It is also assumed that making known the conceptions of all three groups to each other may help improve New Zealand Tongan students’ academic achievement. Implications for practice are also identified.

1.2 The research problem of Tongan students' achievement

Hood (1998) defined the purpose of New Zealand schooling as developing the knowledge, skills and values students need to be successful in their lives after school, including within the labour market. In 2007, the New Zealand Ministry of Education released the New Zealand Curriculum (Ministry of Education, 2007) which was the result of collaborative workings and consultations based on previous curriculum documents (i.e., The New Zealand Curriculum, 1992; The New Zealand Curriculum: Draft for Consultation, 2006). This curriculum has three principles that are relevant and closely related to this research:

1. Cultural diversity: The Curriculum reflects New Zealand's diversity and values the histories and traditions of all its people.

2. Inclusion: The Curriculum is non-sexist, non-racist, and non-discriminatory; it ensures that students' identities, languages, abilities, and talents are recognized and affirmed and that their learning needs are addressed.

3. Community engagement: The Curriculum has meaning for students, connects with their wider lives, and engages the support of their families, whānau, and communities.

In 2001, the Ministry of Education released the *Pasifika Education Plan* (PEP) in an attempt to reduce the disparities and to improve the achievement of Pasifika students in the education system. This PEP has been updated regularly; the most recent being 2009 – 2012. The continuing disparity in educational outcomes among the Pasifika students, in the context of New Zealand, is an area of strategic importance and the Ministry of Education understands that this contributed immensely to national investment. As described below, recent national results have shown that Pasifika students' achievements have improved but the achievement gaps between the different ethnic groups remain large. Pasifika students' academic performances in New Zealand are still the lowest in the National Certificate in Educational Achievement (NCEA) compared to students in other ethnic groups.

In the Programme for International Student Assessment (PISA) 2000 assessments of 15-year-olds' reading literacy, mathematical literacy and scientific literacy, Sturrock & May (2002) report that Pakeha and Asian students performed significantly better than Māori and

Pasifika students, who were statistically indistinguishable. This lower educational success is replicated in the national NCEA frameworks and other studies. In 2007, 66% of Asian and 44% of European/Pakeha school leavers achieved the University Entrance (UE) qualification and/or a Level 3 Certificate, compared with only 20% of Pacific and 18% of Māori school leavers (Ministry of Education [MOE], 2008). In 2008, Asian students had the highest proportion of school leavers achieving a UE standard (66.5%), which was 36% higher than the percentage of European/Pakeha (48.8%). Pasifika (23.0%) and Māori (20.8%) had the lowest rates. Specific data for Tongan students were not available but 724 (21%) of Pasifika Year 13 students (3,479) in 2008 were Tongans (Ministry of Education, 2009a).

Most of the participants in this study were from schools in the south Auckland areas where majority of schools are decile[1] 1. Schools in the lowest deciles (deciles 1 - 3) draw their students from communities with the highest degree of socio-economic disadvantage. The majority of Pasifika communities in Auckland are concentrated in low decile school zones and attend their local schools. Low decile schools produce lower achievement scores compared to schools with higher decile rankings. In 2007, for instance, national data on all Year 13 school leavers showed that 23% of students from decile 1 schools achieved UE, compared with 46% of students from decile 5 schools, and nearly 68% of students from decile 10 schools. Comparable data from Auckland schools showed an even greater gap, with only 21 % of students from decile 1 schools gaining UE, compared with 51% of students in decile 5 schools and 71% of students from decile 10 schools (Yuan, 2008).

1.3 Purpose of Research

The main purpose of this study was to investigate how the conceptions of schooling of Tongan parents, Tongan secondary school students, and teachers of Tongan secondary school students contribute to academic achievement, or lack of it. In order to allow multiple conceptions about schooling to be collected from multiple participants, multiple methods were used to generate and analyse the data. This mixed method approach is relatively less frequently applied to Pasifika education research, and in particular the application of quantitative research. The guidelines for Best Evidence Synthesis (BES)

[1] Decile: All schools in New Zealand are given decile rating, depending on the socio-economic status of the area they serve. Schools in the lowest deciles (1 to 3) draw their students from communities with the highest degree of socio-economic disadvantages, while those in highest deciles (8 to 10) draw the least from these communities.

Program in New Zealand maintain that writers "require cross-paradigm knowledge building work, attention to theoretical pluralism, responsiveness to diversity, and understanding of the needs to multiple audiences. Such a challenging scope calls for collaborative and iterative development process" (Alton-Lee, 2004, p. 6).

Therefore a mixed methods approach was designed to complement the main purpose of the research by investigating the schooling experiences and beliefs of the major participants in schooling, (i.e., the teachers, students and parents), and by using qualitative, quantitative, and an indigenous approach to collect and analyse data. The hope was that a better understanding of these belief systems and experiences would help improve students' achievement in the classrooms.

The research answers four research questions using three studies:

Question one: What are the conceptions of the New Zealand Tongan caregivers and parents towards schooling? This question explored how the Tongan community (caregivers) conceptualise schooling (i.e., teaching, learning, assessment, aims of school, parents' responsibilities, school choices, and reasons for not achieving) in the context of New Zealand secondary school education.

Question two: What are the conceptions of the New Zealand Tongan students towards schooling? This question investigated Tongan students' conceptions of schooling (i.e., assessment, teaching, and learning). Since there was an absence of literature on the Tongan students' conceptions, it was hoped that this study would discover new insights.

Question three: What are the conceptions of schooling of teachers teaching Tongan students?

This question explored how teachers of Tongan students in New Zealand secondary schools conceptualise their schooling engagement and experiences with the Tongan students. Some scholars (Jones, 1991; Taufe'ulungaki, Pene, & Benson, 2002; Thaman, 1996) emphasise the importance of teachers understanding or at least being aware of students' home culture. Most of the teachers working with the Tongan students are non-

Tongan and may have no or little cultural understanding of their Tongan students and this may lead to beliefs and practices that reduce academic outcomes for Tongan students.

Question four: How do Tongan students' conceptions of schooling influence achievement, if at all? The research sought to extend the understanding of Tongan students' conceptions related to schooling, within the New Zealand school system, and explore the impact (if any) on student achievement. Students' NCEA results were used in this study.

In short, this research provides cross-paradigm knowledge building about the Tongan community in New Zealand and develops understandings of schooling from multiple participants. The research acknowledges and therefore responses to diversity within the school system by paying attention to theoretical pluralism and implementing the multiple methods approach. Initially, exploratory investigation within this doctorate focused on how small groups of teachers, students, and families understand the various issues of interest with follow up surveys to extend that research to large samples. With data from a large number of participants it was possible to statistically test hypotheses about how conceptions inter-relate which was impossible to achieve with small samples. Surveying large numbers of teachers, Tongan students, and Tongan families enabled robust generalizations to be attempted.

1.4 Significance of Research

The proposed research is significant for a number of reasons. First it is an original contribution to understanding factors affecting the academic achievement of Tongan students in New Zealand secondary schools. Central to education is students' achievement, a complex issue because there are many factors to be considered. A series of interdisciplinary studies using multi-methodological approaches is needed to more fully describe the issue. This study uses mixed methodology (both qualitative and quantitative) and engages all the major participants in schooling (teachers, students and caregivers) in order to find potential solutions to Tongan students' achievement or lack of it. Further studies are needed to address this problem especially the beliefs, attitudes and the practices of the students, teachers and the caregivers in relation to student achievement. The relationships of attitudes, beliefs and practices of teachers, students and caregivers are

somehow important to be, at least understood and at most matched and collaborated, in the quest to improve students' achievement.

Second, Tongan caregivers and students represent a minority group in the context of New Zealand; the voices of these minority groups are often taken for granted in academic discourse. The research is significant because it enables minority 'voices' to be heard by the mainstream policy planners and decision makers on educational matters. The voices are those of Tongans talking about their own schooling experiences. Questions can be asked such as, how do Tongan caregivers behave towards their children's schooling? What are the reasons for those behaviours? What are the implications of those behaviours towards their children's schooling? How do Tongan students behave in schools? What are the reasons for those behaviours? What are the implications of those behaviours?

Third, this research is also significant in its potential to raise better understanding between the three major contributors to schooling: (i.e., teachers, students and caregivers). It establishes how teachers conceptualise schooling and contrasts their views with those of their Tongan students. How do teachers behave towards their Tongan students? Why do they behave as they do? What are the implications of those behaviours towards Tongan students' schooling? It is important to understand how teachers conceptualise their Tongan students; what the teachers believe about what their students bring to school; and what the teachers believe about appropriate teaching, learning, curriculum, and assessment for Tongan students. In short, this research provides a forum for the three main participants in the schools (i.e., parents, teachers and students) to have the chance to learn how each other conceptualises the nature and purpose of teaching, learning, and assessment.

Finally, this is the first mixed methods research to incorporate Pasifika research methodologies and conceptions analysis, by a bilingual Tongan researcher who focuses solely on New Zealand Tongan secondary school students' achievement. It has potential to profile diversity within New Zealand Tongans and the growing voice and relevance of Tongans in New Zealand along with offering a unique level of insight and access to Tongans' conceptions and beliefs. For example, the research raises the concern of Tongan parents about the complexity of the NCEA frameworks and how difficult it is for them to understand all its manifestations. Students, parents, and caregivers need to fully understand the NCEA frameworks so that each knows how they can best support each other.

1.5 Assumptions

This research takes place in the context of the New Zealand school system. The Tongan community includes the parents, guardians, caregivers, and students of Tongan origin, whether born in Tonga or not. It is assumed, that Tongan (i.e., caregivers and students) conceptions of the school system in New Zealand are connected to the overall understandings of Tongan people of personal, cultural, and school needs and that those conceptions impact on students' academic performance. It is assumed that the Tongan conceptions are unlikely to be identical to those upon which the New Zealand school system is based.

Additionally, it is assumed that the network of relationships between the parents, the schools and the students is powerful in affecting student outcomes. An insight into how the New Zealand Tongan community conceptualises key educational factors and the network of their conceptual relationships may be very important in improving the overall academic performance of the Tongan students.

It may well be that exposing the nature of the students' conceptions has a positive impact on Tongan student outcomes. Increased student achievement is being demonstrated in research conducted with Māori students and Pakeha teachers (Bishop, Berrymen, Tiakiwai, & Richardson, 2003; Bishop & Glynn, 1999). This illustrates that Māori students believe that their Pakeha teachers are racist against Māori; a perception that shocked the teachers when they were made aware of it. The interventions assisted teachers to adjust not only their conception of some Māori, but also the quality of communication and understanding between the teachers and students. Changed perceptions on the part of both students and teachers have brought about changed classroom practices resulting in increased student achievement and greater harmony between teachers and students. Thus, it is hoped this investigation may bring about similar interventions and outcomes.

It is also assumed that the Tongan community has conceptions and that those conceptions may be sufficient to achieve Tongan cultural aspirations, and further, that those conceptions have often been ignored in the processes used in New Zealand to address Tongan and Pasifika educational achievement in this country. Thaman (2004) asserts that

> In almost all educational reforms and restructuring … reformers rarely ask how Pacific peoples conceptualise wisdom, learning and knowledge, nor wonder if the values inherent in and propagated by these development projects are shared by the people whose lives are meant to be improved as a result of these projects. Instead, what usually happens is the wholesale importation of practises and values under the guise of human resource development, enlightment, cash employment, good governance, human rights, freedom and democracy etc. in the hope that in the end of the reform period, people would change. Few realise the ideological and philosophical conflicts associated with differing perceptions of most of these ideas, leaving many Pacific people confused and at times angry (p. 9).

1.6 Structure of Thesis

The research in this thesis is comprised of three studies based on three different methodological approaches. Study One used qualitative methods informed by Pasifika approaches; multiple focus groups designed to explore conceptions of schooling of Tongan parents and caregivers, Tongan secondary school students, and New Zealand teachers teaching Tongan secondary school students. Three focus groups were conducted; a Tongan parents / caregivers' focus group, a Tongan secondary school students' focus group, and a secondary school teachers' focus group.

Study Two used non-experimental self-report survey questionnaires. Three self-administered surveys were designed to extend the results from Study One to larger samples and simplify data collection by offering participants the ability to indicate their opinions and attitudes by selecting responses that best fitted their conceptions. Inventories used by other researchers were adopted and used in these surveys.

Study Three used quantitative methods in a survey of Tongan students' beliefs and measure of their academic performance. Study Three was a quasi-experimental, casual-correlational analysis of the relationship between students' conceptions of schooling and their NCEA results.

Chapter 2 is a critical review of the literature on Tongans' conceptions of schooling although there is very little literature of this area. Chapter 3 is the study design and methodology. For ease of reporting, the three methodologically-based studies are reported

in an integrated fashion for each participant group: Chapter 4 focuses on parents and caregivers; Chapter 5 on teachers; and Chapter 6 on students. Chapter 7 summarises the main key findings and discusses their implications for theory, policy, practice, and future research.

CHAPTER TWO

TONGANS IN NEW ZEALAND

2.1 Introduction

This chapter begins by profiling the most critical factors affecting Tongan students' academic performance in the context of New Zealand, followed by a theoretical framework for the research. It will then examine some theories for minority populations' academic achievement. Findings from relevant investigations of Tongan and Pasifika schooling experiences will also be reviewed together with instruments that were developed or used to elicit New Zealand students' and teachers' conceptions of schooling. Finally, details of what this research intend to investigate about Tongan conceptions of schooling, and their influences on Tongan students academic performance, will be discussed.

2.2 Tongans/Pasifika in New Zealand

Tonga is one of the seven main ethnic groups that make up the Pacific peoples in New Zealand. The 2006 Census recorded 265,979 Pacific ethnic peoples. Of these, 49% were Samoans, 22% were Cook Islanders, 19% were Tongans, 8% Niueans, 4% Fijians, 3% Tokelauans, and 1% Tuvaluans. The Tongan ethnic group had a population of 50,478, 56% of which were New Zealand-born and 61% were able to hold an everyday conversation in the Tongan language. Those that were affiliated with a religion made up 90%, of which 98% were Christians. Tongans in New Zealand have a very youthful population with a median age of 19. By comparison, the median age for the total Pacific and New Zealand populations were 21 and 36 years respectively. A disproportionate majority of Pasifika peoples who live in urban areas is reflected in the 80% of Tongans living in the Auckland region.

Pasifika students currently make up more than 9% of the New Zealand student population, and it is estimated that by the year 2021 young Pasifika people will make up 17% of that population. Many initiatives to improve Pasifika achievement have so far failed to make a significant impact on student achievement. The rates of stand-down, suspension, exclusion, and expulsion for Pasifika students continue to be alarmingly high relative to the total school population (MOE, 2009a).

The level of academic performance of Tongan and Pasifika students can be seen in the New Zealand qualifications systems and in standardized measures of learning. In 2008, 79.4% of Pasifika students left school with at least NCEA Level 1, compared to 92.6% of Asian students, 88.1% of European/Pakeha students and 70.4% of Māori students. Students leaving with at least NCEA Level 2 were Asians with 85.8%, European/Pakeha students with 75.2%, Pasifika students with 62.9% and Māori students with 50.4%. In the same year, 67.1% of Asian students achieved UE compared to 48.9% of European/Pakeha students, 23% of Pasifika students and 20.8% of Māori students (MOE, 2008).

In addition, Pasifika and Māori students spend more time completing their NCEA certificates compared to European/Pakeha and Asian students. In 2007, 71% of European students, 69% of Asians students, 44% of Māori students, and 42% of Pasifika students commencing NCEA Level 1 in Year 11 attained this qualification. By the end of Year 13 in 2009, about 80% of European and Asian students, 68% of Pasifika, and 60% of Māori students managed to complete NCEA Level 1 (New Zealand Qualification Authority, 2010).

The consistent message across reading, writing, and mathematics from international (i.e., TIMSS, PIRLS, PISA) and New Zealand (i.e., asTTle, NEMP, NCEA) measures of learning, is that Pasifika students achieve significantly less well than the majority and the Asian minority groups (Satherley, 2006). In PIRLS 2005/06, 3% of Asian and 4% of European/Pakeha failed to reach the Low Internal Benchmark (i.e., scored below 400) compared with 18% of Māori and 16% of Pasifika students. In TIMMS 2006, the average score for European/Pakeha students (510) was significantly higher than Māori (453) and Pasifika students (427). PISA 2006 found that 50% of European/Pakeha and 48% of Asian students were proficient in Level 4 or higher on the scientific literacy scale, compared to 22% of Māori and 17% of Pasifika students (Telford & Caygill, 2007).

Consequently, a variety of government sponsored initiatives have been introduced to respond to the academic performance gap. For example, on 30th of June 2009, the Ministry of Education had 22 schooling improvement initiatives focussed on improving reading comprehension or numeracy achievement in Years 1 to 4, in low decile schools, with a high proportion of Māori and Pasifika students. Some improvements have been recorded, but Pasifika, including the majority of Tongan students, continue to exhibit lower

achievement levels relative to Pakeha and Asian ethnic groups in New Zealand (MOE, 2009a).

As a minority group in New Zealand, Tongans are a heterogeneous group with particular linguistic and cultural characteristics that distinguish this group from the New Zealand main stream population. These characteristics and factors cannot be readily changed through the education system, or at least take a long time to change. In the 2006 Census, the three most common occupations for Tongan adults were labourers (25%), technicians and trade workers (15%), and machinery operators and drivers (15%). Of the Tongan adult population 19% reported no personal income, 36% received up to $20,000 per annum, while only 3% received over $70,000. The median annual income for the Tongan adult population was $17,500 compared to $20,500 for the Pasifika population and $24,400 for the New Zealand population. In addition, the 78% of Tongans who lived in Auckland, 48% lived in South Auckland and 38% lived in Central Auckland; two low socio-economic suburbs (SNZ, 2007). This means that the majority of Tongans in Auckland live in areas which have low decile schools. We know from the factors above that most Tongan student demographic characteristics, and school circumstances, place them at a high risk of failing academically. They occupy the lower levels of the socio-economic status (SES) scale and the poverty level. Low decile schools, low SES and poverty provide low academic achievement and promote a lot of health problems. These factors are inter-related and create further negative rippling effects on students' education outcomes.

There are however some factors that we may be able to influence or even improve. Of particular concern for this research is how beliefs, attitudes, opinions, and values - a general group of phenomenon that are captured by the word 'conceptions'- affect secondary academic performance, particularly that of New Zealand Tongans.

'Conceptions' has been defined by different people as 'mental representations', 'constructs' (Thompson, 1992) of reality or phenomenon, and a 'system of explanation' (Fodor, 1990, 1998; Kelley, 1991; Lakoff & Johnson, 2003; White, 1994). Pratt (1992a) defines conceptions as

> Specific meanings attached to phenomena which then mediate our response to situations involving those phenomena. We form conceptions on virtually every

> aspect of our perceived world, and in doing so, use those abstract representations to delimit something from, and relate it to, other aspects of our world. In effect, we view the world through the lenses of our conceptions, interpreting and acting in accordance with our understanding of the world (p. 240).

This research is an attempt to view schooling experiences through Tongan lenses and interpret their conceptions from their understandings, beliefs, values and worldviews. This is potentially something that can be influenced and changed within the lives of individuals. This thesis will be looking at the potential to improve academic performance for Tongan students by looking at conceptions associated with key schooling processes: Assessment, teaching, and learning. The research literature shows that at least amongst students and teachers, these beliefs systems appear to have considerable impact on learning and outcome (Brown & Hirschfeld, 2007; Evans, 2007; Hadar, 2009; Peterson, Wahlquist, & Bone, 2000). Belief systems found to be counter-productive to students' achievement can be discouraged, whilst those that seem to enhance achievement can be supported.

The research recognizes the connections of parents and communities to students' schooling and therefore investigates parents' conceptions as well. It is hypothesized that some parents' conceptions have the potential to enhance performance for students. Other conceptions may have negative influences and may therefore discourage success. The BES project is a response by the New Zealand Ministry of Education to the growing interest and increasing recognition of the contribution education research can make to policy and practice. The BES review is an attempt to use evidence to guide what schools do. Robinson (2009) and her colleagues reviewed studies on the most effective school interventions designed to help parents support their primary school children's learning. They found that the most effective interventions were the ones designed to help parents and other community members support children's learning at home and school and provided teachers with professional development. This research will treat students, not in isolation, but as members of a family and community, thereby drawing on the relevance of investigating parental conceptions.

The research not only hopes to influence Tongan parents' and students' beliefs about schooling, but it also hopes to challenge New Zealand school administrators', managers', policy makers', and teachers' beliefs and conceptions about Tongan parents and students.

Tongan students in New Zealand are taught mainly by non-Tongan teachers; mainly teachers of European ethnic origin (Pakeha or Palagi). New Zealand based studies on teacher-student relationships found that teachers' attitudes, behaviours, and understandings of cultures were needed to improve students' achievement (Carpenter, McMurchy-Pilkington, & Sutherland, 2002; Cowley, Dabb, & Jones, 2000; Hawk, Cowley, Hill, & Sutherland, 2002). In the case of Māori students, Bishop et al. (2002) agree:

> It is clear that the major influence on Māori students' educational achievement lies in the mind and actions of their teachers. Changing how teachers theorize their relationships with students and how they relate to and interact with them in the classroom can have an impact upon students' engagement, their learning and their academic achievement (p. 123).

This research begins from a very similar inquiry: Why do the majority of Tongan students not perform well academically in the New Zealand education system? How do beliefs, attitudes, opinions and values of students, teachers and parents affect secondary academic performance, particularly that of New Zealand Tongans?

2.3 Research Theoretical Framework

This research is positioned within the framework of the theory of planned behaviour (TPB) (Ajzen, 1991) which was developed as an extension of the theory of reasoned action (TRA) by Fishbein and Ajzen (1975). TPB proposed that human action is guided by three kinds of considerations. These are behavioural beliefs (i.e., beliefs about the likely outcomes of the behaviour and the evaluation of these outcomes), normative beliefs (i.e., beliefs about the normative expectations of others and motivation to conform with these expectations, and control beliefs (i.e., beliefs about the presence of factors that may assist or hamper performance of the behaviour and the perceived power of these factors) (Ajzen, 2010).

The best predictor of behaviour is intention which is determined by three things: Attitude towards the specific behaviour (i.e., belief toward an outcome and evaluation of the outcome), subjective norms (i.e., beliefs of what others think and motivation to comply with others) and perceived behavioural control (i.e., perceptions of ability to perform a

given behaviour) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Gatch & Kendzierski, 1990).

TPB holds that only specific attitudes toward the behaviour in question can be expected to predict that behaviour. TPB proposed that to measure attitudes toward the behaviour, we also need to measure people's subjective norms – their beliefs about how people they care about will view the behaviour in question. In order to predict someone's intentions, knowing these beliefs can be as important as knowing the person's attitudes. Perceived behavioural control, (i.e., people's perceptions of their ability to perform a given behaviour) influences intention. As a general rule, the more favourable the attitude and the subjective norm, the greater the perceived control; the stronger the person's intention to perform the behaviour in question should become. Ajzen's TPB model is adopted to help describe this research (Ajzen, 1985, 1987, 1988, 1991).

The Theory of Planned Behaviour

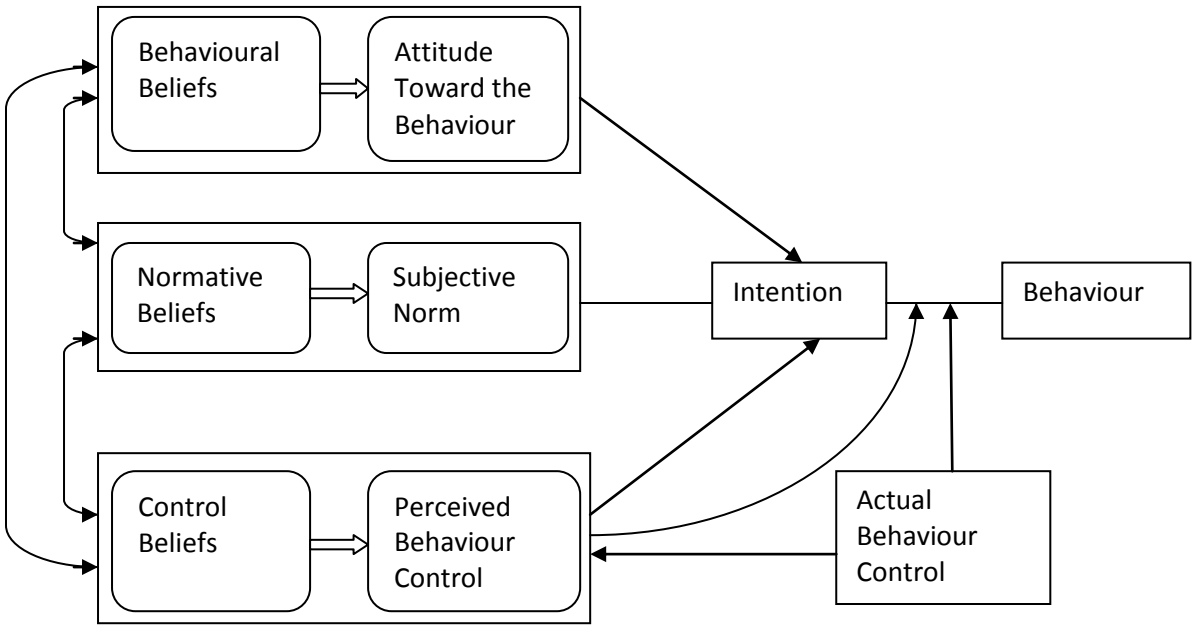

Figure 1. Ajzen's TPB model

A brief description of each of these constructs may help in the overall understanding of the model.

1. Behavioural Beliefs: The subjective probability that a behaviour will produce an expected outcome.

2. Attitude Towards the Behaviour: The degree to which performance of a behaviour is positively or negatively valued.

3. Normative Beliefs: Perceived behavioural expectations of individuals or groups such as friends, family, and peers.

4. Subjective Norm: Perceived social pressures to or not to engage in a behaviour.

5. Control Belief: Perceived presence of factors to facilitate or impede the performance of a behaviour.

6. Perceived Behaviour Control: People's perceptions of their ability to perform a given behaviour.

7. Actual Behaviour Control: The extent to which a person possesses the skills, resources, and other prerequisites needed to perform a given behaviour.

8. Intention: Indication of a person's readiness to perform a given behaviour.

9. Behaviour: The observable response.

(Ajzen, 2010)

This study hopes to identify some of Tongan parents', students' and New Zealand teachers' attitudes and beliefs towards their schooling experiences, as well as their understanding of the intentions associated with teaching, learning, and assessment; insights into these constructs are still absent from the literature. When these constructs (attitudes, beliefs, and attitudes) about Tongan schooling experiences are identified then future studies can design interventions to change these behaviours. We may be able to influence

attitudes and practices in many ways. For example, educational practices and policies, as well as family and community practices, could be developed that take advantage of conceptions associated with positive academic outcomes and which suppress those that are associated with negative outcomes. We may also be able to challenge Tongans' or teachers' existing behaviours towards schooling if they do not result in good performance. This is a foundational study where future studies can build on, and even design interventions to change Tongan and teachers' beliefs and subjective norms, to improve Tongan students' achievement.

Contextualizing this theory in the context of the Tongan students in New Zealand helps to explain the relationships between peoples' (Tongans') behaviours about schooling, intentions to behave in certain ways, their attitudes towards those behaviours, the norms – what social rules prescribe them to conform or not to conform - and the outcomes of those behaviours (Ajzen, 1988; Madden, Ellen, & Ajzen, 1992). For example, a student's attitude and his subjective norms may encourage him to perform well in class, but most of his friends think that being a scholar is not the norm. The student is confronted with a dilemma, to do what his attitudes suggest (do well at school) or what the norms of his friends and school suggest (do badly like all others).

It is also assumed that the Tongan community has conceptions and that those conceptions may be sufficient to achieve Tongan cultural aspirations and further that those conceptions have often been ignored in the processes used in New Zealand to address Tongan educational achievement. The addition of the construct of 'outcome' is very crucial because this research is about an improvement in the outcomes of the Tongan students. Similarly Stevens (2007) argued that the curriculum "is biased against ethnic minority cultures by attaching higher status to a White, middle-class culture and marginalizing and punishing expressions of ethnic minority cultures" (p. 157).

Now that we have a profile of Tongan people with well-documented demographic characteristics in New Zealand, some of their subjective norms, and the outcomes of their schooling behaviours, it is possible to explore Tongans' beliefs, attitudes, and values (i.e., conceptions) toward schooling to gain a better understanding and to see if interventions could be made to improve Tongan students' academic outcomes. This research has investigated those conceptions.

2.4 Theories of minority population's academic underachievement

Every student in New Zealand deserves the opportunity to succeed regardless of their ability, ethnicity or socio-economic resources. Every student has the right to a free education and the opportunity to realise their fullest potential and this applies to every Tongan student in New Zealand. Unfortunately, the majority of the Tongan students do not appear to reach this potential which forces us to ask the question: Why do Tongan students underachieve in the New Zealand school system? This research builds on earlier investigations into factors that influence student underachievement. Theorists and researchers have tried to explain the complexities of this issue from different perspectives.

The theory of 'capital deficiency' (Bourdieu, 1986; Bourdieu & Wacquant, 1992; Coleman, 1990) argued that certain ethnic groups lack the resources or 'capital' needed for academic success. This 'capital' may be financial, human capacities, social characteristics, or cultural aspects. For instance, minority populations with low SES were often blamed or at least linked to their academic dilemma. They simply lacked the social and cultural resources (e.g., books in home or parental education) to be successful in the classroom. In response, many education systems implemented culturally responsive approaches and policies.

In New Zealand, some culturally responsive initiatives (i.e., AIMHI, SEMO, PSCPL, HSP) were put forward to improve students' learning in the context of New Zealand, but since Pasifika populations are still underperforming we must conclude there are problems with these initiatives and policies. In addition, this capital deficiency theory fails to explain why some minority students (e.g., Asian students) still manage to achieve at the highest levels relative to other ethnic groups (Carkeek, Davies, & Irwin, 1994; Harkess, Murray, Parkin, & Dalgety, 2004; Hawk & Hill, 1996; Hill & Hawk, 2005; Suarez-Orozco & Suarez-Orozco, 2001). Bishop and Glynn (1999) maintained that there was a dominance of deficit theorising in New Zealand education which paralleled experiences of minority groups in North America (Hinkley, McInerney, & Marsh, 2002) and Australia (McInerney, 2001) .

From an anthropological point of view, the theory of 'oppositional culture' is an attempt to describe the problem of minority populations' academic underachievement by suggesting that involuntary subcultures through enslavement, conquest or colonization (e.g. African

Americans) reject mainstream values and norms as a resistance to their subordination. Many black adolescents in America devalue academic striving and equate achievement to 'acting white' which was betrayal of their subcultures' resistance stance (Fordham & Ogbu, 1986; Kao & Tienda, 1988; Ogbu, 1978).

The theory of 'stereotype threat' is the psychological pressures exerted on minority populations from being negatively stereotyped, and the fear of doing something that could inadvertently confirm those stereotypes. Minority populations are under-pressure from the negative stereotypes associated with their groups and therefore performed poorly. Interestingly, Steele (1988) found that when these stereotype threats were removed, the African-American and White students he tested had similar abilities and he found that both groups' scores matched (Hinkley, et al., 2002; Josephs & Schroeder, 1997; Steele, 1988; Steele & Aronson, 1995).

For example, in the context of New Zealand, Māori and Pasifika communities are continuously portrayed negatively by mainstream media. Kiro (2010) reminds us that "if we were to believe everything we read, we'd think Māori were bad, sad or mad. Māori are portrayed in stereotyped ways in the mainstream media" (p. 1). This may explain why many schools with Pasifika and Māori students are offering 'positive' feedback to parents, sometimes at the expense of giving honest feedback. One may ask if this is the kind of feedback Pasifika and Māori parents really need from schools.

The 'peers' influence' argument basically states that students' performances are influenced by their fellow students. Its proponents found that peer effects strongly influenced educational aspirations. Students had greater educational success partly because they were more likely to have friends who were academically oriented. On the other hand, students who have marginal success in schools were more likely to have friends who were not achieving (Coleman, 1961; Hallinan, 1983; Kao, 2001).

In the context of New Zealand, initiatives such as the Peer Support Programme (http://www.peersupport.org.nz/Index.htm) were created to help students overcome negative peer pressures. Negative peer pressure easily leads to anti-social, unhealthy habits, and negative school behaviours. These behaviours can escalate and become a way of life unless students receive active support to resist these pressures. Teachers in schools

with a high percentage of Pasifika students have reported that students deliberately avoided being seen as scholars because everybody else was not. This is an example of peer pressure that has negative effects on students' achievement and students need to avoid this kind of attitude for increased academic outcomes.

The 'attachment theory' argues that dropping out of school happens because students feel they do not belong in school. This reflects an absence of effective integration and bonding of students to feel secure and safe in schools. They may lack the social and academic attachment to schools and therefore feel as outsiders to the institution (Bowlby, 1988, 2005; Tinto, 1993).

Interestingly, Pasifika students generally stay longer at school compared to other students. In 2008, 40.4% of Māori students remained at school to age 17.5, compared with 70% for Pasifika students and 63.5% for European/Pakeha students (MOE, 2009a). They may be staying longer at schools, but this does not transform to better achievement for Pasifika students. A joint report by Statistics New Zealand and the Ministry of Pacific Island Affairs (SNZ & MPIA) (2010) into Pasifika education found that

> Pacific student attendance is not a concern, with a continuing increase in student presence. However, this aspect of engagement with school is not reflected in achievement. Teachers may fail to understand that when Pacific students seem to be 'on task' in class, they are not necessary learning (p. 11).

Finally, the 'critical, segregation, and school effects theory' argues that the school is never a neutral institute and will never provide all students with the same educational opportunities. In fact, the school is one of many tools the dominant social class uses to maintain the status quo of their societies. It is the apparatus of the elite people to maintain their place in society. These theories argue that school as an institution which unfavourably affects minority students' achievement (Bowles & Gintis, 1976; Orfield & Eaton, 1996; Willis, 1977).

Bourdieu argued that school play a central role in changing and reproducing inequalities in society (Harker, Mahar, & Wilkes, 1990) and maintained (Bourdieu, 1974) that

> The culture of the elite is so near to that of the school that children from the lower middle class [and a fortiori from the agricultural and industrial working class] can only acquire with great effort something which is given to the children of the cultivated classes – style, taste, wit – in short, those attitudes and aptitudes which seem natural in members of the cultivated classes and naturally expected of them precisely because [in the ethnological sense] they are the culture of that class (p. 39).

Jones (1991) reiterated that students need an 'appropriate set of tools' to be successful with their education. Taken Bourdieu's argument, it was obvious that the Pasifika girls in her study lacked those appropriate tools and therefore unsuccessful in their studies while the palagi girls were successful because they had the appropriate skills.

'Otunuku and Brown (2007) speculated that may be schools offered 'feel good' education to Tongan students because they found that Tongan and Pasifika students generally had positive self-efficacy and liking of their subjects but achieved lower academic performance compared to Asian and European students.

'School effects' has been a focus of the Te Kotahitanga project, which was a successful research project in New Zealand secondary schools around low academic achievement and negative attitudes of indigenous Māori students. The project conducted Professional Development (PD) interventions on teachers after suggestions from students, parents, and teachers around this low academic achievement. These PD improved Māori student achievement when teachers adjusted the way they communicated with the students (Bishop, et al., 2003).

In considerations of these theories and arguments, it is obvious that Tongan demographic characteristics will not change overnight. Culturally appropriate initiatives still fail the majority of Tongan students. Tongans high aspirations for education remove the argument of oppositional culture and the fact that Tongan students stay longer at schools go against attachment theory. These leave the psychological and school effects domains as possible explanation. Understanding Tongan people in New Zealand has the potential to develop new insights into their cultures, reduces prejudice and stereotyping, and promotes better inter-ethnic understandings. This is particularly important in New Zealand because the

Tongan population is a fast growing group and soon they will make up an increasing proportion of the student population and subsequently the workforce (SNZ, 2007).

2.5 Tongans in New Zealand secondary schooling

There are no studies specifically on the conceptions of the Tongan community in New Zealand or elsewhere towards schooling. There are some studies conducted in the context of New Zealand that are related to Tongan and Pasifika schooling experiences in general, and some of these studies which relate to this study will be reviewed. There are three major inter-related threads within the existing literature that this research is interested in. Firstly, the series of studies that examines how Tongan and/or Pasifika parents conceive the nature of schooling, teaching, and learning to be, and contrast those with the conceptions of teachers (Dunlop, 1982; Fusitu'a & Coxon, 1998; Hawk & Hill, 1996; Thaman, 1988). Secondly, those studies that prioritize Tongan and/or Pasifika students' learning and schooling experiences ('Otunuku & Brown, 2007; Brown, 2002b, 2006b; Brown & Hirschfeld, 2005; Jones, 1991; Nakhid, 2003b; Schoone, 2010). The third thread investigate teachers' conceptions of schooling in relation to Tongan and/or Pasifika students (Brown, 2002a, 2004a, 2006a; Hattie & Webber, 2002a; Hawk, et al., 2002; Hill & Hawk, 2005).

2.5.1 Parents' Schooling Experiences

The influences of the home environment on students' achievement are acknowledged by Biddulph, Biddulph & Biddulph (2003) in *The Complexity of Community and Family Influences on Children's Achievement in New Zealand: Best Evidence Synthesis Iteration*. The synthesis found that family attributes such as students' culture and ethnicity, SES, levels of material resources available within families, home language, family structure, frequent mobility, and health problems are all related and have negative influences on the achievement of some students. The link between culture, ethnicity, and achievement seemed to be confounded by the students' SES. For example, most Tongan families' SES occupies the lower levels of the SES scale. This limits the levels of material resources available to them, allows them to live in low SES areas with a lot of health problems, and their children attend low decile schools gaining low academic outcomes. This synthesis supported the view that under certain conditions the home environment of students like Tongan and Pasifika affects their performance.

The AIMHI report (Hawk & Hill, 1996) came from a government-funded initiative implemented in eight decile one schools with a high ratio of Pasifika students. This was an inclusive, school – based research programme targeting Pasifika students' achievement. AIMHI goals were to raise the levels of performances of the school and students in areas of secondary student achievement, college governance, to create strong school/community relations and integrated social services support.

The report found that the Pasifika parents perceived school as basically doing a good job. The parents evaluated the teachers, not so much on their professional qualifications and competence, but more in terms of controlling and disciplining the students. The parents perceived that some teachers were not fair to students, but their general attitude was that teachers were qualified to do their jobs and that consequently the parents, not having similar qualifications, were not competent to critique the teachers.

While Pasifika parents held high expectations for their children, they did not conceptualise ways in which schools might affect achievement. Pasifika parents were aware that their children were not doing well academically, but they believed that this was generally due to students' lack of effort, rather than any deficiency on the part of the school. Pasifika parents were more concerned with what they believed to be the schools' failure to discipline their children and some teachers' negative attitudes towards Pasifika students. Interestingly, Tongan parents were less critical than Samoan and Cook Island parents. Unfortunately there was no way of knowing what exactly the parents (i.e., Tonga) said because data was not recorded.

Nevertheless, the parents believed that at least some of the teachers (a) had negative or unfair preconceived ideas about their children, (b) had low expectations, (c) did not understand the students' cultural background, (d) had pedagogical problems with the Pasifika students, (e) were 'weak' and allowed students too much freedom, and (f) were ineffective in dealing with students' misbehaviour. In an extreme example, in one school, some parents stated that their children reported that some teachers were racist (Hawk & Hill, 1996).

Most parents wanted more Pasifika teachers to teach their children and more Pasifika languages and cultural studies in the school curriculum for their students. The parents

believed this would help their own students gain a better understanding of their own cultures, have better discipline, and improve the link between schools and parents. They did not indicate that this increase in culture in the curriculum and school environment would, however, improve achievement.

Parents believed that they as parents should be more involved in the school, but there were barriers, such as the use of English language and a failure to understand one another. Parents believed that schools were failing to recognise their side of the problem; while, schools interpreted Pasifika responses as a lack of interest and support for their children. It is noteworthy that this study happened more than a decade ago. It is not know what impact the changes made in the AIMHI schools have had on long term outcomes for the students in that research.

A study by Fusitu'a and Coxon (1998) presented data collected from a homework centre established by a group of Tongan parents concerned with improving the academic achievement of their children. This study explored some of the parents' expectations and perceptions of the New Zealand school system and the aspirations they held for their children. Tongan parents in the study singled out 'to educate (their) children' and 'to find a better life' as the main reasons for coming to New Zealand. The parents had very high aspirations for their children to be successful in their schooling and they saw the schools in New Zealand as offering those chances. There was a general recognition by the Tongan parents of the importance of the English language for their children's education. The parents also thought that the New Zealand teachers were not very strict on their children and they wanted more Tongan teachers to teach their children. They believed that Tongan teachers would exercise more authority and discipline on their students and that such conditions would support higher levels of achievement.

The parents also attributed their children's academic performance to cultural practices. The practice of *'fakafiefiemalie'*, *'fetokoni'aki'* and *'fakatamaiki'* were mentioned as examples. 'Fakafiefiemalie' simply means easy going lifestyle, not committing to or taking things seriously. 'Fetokoni'aki' (reciprocity) is simply helping each other and it is a basic Tongan cultural value. 'Fakatamaiki' is what children are doing when they are with their peers. Group work is an effective classroom activity, but when one from the group was

disruptive, the rest would encourage or support that student. Fusitu'a and Coxon (1998) maintains

> The Tongan way is group work, the women weave together, make tapa together, and the men work in the plantations together, so when they come here they do the same things. Even the kids…when they're in their groups a kind of pattern occurs where, if one boy steals for fun the rest will do it, even the one who had not stolen before. If one in the group wants to skip school the rest will also do it…if they're in the classroom and one doesn't like what's happening and becomes disruptive, the others will follow accordingly in support of his action. This is bad grouping – fakatamaiki (p. 29).

However, Tongans do understand that academic success lies with the efforts of the individuals. Teaching and learning are often individual and parental involvement on their children's schooling is individually oriented. It will be wrong to assume here that Tongan students do not achieve because they are group orientated while academic outcome is achieved individually.

Thaman (1988) has argued that the conceptions of Tongan parents in Tonga may be related to their experiences of education in Tonga in particular. This brings into question how relevant such experiences might be to education in New Zealand. Thaman believed that there was an emphasis of these contexts in the Tongan way of thinking. She listed ten such contexts; the role of the supernatural, concrete contexts, conformity, rank and authority, social relationships, kinship relationships, Tongan traditions, the concept of *'ofa'*, restrained behaviour and the tendency to discourage overt criticism. Teachers in Tonga believed that the most important task of the teacher was to teach the child to know what is right and appropriate. This seemed to reflect the concern of the wider community, especially parents and church leaders. Tongans also gave high esteem to people of high rank and social position. The immediate hierarchical structure of the school enticed parents and students to hold high esteem, feelings and attitudes toward teachers and administrators.

Manu'atu's (2000) study looked at pedagogical possibilities for Tongan students in New Zealand secondary schools. The study was based on two Tongan community–based learning contexts related to secondary schools – a homework centre in an Auckland

secondary school for Tongan students and the annual ASB Polyfest, a Maori and Pacific Island Secondary Schools Cultural Festival. She argued that the 'Pacific Island Education' perpetuated the Tongan students' underachievement because it failed to inform practices that could transform this poor performance. Instead, she argued that the Tongan notions of *malie*[2] and *mafana*[3] were the key to good pedagogy and learning in these two sites; the only place where Tongan parents and students actively and enthusiastically engage with the school (Manu'atu, 2000). The challenge for schools and parents was to find ways of transforming this enthusiastic engagement to promote students' achievement.

Manu'atu proposed that the concepts of malie and mafana as reference points upon which good pedagogical practices for Tongan students could be established. This would ensure the promotion of Tongan language and culture through meaningful learning and engagement with other students, school, and the community at large. When mafana and malie are observed in and within the school context and around students, learning takes place and prospers.

The study found that Tongan parents' preferences for a good teacher included experienced (being a teacher for many years) and qualified (holder of a teaching qualification). Parents also had 'faith' in teachers' capacity to transform the education of their children. Parents saw their roles as supporting the homework centre, making sure that homework was completed, encouraging reading both in Tongan and English, providing time and good communication with children, and the importance of Christian teaching (Manu'atu, 2000). However, unquestioning 'faith' in schools to teach students may be counter-productive for parents because this may keep them away from visiting schools and asking questions about their children's schooling. Niumeitolu (2007) posits that

> A major weakness in Tongan culture is an 'unhealthy' respect for those in authority. In a family there is a strict hierarchy of authority. Everyone has a place and knows his/her place in the hierarchy – there is little equality in a Tongan family. In society, there is overdue respect for chief/king regardless of whether that person is educated and able and competent, their position must be obeyed (p. 212).

[2] A process in Tongan traditional dances that produces meaningful connections between the poetry, the singing, and the (motions) performances, the psyche and spirits of both performers and audience.
[3] A movement of warm currents that energize the process of malie.

Generally, Tongan parents' respect for authority (schools and teachers) may explain their reluctance to be involved with what happens at school. Tongan parents were satisfied with schools and teachers and blamed cultural practices for their children's outcomes. These had negative effects on their children's achievement and they need to be aware of these. Schools and teachers should also know about these because it would help them understand parents better. Understanding each other's beliefs may have positive effects on students' schooling experiences. The joint report (SNZ & MPIA, 2010) found that

> The greatest influences on success at school are the relationship between children and their parents, and in schools, effective teaching and leadership. Partnerships focused on learning between parents and teachers can also greatly enhance children's achievement. While Pacific parents want to help their children at school, they sometimes don't know how. Similarly, many teachers and schools do not know how to engage effectively with Pacific parents (p. 11).

Generally, these studies point mostly to cultural capital deficiency and how students' home culture and ethnicity are linked to their academic achievement. The proposed TPB framework provides the possibilities to explore behaviour and attitudes towards schooling, something that none of the studies above investigated. This is an area that this study plans to investigate.

2.5.1.1. Issues relating to Tongan schooling overseas

Different people perceived the aims of schooling differently. Tongan people believe strongly in the importance of formal education since its introduction in the 1820s by missionaries ('Otunuku, 2002; Fusitu'a & Coxon, 1998; Kavaliku, 1966). In her study of Tongan childhood in Tonga, Morton (1996) refers to the utilitarian purposes and aspirations most Tongan parents have for their children; to acquire a formal education is highly valued as a means of both helping one's family and attaining certain independence. The independence to decide or to choose one's own career is perceived by most Tongans to be the result of a good education (Morton, 1996). Lee (2003) reported that one of the main reasons for Tongan migration overseas was the belief that the education system overseas will give their children a better education. Kavaliku (2007) reaffirmed Tongans high priority for education by stating that Tongans 'value education not only for itself –

producing an educated person – but also for two other reasons: means for employment and a means for upward mobility. An educated person has status in the Tongan society and the more educated [i.e. measured in terms of diplomas and degrees] the higher the statuses' (p. 11). Williams (2004) believed that schooling has three explicit aims; socialization, personal enrichment, and nurturing environment to cultivate moral character. What actually are the aims of schooling for Tongan students is an issue that needs to be explored with the Tongan parents.

In addition, Tongans have high expectations for education and yet most of their children overseas are not achieving in the classrooms. In other words, there is a mismatch between Tongan educational beliefs and what Tongan students actually achieved. Generally, a good education will lead to a well paid job and a financially secure future. Someone with a well paid job and a financially secure future will be able to perform his obligations well. Nash (2000) reaffirms the high aspirations Pasifika students have but bear little or no relationship to their scholastic achievement. He believes that Pasifika high aspiration is a positive resource for schools to build on.

Nakhid (2002a, 2003b) believes that in order to improve the Pasifika students' underachievement, we need to know and to understand the Pasifika people's construction of themselves. She recognises the importance of looking at Pasifika's perceptual understanding of schooling to find solutions for their low academic achievement. Nakhid believes that in order to accurately determine what accounts for Pasifika underachievement in schools, we need to find out the perceptions that Pasifika students and teachers hold of themselves and of each other's. This calls for the students and the teachers to 'talk' to each other and so the researcher developed the 'mediator dialogue' methodology to enable this dialogue to happen.

Kavaliku (2007) believed that there is a problem and it stemmed from the fact that Tongans value of education decreases once they settled overseas.

> I came to the conclusion that part of it was due to the fact that employment opportunities in these countries were more plentiful and hence the value of education even beyond secondary education level was no longer appreciated.

> Moreover, the upward mobility factor seems to have also been reduced in value (p. 20).

It is crucial that we ask Tongan parents for their beliefs in these mismatches between aspirations, expectations, and the actual achievement of Tongan students overseas. Their insights may help in a better understanding of these issues.

Tongan parents have also shown a lack of understanding of foreign school systems and their roles in those systems. Parents do not know the best ways to support their children to achieve academically. Morton (2003) supported this claim when she wrote that

> One of the major problem facing Tongan parents hoping to educate their children overseas is a lack of understanding of the foreign school system. Parents often do not understand the schools' reliance on parental support, both in the classroom and the homework. A lack of involvement with the school and their children's homework was due to their poor understanding of the homework material, as well as the Tongan attitude of complete respect for the authority of teachers and school authorities, and to simply not expecting to be involved (p. 54).

This is an area that needs to be explored especially with the increasing importance and relevance of home environment to students' achievement.

Tongan parents' choices of schools for their children might reflect their beliefs on the aims of schooling. 'Otunuku & Brown (2007) found that the percentage of Tongan students attending single sex school was higher than other Pasifika ethnicities. Most of these single sex schools are Catholic schools and a lot of Tongan parents enrolled their children at these schools even though they are not Catholic. It is interesting to find out from the parents why these happen because the normal practice in Tonga is to send your children to your own church schools.

One of the main reasons for Tongan migration is for children to have access to a good quality education (Morton, 1996; Lee, 2003). Ironically, some parents ended up believing that the Tongan school system at home is superior to the systems their children are attending overseas. This resulted in a reverse-migration for many parents are sending their children

back to Tonga for their education. Lee (2003) provided the opinion of a young Tongan who grew up in the United States and returned to Tonga for his education.

> The best way for a Tongan youth to gain discipline is to go back to Tonga and live there for a period of time. My experience in Tonga taught me things that I still use today. Before going back to Tonga in 1984 I was one of those 'fie kovi' [badly behaved] kids that always caused trouble in school. While in Tonga, I learned quickly that that sort of attitude got you nowhere (p. 142).

After reviewing these issues on Tongan education overseas as well as my insights as a Tongan parent and a teacher, four issues were identified to feature strongly in connections with Tongan people schooling abroad. These four issues (i.e., aims of schooling, underachievement, responsibilities, and school choice) were seen as important to be explored in the parents' focus groups and surveys.

2.5.2 Teachers' Schooling Experiences

In the *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration,* Timperley et al. (2007) reported that "we were unable to locate any (studies) that were specifically concerned with promoting the professional learning of teachers of Pasifika students in New Zealand … this is another gap urgently in need of filling" (p. 17). This suggested that more could be done by way of research and development to enable New Zealand teachers to effectively teach Pasifika students in classrooms.

The increasing interest in teachers' and students' conceptions of educational processes has heightened the need for more informative and analytical studies into this area especially when these conceptions are linked to students' academic achievement. Brown (2008) argues that 'Educational processes do not stand in isolation and likewise conceptions of one process do not exist in isolation from conceptions of other related processes' (p. 2). Educational processes such as assessment, teaching, and learning have been found to affect students' achievement. New Zealand school students' conceptions of these processes were investigated using instruments that were either developed, adopted or adapted by the researchers ('Otunuku & Brown, 2007; Brown & Hirschfeld, 2007, 2008; Evans, 2007; Hadar, 2009).

Additionally, it seems teachers' practices and conceptions of assessment, curriculum, learning, and teaching are powerful aspects of the school system that impact on educational outcomes (Calderhead, 1996; Clark & Peterson, 1986; Pajares, 1992; Thompson, 1992). Hattie et al (2002a), in identifying the major source of variance in students' achievement, posits that about 50% lies with the students, 30% with the teachers and the rest is shared by the home, peers, school and principal. That is to say that more than 80% of the students' achievement variance can be found within the school; with the students themselves and the teachers. Therefore, the school has a huge contribution in influencing students' achievement. Hence, the network of relationships between the parents, the schools and the students is powerful in affecting student outcomes (Robinson, Timperley, & Bullard, 2000; Robinson et al., 2004; Timperley, Robinson, & Bullard, 1999; Timperley & Smith, 2004). Some of these studies and instruments will be reviewed here.

In terms of New Zealand and Queensland teachers, Brown and his colleagues (Brown et al., 2002a; 2004a; 2006; 2006a; 2006c; 2008a; 2008b; 2009) used two inventory scales to elicit teachers' conceptions of assessment, a full version of 50 items (CoA-III) and an abridged version with only 27 items. Responses by New Zealand primary teachers to the full version found four major correlated factors (i.e., conception of assessment improves teaching and learning; assessment makes schools and teachers accountable; assessment makes students accountable; and assessment is irrelevant). The main idea of the improvement conception is that it improves students' learning and the quality of teaching. The school accountability conception proposes that assessment can be used to account for teachers' and school systems' use of society's resources. The student accountability conception suggests that the aim of assessment is to hold students accountable for their learning. The irrelevant conception suggests that assessment has no legitimate place within teaching and learning.

Because it may not be feasible to use the full version, an abridged version of 27 items was created by selecting the three strongest loading items from all the nine factors found from the full version. Again, using this abridged version of 27 items to elicit New Zealand primary teachers, Brown et al found the inventory had good fit characteristics and similar factorial structure and inter-factor correlation values (i.e., four major correlated factors of improvement, student accountability, school accountability, and irrelevance) (Brown, 2009).

The abridged Conceptions of Assessment (CoA-III) version was used to survey Queensland primary and secondary teachers and results had acceptable fit showing the same four major correlated factors. Generally, primary and secondary teachers had very similar views. Teachers agreed with improvement and student accountability and that the former predicted informal assessment use and the latter predicted external formal testing use. The improvement conception was associated with nurturing teaching, humanistic curriculum, transforming learning; while the accountability conception were associated with reproducing learning, telling teaching, and academic curriculum (Brown, 2008b).

Studies with New Zealand teachers have identified their teaching perspectives and their conceptions of learning. These results are indicative of the priorities of the New Zealand teacher perspectives. Brown found that New Zealand primary teachers prioritised humanistic, social reconstruction, academic, and technological conceptions insofar as curriculum was concerned and apprenticeship-development, nurturing, social reform, and transmission in terms of teaching, and transforming and reproducing in terms of learning. The results were based on adaptations of items from other researchers and the scales showed acceptable to good psychometric properties. Details of the instruments and scales will be discussed in Chapter 3 (Brown, 2008b).

Allen et al. (2008) reported on five New Zealand teachers who visited Samoa, as part of a Pasifika initiative undertaken by Education Plus of the University of Canterbury. The initiative was to provide teachers from schools with significant numbers of Pasifika students to experience living in their students' cultures, assuming that most of these students were born in Samoa. The teachers travelled to Samoa and lived with Samoan families for ten days. The authors found four significant developments from analysing the experiences of these five teachers: Conceptual transformation, specific teaching strategies, relationships with students, and interactions with families/community.

The teachers admitted that their firsthand experiences in Samoa gave them 'greater awareness' and understanding of their Samoan students. These deeper insights helped them develop specific teaching strategies that appreciated the students' prior knowledge and language as useful resources. Teachers also realised the importance of building relationships with students and communities to the whole process of education. These

kinds of deep insights and understandings of Pasifika students and their communities are vital in New Zealand if we are to improve students' achievement.

Education Review Office (ERO) reported that research evidence shows that effective engagement between schools and parents, whānau and communities can result in better outcomes. The better the relationship and engagement, the more productive the impact on students' learning. This was based on an ERO evaluation of schools' engagement with parents, whānau and communities conducted in 2007. This evaluation involved 233 schools, 34 discussion groups that convened for specific groups (i.e., Māori, Pacific, special needs, refugee, migrant, remote, and transient children) throughout New Zealand, and 501 parents who completed a questionnaire manually or on ERO's website (Education Review Office, 2008a).

The data collected for this evaluation and the subsequent findings may not be representative of New Zealand schools and parents. However, this begs the question as to what is effective engagement. The evaluation defines effective 'engagement' as meaningful, respectful partnership between schools and their parents that focuses on improving the educational experiences and success for each child. Much of what is said about effective relationship emphasises cultural practices and ignores the strong belief in high academic challenge Tongans have.

Alton-Lee (2003) in *Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis*, emphasized the need for teaching in New Zealand to be responsive to diversity between ethnic groups such as Pakeha, Māori, Pasifika and Asian students, as well as diversity between individual students such as their gender, culture, socio-economic status, and talent. The report also found that teachers had low expectations for students who came from poor families.

> Quality teaching has a central focus on raising student achievement for diverse learners. New Zealand educators need to break a pattern of inappropriately low expectations for some students, particularly Maori and Pasifika learners and learners from low socio-economic status families. The research on quality teaching signals the importance of high expectations both for the standards that can be reached, and the pace at which learning should proceed (p. 89).

Generally, these studies have identified an urgent gap in teacher professional training in New Zealand. In 2007, there was no specific teacher training to promote professional learning for teachers of Pasifika students. Investigations into teachers' conceptions of assessment identified four major purposes, five teaching perspectives, and two learning conceptions. These four major purposes of assessment may be use to explore how Tongan parents think about assessment. Teachers' conceptions may also be used to examine what relationship the assessment beliefs have to other domains. The ERO evaluation may challenge schools and teachers to reach out and initiate meaningful engagement with Tongan parents and to explore why schools and teachers are failing to deliver successful educational achievement for Tongan students.

2.5.3 Students' Schooling Experiences

Conceptions of assessment (CoA) are of particular importance for learning and achievement because assessment has a significant impact on the quality of learning (Entwistle & Entwistel, 1991). Researchers have shown that assessment influences students' behaviours, learning, studying, and achievement (Entwistle, 1991; Peterson, & Irving, 2008; Struyven, Dochy, & Janssens, 2005). There is also evidence that secondary school students have multiple and conflicting conceptions of assessment (Zeidner, 1992) and it is believed that teachers and students share similar conceptions. Pajares (1992), in line with Ajzen (2002), has argued that teachers' conceptions of educational processes are a product of the educational experiences of students, suggesting strongly that similar conceptions might be found in both teachers and students.

In terms of New Zealand students, Brown and associates (2006b, 2008c, 2005, 2007, 2008a) have conducted a series of studies to develop the Students' Conceptions of Assessment inventory (SCOA). The most recent version (SCoA-VI) has 33 items which aggregate into four major inter-correlated purposes (i.e., improvement, benefit, external factors, and irrelevant). These findings are in line with self-regulated learning, which shows that higher achieving students use feedback in assessment to regulate their learning (Winne, 1995, Zimmerman, 1990). These studies have developed the SCoA inventory to help in investigating students' conceptions of assessment. In addition, these studies have contributed immensely to the overall understanding of students' conceptions of assessment and the effects of these conceptions on students' performance.

Jones' (1991) ethnographic study from almost twenty years ago observed student aspirations and teacher practices of Pasifika and Palagi students inside an Auckland girls secondary school. In a study concerned with what changes schools might affect to improve Pasifika achievement, Jones pointed out differences in the behaviour and perceptions of the Pasifika girls, compared to those of Pakeha girls. What the Pasifika girls perceived as worthwhile learning and good teaching was totally different from the perceptions' of the Pakeha girls. For example, the Pasifika girls liked teachers who provided notes for them to copy while the Pakeha girls regarded copying notes as boring. Jones also noticed how teachers' methodologies changed when there were Pasifika students in the class. An example was the reluctance of teachers to ask Pasifika students direct questions for fear of embarrassing them in front of their peers (Jones, 1991).

Jones argued that teachers perceived that the learning practices most preferred by the Pasifika girls were copying notes, an absence of class discussions, rote learning and repetition – all surface learning practices. In addition to this the Pasifika girls did not seem to have contradictory views or to hold different individual views. These teachers' preferences were in turn internalised by the students. Jones argued that these preferences were inaccurate and that the teachers' perceptions were the key opportunity for change. Jones also found that the Pasifika girls she studied were exam–oriented in their approach to education. At Form Four (Year 10), the girls were not serious with their studies because there was no formal qualification awarded, but at Form Five (Year 11) they were serious because a formal qualification was at stake.

Jones' descriptions and analyses of Pasifika students' perceptions and practices within schooling are fundamentally those of an outsider, albeit a particular observer, looking at the Pasifika community and are instructive as to how Pasifika children are seen by the New Zealand school system. Jones claimed that the Pasifika girls in her study believed that the main reason for going to school was to 'learn'. School was like a second home to them, a place to meet friends and to exercise a social freedom that they did not have at home. The Pasifika girls believed that the teacher had the 'knowledge' and that school work entailed 'getting the knowledge' from the teacher in order to pass exams. Jones' analysis indicated that, in her view, schools were failing to meet the educational needs of Pasifika students by propagating a school culture that favoured only students whose homes provided the 'habits' needed to succeed in school.

Nakhid (2002a) analysed the 'mediated' dialogue between Pasifika students and their teachers in an attempt to improve students' achievement. She studied the perceptual viewpoints of Pasifika students in a search for solutions to their academic problems. This study made Pasifika students' perceptions its central theme. She felt that schools and educational authorities had taken for granted their own attitudes toward Pasifika students and their educational results (Nakhid, 2002a). Nakhid was concerned with three main areas: (1) Students' learning processes, attitudes towards, and expectations of mathematics, and perceptions of the behaviours and practices of the school, the teachers, and their peers; (2) teachers' perceptions of the Pasifika students' abilities and behaviours, the behaviours of the students' parents, and of the perceptions of their own teaching practices and behaviours; and (3) the way in which the students and teachers believed the school authorities responded to the perceptions and interpretations held by students and teachers (Nakhid, 2003a).

Nakhid (2002a) found that Pasifika students and teachers held different perceptions of each other as well as of schooling and this did not help either of them. For example, teachers identified low self-esteem as a result of poor academic achievement of Pasifika students, but the students did not see themselves as lacking in self-esteem. Teachers saw one to one sessions with the Pasifika students as an appropriate teaching method, but the students felt uncomfortable with it because they may be seen as 'less capable' students. One of the interesting finds of the study was related to factors that determine educational experiences like the SES of the students. The schools and educators see this as an important determining factor (Marsh, Hau, Artelt, Baumert, & Peschar, 2006). In contrast, the Pasifika students did not consider SES to be a factor that determines the success of their educational endeavours. To the students, the most significant and obvious factor was their identity as a Pasifika person. Nakid (2003a) found that

> Schools and educators tended to regard Pasifika students primarily in terms of SES [socio-economic status] and used their assumptions and perceptions surrounding this status to adversely determine the educational experiences that these students encountered. In addition, the students' lack of representation in the cultural and institutional practices of education was used to justify, allow, and legitimate the privileged position of the more dominantly represented groups (p. 223).

The students' comments made Nakhid wonder why for so many years, she had never asked her students what they thought of their educational experiences. She had never sought to ask them for their explanations of how they see themselves, their teachers and their classmates. She also questioned her own perceptions and assumptions. Although the study did not offer explicit solutions to the problem of Pasifika students' underachievement, it offered insights, not dissimilar to those being used in the Te Kotahitanga Project which sought to listen to the voices of the Māori students (underachievers) and investigate what was involved in improving their educational achievement. That was done by asking the Māori students to identify the main influences of their achievement and to explain how teachers may create a learning context that could promote better achievement among them. Based on these suggestions, the research team formulated professional development interventions, which found to improve academic outcomes for the Māori students (Bishop, et al., 2003).

Nakhid doubt was also voiced by Brown, McInerney, & Liem (2009) when they considered what assessment meant to learners. They argued that students' voices are absent when decisions about assessment are made and yet students are the major participants in these processes.

> If we wish to reform or change assessment tasks, practices, or priorities in schools and higher education, this will involve students, whether we wish to admit this or not. If classroom practices are socially constructed by the joint interactions of both students and teachers, then what actually takes place in education partly depends on students' beliefs, intentions, goals, attributions, and motivations (p. 3).

In her analysis of the likely areas of misunderstanding between classroom teachers and Pacific Island students in general, Taufe'ulungaki (2003) suggested some likely and possible differences between western-style school culture and Pacific thinking and learning styles. The interpersonal Pacific learning styles she listed were cooperation and sharing, little verbal direction, observation, demonstration, listening, participation, imitation, and asking to solicit information. On thinking, she listed right brain, divergent, interpersonal, concrete, and context-specific. She believed that most Pacific Island children learnt best in teaching approaches using strong peer orientation, and affiliation, cooperation and communal task performance; where the operations learned are clearly related to the final goal. To her, "obviously Pacific children learn to communicate and participate, teach and learn, in patterns and conventions that are quite distinct and different from those of

western-style schools and these differences are, in turn, the manifestations of the distinct values, beliefs, patterns of behaviour integral to those cultures" (Taufe'ulungaki, 2003, p. 34).

The above analysis was fundamentally about factors affecting the furtherance of culture in education and the mismatch between western-style classrooms and non-western students. Taufe'ulungaki did not provide evidence basis for claiming that 'Pacific Island children learnt best in teaching approaches using strong peer orientation'. My research offers an evidence-based approach to how conceptions about secondary schooling affect achievement of Tongan students in the western-style classrooms of New Zealand. This is a gap in the literature of Tongan education and schooling experiences in the context of New Zealand and this study intend to investigate this gap.

Schoone (2010) explored the experiences of young 'at-risk' Tongans sent from New Zealand to live with relatives in Tonga through investigating Tongan cultural narratives that were 'voiced' by the extended members of the family and the 'micro' narratives of the 'at-risk' youths. The study found that the collective Tongan values embedded in Tongan culture provided the appropriate niche to reverse 'at-risk' behaviours into educational achievement, good relationships, and positive identities.

This study demonstrated the importance of engaging Tongan cultural values as the nexus of young Tongan students' education. This challenges the deficit model that non-mainstream students, such as Tongan students, are disadvantaged because they are a minority group, or different to the majority population. Cultural responsive approaches have been introduced into New Zealand school system (i.e., AIMHI, SEMO, PSCPL, HSP) but very little improvement in Tongan and Pasifika students' achievement have been recorded.

'Otunuku and Brown (2007) analysed data from pre-2003 asTTle norming samples using factor analysis and found two subject-specific factors that they labelled as 'self-efficacy' and 'liking'. Affective attitudes such as liking a subject and confidence in one's ability within a subject have been found to predict students' academic achievement. The authors found that Tongan and Pasifika students had positive attitudes to maths, writing and reading, but their overall mean scores were not significantly different to other ethnic

groups. Tongan and Pasifika students had lower academic performance than the majority of the other students and there was no correlation between liking and self-efficacy.

This study demonstrated that the assumption that positive attitudes promote academic achievement for all students needed further in-depth investigation. This also demonstrated the lack of specific studies into ethnic groups, like Tongans, in the context of New Zealand education. More ethnic-based studies will build up our understanding of these ethnic groups' schooling experiences. Turning around Tongan students' low achievement poses a particular challenge to the New Zealand school system, but deeper insights into their schooling experiences may help improve this result.

PISA, an initiative of the Organisation for Economic Co-operation and Development (OECD), is an international standardised study that assesses and compares how well participating countries are preparing their 15-year old students to meet real life opportunities and challenges. The PISA 2006 survey found that New Zealand students were generally performing significantly well in science, however Māori and Pasifika students were over-represented at the lower end. In scientific literacy, Pakeha/European students obtained the highest scores followed by Asians, Māori and then Pasifika students. In mathematical literacy, New Zealand showed no significant change between 2003 and 2006. Large proportion of Pasifika students performed at a low level of proficiency in mathematical literacy. It was also found that students mathematical literacy increased as their SES increased (Marsh, et al., 2006). A large number of Tongan and Pasifika students were in the lowest SES grouping compared to their proportion in the population (MOE, 2009a).

Most of what we learn from the above studies is about Pasifika peoples in general, but Pasifika peoples are distinct groups each having its own unique characteristics. Dunlop (1982) argued that the most basic shortfalls of the early literature on Pasifika Education in New Zealand is of their failure to explore the multi–perceptual diversity of the minority populations; a recognition that these minority groups may have different perceptions, and to acknowledge that these viewpoints might be significant in the quest for quality education. A limitation of these studies lies in their assumption that Pasifika peoples are the same and fail to acknowledge and recognise the distinctive differences and diversity that exist between these peoples.

What these findings do affirm are the needs for Tongan-specific education research, that Tongan have their own conceptions of schooling and that those conceptions have often been ignored in the processes used in New Zealand to address Tongan educational achievement in this country. This contention (Dunlop, 1982) of more than 25 years ago is still relevant in 2010, and consequently highlights the need for such Tongan-specific research. In order to solve the problem of Pasifika underachievement, we need to study and analyse each ethnic group's conceptions of schooling.

Generally, a deficit perspective of Tongan and Pasifika students still exist and they are still perceive as lacking the 'appropriate skills' to be successful in education. Teachers still have 'taken for granted' attitudes towards Tongan and Pasifika students and these kinds of thinking influence the ways teachers communicate with the students. There is also an emphasis on the cultural aspects of the students however the development of specific instruments to measure students' conceptions of schooling (i.e., assessment, teaching, and learning) and their analysis may help improve students' outcomes.

2.6 Summary

It is not an easy task to bridge the existing gap in the education of all students, but as citizens of this country we need to explore every avenue to find solutions for our children's education. We have to ensure that our children are not deprived of their education simply because we fail to ask them and then acknowledge what is best for their education. Ai-girl (2004) reminds us that by "understanding children's viewpoints, we improve our teaching and enhance our mediation of learning and teaching processes. We are not just preparing our children for the future. When we work with children, we are in many ways, creating their future" (p. xvii). It is simply a matter of considering those conceptions and using them in ways that may help improve the students' achievement.

Based on the existing literature and the questions set for this dissertation, these are some of the answers we expect for each of the question. Tongan parents view schooling in traditional terms with strong emphasis on examination, teachers' authority and the importance of traditional Tongan cultural and Christian values. They see teaching as predominantly transmission and see students' discipline as crucial to achievement. Tongan students may see teaching as a matter of discipline and transmission, assessment as students' accountability and learning as memorization. Teachers teaching Tongan students

are likely to blame students and their families for the lack of effort and performance and view Tongan parents as uninterested in their children's schooling.

Hence, this research sets out to fill the gap in the literature by investigating participants' conceptions. It is obvious that Tongan parents' and students' beliefs, attitudes, and intentions of their learning experiences need to be investigated and explored. It is obvious that their current beliefs, attitudes and intentions do not contribute to better school achievement. If we need to improve achievement, we need to change these beliefs, and understanding these beliefs will help in designing the appropriate interventions to challenge previous beliefs. Identifying of these constructs is crucial to a better understanding of their relationships and their contributions to achievement; an area still missing from the present literature. It is crucial that some steps have to be taken to build accurate understanding of Tongans' conceptions about schooling and this study aims to do that.

To contextualise this reality within the scope of this research is to propose that the Tongan community has its own conceptions towards schooling and an understanding of these, especially by teachers and school administrators. This may help improve their academic achievement. These domains need to be explored because they may help us understand Tongan parents' conceptions of schooling better, and we may also influence them to help improve Tongan students' academic performance.

CHAPTER THREE

RESEARCH DESIGN AND METHODS

3.1 Introduction

The research designs and methods explained in this chapter have been selected to address the research questions as to the conceptions of Tongan caregivers and parents, secondary students, their teachers, and the relationship of student conceptions to academic performance.

In designing an appropriate methodology, I considered how each question could be answered on its own merit and at the same time develop a unified methodology that linked all the questions together. The first focus of the study was the conceptions of schooling for the three groups of participants. The literature reveals very little about the conceptions of schooling held by the Tongan community (caregivers and students). The question for the research was, therefore, how to establish conceptions of schooling for the Tongan community? First, there was the need to explore these conceptions using a small number of participants in a short period of time (Study 1). Then, bigger studies were also needed to validate the results of the initial exploratory study (Study 2). Question 4 needed a causal-correlational research design to describe the statistical association between students' conceptions of schooling and their achievements.

In consideration of the above proposal, a focus group was seen as appropriate for the initial exploratory purpose (Study 1) because of the in-depth details and rich data that can be generated from. The *talanoa* method, a Pasifika research method, of collecting spoken data from participants was appropriate for the Tongan parents' focus group (Study 1). Conducting survey questionnaires (Study 2) on sample populations was an appropriate method to validate and extend the results from Study 1. To be able to understand and predict the relationships between students' conceptions of schooling and their achievements, a regression analysis using structural equation modelling (SEM) was deemed appropriate (Study 3).

Once the research questions were established and the three studies had been identified to answer the questions, research designs and data collection tools were generated. Appropriate methods of analysis were also needed to analyse the data so as to answer the research questions. This dissertation mixes multiple methods from quite different approaches, and so a brief discussion on mixing methods and talanoa as an indigenous research methodology is warranted.

3.1.1 Mixing Methods

The two traditional research paradigms, quantitative and qualitative, and their advocates have engaged in zealous clash over paradigm superiority for a very long time (Campbell & Stanley, 1963; Lincoln & Guba, 1985; Maxwell & Delaney, 2004). Quantitative researchers claim that social observations should be treated in much the same way as physical science. That is, to be objective, that researchers and subjects of observations are separated, detached, time and context free. On the other hand, qualitative researchers rejected this claim and asserted that it is impossible to separate the researchers from the subjects of the inquiry that research is value-bound and happens within a timeframe and context that may have some influences on the process of inquiry.

From these two factions and their ardent disputes emanated the incompatibility theory which posits that these two paradigms cannot and should not be used together (Howe, 2003; Lincoln & Guba, 1985; Schwandt, 1989). However, contemporary scholars on educational research and methodology (Ary, Jacobs, Razavieh, & Sorensen, 2006; Best & Kahn, 2003; Cohen & Manion, 1982; Cohen, Manion, & Morrison, 2002; Creswell, 2002; Johnson & Onwuegbuzie, 2004; Reichardt & Cook, 1979) share a conviction for doing research across methodological boundaries. Instead of the quantitative/ qualitative dichotomy, and the incompatibility theory, these scholars promote each as alternative, legitimate, and multiple means of inquiry. This multiple or mixed method approach allows the qualitative and quantitative approaches to complement each other, overcome the restrictions or limitations each approach imposes, and, at the same time, embody an inclusive, pluralistic, and complementary direction for conducting research and inquiry Johnson and Onwuegbuzie (2004) found that

> Today's research world is becoming increasingly interdisciplinary, complex, and dynamic: therefore, many researchers need to complement one method with

> another, and all researchers need a solid understanding of multiple methods used by other scholars to facilitate communication, to promote collaboration, and to provide superior research (p. 15).

I anticipated that a mixed method approach would provide appropriate responses for the study's research questions. For example, in establishing the conceptual viewpoints of the students, parents, and teachers needed an exploratory qualitative approach (focus group input plus interpretive analysis), but examination of the structure of those conceptions and their generalisability required quantitative, confirmatory methods of data collection and analysis. It was hoped that the complementary use of both approaches would lead to more valid, generalisable, and powerful understandings of what the three groups of participants understood about schooling and how those beliefs shaped intentions, behaviour, and outcomes.

Although investigation into Pasifika student achievement requires quantitative approaches to understanding achievement data, qualitative approaches were used to explore the participants' conceptions of schooling. Talanoa methodology is a qualitative approach that is culturally sensitive and appropriate to the Tongan community and it was employed during Study 1 to tap into the psychological domain of the Tongan parents towards their perceptions and beliefs about schooling.

3.1.2 Talanoa as an Indigenous Research Methodology

Over the past few decades, Indigenous Research Methodology (IRM) has been promoted as an alternative for doing research that involves indigenous people and issues. In New Zealand and the Pacific, this promotion has seen the recent emergence of articles from small but strong group of Pasifika, Māori, and non–Pasifika academics on educational issues aiming to de-construct and to re-claim Pasifika indigenous education. They propose a policy and methodology underpinned by the cultural systems of indigenous peoples. Most prominent in this claim are Smith (1999), Bishop (1999), Thaman (2002, 1999), Baba at el (2004), Sanga (2004) and Taufe'ulungaki (2000). Significantly, they also provide insights into the ontology and the epistemology of the Pasifika and Māori people.

Most of the early research literature was written within the framework and value system of predominantly non-Pasifika authors. This is also reflected in the school system where there

is a mismatch in the culture of the schools and that of the Pasifika homes. Thaman (2003c) refers to this as the 'dual learning settings' that Pacific students are experiencing at schools.

Smith (1999), an internationally renowned researcher in Māori and indigenous education, in her book *Decolonizing Methodologies* instigates an extensive critique of the domination of traditional Western paradigms of research and knowledge. She calls for a new agenda of indigenous research that has a more critical understanding of the underlying assumptions, motivations, and values that inform research practices. She sets out guidelines for non-indigenous researchers to improve their practices that involve indigenous communities especially her own Māori community, and discusses the fundamental issue of whether it is appropriate for non-indigenous researchers to be involved in research with indigenous people.

Taufe'ulungaki (2001) reaffirmed the importance of having Pasifika researchers conducting research on Pasifika issued. She argues that outside researchers bring with them their cultural baggage and that they view things through the lenses of their own socialisation values and codes. This provides distorted perceptions of the reality that is the Pacific. Hence, in researching issues on indigenous populations, it is very important to engage indigenous researchers, wherever possible. Their understandings and insights into the values, beliefs and cultural activities of their own people are valuable assets to the research. But to claim that only indigenous researchers should do indigenous research may be as problematic as claiming that non-indigenous researchers doing research on indigenous issues are automatically biased and unbalanced. It is not a question of who should be doing what, but how the two paradigms and the researchers involved can complement and help each other to provide the best result for the research (Johnson & Onwuegbuzie, 2004).

The push for a new agenda in IRM saw the development of the Kaupapa Māori research and principles to guide research that involve Māori. Māori principles such as self-determination, validating and legitimating cultural aspirations and identity, incorporating culturally preferred pedagogy, mediating socio-economic and home difficulties, incorporating cultural structures which emphasise the 'collective' rather than the 'individual', and share and collective vision/philosophy were appointed to guide research

that involve Māori people (Smith, 1990). In 2004, the Health Research Council of New Zealand (HRCNZ) released the *Guidelines on Pacific Health Research* to assist research with Pasifika peoples in New Zealand. Though aimed specifically for health research, the guiding principles for maintaining ethical relationships are relevant to other researches on different aspects of Pasifika peoples. These guiding principles; relationships, respect, cultural competency, meaningful engagement, reciprocity, utility, rights, balance, protection, capacity building, and participation need to be developed, cultivated and maintained when researching with Pasifika peoples (Health Research Council [HRC], 2005).

A recent IRM development is Talanoa (Halapua, 2002; Vaioleti, 2003), a combination of two Tongan words, *'tala'* which means to tell or to talk and '*noa'* which means anything or nothing in particular. Generally, it is a Tongan term for people who engage in conversation. 'Talanoa' allows group conversations to develop over a considerable time-period in which the focus is determined by the interests of the participants. The nature, degree, direction, place, and time of the talanoa are determined by the participants themselves and their immediate surroundings and worldviews. It is a dynamic interaction of story-telling, debating, reflecting, gossiping, joking, sharing families' genealogies, food and other necessities. It is talking about everything or anything that participants are interested in. Talanoa helps build better understanding and cooperation within and across human relationships.

When employing talanoa as a research instrument, the researcher should invest considerable time over several sessions in order to cover the research agenda. Two important aspects of talanoa; (i.e., an absence of a timeframe and deviation from the focus) meant that making connections between researchers and participants either through family, relatives, school mates, place of birth, or shared acquaintances took a lot of time. This is a Tongan way of positioning one's social standing within the socio-spatial worlds of the talanoa gathering. It is this locating of one's identity in space and in relationships that enables the talanoa to move forward. This is very important for the talanoa process because the strength of those relationships, positions, and connections determines the degree of honesty and transparency in sharing information, opinions, and attitudes.

Talanoa is consistent with the Pasifika research guidelines that suggest the best research methodologies for Pasifika people are sensitive to contemporary Pasifika contexts, capable of embracing existing Pasifika notions of collective ownership, collective shame, collective authoritarian structures and capable of withstanding the test of time (Anae, Coxon, Wendt-Samu, & Finau, 2001). This is also consistent with the ethical research principles listed by the Pacific Health Council, in particular the principles of respect, cultural competency, meaningful engagement, and reciprocity (HRC, 2005).

Talanoa methodology was employed in the Tongan parents' focus group using the participants' own language. The participants had been informed about the reasons for the talanoa and therefore had the 'focus' of the discussion in mind. As a Tongan, the moderator was able to facilitate the 'non-focus' parts as well as the 'focus' parts of the talanoa which helped the dynamics of the discussions and the interactions. The discussions were conducted in Tongan, transcribed as Tongan, and then translated into English.

The focus group with the Tongan parents also observed some Tongan values and concepts; some examples of these are mentioned here. For example, the concept of *fēkau'aki* (relationships) is the establishing of a more personal relationship with the participants. Bishop (1998) called it the *whakawhanaungatanga* or the establishing of a whānau relationships with the people being studied. The researcher introduced himself to the parents by his full name, his parents' names, parents' ancestral homes, and if needed, grandparents' names and ancestral homes. The relatively small size of the Tongan community makes it possible for most people to know each other.

Once the researcher had made his introduction, the participants started to make connections; this may have been through blood connections, school friends, or colleagues. Trying to make connections on a personal level builds up trust and confidence among participants. This is important because they may only share information with people they trust and confide in. The professional identity was in the background because the researcher wanted to make a connection on a personal level with his participants.

The concept of *pōto'ianga* (cultural competency) was observed when the researcher introduced himself as an equal to his participants. The researcher's professional identity was not mentioned. It came up later, but it was important for the researcher to be accepted

by participants as an equal, not as a university student, a researcher, or someone indifferent to them. The researcher knew how to address the gathering appropriately, and the protocol to follow. It was also important to show humility in the way the researcher talked to the participants, the way he addressed them, and the way he talked about himself, his work and his family. It is not good to be seen as showing off or talking too highly of one's self and family.

The concept of *fēfalalaa'aki* (establishing appropriate confidentiality) *was* observed when the researcher introduced himself at the beginning, he was trying to be accepted as 'one of them' and not to be seen as an 'outsider' by the participants. When participants made connections, they also built up trust and confidence as members of the group. These connections and trust helped participants to open up and make honest contributions to the discussions.

The concept of *fē'ilongaki* (meaningful engagement) was observed when the participants knew the researcher, not only as a researcher and a student, but they also connected on a personal level. Observing Tongan cultural protocol appropriate with talanoa, the participants and the focus of the talanoa, which is an important issue to the Tongan community, made the engagement meaningful to all participants.

When the researcher prepared food for the participants, he was practicing *fē'inasi'aki* (reciprocity). This was to thank them for participating in the focus group. The participants asked the researcher for another talanoa session to inform them of the NCEA frameworks and to discuss more about issues relating to their children's education. The faikava[4] sessions were the result of this. The researcher is giving back something to his participants even before the findings of the study. The researcher also intends to report back to the Tongan community and schools the results of his findings.

The concept of *tau'atāina* (autonomy and initiation) was observed when the selection of the participants for the focus group was done by the participants themselves. They also decided the time. These small tasks make participants believe in themselves, re-establish their pride, make them feel that they are appreciated and they also need to be empowered to feel and believe that they are useful members of their own community. At the same

[4] The social gathering of mostly male Tongans to drink kava and socialise.

time, *fēveitokai'aki* (respecting participants' culture) was practiced when the discussions were done in the participants' own language, rather in a foreign language that the participants were not confident using. The researcher also asked the participants to decide the time and the venue and allowed the participants to be involved in making decisions, to take responsibilities and feel ownership of the study, rather than imposing an agenda that participants were not happy with or felt uncomfortable with.

3.1.3 Design of Research

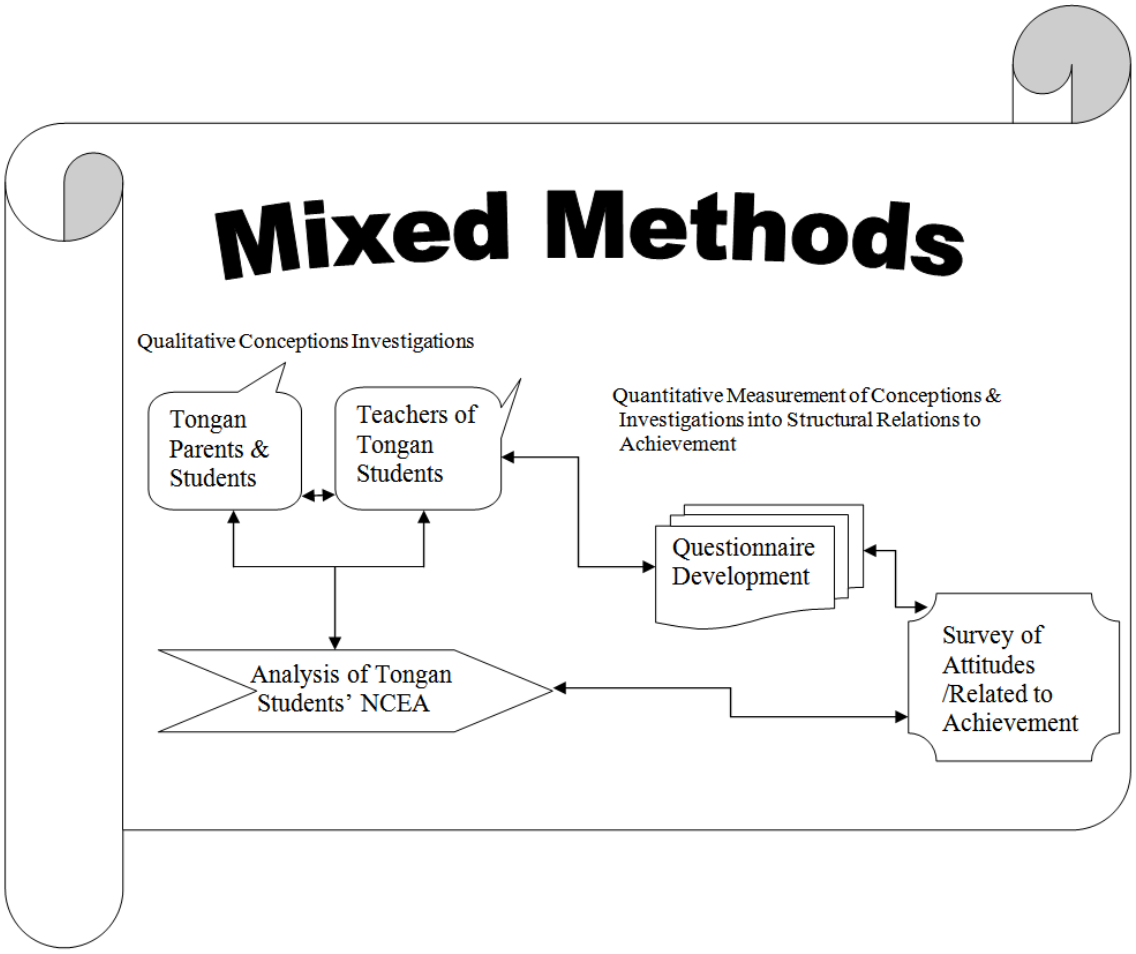

Figure 2. Research Design

In consideration of a decision to conduct mixed-method research within a Pasifika framework, this study employed both the qualitative and quantitative paradigms in a sequence of three studies (Figure 2). That is; multiple focus groups, followed by multiple surveys, and finally a causal-correlational study using structural equation modelling to model students' achievement relative to their conceptions of schooling. At the same time,

the study used the talanoa methodology on the Tongan parents and caregivers during the qualitative stage (focus group) of the inquiry.

Table 1. Studies and Participants

	Studies						
	(1) Focus Groups			(2) Survey Questionnaires			(3) Attitudes and Academic Performance
Participants	Teachers	Parents	Students	Teachers	Parents	Students	Students (Y12 &13)
Sample (*n*)	10	11	12	120	398	381	198
Data Collection Instruments	Semi-structured Discussions within Talanoa approach			Self-administered Questionnaires (3)			Self-administered Questionnaire + NCEA Results
Analysis Techniques	Categorical Analysis			Exploratory and Confirmatory Factor Analysis			Structural equation modelling

The remainder of this chapter discusses the research methods used, the logic of the research design, sampling, instruments, data collection procedures and the analysis methods used. Each study is discussed in full before proceeding to the next study.

3.2 Study 1: Multiple Focus Groups

Study 1 was an exploratory qualitative investigation to gain some insights into the participants' conceptions and beliefs systems about schooling. The literature on Tongan belief systems is relatively silent on these issues as demonstrated by the dearth of related studies on these topics. Study 1 was also used to identify domains to be surveyed and helped in developing the questionnaire items for Study 2. The decision to use focus groups was based on a few considerations. Initially, there was a need to explore the participants' conceptions of schooling in general in order for the survey items in study 2 to be developed. Inventories had been developed by other researchers to elicit teachers and students' conceptions of certain aspects of schooling such as assessment, teaching, and learning and these have been seen as relevant for use in surveying those two groups (Brown & Lake, 2006; Pratt & Collins, 1998a; Tait, Entwistle, & McCune, 1998b).

However, validated instruments about these topics for use with parents and Tongans, in particular, could not be found. Furthermore, the use of the focus groups allows for social interactions, serendipity and honesty of ideas and insights from participants. It also allows contributions in a non-English discussions format whereby participants are in a culturally responsive context.

Each group shared some common characteristics such as demographic, socioeconomic status, church affinity and attitudes. I filled the role of the moderator. Through my personal knowledge and insights of the Tongan community and the cultural protocol, I was able to introduce the topics of interest and ensure that the discussion ran smoothly, every participant contributed, and no one dominated the interactions. Shklarov (2007) acknowledged the significance of researchers studying their own cultures when he said that

> Concepts and ideas relate to the culture under study can take months to understand for an English – speaking, monolingual person, whereas for a researcher who begins the study as a member of this culture, these concepts might be a natural part of his or her identity (p. 535).

The focus group also provided me with the opportunity to ask the participants to clarify their input or elaborate their ideas during the interactions. It also provided the opportunity to gain additional information by probing and making suggestions that prompted the participants to expand their views and opinions. It took into account the respondents' feelings and provided a natural setting where the parents, teachers, and students were encouraged to voice their experiences, understandings, and perceptions (Nakhid, 2003b).

The focus group with the Tongan parents used talanoa methodology that allowed the participants to interact and communicate in the Tongan language. The use of the participants' own language built relationships not only among participants but also with the research assistants and me. Participants felt that they were connected to everybody else on a personal level and these connections built up trust and confidence among the group participants.

Talanoa was not planned for the teachers because they were not Tongans. Nor it was for the students who were mostly born in New Zealand. I wanted to get as much information

as possible from the participants because they were only available for a maximum of an hour and a half. However, participants were approached in a way that ensured they felt comfortable, relax, and were contributing as respected participants. In addition since teachers were professional non-Tongans the discussion was conducted on a professional rather than personal level.

3.2.1 Sample

Some researchers have recommended that focus groups last for one to two hours and have no more than seven participants (Krueger, 1994). Others have suggested six to twelve participants (Davidson & Tolich, 1999) or six to ten (Morgan, 1989). Thus, our focus groups had ten to twelve participants and lasted no more than two hours.

The number of participants in focus group is small and a critique of such intensive, qualitative data collection is its weak basis for generalisations and for detection of differences at the group level. However, regardless of the weak generalisability of the results, this focus group had real strengths such as the ability to collect large amount of data on a topic in a limited time, the opportunity for a great variety of interactions with the participants, and the chance for the moderator to encourage and to ask for more elaborations and clarifications.

3.2.2 Instrument

Pre-established themes were identified to be the focus of the discussions especially in the students and teachers' focus groups. The themes assessment, teaching, and learning were adopted from established inventories that have been used to elicit students and teachers' conceptions. The small amount of literature on Tongan education and my personal insights as a Tongan parent and a teacher were also used to create the themes for parents and caregivers' focus groups. A moderator's guide (Appendix A) was developed to help in moderating the focus group discussions. Themes such as assessment, teaching and learning were common to all three groups. Parents had additional themes such as aims of schooling, responsibilities, school choices and reasons for not achieving in the classrooms. Reasons for these additional themes are discussed in Section 2.5.1.1.

3.2.3 Data Collection Procedures

The teacher and the student groups met once for one to two hours and each group session was audio-taped which captured most verbal exchanges during the sessions. Research assistants (two Tongan teachers) helped by taking field notes during the discussions. This allowed for the transcription of the data and offered the possibility of conducting reliability checks on the encoding of the data. Additionally, this allowed me to review the sessions repeatedly in order to obtain additional insights. Permission to record the sessions was obtained from participants.

To help identify speakers from the audio tapes, respondents were asked to introduce themselves at the beginning. A speakers' sequence file was also used by the research assistants to help identify speakers if needed (Berg, 2004; Krueger, 1994). Since I had anticipated longer sessions with the parents extra recording tapes were available.

The guide that I used listed the focus areas that needed to be discussed. They were not supposed to be in any order because the dynamics of a focus group lie in the group interactions. However, it was important to ensure that all focus areas were covered in the discussions. The guide was especially important with the parents' focus group where many deviations from the focus areas happened, as would be expected by the talanoa process.

Two research assistants were employed to observe the discussions and to make field notes on the proceedings. They were two adult Tongan teachers who were employed as research assistants by a research company that had conducted surveys around New Zealand on educational and health issues. They both had previous experiences of working in focus groups with Tongan people. Their notes were used to double check and to cross reference the data.

Unlike the other groups, the parents' focus group was conducted in the Tongan language and a procedure for translation was implemented. At times the talanoa may turn or deviate from the researcher's agenda, deadlines, and priorities. However, the researcher allows for these digressions because it is respectful to allow them to happen, and it helps with the rhythm and the flow of talanoa. Trust, respect and integrity are important values for talanoa to happen well. When I felt that this reconnecting and re-affirming of relationships had

been established, I directed the talanoa towards schooling which was the key focus for this part of research.

The faikava session was very successful in helping parents understand the New Zealand school system. The issues that were raised by parents and then explained to them by the teachers and me included the NCEA frameworks (i.e., differences between unit and achievement standards, credits and certifications, subject choices, academic pathways), resources and opportunities at schools, how to support children, decile ranking, the best school for Tongan children, quality of teachers, discipline and Tongan students' overall performance compared to others.

3.2.4 Role of Moderator

I was also the moderator for the focus groups. The moderator role was to administer and present the topics to be discussed with the focus groups. I was metaphorically hidden behind the topics which framed the discussion. The role was to facilitate not dominate the discussion; encourage the participation of everyone; limit the domination of a few, and use probe questions to elicit expansion (Krzyzanowski, 2008).

In the context of the Tongan parents, I integrated talanoa approaches because I had the appropriate attributes to successfully facilitate talanoa, such as respect (for the Tongan community), an understanding (of community structures and leadership), cultural practices (consultation – in a respectful sequence, i.e., going to see the most appropriate person/people; introducing one's heritage/lineage; linking with the heritage of others; providing food; allowing establishing of relationships at the beginning; etc), and skills (bilingual with fluency in Tongan and English).

3.2.5 Data Preparation

Data preparation involved transcription of the audio-tapes, translation of parents' data, and reliability checks of all transcriptions.

3.2.5.1 Transcription

Transcribing of the tapes started as soon as the focus groups were completed. The two Tongan teachers (research assistants) transcribed the tapes. Both were enrolled in the

Bachelor of Education (BEd) programme at the University of Auckland. One of them was born, educated as a secondary school teacher, and taught in Tonga for more than ten years before migrating with his family to New Zealand. This Tongan born student transcribed the parents' discussion into written Tongan language. The other research assistant was a New Zealand-born Tongan who had all her education in New Zealand. She was also a secondary school teacher who had study leave to upgrade her qualification. She transcribed the teachers' and the students' data.

The transcripts are a representation of what was said during the discussions. The main problem with transcriptions is that they can become solely a record of data rather than a record of a social encounter. Cohen, et al (2002) posits that "transcriptions are decontextualized, abstract from time and space, from the dynamics of the situation, from the live form, and from the social and, interactive, dynamic and fluid dimensions of their source; they are frozen" (p. 282). Nonetheless, because the transcripts have been studied and interpreted by the researcher (me) who was present at the group, the analysis offered in this dissertation has overcome this weakness.

Because this was an exploratory study to establish baseline information as well as generate content for survey questionnaires and to make decisions on established inventories, the transcription of the spoken data ignored the linguistic aspects such as vocabulary, pause, rhythm, voice intonation and other non-verbal interactions (Edwards & Lampert, 1993). The transcribers were asked to concentrate on the verbatim aspects only. The focus group discussions were transcribed into written text in a dialogue form. A sample of the parents' data after transcription follows:

> What is your understanding of assessment in schools? (MR)
>
> Assessment is the reason why our children go to school. What the use of schooling if there is no assessment. How will they find jobs or go to university if there is no assessment? (P1)
>
> I do not really understand how they do assessment here but as long as my daughter's name is on the newspaper, I'm happy (P2).

> We need exams to tell us how our children are doing at schools. We can also tell a good school from their exams' results. Good schools pass lot of students in exams and these schools have also good teachers (P3).

MR = Moderator, P1 = Parent 1, P2 = Parent 2, P3 = Parent 3.

3.2.5.2 Translation

The transcripts of the parents' data were also translated into English where Tongan had been used in the focus group. The Tongan transcription was translated to English by a Tongan linguist who translated the caregivers' questionnaire (Study 2) into Tongan. Copies of the Tongan transcription and the English translation were sent to three other Tongan teachers to check for consistency in meaning. The English translation of the Tongan transcripts, thus, was deemed to be functionally equivalent of content and substance to the Tongan transcription (Di & Nida, 2006; Werner & Campbell, 1973).

3.2.5.3 Reliability

I conducted reliability checks to validate the accuracy of the transcriptions of the data. This was done by sampling the tapes at certain intervals and then checking a few paragraphs before repeating the process until the data was completed. In this process, I checked the first page of the transcript against the tape. After this, the tape was fast forwarded for one minute. Then it was replayed while I checked the corresponding page. This process was repeated until the end of the tape was reached. This process was repeated for all transcripts and tapes.

Volunteers were also asked to check the coded data to ensure that data were coded correctly and to provide labels for sub-categories. Three Tongan elders were asked to check parents' data. They were retired primary school teachers in Tonga, attended Tongan churches in Auckland, and were staying with grandchildren who were secondary school students here in New Zealand. The two Tongan teachers who were asked to transcribe teachers' and students' data were also asked to check all of these data. I had a meeting with the two groups to explain what to do and another meeting afterwards to discuss their feedback.

3.2.5.4 Understanding Tongan metaphorical discourse

Tonga has an oral tradition and culture which demands that people master oratorical skills. Oratory is an important art form in Tonga and Kaeppler (2007) refers to one of these oratorical skills when she said that

> *Heliaki* means to say one thing but mean another, and it requires skill based on cultural knowledge to carry out. Heliaki is manifested in metaphor and layers of meaning and is developed by skirting a subject and approaching it repeatedly from different point of views. Encoding hidden meanings and unravelling them layer by layer until they can be understood requires considerable creative skill and imagination (p. 65).

In the talanoa sessions, it was very common for participants to use much heliaki. For example, during the talanoa with the Tongan parents, they referred to each other not by their names but by references to the places or villages they came from. Every village has a *matāpule* title (talking chiefs) and the names of these matāpule were used instead of their own names. Schools names were not used instead colours and other metaphors were used. For example, the colour blue is a reference to Wesleyan schools and red for Tonga College. The two oldest secondary schools in Tonga are referred by their logo animals; *'unga* which is Tongan for hermit crab is a reference to Tupou College (established 1866) while the lion is a reference to Tonga College (established 1882).

In their everyday life, Tongans are expected to make speeches in public gatherings, to listen to others' speeches and talking and make responses summarizing what has been said. In formal gatherings, there is a shift from the everyday Tongan language to a metaphorical level of communication. Data from the parents' talanoa therefore created an additional challenge for categorical analysis, as considerable insider knowledge was required to correctly interpret the heliaki used by the participants. It is doubtful that a non-Tongan researcher reading the English transcript would be able to make appropriate interpretations without this knowledge. This suggests that this research, through the use of Tongan language and cultural responsive practices and analysis, provides a unique depth and integrity of data.

3.2.6 Analysis

> The most serious and central difficulty in the use of qualitative data is that methods of analysis are not well formulated. For quantitative, there are clear conventions the researcher can use. But the analyst faced with a bank of qualitative data has very few guidelines for protection against self-delusion, let alone the presentation of unreliable or invalid conclusions to scientific or policy making audiences' (Miles, 1979, p. 591).

While much rich information about social relations and discourse could be derived from these conversations, the focus of this study was to identify Tongan beliefs about schooling, and this presented, as Miles (1979) suggests above, a need for trustworthy qualitative research. Hence, a qualitative categorical analysis approach was seen as appropriate for analysing the data. Qualitative categorical analysis refers to the process of developing and applying codes to data. It involves the systematic organization of data into themes, categories, or groupings that are like, similar or homogeneous. It is a repeated operation aiming to identify any kind of relationships between data items, and to, then, identify logical relationships among categories of items in order to refine the number of categories to be used in summarising the substance of the data (Coffey & Atkinson, 1996; Lankshear & Knobel, 2004; Rose & Sullivan, 1996).

3.2.6.1 Coding

'Data coding' refers simply to the process of applying codes to collected information that 'flag' or remind the researcher about which data belongs to which category. These codes get refined as the process is repeated and more and more data are collected (Lankshear & Knobel, 2004). Coding according to Strauss (1987) is much more than simply giving categories to data, it involves raising questions, providing provisional answers about the relationships among and within the data, and discovering the data. Coding is an important process and it encompasses a diversity of approaches to different ways of organizing qualitative data (Coffey & Atkinson, 1996). Most of the coding used code lists created prior to the reading of the data. Miles and Huberman (1994) believe that this is a useful way of beginning the coding process and called this a 'start list' of codes which could be created prior to reading the data or even prior to the fieldwork.

There were three pre-determined domains that were important to the focus groups: assessment, teaching, and learning. Since, existing well-developed inventories for these domains have been developed to elicit students and teachers' conceptions of schooling, the categories and subcategories from these inventories were used both to guide the discussions of the students and teachers' focus groups and as start lists for the coding of transcripts. For example, Brown et al. (2009) report that students had four major conceptions of assessment (i.e., irrelevance, accountability, beneficial/affect, and improvement). These categories and subcategories became 'start lists' in coding the data.

3.2.6.1.1 Coding Teachers' and Students' Data:

The data from the students and the teachers' focus groups were coded using colours involving a four step process. The first step assigned colours to pre-established categories. For example, all data pertaining to assessment were coded yellow, all data related to learning were coded green and all references to teaching were coded blue. Data that did not belong to these categories were left un-coded. Entire paragraphs, sentences and parts of sentences were coded using this system. Copies of the intact transcriptions were retained before step two.

The second step was organizing the data (cut and paste) into categories. For example, all data coded yellow were put together into one section, while data coded green were put together, as were all data coded blue. Any un-coded data were put into a fourth section. Thus the whole data were divided into four sections with different colours.

The third step involved recoding of categories into sub-categories using new colours. For example, the subcategories of assessment were each assigned a different colour. All references to assessment as improvement were coded yellow, all data related to assessment as beneficial were coded green, all data pertaining to assessment as a result of external factors were coded blue and all data related to assessment as irrelevant were coded red.

The fourth step was a repetition of the second step, organizing the data (cut and paste) into sub-categories. All yellow coded data were put together; green coded data were put together and so forth. Any un-coded data were put together as un-coded section. The un-coded data were revisited to see if they belonged to other categories or if they were a category of their own.

Data for teaching and learning were analysed in the same procedure. The recoded data were organized as in Table 2.

Table 2. Sample Focus Group Data organised by category

Assessment (Yellow – first code)

Assessment is an important part of schooling and I guess most students will agree. To improve they need to pay attention to exams, they need their certificates and to get these they have to do assessments – (Improvement - Yellow).

Most parents and the public judge schools based on the result of their assessment and teachers as well – (External - Blue).

When parents want to know how their kids are doing, it is their assessment results that they want to know. They are happy when their kids' results are good because they know that their futures depend on those results – (Beneficial - Green).

Some students complain that there are so many assessments at schools. They have assessment tasks almost every week and they feel that they are not learning anything at schools. Or it may be an excuse, I don't know. (Irrelevant - Red).

Learning (Green)

They prefer to do their homework at home but when they come in the morning, the work is still there, undone. They like to study by memorizing material and work in groups. (Surface - Red).

Tongans are an interesting bunch. Sometimes they struggle to link things they learn or see the connections between what taught in the classrooms and what actually happens outside.

(Deep - Blue)

Sometimes I think we're a little bit too focused on trying to get kids to university. They need to be steered in different directions. There's a whole spectrum of different opportunities. (Un-coded - No colour).

Teaching (Blue)

Tongan kids: you teach them as a group and then come and sit next to them and help them out individually and then move on. You try and engage them all the time otherwise the whole class will play up and they're often naughty to get the other kids to look at them as most kids like to show off. (Transmission - Yellow).

Very often too that they can talk to us about things that they can't talk to maybe other adults in their community because we are a lot more open and they confide in us (Nurturing - Green).

Tongan kids like other Pasifika kids like activities that involve drawing, painting, sports, and working at Technology blocks etc. Even with computers, they are preoccupied and interested. Trying to get them to use their thinking is difficult because they usually not interested. (Apprenticeship - Red).

3.2.6.1.2 Coding Parents' Data:

The parents' focus group addressed an additional set of predetermined categories (Section 2.6) in addition to the three categories used in the other two groups namely assessment, teaching, and learning. The additional domains included aims of schooling, parents' school choices, parents' perceptions of their children not achieving academically, and parents' responsibilities for their children's schooling. The parents' data had more categories than the students and teachers data and more colours were assigned to each of these categories. As with the students' and teachers' data, the same colours were used for assessment (yellow), teaching (blue), learning (green). Additional colours were added for the additional categories: All data related to 'aims of schooling' were coded red, all references to 'parents' responsibilities' were coded orange, the colour grey was assigned to 'achievement' and data related to school preferences was coded maroon.

The coding of parents' data involved a four step process. Steps one and two were identical to teachers' and parents' coding. Step three, which was re-coding of categories into sub-categories, did not use colours Instead the sub-categories were labelled using labels that 'grew out of' or 'emerged' from the data (Coffey & Atkinson, 1996). For example, Table 3 shows four sub-categories around parental aim of schooling.

Step four involved organizing (cut and paste) the sub-categories. For example, the re-coding of category 'aims of schooling' had a label 'obligations'. All data that mentioned, referred, implied, or related to obligation were put together. It also involved creating appropriate labels for the sub-categories. In some cases, labels were taken directly from the participants responses (i.e., obligations), and in other cases, help was sought from the Tongan as the three elders who were asked to help in checking the data coding and labelling.

Data that did not belong to these categories were not coded. Again, these un-coded data were revisited and scrutinized several times to ensure that they were not part of the coded categories or to see if they suggested additional categories.

Table 3. Sample Parental Aims of schooling data and illustrative categories

Subcategory	Category – Aims of Schooling (Red)
Whole person	'To me the most important aim is to develop the whole person. We have so many educated people but very few of them are honest, trustworthy and live as Christians
Obligations	'To add on, I think one aims of schooling is to make sure that when students come home, they may be able to fulfil their obligations to family, church and the fonua'.
Good future	'We need our children to have a good future. If they work hard at school, they will get a good job to support them and their families. We don't want them to rely on us forever'.
Good Christians	'When people are educated, they understand the Bible better. There will be fewer problems in families, churches and villages. Most family problems are started by those who did not attend schools. Families who went to schools had fewer problems'.
Good future	'I just want my kids to go to school and listen to their teachers. I don't want any of them to follow me into factory works. It was ok for me because I did not go to school. If they follow me, it's their own faults.

3.2.6.2 All Data from Study 1

When all the data from the three groups were coded and the categorical analysis completed, the data were put together to see if the categories were interconnected. The common categories were compared and contrasted across the three groups and frequency counts were conducted. The un-coded data for the three groups were compared to see if there were any common entities among them.

It was important for the data from Study 1 to be studied and analysed as one set of data because even though it was an exploratory exercise for Study 2, it was important to note some of its characteristics for later comparisons with the results from the other studies. The results of this exercise are described in Study 1.

3.3 Study 2: Survey of Participant Attitudes

The rationale for this study was to make inferences about the belief systems concerning schooling of the Tongan population in New Zealand. This was achieved by surveying a large sample of the Tongan caregivers, Tongan secondary school students, and teachers

teaching Tongan students so that generalizations about population could be made. Rather than developing new inventories, inventories which had been previously used in New Zealand were used to elicit teachers and students' conceptions of assessment, teaching, and learning. This resulted in a quantitative cross-sectional survey questionnaire of a representative sample of Tongan parents, Tongan students and their teachers (Study 2). Three questionnaire surveys were formulated each for the three groups with the intention to extend the results from Study 1 to a larger sample and simplify data collection by offering participants the ability to indicate their opinions and attitudes by selecting responses that best fit their own perceptions.

3.3.1 Sample

For the survey, the sample size needs to be large enough in order that generalisations to the Tongan community in New Zealand can be made. At the same time, it is important to ensure that the sample size is appropriate to the proposed analytic methods. How big is the population and how big will the sample needs to be in order to generalise to it? What sample size is needed in order to run the statistics the researcher wishes to use?

The Tongan population in New Zealand is 50,478, of which half (25,239) are under the age of 19 (median age) The survey targeted parents and caregivers of secondary school students, the estimated age group of 30 years and over. Having this in mind, the number of parents is estimated at 10,000 (SNZ, 2007). In 2008 there were 4875 Tongan students in Year 9 to 13 so 4875 was taken as the estimated number of students (MOE, 2009a). To obtain a 5 % margin of error and a 95% confidence interval, a sample of 370 is needed for a parent population of 10,000, and 357 from a student population of 4,875.

The ratio for Years 9 and 10 is 23.5 students to each teacher; 23 students to each teacher in Year 11; 18 students to Year 12 and 17 students for each teacher in Year 13 (MOE, 2009a). The number of teachers who are in regular contact with Tongan students is necessarily much smaller as the ratio is approximately 21 secondary school students to each teacher. Taking the number of Tongan students in secondary schools in 2008 (4875) and using the 21:1 ratio, 232 teachers would be employed for these 4875 students. Considering this, 250 were estimated for the number of teachers.

In 2004, the number of Tongan students who gained NCEA Level 1 was 765, 565 for Level 2 and 375 for Level 3 (Harkess, et al., 2004). Assuming the relevant population is the number of Level 1 and 2 Tongan students, the number of students is estimated to be around 1,500 for Study 3.

Researchers have suggested that correlation research requires a sample size of no fewer than thirty cases and that survey research should have no fewer than 100 cases in each major subgroup and twenty to fifty in each minor subgroup. Other tools such as a *t*-test are good up to 30 participants; multi-variate analyses (like factor analysis) generally require 15 or more cases per variable (Osborne & Costello, 2005). More advanced techniques such as structural equation modelling work best with around 500 participants (Browne & Cudeck, 1989, 1993). With these in mind, it was proposed that the sample size be around 250 respondents in each of the students and parents groups. The teacher subgroup, given the ratio of 20 students to 1 teacher, must be smaller thus it was aimed to include about 100 teachers of Tongan secondary school students (Browne & Cudeck, 1989, 1993; Cohen, et al., 2002; Costello & Osborne, 2005).

Hence, the sample sizes aimed for in this study for parents and students are likely to have a margin of error of about 5% and a confidence interval of about 95%. For the teacher sample, the margin of error would be about 8.92% with a confidence level of about 73%.

3.3.2 Instrument

Three different self-administered questionnaires were used in this survey, one each for the Tongan parents, Tongan secondary school students, and their teachers. Basically the questionnaires for all the participants were on parallel topics dominated by the underlying themes of learning, teaching, and assessment. However, possibilities of minor variations especially in the parents' survey were catered for.

As can be seen in Table 4, the teacher survey items were drawn from the three previously published inventories. Student items likewise were from three previously published inventories, and the parents items were taken from both Study 1 and three of the previously published inventories used with either teachers or students.

After Study 1, it was decided that existing inventories and instruments were to be used for the teachers and the students' surveys. Procedures for developing such instruments have been laid out by Gable & Wolf (1993) and exemplified in Brown's (2002a) development of the teachers' conceptions of assessment questionnaire.

Table 4. Survey Themes, Inventories and Sources, and Number of Items by Participant Groups

Group and Inventories	Source	Number of Items
Teacher		
Conceptions of Assessment	Brown (2006a)	27
Conceptions of Learning	Tait, Entwistle, & McCune (1998)	5
Conceptions of Teaching	Pratt & Collins (1998)	15
Demographics		9
Student		
Conceptions of Assessment	Brown et al. (2007)	33
Evaluation of Teaching	Peterson, Wahlquist & Bone (2000)	12
Approaches of Learning	Artelt et al. (2003)	40
Demographics		6
Parent		
Aims of Schooling	'Otunuku (this volume, Study 1)	10
School Preferences	'Otunuku (this volume, Study 1)	12
Achievement	'Otunuku (this volume, Study 1)	11
Assessment	Items derived from Brown (2006a)	9
Teaching	Items derived from Pratt & Collins (1998)	6
Learning	Items derived from Artelt et al.(2003)	10
Responsibilities	'Otunuku (this volume, Study 1)	10
Demographics		9

3.3.2.1 Teacher Survey Instruments

The teachers' survey questionnaire had 56 items altogether. There were 27 items on assessment, 15 items on teaching, 5 items on learning and 9 demographic items.

3.3.2.1.1 Teachers' Conceptions of Assessment

Two inventory scales have been used by Brown and his colleagues to elicit teachers' conceptions of assessment: a full version of 50 items and an abridged version with 27 items only (Brown, 2002a, 2004a, 2006a; Brown & Lake, 2006; Brown, Lake, & Matters, 2008). Responses to the full version found four major correlated factors (i.e., conception of assessment improves teaching and learning; assessment makes schools and teachers accountable, assessment makes students accountable, and assessment is irrelevant). The main idea of the improvement conception is that it improves students' learning and the quality of teaching. The school accountability conception proposes that assessment can be used to account for teachers and school systems use of society's resources. The student accountability conception suggests that the aim of assessment is to hold students accountable for their learning. The irrelevant conception suggests that assessment has no legitimate place within teaching and learning. The two accountability factors had no first-order factors but the other two factors were hierarchical (i.e., they had three or four first-order factors). Because it may not be applicable to use the full version, an abridged version of 27 items was created by selecting the three strongest loading items from all the nine factors found from the full version. These 27 items (Table 5) were reanalysed with confirmatory factor analysis using the same data and the inventory had good fit characteristics and similar factorial structure.

Table 5. Teachers' CoA-III Abridged Inventory Items and Factors

Factors and Statement
F1. Assessment makes Schools Accountable
Assessment provides information on how well schools are doing
Assessment is an accurate indicator of a school's quality
Assessment is a good way to evaluate a school
F2. Assessment makes Students Accountable
Assessment places students into categories
Assessment is assigning a grade or level to student work
Assessment determines if students meet qualifications standards
F3. Assessment Improves Education
Assessment Describes abilities
Assessment is a way to determine how much students have learnt from teaching
Assessment establishes what students have learned
Assessment measures students' higher order thinking skills
Assessment Improves Learning
Assessment provides feedback to students about their performance
Assessment feeds back to students their learning needs
Assessment helps students improve their learning
Assessment Improves Teaching
Assessment is integrated with teaching practice
Assessment information modifies ongoing teaching of students
Assessment allows different students to get different instruction
Assessment Is Valid
Assessment results are trustworthy
Assessment results are consistent
Assessment results can be depended on

Factors and Statement
F4. Assessment Is Irrelevant
Assessment is Bad
Assessment forces teachers to teach in a way against their beliefs
Assessment is unfair to students
Assessment interferes with teaching
Assessment Is Ignored
Teachers conduct assessment but make little use of the result
Assessment results are filed and ignored
Assessment has little impact on teaching
Assessment Is Inaccurate
Assessment results should be treated cautiously because of measurement error
Teachers should take into account the error and imprecision in all assessment
Assessment is an imprecise process

Note. Main factors are marked in bold; sub-factors are marked in italics.

3.3.2.1.2 Teachers Perspective Inventory

Pratt and Collins (1998a) *Teaching Perspective Inventory* (TPI) identified five teaching perspectives (i.e., transmission, apprenticeship, development, nurturing, and social reform) by probing into teaching intentions, actions and beliefs within each perspective. The transmission conception requires teachers' commitment to the content or subject matter. The apprenticeship conception requires teachers to be highly skilled in all aspects of teaching. The development conception needs teachers to plan and conduct teaching from the learners' point of view. The nurturing conception requires teachers to motivate, encourage, and support learners to be productive. The social reform conception wants effective teaching to bring about good change to society in many ways. The full instrument involved 45 statements spread equally over the five perspectives and equally over the three dimensions within each perspective. A shorter version of 15 statements (Table 6) was created by selecting the strongest loading statement for a belief, an intention, and an action for each perspective (Brown, 2002a).

Table 6. Teaching Perspectives Inventory Factors, Statements

Factors and Statements
Apprenticeship
I link the subject matter with real settings of practice or application
My intent is to demonstrate how to perform or work in real settings
To be an effective teacher, one must be an effective practitioner
Development
I challenge familiar ways of understanding the subject matter
My intention is to help people develop more complex ways of reasoning
Teaching should focus on developing qualitative changes in thinking
Nurturing
I encourage expressions of feeling and emotion
My intent is to build peoples' self-confidence and self-esteem as learners
In my teaching, building self-confidence in learners is priority
Factors and Statements
Social Reform
I help people see the need for changes in society
I expect people to be committed to changing our society
Individual learning without social change is not enough
Transmission
I make it very clear to people what they are to learn
My intent is to prepare people for examination
Effective teachers must first be expert in their own subject area

This abbreviated inventory was used to elicit New Zealand primary school teachers' conceptions of teaching and an inter-correlated model of four perspectives with acceptable level of fit (χ^2= 277.062; *df*=80; TLI = .68; RMSEA = .069; gamma hat =.95) (Brown & Lake, 2006). This inventory appears to be valid for use with New Zealand teachers.

3.3.2.1.3 Teachers Conceptions of Learning

Two major conceptions of learning exist: reproducing new materials and transforming material to make meaning. Brown et al (2008) selected five items from the Tait, Entwistle, and McCune (1998a) *Approaches and Study Skills Inventory for Students* (ASSIST) that focussed on transforming and reproducing definitions of learning (Table 7). The ASSIST indicates that these five items (i.e., building up knowledge, remembering well, and developing as a person) are reproducing while those related to (i.e., seeing things in a new way, and understanding material for oneself) are transforming.

Table 7. Approaches to Learning Items

Reproducing	
	1. Learning is building up knowledge by getting facts and information
	2. Learning is making sure I remember things well
Transforming	
	3. Learning is developing as a person
	4. Learning is seeing things in a different and more meaning way
	5. Learning is understanding new material for myself

The instrument was used in studies of a small group of New Zealand secondary school teachers, a large group of New Zealand primary school teachers, and a nationally representative sample of Queensland primary and secondary school teachers (Brown, Lake, et al., 2008). The analysis shows that the development as a person item did not fit uniquely to the transforming scale and that not including the item at all led to an acceptable fit. Nonetheless, the two scales appear to be valid for use with teachers in New Zealand.

3.3.2.2 Student Survey Instruments

3.3.2.2.1 Students' Conceptions of Assessment

In the context of New Zealand, Brown and associates (Brown, 2006b; Brown & Hirschfeld, 2005; Brown & Hirschfeld, 2007, 2008; Brown, Irving, Peterson, & Hirschfeld, 2008) have conducted series of studies to develop the Students' Conceptions of

Assessment inventory (SCOA). The most recent version (SCoA-VI) has 33 items which aggregate into four major inter-correlated purposes (i.e., improvement, benefit, external factors, and irrelevant) (Table 8). The improvement conception perceives assessment as improving teachers' teaching and students' learning. The beneficial conception treats assessment as both personal and class enjoyment. The external conception sees assessment as school accountability and students' future. The irrelevant conception sees assessment as bad and inappropriate in the schooling context.

Table 8. Students' Conceptions of Assessment Factors and Items

Factors and Items
F1. Improvement
Teacher Improve Teaching
Assessment helps teachers track my progress
Assessment is a way to determine how much I have learned from teaching
Assessment is checking off my progress against achievement objectives or standards
My teachers use assessment to help me improve
Teachers use my assessment results to see what they need to teach me next
Assessment shows whether I can analyse and think critically about a topic
Self-Improvement
I use assessments to identify what I need to study next
I use assessments to take responsibility for my next learning steps
I look at what I got wrong or did poorly on to guide what I should learn next
I make use of the feedback I get to improve my learning
I pay attention to my assessment results in order to focus on what I could do better next time
F2. Beneficial
Personal Enjoyment
Assessment is an engaging and enjoyable experience for me
I find myself really enjoying learning when I am assessed

Factors and Items
Class Enjoyment
When we are assessed, our class becomes more motivated to learn
When we do assessments, there is a good atmosphere in our class
Our class becomes more supportive when we are assessed
Assessment makes our class cooperate more with each other
Assessment motivates me and my classmates to help each other
Assessment encourages my class to work together and help each other
F3. External Factors
School Accountability
Assessment measures the worth or quality of schools
Assessment provides information on how well schools are doing
Student Future
Assessment tells my parents how much I've learnt
Assessment results predict my future performance
Assessment is important for my future career or job
Assessment results show how intelligent I am
F4. Irrelevant
Assessment is unfair to students
Assessment interferes with my learning
Teachers are over-assessing
Assessment results are not very accurate
Assessment is value-less
I ignore assessment information
I ignore or throw away my assessment results
Assessment has little impact on my learning

Note. Main factors are marked in bold; sub-factors are marked in italics.

3.3.2.2.2 Student Evaluation of Teaching

The items for the quality of teaching experiences students had were adopted from Peterson et al (2000) study where they argue that students' views on their teachers, should be part of the teachers' evaluation process. They adopted items from the Educator Assessment System (EAS) of the Davis School District from the State of Utah in the United States of America. They tested survey instruments (in three levels, primary, elementary, and secondary) that they believed will add to the estimates of validity and reliability of a teacher evaluation system. Peterson et al found four factors (i.e., climate, explains, effective, and clarity). From these survey instruments, they recommended twelve items to be used for middle and high school students and these twelve items (Table 9) were used in this survey (Peterson, et al., 2000).

Table 9. Student Evaluation of Teaching Items

I know what I'm suppose to do in class
Our teachers show us how to do new things
There is enough time to finish class work
My classes are not too noisy or rowdy for learning
I learn new things I can tell you about
I know how well I'm doing in my classes
My school has good teachers
We have enough materials and supplies to learn
At the end of each class, I understand well enough to finish the assignments by myself
I know why we learn what we learn in class
My classes are not too slow or fast to learn well
The rules in each class help me to learn

3.3.2.2.3 Students' Approaches to Learning

The Students' Approaches to Learning (SAL) instrument used in this study was adopted from the OECD PISA study of affective constructs. These items have been used across cultures and languages in 25 countries (Artelt, Baumert, Julius-McElvany, & Peschar, 2003). It has been argued that these constructs are among the best theoretically and empirically validated self-report measures of learning (Marsh, et al., 2006). This study

used the 40 general learning items which consist of 10 scales (i.e., cooperative learning, self-efficacy, control expectation, competitive learning, academic self-concept, instrumental motivation, control strategy, memorization, elaboration, effort, and perseverance) (Table 10) that aggregate into three dimensions. One dimension is general and contains scales related to control expectation, self-efficacy, and academic self-concept. The second dimension is motivation and contains scales related to competitive learning, cooperative learning, instrumental motivation, and effort and perseverance. The third dimension is learning and contains scales related to control strategy, memorization, and elaboration.

Table 10. Student Approaches to Learning

Factors and Items
Cooperative Learning
I like to work with other students
I learn most when I work with other students
I do my best when I work with other students
I like to help other people do well in a group
It is helpful to put together everyone's ideas when working on a project
Self-Efficacy
I'm certain I can understand the most difficult material presented in texts
I'm confident I can understand the most complex material presented by the teacher
I'm confident I can do an excellent job on assignments and tests
I'm certain I can master the skills being taught
Control Expectation
When I sit myself down to learn something really difficult, I can learn it
If I decide not to get bad grades, I can really do it
If I decide not to get any problems wrong, I can really do it
If I want to learn something well, I can
Competitive learning

Factors and Items
I like to try to be better than other students
Trying to be better than others makes me work well
I would like to be the best at something
I learn faster if I'm trying to do better than the others
Academic Self-Concept
I learn things quickly in most school subjects
I'm good in most school subjects
I do well in tests in most school subjects
Instrument Motivation
I study to get a good job
I study to ensure that my future will be financially secure
I study to increase my job opportunities
Control Strategies
When I study, and I don't understand something I look for additional information to clarify this
When I study, I make sure that I remember the most important things
When I study, I try to figure out which concepts I still haven't really understand
When I study, I force myself to check to see if I remember what I have learnt
When I study, I start by figuring out exactly what I need to learn
Memorization
When I study, I practice by saying the material to myself over and over
When I study, I memorize all new material so that I can recite it
When I study, I memorize as much as I can
When I study, I try to memorize everything that might be covered
Elaboration
When I study, I try to figure out how the material fits in with what I have already learnt

Factors and Items
When I study, I try to understand the material better by relating it to things I already know
When I study, I try to figure out how the information might be useful in the real world
When I study, I try to relate new material to things I have learnt in other subjects
Effort and Perseverance
When studying, I put forth my best effort
When studying, I try to do my best to acquire the knowledge and skills taught
When studying, I keep working even if the material is difficult
When studying, I work as hard as possible

The 52 items found good fit with the New Zealand sample (N = 3552; χ^2= 32137; TLI = .97; RMSEA = .051). These items were valid to be used in New Zealand.

3.3.2.3 Tongan Parent Survey Instruments

The questionnaire for the Tongan parents/caregivers was developed from multiple sources, including the parents' focus group. The teaching items (6) were developed from the 5 factors in the TPI inventory. From each of these factors, one item was developed. One item was also developed from the focus group discussions. These 6 items were used in the survey to elicit Tongan parents' teaching conceptions.

The learning items (10) were developed from the 40 general items used in the PISA SAL inventory. From the 10 factors, one item was written that captured the main idea of the factor.

The assessment items (9) were developed from the 9 factors found by Brown in the TCoA-IIIA. From each of these factors, one item was developed to elicit parents' conceptions of assessment.

The aims of schooling items (10), responsibilities (10), achievement (11), and school choices were all developed from the focus group discussion.

3.3.2.3.1 Translation issues of Parent Questionnaire

The questionnaire items were translated into the Tongan language. English versions were made available to ensure that Tongan parents who are monolingual in either English or Tongan will be able to administer the questionnaire. There was a need to ensure that the forms were equivalent to avoid misinterpretations of the questions. To address this, two independent Tongan linguists assessed the questionnaires to ensure equivalence. Guidelines on test translation and adaptation from the International Test Commission (Commission, 2000) were used to guide the decisions about equivalence. Some of the pertinent guidelines were documentation of the translation should be provided, along with evidence of the equivalence and to ensure that the adaptation process takes full account of linguistic and cultural differences among the populations for whom the adapted versions of the instruments are intended. A pilot study of the parents' questionnaire found that the translations were comprehensible by Tongan adults.

3.3.2.4 Response Format

The questionnaire items used a six point agreement rating scale. This was positively-packed with two negative rating points (i.e., strongly disagree, mostly disagree) and four positive rating points (i.e., slightly, moderately, mostly and strongly agree). This kind of questionnaire format has been found to be very effective in eliciting variance in responses when participants are inclined to be positively oriented towards a construct (Brown, 2004b; Klockars & Yamagishi, 1998; Lam & Klockars, 1982). Since people appear to agree with multiple contradictory conceptions simultaneously (Fodor, 1998; Green, 1971; Laurence & Margolis, 1999), there are strong grounds for thinking that participants would be inclined to agree with all conceptions and thus, a positively packed rating scale was justified.

This format tends to increase variance and precision in responding and the four adverbs used are approximately equally spaced (Lam & Klockars, 1982). It was assumed that each response represented a score on an underlying continuum of agreement attitudes towards the concept and were scored from 1 to 6 (i.e., 1 = strongly disagree, 2 = disagree, 3 = slightly agree, 4 = moderately agree, 5 = mostly agree, 6 = strongly agree).

3.3.3 Data Collection procedure:

The problem of low return rate for questionnaires was prominent in my mind during the planning stage of the survey. Low response rates are among the most difficult of problems in survey research and can ruin an otherwise well-designed survey effort (Punch, 2003).

It was decided that the best way to counter this was to find a suitable place and time which would allow the participants to complete the questionnaires which would be collected straight away. The 2006 Census indicated that more than 90% of Tongans had church affiliations (SNZ, 2007). Thus I decided to approach Tongan church authorities and request permissions to use their churches as venues and their members as participants for the survey. All the churches were happy to allow their members to participate and their churches to be venues for the survey (parents and students).

I was allowed to administer the survey at church activities such as choir practices, Sunday schools, youth activities, and meetings. This was important because it enabled me to collect the questionnaires once they were completed. This allowed for higher return rate for the survey. Many of the churches which were involved allowed time for participants to complete the survey and for me to collect them before resuming their church activities such as singing practice.

3.3.4 Data Preparation and Validity

Data preparation involved a pilot study and data cleaning process.

3.3.4.1 Pilot study

A pilot study was conducted on the parents/caregivers questionnaires to ensure that the language of the caregivers/parent questionnaire was effectively communicative. There was no need for teachers' and students' questionnaires to be pilot tested because they were adopted from inventories which had been tested previously in New Zealand. Six Tongan parents who had children enrolled as seniors at secondary schools were asked to do the survey. These six parents were fluent in both Tongan and English and were given both the Tongan and the English versions of the survey. People chosen for this type of pilot study need not be a random sample of the prospective respondents but must be familiar with the issues and be able to make valid judgements on the expression of the items. This pre-

testing is very important because it may uncover any deficiencies that have escaped earlier reviews of the items. It will also provide the opportunity to discuss responses and feedback from the members of the pilot group (Punch, 2003; Wiersma & Jurs, 2005).

There was no need for major changes after the pilot study. However, there were minor alterations. For example, it was obvious that the phrase 'high decile' was problematic in the Tongan version because it has no equivalent in the Tongan language. To translate this word adequately, one needed to provide an explanation to communicate the meaning. This posed another problem since the survey items need to be relatively short while carrying full meaning for respondents. After deliberation, it was decided that 'a school in a rich area' was the most appropriate phrase to use.

Initially, the questionnaires asked the participants to put a cross to indicate their choices. In addition, if participants wanted to change their answers they needed to cross their first answers and tick their new ones. Thus, the questionnaire instructed participants to use a tick to show their selection.

3.3.4.2 Data cleaning

Before analysis data must go through the cleaning process. The first step ensures that the data analyses are conducted with accurate and complete data which are deemed valid responses. In each questionnaire, participants who provided more than one response per item had the lower of the two responses taken if the two responses were side by side. If multiple responses were further apart then the response was classified as missing data. Cases with less than 90% valid responses were dropped. Missing data were imputed using the EM procedure (Dempster, Laird, & Rubin, 1977). This is a statistical formula to find maximum likelihood estimates of parameters in probability models, where the model depends on unobserved latent variables. EM procedure involves performing two steps, an expectation (E) step, which computes an expectation of the likelihood by including the latent variables as if they were observed, and maximization (M) step, which computes the maximum likelihood estimates of the parameters by maximizing the expected likelihood found on the E step. The parameters found on the M step are then used to begin another E step, and the process is repeated (Dempster, et al., 1977). The goal of the EM procedure is to fill in missing values in such a way that the starting values for the mean and standard

deviation of each item and the covariances among all items are disturbed as little as possible by the imputation process.

3.3.5 Analyses

When multiple indicators are used to explore a construct or phenomenon the amount of data can be overwhelming. Factor analysis is an approach to the simplification of data by looking for patterns within the responses to indicators that are assumed to be measuring the same fundamental dimension. Thus, factor analysis is often used as a mean of grouping variables or indicators that are moderately to highly correlated with each other into clusters, or factors. There are two fundamental approaches in factor analysis: one which explores and identifies possible factors and one which tests or confirms the existence of factors.

3.3.5.1 Exploratory Factor Analysis (EFA)

EFA is a powerful statistical technique to determine the underlying constructs for a set of measured variables. In EFA the data are examined for patterns and clusters which are post-facto labelled as factors derived from the shared common features of the items which are placed in the factor. The patterns are found by examining the squared multiple correlates of items with each other. This is a measure of how strongly items correlate or covary with each other. Poorly fitting items are those which have poor conceptual fit with other items in the factor, items with loadings below .30 and items with cross-loadings on other factors greater than .30; such items are normally dropped from subsequent analyses. For each factor, three or more items are needed. Traditionally, EFA has been used to identify the most likely factors in a data set but confirmatory factor analysis is needed to test the fit of the proposed factor structure to the data available (Gable & Wolf, 1993).

3.3.5.2 Confirmatory Factor Analysis (CFA)

CFA tests the proposed measurement models derived from EFA and reports fit indices to see if the model has reasonable fit characteristics to the data. In CFA, the theoretically expected patterns are tested for their presence in the data. When instruments with known properties are used (e.g., Brown, [2004a] Teachers' Conceptions of Assessment inventory), then CFA should be used to determine if the expected structure of factors is present in the newly collected dataset (Byrne, 2001; Klem, 2000; Thompson, 2000).

CFA is used to assess the number of factors and the loadings of variables. In contrast to EFA, where all loadings are free to vary, CFA allows for the explicit constraint of certain loadings to be zero while the expected relationships are free to load into their appropriate factors (Hoyle, 1995). A general advantage of CFA is that, unlike regression or general linear model approaches, it does not ignore the error variance parameters and thus leads to more accurate estimation of relationships (Byrne, 2001; Thompson, 2000). At the same time, it determines the estimates of all parameters that mostly nearly produce the matrix of observed relationships in a data matrix (Klem, 2000).

The fit of a CFA model is indicated by indices that take into account simultaneously the number of cases, the degrees of freedom, and the number of freely estimated parameters. While non-statistically significant values for χ^2 are taken to indicate good fit of the model to the data, it is well established that χ^2 is overly sensitive to large sample sizes (Cheung & Rensvold, 2002). The TLI and CFI indices show good fit when they are > .95 and acceptable if > .90 (Hoyle, 1995); though both indices are sensitive to complex models (i.e., those with more than three inter-correlated factors) (Cheung & Rensvold, 2002). The root mean square error of approximation (RMSEA) is less affected by sample size or model complexity, though it will reward such_models even when the model is mis-specified (Fan & Sivo, 2007). Fan and Sivo (2007) have demonstrated that gamma hat and the standardised root mean residual (SRMR) are most resistant to sample size, model complexity, and model mis-specification. There is consensus that multiple indices (i.e., both goodness and badness of fit) should be reported (Fan & Sivo, 2007; Hu & Bentler, 1999). It appears that acceptable fit should be imputed when chi square per degree of freedom (χ^2/df) has p >.05; gamma hat>.90; SRMR <.08, RMSEA<.08 and good fit when gamma hat>.95, SRMR<.06, RMSEA<.05 (Fan & Sivo, 2007; Marsh, Hau, & Wen, 2004; Steiger, 2000).

3.4 Study 3: Linking Student Attitudes to Academic Performance

To understand and to make predictions about the effect of students' attitudes to their academic achievement results, a regression analysis using SEM was conducted in Study 3. Regression analysis relies on the simple logic of correlation; that is, what happens to one variable when another variable changes or to what extent does one variable change as one variable is altered (Thomas, 2003). A correlation is non-directional (i.e., the linear relationship has no source); whereas, regression analysis is directional (i.e., one variable is

deemed to predict or cause the change in the second variable). Positive values indicate that both variables behave in the same way: rise or fall together. Negative values indicate that as one variable rises, the other falls. A zero value indicates that the behaviour of the two variables is independent of each other and that value of one variable has no systematic relationship to values of the other variable. When large samples are used, small values for correlation and regressions can be statistically significant (that is probably not due to chance); however, large values are needed if the observed relationship is to have a practically meaningful value. The square of the correlation or regression value indicates the proportion of variance explained by the linear relationship; thus, a correlation of .33 explains 10% of variance. Thus, values for observed relations must be both statistically and practically significant to inform educational practice.

3.4.1 Sample

Study 3 was a causal-correlational study to explore the relationships between the students' conceptions of schooling (i.e., assessment, teaching, and learning) and their academic performance in English and Mathematics on the NCEA Level 1. Tongan students who were enrolled in either year12 or 13 at the time of the study and had NCEA Level 1 results were targeted. Unlike Study 2 when the participants were anonymous, in Study 3, the participants were required to identify themselves so that their questionnaire responses could be matched to their 2007 NCEA Level 1 results.

The survey was conducted in the Auckland region which had secondary schools with high enrolment of Tongan students. Schools that had been identified as having substantial number of Tongan students were approached. Invitation letters were sent to these schools inviting them to participate in the study. General information about the aims and the data collection methods were included. It was anticipated that the number of Tongan students in these levels would be small and a lot of effort was made to recruit as many students as possible to get a large enough sample.

The principals from six schools agreed to allow the survey in their schools. With the schools' assistance, all Year 12 and 13 Tongan students were approached. The issue of low return rate was considered and it was decided that the best way to increase the return rate was to allow students to complete the surveys at school and for the questionnaires to be collected before the students left the survey venues. Attending the survey was voluntary

and students were free to withdraw at any time. However, in most participating schools, most of the Tongan students (Year 12 & 13) participated.

All participating schools were able to provide both time during their school programmes and a room for the survey to be conducted. Those students who turned up at the allocated time and rooms agreed to participate and I was there to collect the completed surveys. From these six schools, 189 Year 12 and 13 students were recruited. This figure was a good sample size compared to the number of Tongan students who gained NCEA in 2004, however, the small sample size would affect the models and the consequential analysis needed to be done. The margin of error associated with this sample size relative to the national population of Tongan Year 12 and 13 students is 6.60% and a confidence interval of 86%. Hence, some caution must be exercised in drawing inferences from this study.

3.4.2 Instrument

The same student questionnaire used in Study 2 was also used in this study. The students' questionnaire survey had 91 items under these sub-headings; Assessment (33 items), Teaching (12 items), Learning (40 items), and Demographic (6 items).

The students also consented for their 2007 NCEA Level 1 and 2 results to be collected from their schools.

3.4.2.1 NCEA System

The NCEA is a standard-based assessment system that measure students' academic performance against standards of achievement or competence. These 'achievement standards' have two major components; unit standards and achievement standards and both are used at programmes taught at schools. For achievement standards students can score either 'achieved', 'achieved with merit' or 'achieved with excellence'. For unit standards, students can only score 'achieved (pass) or 'not achieved' (fail). Each standard is worth a certain number of credits (usually between 2 and 4) and when students successfully completed a standard, the associated credits are counted towards the students' NCEA credits.

Standards are organized into 'levels' of increasing difficulty starting from Level 1 to Level 3. Some standards are assessed internally, by the teachers, and some are assessed

externally in end- of-year exams. Qualifications are gained by building up credits, awarded for each standard a student achieved. To be awarded a NCEA Level 1 certificate, students must achieve 80 credits from Level 1 or higher. Eight credits each must be obtained from both numeracy and literacy standards. Normally, Level 1 is assessed at Year 11, Level 2 at Year 12, and Level 3 at Year 13. However, it is common to find students study at a mixture of levels depending on their ability in their subject areas.

NCEA Level 2 certification requires a minimum of 60 credits at Level 2 or above and twenty credits at any other level. Credits may be used for more than one certification, so some of the students' credits can be counted towards NCEA Level 2 which has no specific numeracy or literacy requirements. For NCEA Level 3 certification, students need to achieve 80 credits, of which 60 must be at Level 3 or above, and 20 at Level 2 or above.

Most schools doing NCEA have academic program handbooks given to students at the beginning of the year detailing the subjects offered. Students are often advised that their subjects selections are crucial to their future and that they should think carefully about their course direction and to keep as broad a range of subjects for as long as possible. Ironically, the subjects offered are structured to discriminate students on basis of their previous performances in their subjects. For example, Mathematics is offered to all students in Year 9 and 10 but in Year 11 to 13, two brands are offered. The top brand will end up doing Calculus and Statistics in Year 13 while the other brand continues with Unit Standards at Levels 1 and 2. This means that students' previous performance decide their course directions.

3.4.3 Data Collection and Preparation

As before, cases with more than 10% missing responses were removed. Missing data for questionnaire responses only were imputed using the EM procedure (Dempster, et al., 1977). Student NCEA scores were classified by subject, level, and more of assessment (i.e., internal and external).

3.4.3.1 Estimation of Academic Performance Grade Point Average

A common metric of academic performance was created by converting performance within a subject into a grade point average (GPA). For each student and for English and

Mathematics, GPA scores were created for the internally assessed components (GPAInt), the external components (GPAExt), and a total subject GPA (GPATot).

The procedure for calculating GPA was adopted from Shulruf at el (2006) who found that the GPA procedure on NCEA was very effective in predicting first year students' GPA at university level. This involved finding out for all the standards at Level 1, what grade the student got for every standard and the number of credits the unit or standard was worth. The grades were multiplied by a weighting factor (i.e., Achieved = 2, both for US and AS, Merit = 3, Excellence = 4) and the sum was divided by the total number of credits obtained by the student. Thus, each student would have a GPA score regardless of the number of credits earned.

With this method, a student who gets 50 credits all at Achieved would have a GPA of 2 (50*2/50), while a student who gets NCEA Level 1 with 80 credits all at Achieved would have the same GPA. A student who gets the same 80 credits with a mixture of Achieved, Merit and Excellence will have a proportionally higher GPA.

The GPA scores recognized the quality of the credits achieved by the students especially the achievement standards. Calculating the GPA scores recognizes the quality of those achievements and rewards students who have achieved standards with merit and excellence. The number of credits earned alone does not discriminate students' effort and abilities.

3.4.4 Analyses

Because the number of students taking each type of assessment in English and Mathematics was relatively very small (maximum 150 at Level 1), it was deemed necessary to reduce the measurement models from full factors with multiple indicators to parceled items. This involved converting the latent factor into a manifest variable by creating the average of all items predicted by the latent factor. Then the parceled items are used in the structural analysis of how beliefs relate to academic performance. While this would lose precision and richness of data, it makes estimating models more robust with small sample sizes.

Little et al (2002) defines parceling "as a measurement practice that is used most commonly in multivariate approaches to psychometric, particularly for use with latent-variable analysis techniques [e.g., Exploratory Factor Analysis, SEM]" (p. 152). Parceling is still a debated practice but its supporters argue that because fewer parameters are needed to define a construct when parcels are used, parcels are preferred, particularly when sample sizes are relatively small.

MacCallum et al (1999) argue that when compared to item-level data, models based on parceled data have fewer estimated parameters, fewer chances for residuals to be correlated or dual loadings to emerge and lead to reductions in various sources of sampling error.

The analysis was conducted using two steps. First, the measurement models (found in students' survey in Study 2) were tested before analysing the structural relations to achievement. This was done using confirmatory factor analysis to validate the factor structure of the measurement models. Given that the sample size in Study 3 was considerably smaller than recommended standards, the quality of fit for the Study 2 measurement models was likely to be a problem. To improve the fit of the models with small sample sizes, the number of factors was reduced by eliminating any 1^{st}-order factors and allowing all items to load on their highest respective factor. In this way, model fit was obtained by increasing the number of items per factor to compensate for low numbers of cases (Marsh, Hau, Balla, & Grayson, 1998). Assuming that acceptable fit was reported, parceled scores were created for each factor of interest.

In the second step, structural models which had students' achievement scores from their NCEA results predicted by their self-reported beliefs about assessment, teaching, and learning. In order to account for any possible shared variance among students' beliefs about assessment, teaching, and learning, it was decided to model the relationships of their self-reported beliefs to their NCEA scores simultaneously. That means three inter-correlated factors (i.e., assessment, teaching, and learning) were created each predicting their constituent factors as parceled scores. Then paths from each factor were tested for statistically significant relationship to the NCEA GPA score.

SEM is a statistical technique for testing and estimating causal relationships using a combination of statistical data and qualitative causal assumptions. SEM makes use of both

the latent and manifest variables and reports the quality of fit for the paths tested in the model. In structural models the path values are standardized partial regression weights. A value of 1.0 indicates that an increase of one standard deviation in the independent variable would cause an increase of one standard deviation in the dependent variable. Each structural model was analysed using the three different GPA scores (i.e., GPA internal, GPA external, and GPA total) for these two subjects. The same fit statistics standards used to evaluate CFA models in Study 2 were used to evaluate these structural equation models.

3.5 Summary

This is a multi-method study that mixes quite different methods and approaches in order to develop a complementary understanding of how Tongan parents and students and their teachers understand teaching, learning, and assessment in New Zealand secondary school and how their beliefs might explain patterns of under-achievement in Tongan students. This study is also part of Pasifika talanoa in the context of New Zealand, when multiple stories are allowed to be told in many different ways to potentially create a meaningful meta-story. Multiple methods of quite different types and traditions were needed to create some meanings out of the many individual lives and stories and that these meanings could not be arrived at by just using one approach with a single story. As the researcher, I would look for complementary, contradictory, and unique results across the different studies, participants, and methods to compose an understanding of how Tongan people in New Zealand view schooling and how this might contribute to improving the quality of educational outcomes for Tongan families.

CHAPTER FOUR

TONGAN PARENTS' CONCEPTIONS' OF SCHOOLING

4.1 Tongan Parents' Focus Group

This chapter reports the findings of two studies conducted to gather preliminary and baseline information about the Tongan parents' conceptions of schooling in the context of the New Zealand school system. The first was a focus group of Tongan parents with children as secondary school students. The second was a survey of a self-administered questionnaire for Tongan parents and caregivers with children in secondary schools. The findings from the focus group are described first.

4.2 Tongan Parents' Focus Group Findings

Data from the parents' focus group had seven pre-determined categories. Three of these categories; (assessment, teaching and learning) were also explored in teachers' and students' data. The remaining four categories; (aims of schooling, parents' responsibilities, parents' school choices, and parents' reasons for their students' underachievement) were identified from reviewing literature on Tongans living overseas. Data from the focus group discussions were analysed under these seven domains and the results are reported below. The sub-categories are explained in order of the most strongly to the weakest sub-category in terms of the amount of discussion generated by each construct.

4.2.1 Aims of Schooling

After analysing data under the parents' 'aims of schooling' these three sub-categories were found; **(1) securing a better future**, **(2) fulfilling obligations**, and the **(3) development of the complete person** (***tangata kakato***). Participants were united in understanding that a good education improves quality of living. Most participants said that was the main reason for migration was that their children would have good education and therefore improve their standards of living. However, they also said that many parents quickly 'forgot' this and allowed their children to leave school early to work in low paid jobs instead of pushing them to complete their studies.

> I wanted my children to have better lives than what we have now. I've been a factory worker all my life. I wanted them to have better jobs with better incomes to support their families when they grow up. We are doing fine with my income but we have to make sacrifices on this and that (P3).

> We came here so that my kids can go to good schools. I was the only one working while my wife stayed home and looked after our kids. Our two eldest sons are both at university now and we are happy because we know that the sacrifices we made when we first came are worthwhile. The three young ones are following the older two (P6).

> We need our children to have a good future. If they work hard at schools, they will get a good job to support them and their families. We don't want them to rely on us forever (P5).

Another father (P1) said that he would not like his children to follow him into factory works. He did not have an advanced academic education in Tonga and he was doing his best to make sure his children would have better jobs. He said that many Tongan parents allowed their children to work during school holidays and once they earned money the children quit school and continue working. He believed that some parents were short-sighted in thinking that earning four hundred dollars a week was good money.

> I just want my kids to go to school and listen to their teachers. I don't want any of them to follow me into factory works. It was ok for me because I did not go to school. If they follow me, it's their own faults (P1).

There was some variation with parental aims, with the focus not always being on qualifications and employment. One father (P9) believed that schooling was primarily a search for knowledge. He stated that he sent his children to school to gain knowledge, not to get a better job or to go to university. He believed that the problems we face today originated from using schooling and education as tools to get other things.

> I send my kids to school so that they may gain knowledge. Schooling for me is searching for knowledge and that knowledge alone will guide their lives. Problems happened when we use education as a tool to get something we need like getting rich or getting a high position in government. A bush knife is an important device

> which you can use to cut down trees or to cut yourself and it's the same with using education as a tool (P9).

It appeared from participants' reactions during the focus group that many disagreed with this view. As this father was trying to reason with the rest, one mother remarked, 'it was good that (P9) didn't find knowledge because if he did he would be a government minister now and he would never have befriended us'. The participants laughed including this father.

The participants believed that someone who is doing well in school will eventually enhance family status, have a secure future and a good job. Such people will fulfil their obligations better than those who are not good at school and have no means of financial income or materialistic wealth to perform their obligations. One participant (P2) had this to say about obligation.

> For example, when there is a funeral in the family, all the members of the extended family and relatives of the deceased know what they are supposed to give or contribute to help the funeral. What you give and how much depends on what you can afford and how you are related to the deceased (P2).

Another participant (P4) also spoke about obligation.

> I think one aims of schooling is to make sure that when students come home, they are able to fulfil their obligations to family, church and the fonua'. I know some Tongans with good education who do not approve of these family or church obligations for whatever reasons but that's how we live. We are not palangi, we are Tongans and we have obligations to others (P4).

All participants agreed that an important aim of schooling is the development of the tangata kakato referring to the tripartite development of the total person, a balance between intellectual, physical, and spiritual development. Participants believed that good schools developed these three aspects in the lives of students. Furthermore, most assumed that church schools were in a better position to do this because Christianity is central to their school philosophies.

> To me the most important aim is to develop the total person –tangata kakato. We have so many educated people with university degrees but a lot of them are dishonest, unfaithful with their marriages, greedy, selfish and misuse their positions and power for their own benefit (P10).

Some parents believed that those educated people who lack spiritual wellbeing are the ones causing problems in the Tongan communities today. Participant (P5) believed that

> When people are educated, they understand the Bible better. There will be fewer problems in families, churches and villages'. Most family problems are started by those who did not attend schools. Families who went to schools had fewer problems (P5).

However, this was not uniformly agreed with, as participant (P11) indicated.

> People with little education make little problems and people with big education make big problems. Look at the Tongan government now, we have more problems now than before but our government leaders are better educated than leaders in the past (P11).

The issue of the tangata kakato was discussed, leading to a debate on church and government schools. One point of view stated that church schools in Tonga are better than the government schools mainly because they offered Christian religion as a subject and government schools do not. In contrast, it was argued that government schools incorporated Christian values into their programmes and so their teachers and students were Christians like church schools. However, in government schools, Christian and moral values were taught primarily at home by parents, leaving teachers free to concentrate on the teaching of their subjects. This point of view maintained that government schools passed more students in national examinations because they concentrated on subject teaching, rather than Christian teaching. As one father (P2) stated

> Government students are taught about the bible in Sunday schools and at home by their parents. At school their teachers taught them subjects like Mathematics and Science. Parents cannot do that at home so why do teachers have to waste their time

> on this when we parents can do that at homes? Students from church schools have the same behavioural problems as the rest (P2).

Generally, these three aims of schooling were interconnected to two important entities that are central to Tongan people; education and Christianity. Tongan parents, in this sample, suggested that a good education means a good income and the improvement of life standards. At the same time, someone with good education will be able to fulfil his or her obligations which include moral obligations.

4.2.2 School Choices

The categorical analysis of Tongan parents' school preferences found five sub-categories; **(1) making good relationships, (2) teaching moral / Christian values, (3) passing many students, (4) enforcing strict discipline, and (5) schools being situated closest to homes**.

Parents wanted schools that have established good parent/teacher relationships, schools that are friendly and welcoming and recognize students' cultural diversity. Many schools in the Auckland region, which have Tongan students, have developed good relationships with the Tongan parents over the years. The annual cultural festival (ASB Polyfest)[5] has brought the Tongan community to schools to support their children and therefore developed good relationships with these schools. The parents made it clear that they thought it was unfortunate that parents and schools found it difficult to transform these strong partnerships into supporting students' classroom work. One parent (P1) said:

> During the festival season, we parents come every day to school to support our children. We build good relationships between us and the schools but after the festival we hardly come. This is not good because we need to support our kids schooling, which is the most important thing. But how can we do that? We can't go into their classrooms to help them (P1).

[5] The Auckland Secondary School Māori and Pacific Islands Cultural Festival is an iconic annual event believed to be the largest of its kind in the world, celebrates the pride and passion of Māori and Pacific Islands communities through cultural song, dance, speech and art. 2009 attracted 90,000 people and 2010 marked its 35th anniversary.

The participants wanted schools that taught moral Christian values and helped develop the idea of the tangata kakato (i.e., physical, moral, and mental) in their children. Tongan parents assumed that church schools were in a better position to offer this to their children. This resulted in an unconventional trend for the many Tongan parents who send their children to Catholic schools even though they themselves are not Catholic. As one parent (P7) put it:

> Though I'm not Catholic my son is going to a Catholic school. Most of the boys are Pasifika and the teachers are good to them. There is a good relationship between the school and the students as well as parents. They teach moral values in addition to classroom works (P7).

The participants in this sample also believed that a 'good' school passed many students in national examinations and they wanted their children to attend these schools. Most of these schools are out of zone and therefore their children could not attend. However, some Tongan parents still managed to get their children to some of these schools through the out of zone quota. One father (P2) recalled his attempt.

> I wanted my son to go to Auckland Grammar and I've been enrolling him in the out of zone quota for the last three years without any success. I heard that some boys from Tonga were successful because they were boarders at 'Atalanga (a Tongan hostel at Epsom – Auckland Grammar zone) so I'll try that next year (P2).

Some parents, however, believed that schooling in Tonga was better because the teachers were strict on the students. One mother (P3) said that she had four children and she had sent them all back to Tonga for their schooling. She sent her eldest son to Tonga after intermediate school here and enrolled him at an all boys' boarding school owned by her church in Tonga. Her son came back, went to university and graduated with a degree. She did the same thing with her other children and they all went on to tertiary education.

> I want schools to be strict with our children and disciplined them hard. Our kids are naughty because they are not afraid of teachers and because they're not afraid, they don't do their school work (P3).

The parents were divided on this issue. Some believed that they emigrated from Tonga to find opportunities for their children in New Zealand, therefore it was illogical to send their children back to Tonga. For example, one parent (P9) stated:

> I don't believe in sending our kids back to Tonga while we stay here. Our families back will be burdened by this and I blamed these parents if their kids have problems. They may not be doing enough for them in the first place. A lot of us parents no longer practice our Tongan way of life here, maybe they no longer want to be Tongans and this create the problem (P9).

Others believed that sending their children back to Tonga could help in reminding them about their roots, their culture, and their language. When they return to New Zealand, they are better prepared for tertiary education because of their experiences in Tonga. A father who has three New Zealand-born sons supported sending the children back to Tonga to learn their culture. He told the group his beliefs when he first sent his sons to school. He believed that his sons were Tongan, their skins were brown and no one could take that away from them but if they were to be successful in education, then they would have to behave like the palangi and speak their language. His three sons understood the Tongan language but could not speak it. They all went to university but none finished and all have non-Tongan partners and have moved out of their family home. The father (P8) said that his sons have all become too palangi for his liking and have lost all contact with their Tongan roots, something he now sincerely regretted, stating:

> That was the kind of thinking we had in the 70's when we first came. If I can do it again I would definitely make sure that they could speak Tongan and be involved with Tongan cultural activities and take them back to Tonga more often (P8).

The majority of parents in this group sent their children to their local schools (closest to their homes). One participant (P8) said that he sent his children to the school closest to his home because he believed that all the schools have good teachers and resources. He compared this school to the ones in Tonga and he thought that this local school was ahead of the best schools in Tonga. He saw that the school was not the problem but the homes where the students come from. He even provided names of ex-students from the school who had graduated from universities to support his belief.

> I'm happy with the schools close to home. These schools are far better than the ones in Tonga. They have far better resources and plus they are close to our place. My kids walk to school and back, do training in the afternoon, all those sports activities. It is easy for them and us parents because we don't need to drop them off (P8).

This sample of Tongan parents beliefs about good schools for their children included schools that; build good relations with parents, teach Christian values, pass many students in public examinations, and enforce discipline. Although they had these preferences, most Tongan parents could not afford to send their children to those schools and most Tongan students attended their own in-zone schools which are closest to their homes.

4.2.3 Parents' Responsibilities

The analysis of data for parents' responsibilities found three sub-categories. Tongan parents believed that their responsibilities were to; **(1) provide children school needs, (2) discipline children, and (3) teach them Tongan culture.**

Tongan parents saw their roles as providing their children's school uniforms, stationery, lunches, transport and all other school needs. There was, however, a general belief that schools were doing what they were supposed to be doing. There were certain events that they were expected to attend, such as parent/teacher evenings, sports activities that involved their children and cultural activities. Apart from those, the parents preferred to be at home and let teachers mind 'their own business' at schools. This priority was succinctly put by one parent (P4):

> I have to make sure that they have school uniforms, books, food donations etc. I also have to make sure that they have good place and time at home to do their studies. Help them with their sports, music or other talents. If we can do these, our children know that we support them and they will try to do better (P4).

One participant (P6) believed that there were many contributing factors to their children's schooling problems and it was a huge task trying to solve it but he believed that the home held the key. If the home was stable and the children were happy, the parents usually knew what to do to prevent problems. He believed that parents should discipline their children

and that the use of corporal punishment was allowed by the teaching of the bible. Parents should make sure their children were well-behaved at schools because teachers wasted their teaching time in disciplining them. He believed that if students were well-behaved the teaching would be easy and successful.

> It is our responsibilities as parents to discipline our children. The teachers are there to teach them but when we fail to do that [discipline them], the teachers spend most of their time disciplining our kids, so who is going to teach them? We can't teach them. That's the problem (P6).

Likewise, another parent (P11) placed responsibility on parents for discipline and non-school values.

> I believe that we parents need to look at the behaviour of our children. We need to discipline them, teach them moral values, teach them Tongan cultural values, and take them to church, all those things that schools do not have time or teachers to teach (P11).

Some of the parents in this study expected teachers in Tonga to discipline students, and teachers did discipline students. In the context of New Zealand, some Tongan parents still expected the same things from their children's teachers. One parent believed that they, the parents, should be the ones teaching their kids the Tongan culture and values, such as the value of respecting teachers and students, school property, and the value of obedience and obeying school rules. This misunderstanding has contributed to some parents blaming the teachers for their children's school problems.

4.2.4 Reasons for not Achieving

The analysis of data for parents' reasons for their children not achieving at school found these sub-categories: **(1) parents not knowing how to best support their children, (2) too much time away from children, (3) lack of communication/understanding between parents and children, and (4) nothing is wrong, that is normal.**

Most participants believed that the students and their parents or caregivers were to blame for lack of academic achievement. They believed that Tongan parents need to be taught how to successfully support their children as well as parenting skills. One participant

mentioned that three of his children had finished school but they were not doing well. At this stage he was involved with a school program which taught the parents how to support their children at home. Now that he knew how to support his youngest daughter at home there was great improvement in her education results compared to the older children. A number of parents agreed with sentiments of one parent (P6) about children watching too much television.

> We parents don't know how to support our children at home. We thought that watching a lot of TV was good because they would learn how to speak in English. Now they have told us to teach our children the Tongan language and let them do lots of readings and watch less TV (P6).

One grandfather (P10) said that children had no time at home to learn or to do their homework. The parents are at work or church and there is no adult to supervise them. Other homes have adults present but there is no time for homework because the children are either watching television, playing electronic games, listening to music or using computers. There is no programme for studying at home and if there is one, children are unsupervised doing any study at all.

> Tongan children in New Zealand are like wild animals in a zoo. They are very loud and noisy, running around and if you are not careful they will trample on you and some parents allow this to happen. They do not have manners and I believe they have too much freedom. What they do at home they will do at school and I'm not surprised that they are doing poorly at schools (P10).

The economic status of the Tongan parents was also raised as contributing to this problem. Very few parents are at home to supervise their children's homework. Some of the Tongan parents work and if they are not working, they are at church or other community gatherings leaving the children unsupervised at home.

> In most Tongan families, both parents are working meaning they spend very little time with their children. Their free time is also taken up by church activities and so their children are unsupervised most of the time. We are in a difficult situation where we need money to pay the bills but in doing so take us away from our children (P8).

Another parent (P2) indicated that despite good intentions, Tongan parents socio-economic pressures prevent parents from offering the support students need.

> I think our economic status is to blame. We can only help them with their homework if we are at home. Most of us parents are working shifts hours to help the family. It is something that we cannot escape from now but hope our children will learn from it and try to avoid. They can only do that by doing good at school (P2).

However, even when parents exercise control, they did not always know what was required for achievement to happen. As one parent (P6) said

> Children with parents who can help out in their homework are lucky but most of us parents cannot help with our children's homework, maybe at primary level. We simply do not know what to do to help our children (P6).

Participants spoke of a need for someone, maybe teachers, to spell out to parents the best ways to support their children's academic success. Another participant supported this by saying that parents turn up for their children's rugby games and cultural practices because they know what to do. They do not turn up for school functions because they do not know what to do there. This is exacerbated by the fact that most Tongan parents are not fluent in English. This results in, perhaps, misplaced overconfidence in teachers, as one parent (P1) put it:

> I believed that teachers are doing their works and there is no need for us to come to school because we would not have known anything. We do what we can at home to our children and if they go to school and pay attention than I'm sure they will have good results (P1).

One parent believed that Tongan children and their parents were spending too much time at church activities instead of students learning their lessons or parents supervising children's homework. This parent (P9) said that most parents came from Tonga not because of their religion or faith but because they need better education for their children, but they seemed to be spending more time in church rather than helping their children's schooling.

> We spend a lot of time in church. Even our children, they have youth activities, singing practices, Sunday schools, Faka-Me, and all these. When do they learn or do their homework? (P9).

Another parent (P7) also focused on the counter-productive effects of too much church-related activity. For this parent, parents are responsible for ensuring students spend enough time on school work.

> I think the teachers and schools are doing their best to help our children. It is us parents that we fail to do our part. Our children spent more time in church that doing their studies. Us parents spent more time at work and church instead of supervising and helping with their homework (P7).

During the discussion, there was disagreement about the degree of blame that should be placed on the church. The view was expressed that parents were spending too much time at church leaving their children unsupervised at home and failing to do their homework. Likewise, some students spend too much of their time in church and at youth activities. One participant wanted to know what they could do to solve that problem if it was right. Consequently, the group agreed to not allow their children to be involved in any church activities during the week. They also agreed to raise the issue with the kalasi ʻaho leaders at the next meeting and to forward their concerns to the church authorities.

One participant (P3) believed that one of the main problems was the lack of communication between parents and their children. She attributed this to the ways Tongan parents raised their children. In Tongan homes, there are no conversations or dialogue but a one way authoritative instructions from parents, where children do what they are told to do. They are expected not to question anything they are told to do. At school, when teachers ask the students questions they do not answer back even if they know the answers because they are used to this one-way communication at home.

> At home we tell our children what we want and we expect them to do what we tell them. This is the Tongan way of raising the children. We hardly sit down and ask our children for their opinions. If we look at the big picture, this is exactly what happens in almost every level of the Tongan society, at the village, the church, the

> school, and even at the national level, we are expected to do what people with authorities tell us to do (P3).

One mother (P7) suggested that the only solution was to establish Tongan schools with Tongan teachers using both the Tongan and the English languages. Such schools would uphold Tongan cultural values, teach moral values, and the Tongan teachers would discipline the students as well eventually leading to high achievement in the classrooms.

> The only solution is for the Tongan people to have their own school and run it like schools in Tonga. We have a lot of good teachers here, we donated a lot of money for churches and if we donate the same amount for a school project we can do it. I'm sure a lot of Tongan parents would support the idea (P7).

Most of the participants agreed with this idea but doubted it would ever happen.

It seemed that the parents participating in this research knew very little about what their children are doing in the schools. Some did not know what levels their children were at, what subjects they were doing, how many credits they have gained or expected to achieve and much more. Parents did not even know from their reports whether or not their children had passed their exams. One parent told a story of a child who came home with her report and the proud father who boasted about his daughter's gaining lot of A's. The father did not know that A is for achieved only, which is the minimum passing grade, not the top grade.

> My biggest problem is not understanding the school system which is because I can't understand English. I rely on my children to tell me all things about their schooling. I sometimes suspected that they are not telling the truths but I can't tell. A friend once told me his embarrassment when he was pointed out what exactly A stand for in his daughter's report after proudly telling all his friends that her daughter was a straight A student and that was what the daughter told my friend (P4).

Some parents believed that there was nothing wrong with Tongan students' achievement. They said that it was the same story back at home where a few students were at the top, more in the middle and the majority at the bottom. As a recent migrant population to New

Zealand, it was normal to have such results and it would take time before Tongan students could compete with some other ethnic groups. One parent (P5) said that

> I don't think there is anything wrong. This is the same in Tonga. Look at all the students who pass and the ones that fail. Only a few students pass with distinction every year and you have the whole lot either fail or just make it. We cannot be all doctors, we need people to do other works and we are good at doing those jobs. Why don't we train our people to do those jobs, leave the top ones to pursue on but concentrate on the majority? (P5).

The emphasis on prestigious professions such as doctors and lawyers may obscure other realistically achievable careers or occupations. One participant (P10) believed that Tongans are people who are used to blue-collar work, are physically built for that kind of work and that they should promote that through their children's schooling. For those few, who are excelling academically, let them be doctors and lawyers but the rest should be encouraged to be mechanics, plumbers, electricians, construction workers, and other similar professions.

> We from the islands are good with manual works. We are strong and we can do works like mechanics, electricians, plumber, and those kinds of works. Doctors and lawyers have cars to fix and it is good money as well. Even policeman, we need a lot of our people in these works but we seemed to think that we are only good for factory works (P10).

Generally, Tongan parents in this research were accepting of the fact that the school system in New Zealand is different from Tonga where most of them had their school experiences. Here, they need to prioritize their children's schooling, make the effort to know how to support their children and take responsibilities for their education. They need to ask questions to teachers, to listen to their children and foster good communication with them, be aware of their needs and what they wanted for their education.

4.2.5 Assessment

The data for assessment found one sub-category; respondents were saying that '**assessment is good'**. The discussion on assessment was less involved, compared to other topics. This might be due to a number of factors. It could be because the parents as they

admitted knew very little about the NCEA frameworks. Their lack of understanding of the NCEA system has further rippling effects on their children's education. However, it was obvious that Tongan parents see assessment as fundamental to schooling.

> Assessment is very important for our students because if there are no exams than the whole schooling system will be useless. We can tell if they learn anything at schools from the examination results. They are offered jobs, scholarships, places in tertiary institutions, and other opportunities based on their exam results (P4).

It was also important to note that participants' used assessment interchangeably with examination, as most thought of assessment as an examination administered by teachers to evaluate students' performances in a particular topic or subject. This is the dominant form of assessment in Tonga and the form of assessment most familiar to parents' experiences.

> I believed that examinations at the end of the year are important. When I was at school, it was an honour to have your names in the School's Honour Board. Although I didn't make it nor most of my schoolmates, examination was the main thing that determined whether you were learning or not (P11).

There was a strong consensus that assessment was one of the most important aspects of schooling. Most of the participants had very limited knowledge of the NCEA framework and all its components but most regarded assessment an important part of schooling. When I asked them what they understood about assessment, most referred to an examination at the end of the year, and students who scored 50 and above pass and the rest fail. When we explained how the NCEA works, some parents could not believe that their children's teachers award most of their students' grades. Some believed in this system, the teachers may be biased against those students they do not like. One participant had this to say about NCEA.

> If teachers are racists and have negative views about our students than it will be fair to say that they will be biased in marking students' assessment. I believed that schools should double check this procedure to ensure that students have a fair go (P5).

Others felt that this is fair for the students because their teachers know them better than the examiners who mark their papers at the end of the year.

> But our children's teachers know them better than those people paid to mark their examination papers at the end of the year. Students also have the chance to go through examinations with their teachers who know their weaknesses because they were the ones marking the papers (P3).

One participant said, 'as long as my daughters' name is on the newspaper'. This is a reference to what happens in Tonga when the national and public examinations are publicly announced on radios and published on newspapers. The results are public information. In New Zealand, students' results are not displayed for the public, however some parents still find ways to publicise their children's achievements through newspapers and the Tongan programmes on local radios.

While most parents believed that assessment was the end product of schooling and a measure of students' performance, assessment results were also used to evaluate schools and teachers. A good school passes a lot of students on whatever examinations they are required to sit. For example, a school which has a higher number of students pass NCEA is better than a school with a lower number of passes in the same public examinations. Thus, an indicator of a good school is a high percentage of passes in qualification like NCEA. That is why most parents were trying hard to send their children to Auckland Boys Grammar, Epsom Girls Grammar and other such schools because they have high passing rate in public exams. One father (P6) had this to say about assessment.

> The best schools are those that pass a lot of students in public examinations compared to other schools. In Tongan everybody knows about this because examination results come in the media, the schools with the highest number of candidates passing the examination. Here, we do not know exactly but some schools have built up their reputations for years as good schools and parents are dying to take their children there. Except those who can afford to send their kids to rich schools (P6).

Only one participant (P1) voiced his concerns that there was a lot of assessment tasks for the students, which is not common in the end-of-year examination model practiced in Tonga.

> My son told me that they had a lot of assessment. In fact, every week, there are assessment tasks to be done and they do not have time to learn because teachers give them a lot of assessment (P1).

Apart from that worry, most participants believed that assessment was an important part of schooling and that it was useful to measure both student and school performance. High academic results mattered to the prestige of the family and were public information in the Tongan community. The impression is formed of a strong accountability conception of assessment in which evaluation motivates success.

4.2.6 Teachers and Teaching

Four sub-categories were identified: **(1) student discipline, (2) need more Tongan teachers, (3) teachers as role models, and (4) quality communications and feedback.** Tongan parents strongly believed that teachers in New Zealand schools were qualified but not strict enough when it comes to disciplining the students. Some parents believed that this is part of the teachers' responsibilities; other parents believed that it was their responsibility. Parents also believed that students were not doing their best at schools because they tended to forget their roots and their cultural values. It seems, from the parent perspective, that students have double lives. At homes and at church, the students behave well, but at schools they are less well-behaved, perhaps because they are not strictly disciplined by their teachers. Most participants also believe that the best approach to successful learning is to be strict on students and to have set timetables for them to follow both at school and at home.

> Teachers should be responsible for the students all the time they are at schools so it is their responsibility to discipline them. If they [students] misbehave they should be punished severely. In their homes they are like small angles but at schools they are the opposite. They know very well that they will be slapped at homes (P10).

In general, the parents believed that their children have well qualified teachers. However, they also believed that their children need more Tongan teachers in schools. They believed

that Tongan teachers would help improve their children's education because they had a better understanding of the Tongan culture. They also believed that a Tongan teacher would know how to discipline Tongan students.

> I only hope that there are more Tongan teachers at schools to help our children. They know how to discipline them and you can talk to them in your own language. Other teachers are ok but you know our students want Tongan teachers to discipline them when they are naughty. Our students are not afraid of palangi teachers (P7).

The parents also believed that the Tongan language and culture should be compulsory subjects for the Tongans students. Teaching the language and other cultural activities such as dancing helps promote children's identities and languages. This they believed would improve behaviour at school eventually leading to better academic results. The use of the mother tongue is one of the major issues that confront many Tongans overseas. One participant (P2) had this to say about teaching the Tongan language.

> We also need to teach our language in schools. It is good that they have cultural activities every year and a lot of parents do support that. Language goes together with our values and culture. We want our children to have good education but at the same time still maintain our Tongan ways of life. At home we talked in Tongan to our grandchildren and we stopped them from talking in English at home. They may not like it but we are really strict on this (P2).

The participants believed that teachers here in New Zealand should also be role models to the students in all aspects of life, culture, and learning. They have been relating this to experiences in Tonga, where the majority of teachers in secondary schools work in church owned schools and are active members of their churches. Parents who are also members of the churches expect teachers to be role models for the children. To achieve their goals of developing the complete human being, the Tongan parents wanted New Zealand teachers to teach Tongan moral and cultural values as well.

> Teachers should be role models to our children but this is very difficult here. Teachers come from different ethnicities, cultures, religions, and backgrounds. Their social lives are not part and parcel of their teaching professions, so how can they be role models to our children? (P8).

Parents questioned the quality of feedback and communications they received from schools. A father (P4) recalled that his son was a top primary student in Tonga when they migrated. He believed that education would be far better in New Zealand. He supported his son as much as he could, with reading materials, a computer with mathematics programme for which he paid around $25.00 dollars a month for three years, and assigned time and spaces for homework. Television was allowed at weekends only and he attended parents' evenings and reports afternoons. They also paid for their son's airfares for a school trip overseas. As parents they did almost everything to support their son. His school reports were generally satisfactory all the time so they expected him to go on to university and do law or medicine without any difficulty. But when they received their son's NCEA Level 1 results, they realized that their expectations for him were mere dreams. Not only was their son barely able to make it, but the subjects he was doing would not direct him towards to medicine or law. It was a wakeup call for them because they still had three daughters at school. The father said that there were no indications from school reports or talking with teachers that the son was at risk until it was too late. Schools need to provide honest feedback to parents.

> Before we migrated, my son was top in his class for his first three years in primary school. When we came, he was doing alright but we could not tell his performance in comparison to other students because there was no end of year class positions here. The reports we received, I still kept them at home, were ok, nothing serious to worry us. What the teachers told us in parents' evenings were basically the same thing but when his results came, it was a different story and as parents we are lost. We are confused because you thought that you have done everything (P4).

Another parent (P11) wanted letters and correspondence from schools to parents to be in Tongan so that they could be better informed of what the schools wanted from them. He said that the school has an English monthly newsletter to parents even though the school has more than 80% Pasifika students. He believed that it would not be very costly for the school to translate these into Pasifika languages so that parents could understand what the newsletters are for.

> There are Pasifika teachers in my son's school, four of them are Tongans. They can easily translate the letters into Tongan and the Samoan teachers do theirs in Samoan. It won't take a lot of time but it will make a lot of differences to our

> understanding of what they want. This is respecting the community and trying to build good relationships with them (P11).

The impression here is that Tongan parents want teachers to be strict and at the same time be role models to their children. They believe that Tongan teachers can do both of these and they can also help in providing quality feedbacks using parents' own language.

4.2.7 Learning

The analysis of parents' data about learning found these sub-categories: **(1**) **pay uttermost attentions to teachers, (2) lack of confidence and commitment, (3) need parental supervision, (4) allocation of study time and space, (5) valued memorization, and (6) quality of students' exercise books.**

Tongan parents generally seemed to trust teachers. The participants believed that teachers were well-qualified and well- trained to teach and that students must pay the utmost and extreme attention to what teachers were teaching. Parents believed that learning happens when students pay attention to the teachers. The metaphor of an empty cup was used by one participant (P9) to describe learning: students were empty cups to be filled with the wisdom and knowledge of teachers. If students were noisy and not paying attention to teachers than they missed out on what the teachers were lecturing.

> They have good teachers. They only need to pay attention and obeyed what they were told to do and that was it. They need to get into class on time, get books ready, listen and do what they are told to do, simple as that. You know that hymn line … I'm an empty cup…? Yeah that's what they are and if they obey their teachers, they will be filled (P9).

At the same time, some parents (e.g., P2) believed that students in New Zealand were lazy and lacked commitment to their study.

> Our students here are lazy. They know that they can easily get jobs. Sometimes they do not even believe they can do better like others. If they believe, they do not have the commitment to do it. They are lucky because they had breakfast and lunch, get dropped off and picked up from school and yet they are still lazy to do their school works (P2).

Participants also admitted that they did not usually supervise their children's study. Most participants were happy to see them sit down with some books but they did not closely monitor whether they were learning or not.

> At home my children do their studies every night after dinner until 10p.m. or even longer if they wanted. I expected them to do their homework and I don't go around checking what they are doing and even if I check I would not even have a clue what they are doing (P12).

Low economic status and overcrowded households can affect children's learning at home. Participants admitted that most of their children did not have a proper study time and space at home. Usually they live in overcrowded houses and their study space is the dining table. This means that they can only study after dinner and sometimes dinner can be very late. The visits of friends and relatives can also disturb children's learning at home.

> We used our dining room as their study so they can only start their homework when we have finished dinner. Sometimes this may be late between 8 and 9pm. Other times we have relatives dropping in anytime they want. We also have our kalasi 'aho in our homes so the children do not have a good place and time for their studies (P5).

Tongan parents have raised their concerns about their schools not using rote learning nowadays. Most participants remembered when they were physically punished by their teachers in Tonga for failing to know their multiplication tables by heart. For example:

> Schools no longer emphasize rote learning. In Tonga, students at primary school learn by heart their multiplication tables up to 12 before they go to college. Here, senior students do not know their tables. How can they do well in Maths if they can't do these small things? (P3).

Tongan parents believe that good students keep their school materials very carefully. However participants observed that their children's school work in exercise books was very poor. One participant (P11) recalled that his Year 12 son's exercise books were full of scribbles and drawings, torn pages, untidy, and dirty. He believed that these work books

should be kept neat and tidy and was not surprised at the poor results his son got because he could tell a lot from the quality of his exercise books.

> How can we expect to have good results from books that were torn and dirty with lots of drawing? I don't know what the school policy on school materials but I can tell you they are not looking after their books and materials here. We used to have materials inspections at school every term and we really looked after our exercise books. They have to be lined with a red pen, dates on top and everything. Here it is a different story and no surprise with the results they have (P11).

Another participant supported this concern when she found out that her son did not have a school bag. According to her son, his books were kept at school and it was better that way. She found out later from one of his teachers that he had had no books for the whole term.

4.3 Discussion

The information and data collected from this focus group was of high quality because the whole process of talanoa was conducted in a familiar setting, observing all the appropriate cultural practices, with a moderator who understood the participants' culture. In addition, the discussions were conducted in the strongest language of the participants (i.e., Tongan). Without observing the research principles and values of the participants, the process of collecting valid quality data and the quality and information may not have been generated. The fact that I am a Tongan who understands the principles and values as well as the metaphorical references used by the participants made the whole process meaningful and successful.

Based on this sample, it would seem that Tongan ways of doing things are not New Zealand ways, and Tongan ways place very strong emphasis not just on moral/spiritual and cultural/language dimensions but also on academic achievement based on disciplined, traditional approaches to teaching, learning, and assessment.

For example, Tongan parents in this sample seem to expect more of their children's schools and teachers and less of themselves in terms of bringing up their children for academic achievement. Tongan parents and caregivers in this research trusted and expected the schools to take responsibilities for their children's learning, believing that the parents'

place is in the home. The idea of the tangata kakato came out strongly and the Tongan parents appeared to believe that schools are responsible for their children's learning, moral development, discipline, health, and behaviour. They wanted teachers to be role models for their students, send their children to church schools even if the parents were not members of that church school, or sent them back to Tonga for their education. If Tongan parents want better academic achievement from their children, they should take more responsibilities with their children's schooling instead of averting all responsibilities to schools and teachers. This may have worked out in Tonga but not here in New Zealand.

Based on this sample, both Tongan parents and caregivers could be supported to increase understanding of their important role in student success if they are actively participating in their children's schooling. The parents' trust in schools is one of the factors keeping them away from actively participating in their children's schooling. Such participation could involve regular visits to the school, asking questions of teachers, trying to understanding the school system and the assessment frameworks their children are doing at school, and what they can do to best support their children's schooling. It appeared that in some cases, Tongan parents and their children could communicate better on school matters. This could assist in achieving stronger alignment between parental aspirations for their children's schooling and what their children are actually doing at schools.

Tongan parents' notion of teaching as a transmission process only was strongly stated. This was reflected in an emphasis on students' discipline and their strong belief that parts of their children's underachievement was because teachers are not strict on discipline. Parents wanted more Tongan teachers because they think that Tongan teachers can discipline their children. It is unclear whether Tongan parents in New Zealand understand the lesser role of memorisation, and the importance of critical and independent thinking for success in the New Zealand curriculum. In the main, Tongan parents' understanding of assessment was that of a one-off examination and as central to their children's schooling. It was clear that the parents accepted that assessment and specifically examinations are good. The differences in Tongan parents' beliefs about schooling and what actually happen in the classrooms were a significant distant apart. An increase understanding by parents of the New Zealand school system and the factors affecting their children's schooling could be beneficial for supporting academic success. This may in turn result in reshaping and redirecting parental beliefs, conceptions, actions, and input into their children's schooling.

Recently, there have been an increasing number of Tongan parents who have sent their children from New Zealand to Tonga for their schooling. These parents believed that either their beliefs about schooling are better served in the Tongan schooling system than in the context of the New Zealand education system or because that they have no other options since the New Zealand school system is not working for their children. Schoone (2010) in his narrative study of New Zealand-born Tongan 'youths at-risk' who were sent to Tonga to stay with relatives and to attend secondary schools there found that:

> The New Zealand-born youths' time in Tonga was successful in re-scripting their personal narratives to the extent that they demonstrated few of the 'at-risk' behaviours that their families reported in New Zealand. The research findings suggest that the youths were scripted into anga faka-Tonga to the extent they were recognized as 'being a Tongan kid (p. 8).

Unfortunately the link between sending children back to Tonga and their academic achievement was not clearly demonstrated in this study. The number of participants was also too small (seven) to make generalisations.

A better understanding of parents' conceptions and involvement may help in improving students' achievement. This study provides the initial step toward understanding Tongan parents' conceptions about schooling and intended as a basis for further research and informed dialogue to improve Tongan students' academic achievement.

This preliminary exercise has explored Tongan parents' conceptions of schooling which may have grown out of their own experiences of schooling in Tonga. These beliefs about schooling have implications for how Tongan children are educated in New Zealand context; there are significant differences in schooling practices between the two contexts, perhaps contributing to home and family practices that have mixed effects on academic achievement. Tongan students who were born into this milieu and their teachers have their different conceptions associated with different experiences. To truly understand Tongan underachievement it will be necessary to examine their thinking in light of these preliminary results, however, we must also go beyond the small number of people who participated in these two focus groups; hence, results from the survey of Tongan parents and caregivers are described next.

4.4 The Survey

A survey questionnaire was developed based on the focus group results and the research literature about Tongan schooling experiences. The survey also adapted pre-existing survey instruments identified in the research literature especially where there was evidence for their validity in New Zealand. The survey aimed to establish a baseline of parental opinion by carrying out self-administered surveys on their conceptions of schooling. While the goal was to generalize to the population of Tongan parents resident in New Zealand, the surveys had to use voluntary, unrewarded participants. This means that the surveys reported here may have somewhat larger margins of error than normally expected, but nevertheless are sufficiently large that important insights can be gleaned about Tongan thinking around education. Based on previous studies and literature, the following predictions as to the conceptions of the participants were generated:

Tongan parents are most likely to:

a) view schooling in traditional terms with strong positive regard for examination, and teacher authority,

b) consider schooling as an important vehicle for the transmission and preservation of traditional cultural and religious values, and –

c) see teaching as predominantly transmission and disciplining, and see learning as predominantly rote memorisation.

To explore these, 77 items survey (Table 11) for seven major constructs were administered plus some demographic items.

Table 11. Parents' Survey Domains, and Number of Items

Parents' Domains	Number of Items
Assessment	9
Teaching	6
Learning	10
Aims of schooling	10
Responsibilities	10
Achievement	11
School choices	12
Demographic	9
Total	77

4.5 Tongan Parents'/ Caregivers' Survey Results

There were 397 Tongan parents who participated in the survey, recruited through Tongan language churches. In the 2006 Census, 90% of Tongans were affiliated to a religion and therefore most of them are highly likely to be found in churches. 80% of Tongans live in the Auckland region, especially in the southern part of the metropolitan area (Statistics New Zealand [SNZ], 2007). Of the 397 participants, 199 were male and 198 were female. The largest age group was 41 to 50 with 30.7% followed by 31 to 40 with 23.7%, 51 to 60 with 18.9% and the 20 to 30 with 15.9%. Since no previous models existed for how parent responses would be understood, EFA was carried out, and the resulting models were tested with CFA.

4.5.1 Aims of Schooling

Exploratory Factor Analysis (EFA) with maximum likelihood and oblique rotation found three factors. The CFA analysis to confirm these factors found poor fit statistics (χ^2= 237.54; *df*=32; p=001; χ^2/df=7.42; CFI=.90; gamma hat=.89; RMSEA=.127; CI90%= .112 - .143; SRMR= .073). Further analysis using two factors (factors 2 and 3 combined), and one factor (where factor 2 and 3 were under factor 1) all found poor fit statistics. Analysis using four factors found better but marginal fit statistics (Figure 3) compared to the other models (χ^2= 167.53; *df* =29; p=001; χ^2/df=5.77; CFI=.93; gamma hat=.93; RMSEA=.110;

CI90%= .094 - .126; SRMR= .057). In this case, factor 1 was analyzed as two factors. The two statements with the least loadings in factor 1 (i.e., To know God personally and develop the whole being) were analyzed as a new factor. Not only did these two items have weak loadings for factor 1, they were conceptually different from the other three obligation items that made up factor 1.

Although the fit statistics were marginal for the 4 factor model, this result was the best possible fit and for exploratory purposes these 4 factors were used. Further testing of this solution with larger samples and more items is warranted, but in the meantime, the factors make sense and have been used.

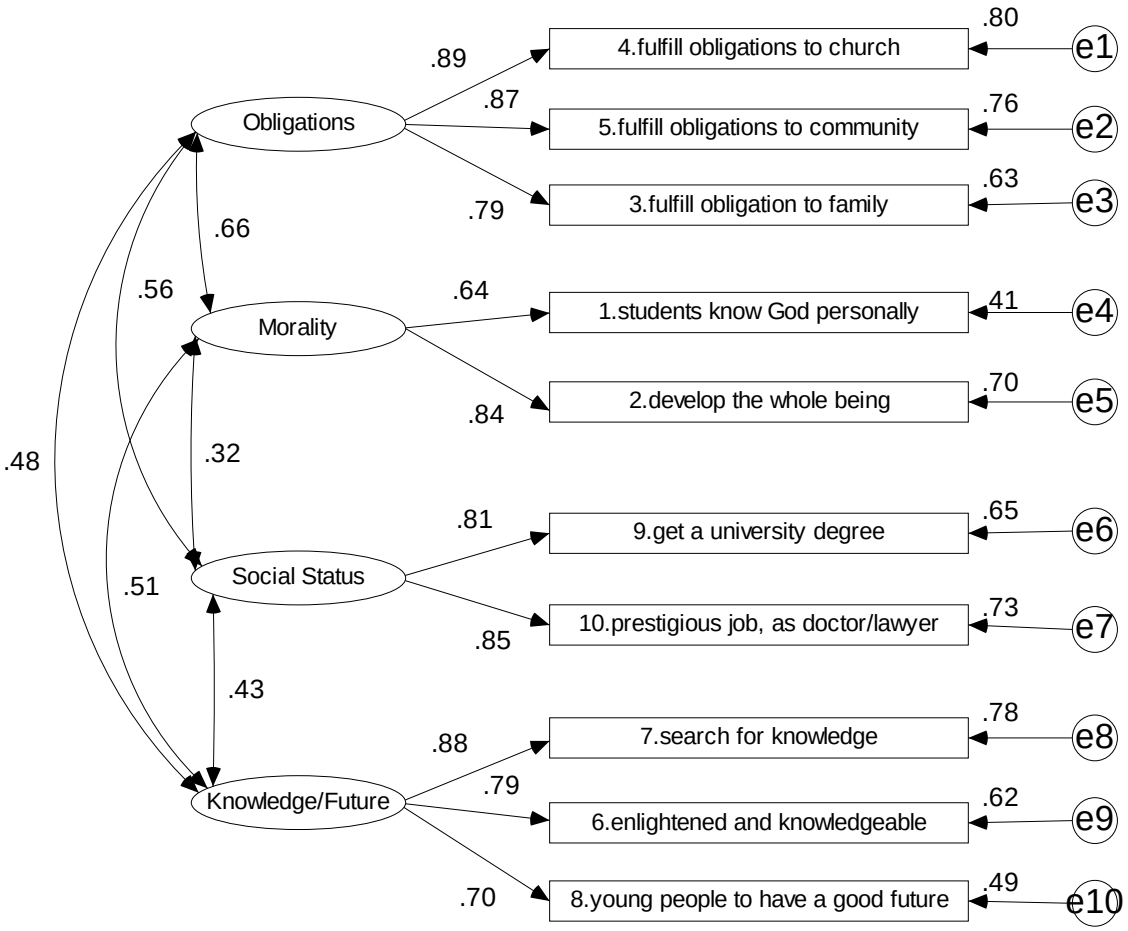

Figure 3. Parents' Conceptions of the Aims of Schooling Inventory Measurement Model

The model contains four correlated factors (i.e., fulfilling obligations, morality, social status and seeking for knowledge/good future). Factors' inter-correlations ranged from .32 to .66. Values in this range represent between 16% and 36% shared variance. This suggests some commonality but a significant degree of independence – hence, the correlations

between the factors indicated four moderately independent factors. The fulfilling obligation factor has three obligation statements; that is, obligation to church, community and family. The morality factor has two statements; that is, develop the whole being (the tripartite being – spirit, soul and body) and for students to know God personally. The social status factor has two statements; that is, a prestigious job, as doctor or lawyer and getting a university degree. The seeking for knowledge and good future factor has three statements; that is, search for knowledge, to be enlightened and knowledgeable and securing a good future.

Table 12. Mean and Standard Deviation of Factors (Aims of schooling)

			Effect sizes (Cohen's *d*)		
Factors	*M*	*SD*	II	III	IV
I. Knowledge/ Good Future	5.44	.85		.67	.69
II. Morality	5.35	1.01		.56	
III. Social Status	4.70	1.31			.00
IV. Obligation	4.70	1.25			

Tongan parents mostly agreed that the aims of schooling were to gain knowledge/good future and to impart moral values within their children with mean scores greater than mostly agree. They also moderately agreed, with mean scores of 4.70, that schooling is to fulfil obligations and to gain social status. The differences were largest between the two most endorsed factors (i.e., Knowledge/Good Future and Morality) and the bottom two factors (i.e., Social Status and Obligation). Parents agreed with all four aims but, given the inter-correlations and different means, these four factors may have independent effects on other beliefs or practices.

This fit of the model to the responses was marginal and perhaps the model needs more items. There are only ten items and maybe these items are not enough to cover the different aims of schooling for the Tongan parents. These results should be used cautiously; however they do indicate that Tongan parents have a greater priority for individual, rather than social goals.

4.5.2 Conceptions of assessment

The EFA analysis using maximum likelihood with oblique rotation found two factors. CFA reported good fit statistics (χ^2= 61.50; *df* = 26; χ^2/df=2.37; *p*=.123; CFI = .97; gamma hat=.98; RMSEA=.059; 90%CI= .040 - .078; SRMR= .037) (Figure 4).

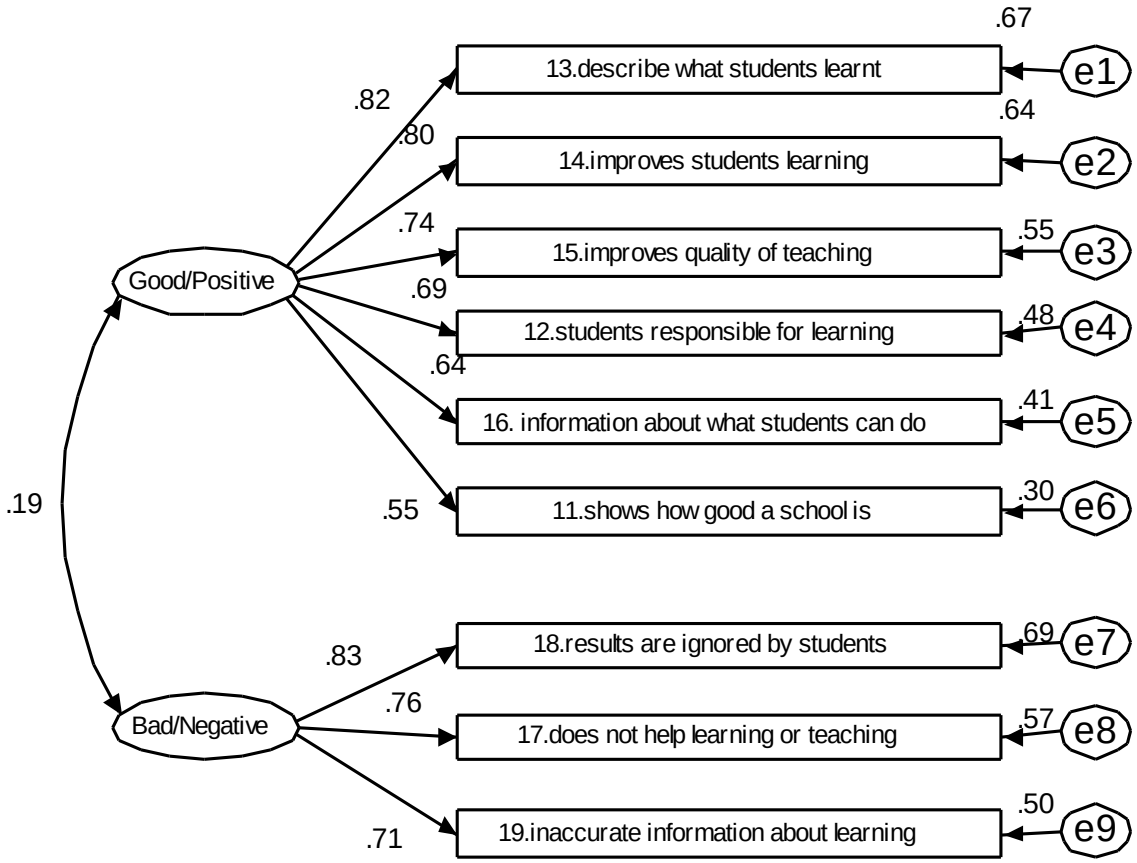

Figure 4. Parents' Conceptions of Assessment Inventory Model

The model shows two factors, good or positive application of assessment and bad or negative rejection of assessment. The good or positive factor has six items; that is, describe what students' learn, improves students learning, improves quality of teaching, makes students responsible for learning, provides information about what students can do, and shows how good a school is. The bad or negative rejection factor has three items; that is, results are ignored by students, assessment does not help learning or teaching, and it provides inaccurate information about learning. Although the correlation of the two factors *(r* = .19) is statistically significant, it is very weak, accounting for less than 4% shared variance. This means that the two logically opposite factors (i.e., good/positive vs. negative evaluation of assessment) tend to be independent of each other with a slight tendency to rise and fall together.

Tongan parents mostly agreed with the Good/Positive factor and only slightly agreed with the Negative/Bad effects of assessment (Table 13), and a huge difference in mean score (Cohen's d = 1.23). It is interesting that the improvement notions were bundled with the accountability notions. This is contrary to previous research with New Zealand teachers (Brown, 2002, 2004, 2006), but is consistent with research with New Zealand secondary school students (Brown et al., 2009). The positive association of assessment for improvement and assessment as accountability has also been reported with teachers in Chinese contexts where public examinations were viewed positively as a means of selecting talent regardless of background. Hence it would seem, in the minds of these Tongan parents, good schools are those who help students improve and help students score well. This may suggest that, in societies in which assess to educational opportunities is limited as in the case in both Tonga and China, accountability is seen as a positive mechanism for improved learning life chances.

The causes of the slightly positive agreement with the negative view of assessment in parental thinking are not clear. Tongan parents are known to be less critical in expressing their opinions about their children's schools compared to Samoan and Cook Island parents (Hawk & Hill, 1996). It may be that Tongan parents do not want to be too critical of their children's schools and schooling, but are aware that there are some negative effects associated with assessment.

Table 13. Mean and Standard Deviation of Factors (Parents' CoA)

Factors	*M*	*SD*
Good / Positive	5.00	0.93
Bad / Negative	3.43	1.55

4.5.3 Parents Conceptions of a Good School

Analysis using EFA with maximum likelihood and oblique rotation found three factors (i.e., relationship, quality/accessible education and Christian values). The two items, co-educational and high decile schools had very low loadings (all loadings less than r = .30) on all the three factors and they were dropped from the remaining analysis. The CFA analysis to confirm the three factors found acceptable fit statistics (χ^2= 119.77; df= 32;

χ^2/df=3.74; p=.053; CFI = .93; gamma hat=.96; RMSEA=.083; 90%CI= .068 - .099; SRMR= .041) (Figure 5).

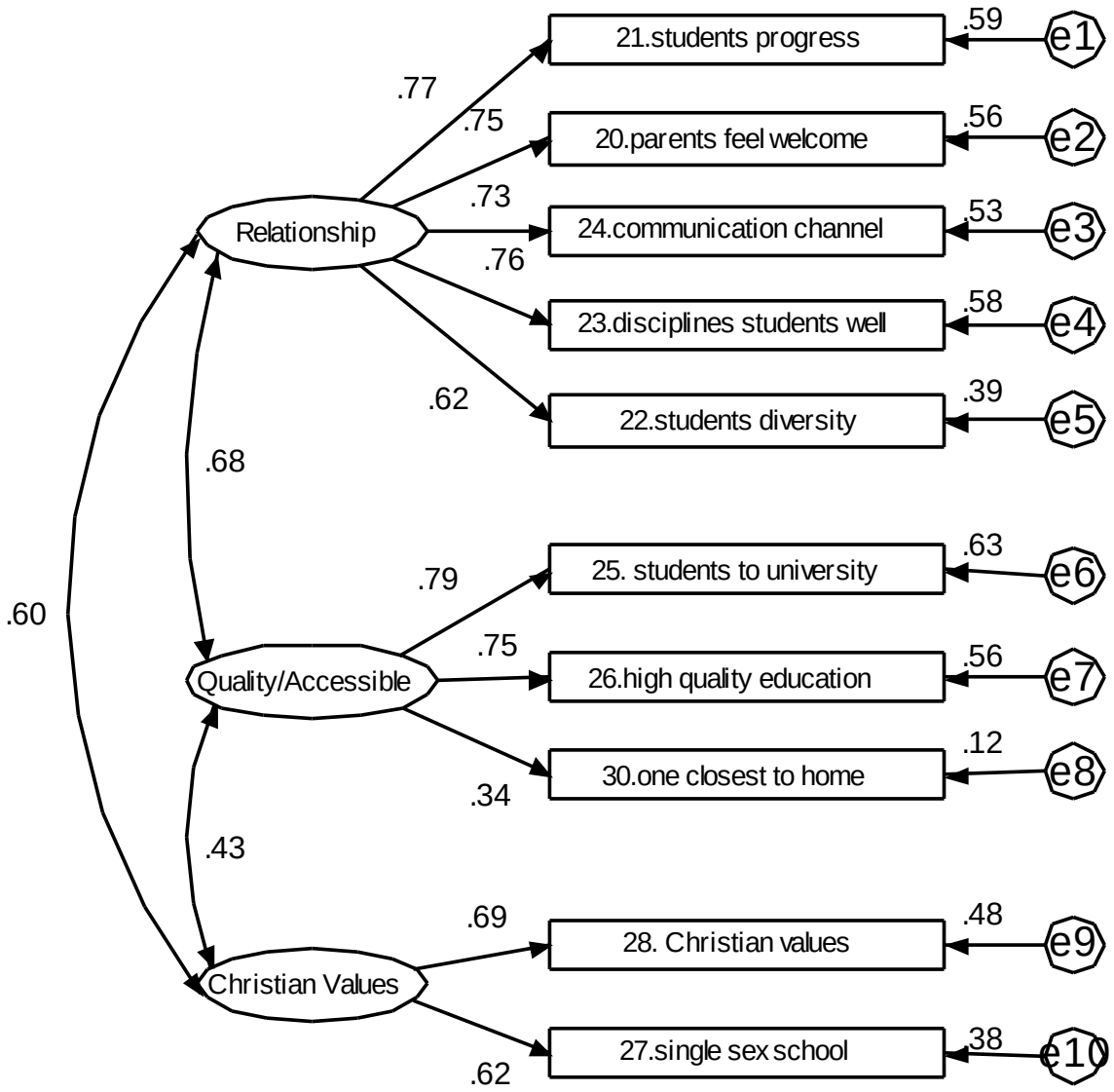

Figure 5. Parents' Schools Choices Inventory Model

The relationship factor had five items, (i.e., schools - that provide excellent information on students' progress, discipline students well, welcome parents, has establish a good communication channel with parents, and recognize students' diversity). The quality and accessible education factor had three items (i.e., schools that – provide high quality education, are accessible, and concentrate on helping majority of students to university). The Christian values factor had two items (i.e., school that – teaches Christian values, and a single sex school). The Relationship factor had moderate inter-correlations with the

Quality/Accessible education and Christian values (r = .68 and .60 respectively) and the Quality Education factor had a lower correlation (r = .43) to the Christian values factor.

Table 14. Mean and Standard Deviation of Factors (School choices)

			Effect Sizes (Cohen's *d*)	
Factors	*M*	*SD*	II	III
I. Relationships	5.18	0.97	0.46	0.47
II. Quality Education	4.70	1.11		0.06
III. Christian Values	4.63	1.35		

Tongan parents agreed most strongly that good schools are those which provide excellent information on students' progress, welcome parents, have establish a good communication channel, discipline students well, and recognize students' diversity, and provide quality and accessible education. They agreed, only somewhat less that schools should provide quality education as well as develop students with strong Christian values. Given the correlations and the moderate effect sizes, these suggest that these 3 factors are facet of one underlying dimension – the Tongan parents' reasons for choosing their children's school involve at least three different features which influence each other; - all three things are important.

It was interesting to note that the spread of scores for the Christian values factor is very large *(SD* = 1.35) with scores ranging from 3.25 to 5.98. This implies that the relevancy of Christian values to Tongan children's education is highly variable. This would suggest that the dominance of the church in Tongan life may be weakening insofar as it applies to decisions about schooling: a good school is more important than a religious school. This would be consistent with Tongan educational practices in which the best schools are government, rather than church schools.

4.5.4 Parents' Conceptions of their Responsibilities

The EFA analysis found two factors (i.e., academic support and cultural support), which had acceptable fit in CFA (χ^2= 181.99; *df*= 34; χ^2/df= 5.35; *p*=.018; CFI = .92; gamma hat =.93; RMSEA=.105; 90%CI= .090 - .120; SRMR= .054). Other models were tried but worse fit was discovered and so the above model was accepted (Figure 6).

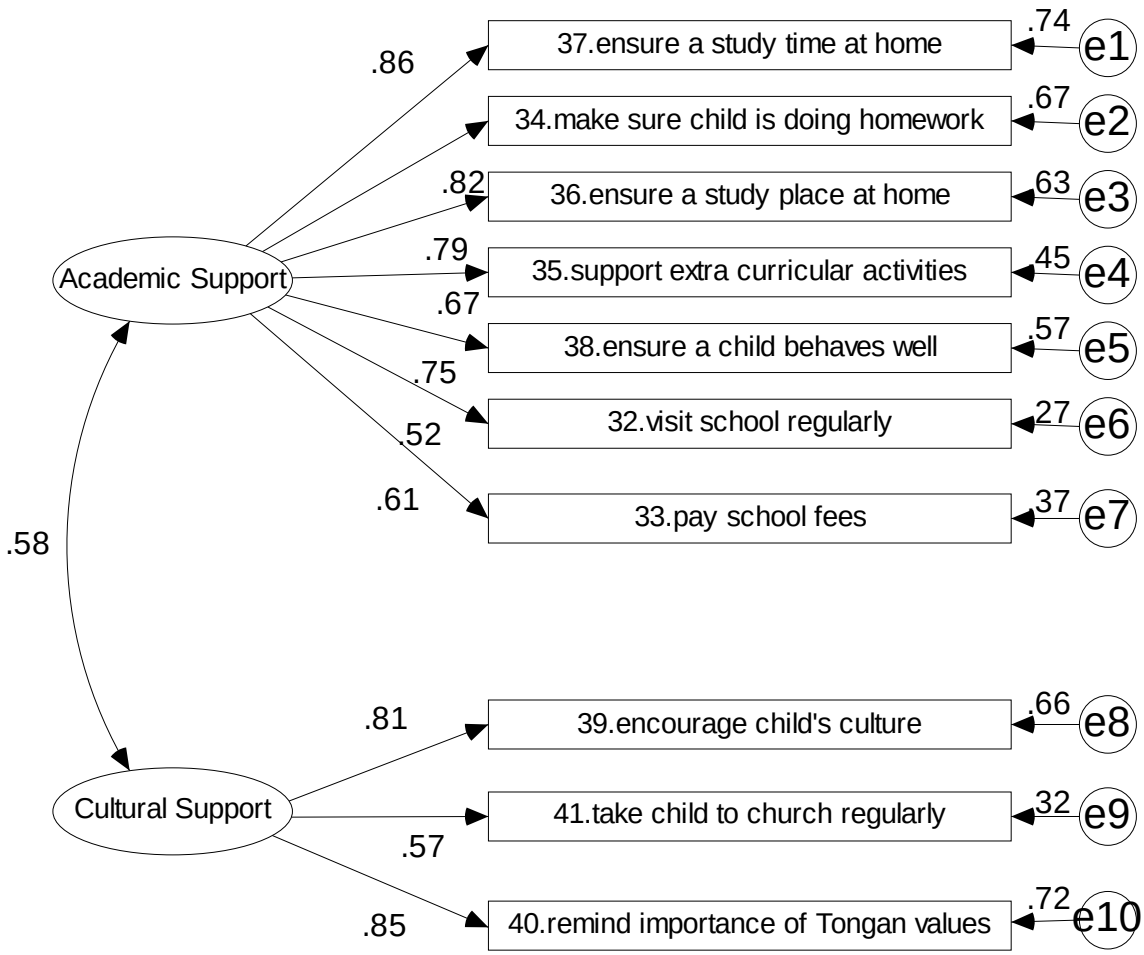

Figure 6. Parents' Conceptions of their Responsibilities Inventory Model

The academic support factor had seven items (i.e., ensure a study time at home, make sure child is doing homework, ensure a study place, support extra curricula activities, ensure child behaves well, visit school regularly and pay school fees) and the cultural support factor had three items (i.e., encourage child's culture, take child to church and remind child of the importance of Tongan culture). The two factors has a moderate correlation of (r = .58).

Tongan parents believed strongly (i.e., means > 5.00) that their responsibilities for their children schooling clustered into two areas, to support them in their academic endeavours and to maintain their cultural identity. The effect size between these two factors was small (Cohen's d = .22) indicating the parents did not differentiate in their agreement between these two responsibilities. Tongan parents wanted their children to be academically successful, and at the same time, still retain their Tongan cultural identity.

Table 15. Mean and Standard Deviation of Factors (Responsibilities)

Factors	*M*	*SD*
Academic Support	5.37	.85
Cultural Support	5.16	1.04

4.5.5 Conceptions of Teaching:

EFA analysis using maximum likelihood with oblique rotation found one factor. The item, focus on understanding and practicing of Christian values, had very low loading on the factor and it was dropped. CFA analysis found acceptable fit statistics (χ^2= 41.04; *df*= 5; χ^2/df= 8.21; *p*=.004; CFI = .91; gamma hat =.97; RMSEA=.135; 90%CI= .099 - .175; SRMR= .049) and so this model was accepted (Figure 7). The limited number of items did not allow other models to be tested.

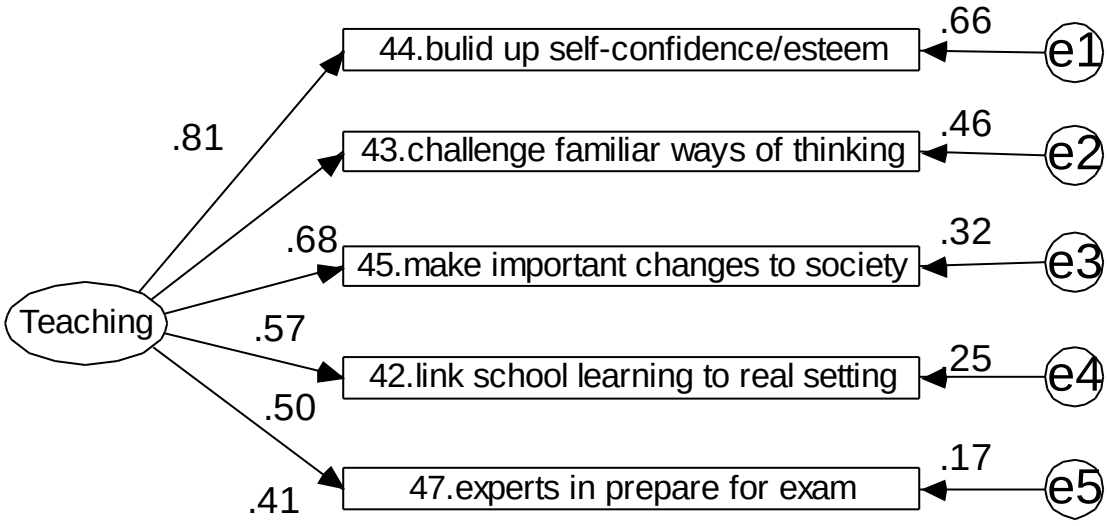

Figure 7. Parents' Conceptions of Teaching Model

The model showed that parents' primary conception of teaching is to build up self-confidence and self-esteem with a loading of β =.81 which considerably much stronger than the other items. To challenge familiar ways of thinking, make important changes to society and linking school learning to real setting have moderate loadings (β = .68, .57 and .50 respectively). Experts in preparing examinations had a somewhat weaker loading of β = .41.

Tongan parents mostly agreed with the teaching factor (*M*=4.91, *SD*=.92). About 68% of parents' beliefs about teaching lay within the range moderately agree (3.99) and strongly agree (5.83). Parents wanted teachers to do everything from challenging usual ways of thinking to making important changes to their societies, to applying what is learnt at school in their everyday living and at the same time being experts in preparing students for examinations.

It remained, however, the primary definition was improving students' self-esteem and self-confidence. This raises an interesting tension: how do the parents understand the relationship of self-esteem and academic performance? Does increased self-esteem lead to increase performance or vice versa? Given concerns raised about Tongan students feeling good about themselves while achieving poorly ('Otunuku & Brown, 2007), this question certainly requires further examination in a future study. However, it would appear that in placing self-esteem ahead of academic challenge, parents may be inadvertently contributing to under-achievement. Accepting the challenge of academic excellence will naturally cause some loss of self-esteem (i.e., realising that one has not achieved challenging goals or not understood something may cause negative emotions and self-evaluations). However, this loss of self-esteem should be reversed through perseverance towards valued goals in which academic success generates positive self-evaluation. In other words, learning success may generate high self-esteem, but seeking high self-esteem may not cause learning success.

It is also interesting to consider why the item on teachers focusing on children's understanding of Christian values was rejected from this model. This maybe further evidence, that among this sample of Tongan parents, a distinction between educational goals and spiritual dimensions is being made. It is certainly consistent with the focus group results which place responsibility for spirituality on the home instead of the school.

4.5.6 Causes of Underachievement/Obstacles

The initial analysis of the data using EFA with maximum likelihood and oblique rotation found two factors with some items having low loadings. The CFA analysis of this two factor model had bad fit statistics. This resulted in a testing of a three factor solution (i.e., home, church and school) based on a content analysis of items. The CFA analysis found

acceptable goodness of fit statistics (χ^2= 141.55; *df*= 41; χ^2/df=3.45; *p*=.063; CFI = .94; gamma hat=.96; RMSEA=.079; 90%CI= .065 - .93; SRMR= .045) (Figure 8).

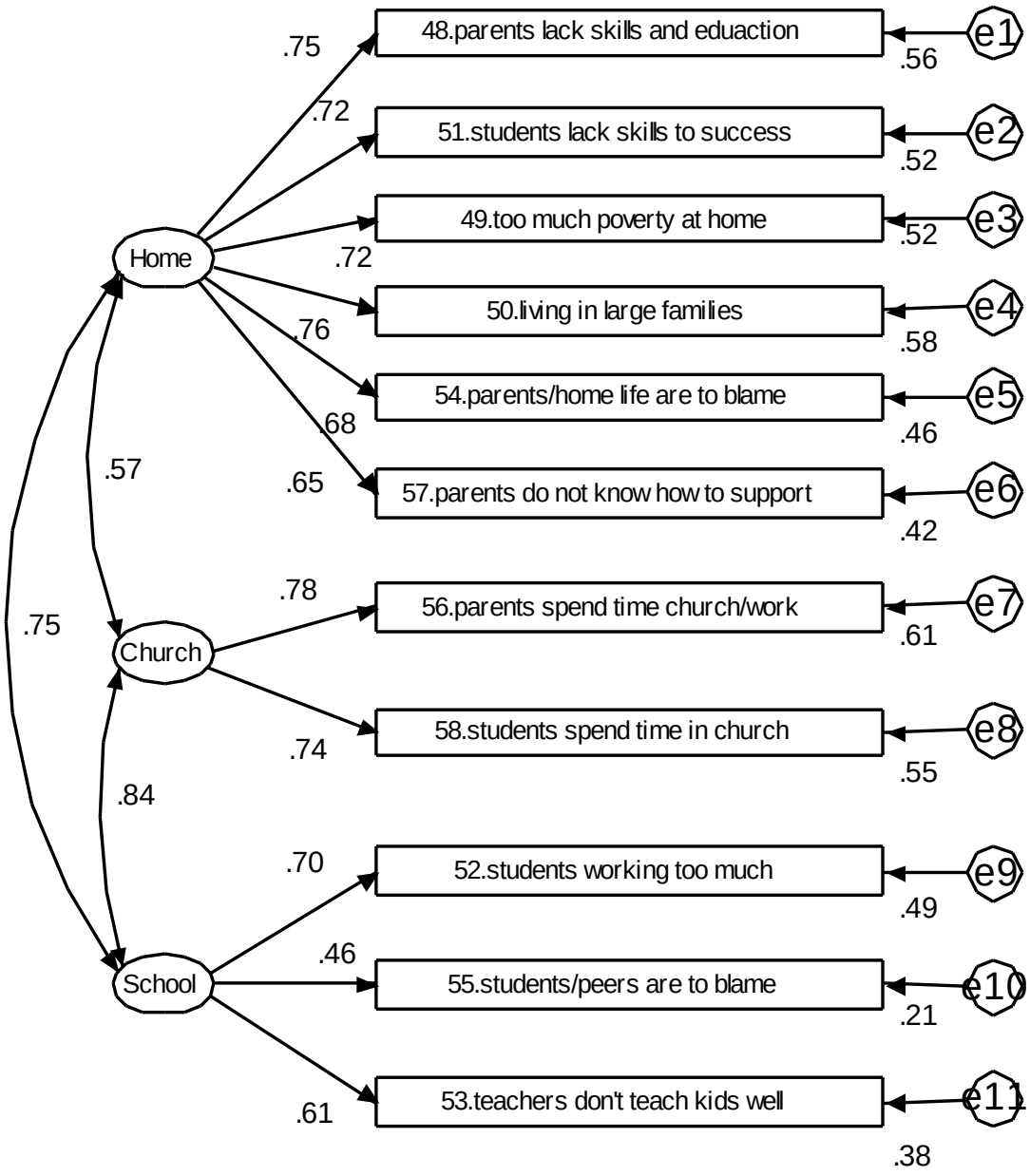

Figure 8. Parents' Conceptions of Underachievement Inventory Model

The home factor had six items (i.e., parents lack skills and education, students lack knowledge for school success, poverty at home, living in large families, parents and homes are to blame and parents do not know how to best support their children). The church factor had two items (i.e., parents and students spent too much of their time at church). The school factor had three items (i.e., students working too much at paying jobs, peer pressure and teachers do not teach Tongan students well). The school factor had high correlations to

the church and home factor *(r* = .84 and .75 respectively) and the church factor was moderately correlated to the home factor *(r* = .57).

Table 16. Mean and Standard Deviation of Factors (Underachievement)

			Effect sizes (Cohen's *d*)	
Factors	*M*	*SD*	II	III
I. School	4.23	1.27	.51	.53
II. Church	4.00	1.61		.31
III. Home	3.54	1.35		

Generally, Tongan parents gave the least agreement that the home contributed to children's underachievement but moderately agreed that the church and the school contributed more to this issue. The parents blamed the school for their children's poor academic results moderately more than themselves while there was a small tendency to blame church participation more than their own contexts. Together these indicated Tongan parents had a robust sense that their own personal difficulties were not to blame for academic underachievement and that external factors were more to blame. However, the level of agreement that the external factors are to blame was still, on the average, not strong. Hence, we must conclude that the real causes of underachievement are only partially identified in these data. Personal behaviour or responsibility of students was not offered as a choice and this would be an interesting future inclusion. Nonetheless, it would appear, consistent with focus group comments about the responsibilities of schools, Tongan parents expected schools and teachers, more than churches, to address the underachievement problem, rather than spiritual aspects, of their students.

4.5.7 Conceptions of Best Approaches to Learning

The initial analysis of the data using EFA found two factors. One item (i.e., learning is all about getting a good job in the future) was conceptually different to both factors and it was dropped. The CFA analysis found poor fit statistics. A three factor model (i.e., confidence, effort and methods) was created by putting the three lowest loading items of one factor which had conceptual similarity together as a new factor. CFA found fit was good (χ^2= 92.30; *df*= 24; χ^2/df=3.85; *p*=.049; CFI = .95; gamma hat=.97; RMSEA=.085; 90%CI= .067 - .103; SRMR= .049) and this model was accepted (Figure 9).

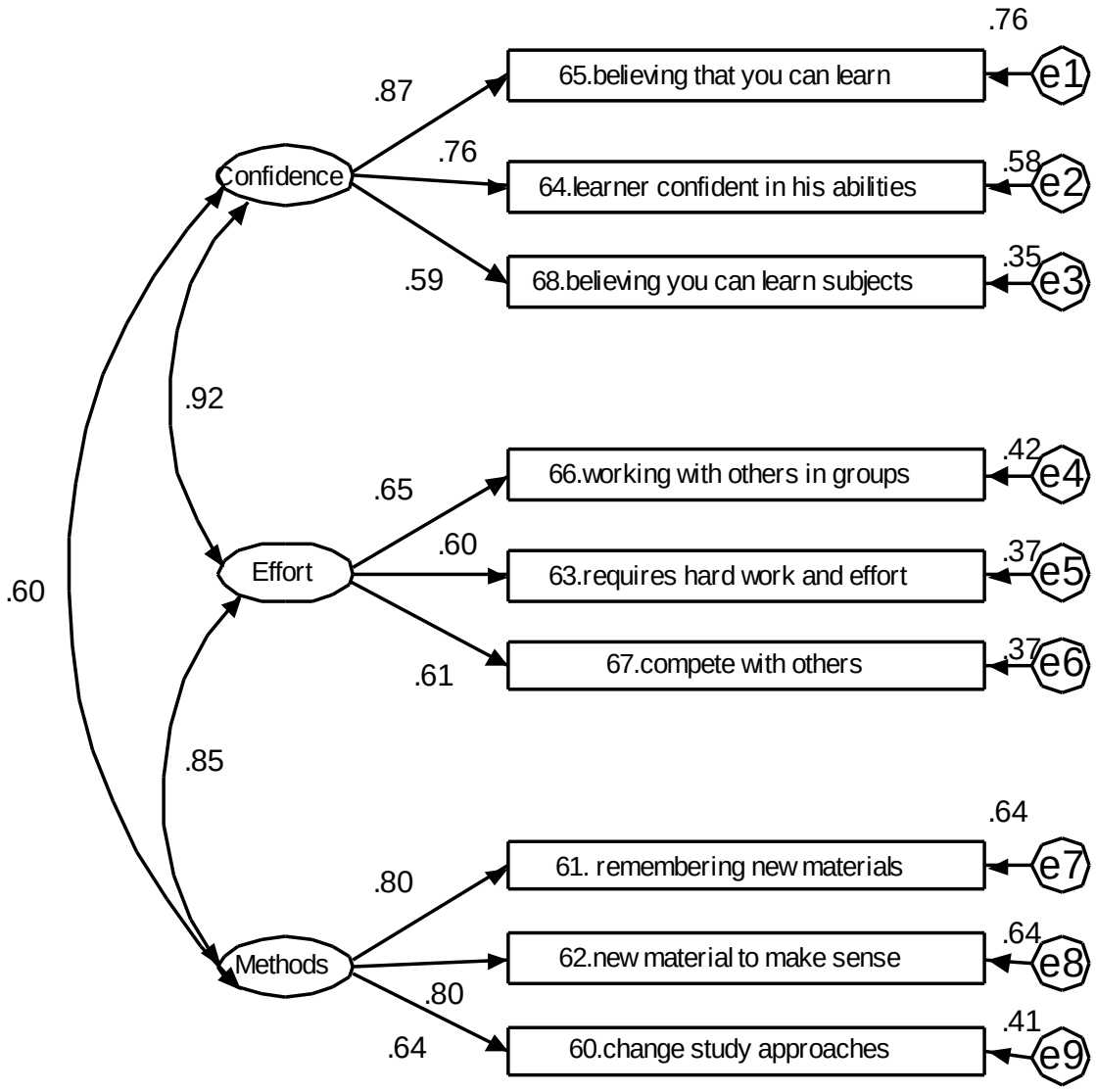

Figure 9. Parents' Conceptions of Learning Inventory Model

The confidence factor had three items (i.e., learning: depends on believing that you can learn anything, happens when learner is confident in his abilities and depends on believing you can learn school subjects). The effort factor had three items (i.e., learning happens best when working with other learners, requires hard works, persistence and effort, and happens best when competing for the top). The method factor had three items (i.e., learning: requires memorization, means changing new materials to make sense and involves knowing how to change study approaches).

Table 17. Factors' Mean and Standard Deviation (Learning)

Factors	*M*	*SD*
Confidence	4.80	1.19
Effort	4.66	1.07
Methods	4.56	1.16

Tongan parents gave similar and reasonably strong agreement to all three learning factors, with small effect sizes between factors (range Cohen's d = .09 to .20).

As far as Tongan parents were concerned, learners need to be confident in themselves and their learning abilities, must put a lot of effort into their learning, and know the best strategies and methods for learning. This suggests that the parents put considerable responsibility on the individual student to develop, acquire, and implement appropriate self-beliefs and strategies to ensure learning. This may explain why the parents had given only moderate agreement to locating responsibility in the school, church, or home for underachievement. Learners must learn appears to be the parental view. Again, while the mean differences were small, it is somewhat concerning to see the parents placed confidence in self as more important than deep study methods. Research into effective learning shows that transformation approaches to learning are keys to higher grades and deeper understanding. However, parents seem not to be aware of the importance of these strategic methods, instead prioritising self-confidence and persistence, both of which are essential. Nonetheless, future work with parents should focus on how parents can help students implement effective learning strategies. Of course, this raises the further question as to whether the responsible adults at home, school, and church have ensured that students learn the skills and beliefs needed to successfully learn and whether the families know of methods beyond memorisation needed to learn.

4.5.8 Discussion and summarizing parents' survey

By ordering the 18 factors according to their mean agreement, a more comprehensive understanding of Tongan parents' thinking can be obtained (Table 18). While the range of scores is reasonably restricted to moderate to strong agreement, it is worth noting that generally, differences of slightly more than half a standard deviation indicate a considerable effect size difference in level of agreement. Thus, while there may be a

response style among Tongan parents to be positive in their responsibility to all these items, there are considerable differences in their mean scores. The scale can be split into three general bands using effect size differences from the maximum and minimum. Highly agreed are all the scores from 5.44 to 4.80, moderately agreed are scores from 4.70 to 4.23, and weakly agreed are scores from 4.00 to 3.43.

Tongan parents gave strong agreement to beliefs over which they probably had the most control (i.e., their aims for schooling, their responsibilities, and the kind of schools they want their children to attend) and for traditional schooling factors (i.e., teaching, assessment, and learning). The eight factors that they endorsed most were two aims of schooling (good future/knowledge and morality), two responsibilities (academic support and cultural support), relationships as the basis of school choice, the positive aspect of assessment, teaching, and learning confidence.

Moderate levels of agreement were given to six factors; the aims of social status and obligations, the school choice factors of quality and Christian religion, learning effort, and school as an obstacle.

The least agreement was given to four factors; the two obstacles of church and home, learning methods, and the negative aspects of assessment.

Table 18. All Parents' Factors Mean and Standard Deviation

Agreement Level	Factors	*M*	*SD*
	Good Future (Aim)	5.44	0.85
	Academic (Responsibility)	5.37	0.85
	Morality (Aim)	5.35	1.02
	Relationships (School choice)	5.18	0.97
	Culture (Responsibility)	5.16	1.04
Mostly agree	Good/Positive (Assessment)	5.00	0.93
	Teaching	4.90	0.92
	Confidence (Learning)	4.80	1.19
	Social Status (Aim)	4.70	1.31
	Obligations (Aim)	4.70	1.25
	Quality (School choice)	4.70	1.11
	Effort (Learning)	4.66	1.07
	Christian (School choice)	4.63	1.35
	School (Obstacle)	4.23	1.27
Moderately agree	Church (Obstacle)	4.00	1.61
	Home (Obstacle)	3.54	1.35
	Methods (Learning)	3.54	1.16
	Bad/Negative (Assessment)	3.43	1.55
Average		4.63	1.16

The inter-correlation matrix of these factors is shown in Table 19. The correlations marked in bold are the correlations within each topical section of the survey. The values are generally stronger than most other correlations indicating a strong within topic effect. Values highlighted in orange are > .40, and those in yellow are between .30 and .39. The majority of inter-correlations between topics are weak to non-significant, indicating that the constructs are independent of each other. The meaning of the stronger inter-correlations will be discussed in the following sections. However, it should be noted that the strongest inter-correlations across topics are follows:

1. The schooling aims of good future and social status were positively associated with assessment, quality schooling, and relations with schools.

2. The accountability/improvement conception of assessment was positively associated with teaching and learning confidence, while the negative view of assessment was associated with Christian reasons for school choice.

3. The relationship reason for school choice was positively associated with academic, cultural responsibilities and teaching.

4. The Christian reason for school choice was positively associated with Tongan culture.

5. The quality reason for school choice was positively associated with teaching.

6. The academic and cultural responsibilities were positively associated with teaching.

7. The teaching factor was positively associated with student learning confidence, effort, and methods.

Consideration of these stronger inter-correlations helps us build an understanding of how Tongan parents in New Zealand understand schooling success. While these strongest correlations are but moderate, they do suggest interesting associations that generate testable hypotheses about how Tongan parents understand schooling and lead to potentially useful developments in educational practice between schools and Tongan parents.

The most important suggestion is that schools should emphasize the competitive challenge of doing well in formal examinations as a means of leveraging Tongan community beliefs towards greater academic performance for Tongan students. This is to complement the current emphasis on cultural compatibility and responsive approaches already implemented.

Table 19. All Parents' Factors Correlation

	Aims			Assess	School Choice			Responsibility			Tchg		Obstacles			Learning		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Obligation	1																	
2. Morality	**.55**	1																
3. Good Future	**.48**	**.27**	1															
4. Social Status	**.44**	**.35**	**.38**	1														
5. Positive	.37	.30	.44	.48	1													
6. Negative	.23	.18	.23	.01	**.18**	1												
7. Relations	.33	.34	.22	.41	.48	.13	1											
8. Quality	.24	.17	.42	.40	.46	.12	**.49**	1										
9. Christian	.38	.36	.28	.13	.32	.42	**.43**	**.23**	1									
10. Academic	.27	.28	.21	.31	.37	.12	.49	.33	.29	1								
11. Culture	.29	.32	.21	.20	.30	.22	.42	.30	.41	**.50**	1							
12. Teaching	.34	.27	.34	.31	.48	.22	.50	.42	.35	.56	.42	1						
13. Home	.14	.11	.21	0	.18	.31	.12	.22	.21	.13	.08	.32	1					
14. Church	.04	.14	.06	.06	.08	.23	.19	.05	.25	.14	.03	.17	**.46**	1				
15. School	.10	.16	.08	.02	.16	.29	.25	.16	.36	.23	.16	.29	**.56**	**.59**	1			
16. Confidence	.13	.11	.24	.27	.40	.10	.37	.37	.14	.38	.24	.45	.19	.11	.21	1		
17. Effort	.20	.15	.25	.27	.32	.10	.36	.32	.15	.36	.27	.44	.25	.17	.28	**.69**	1	
18. Method	.31	.23	.30	.23	.37	.22	.35	.29	.28	.35	.32	.53	.31	.15	.23	**.53**	**.62**	1

Note. Numbers in **bold** are correlations of factors of the same domain. Numbers highlighted in orange are correlation values greater or equal .40. Numbers highlighted in yellow are correlation values between .30 and .39.

4.6 Summary

The theoretical frameworks proposed in Chapter Two helped us to understand more the inter-connectedness of Tongan parents' beliefs and what we can do to improve Tongan students' achievement. For example, the study found that Tongan parents' normative beliefs about 'aims of schooling' are obligations, morality, good future, and social status. As a small traditionally stratified, agrarian, and feudal society, Tongan people were driven not by choice but by necessity to live communally, as a survival strategy. Today this obligatory practice is still performed not so much for survival but for strengthening family ties and relationships. Morality, good future, and social status reflects Tongans parents wanting all the best for their children, to be good citizens with well paid jobs that promote the family's social status and reputation.

The study also found that Tongan parents' choice of school is driven by three different ideas: schools with good relations are associated with social status, positive assessment, taking responsibility for achievement, and teaching. For the parents, a good school relates to them by emphasizing high aspirations, supporting them to help their children, and teaching well: shared goals and responsibilities. Quality education is associated with a good future, social status, teaching, and positive assessment such as Auckland Boys Grammar School or Epsom Girls Grammar School. Schools that promote Christian values are somewhat associated with negative assessment and culture. Thus, Tongan parents wanted schools to care for their children who are academically weak to make them better Tongan Christians. In other words, they wanted schools to develop the complete person, the physical, the intellectual, and the spiritual aspects of their children. Tongan parents' conception of positive assessment is positively associated with all other domains except the obstacle domains. Negative assessment is linked to schools that promote Christian values. Tongan parents see Christian schools as the best place for their children, even though such schools may not have reputations of high academic achievement. This may explain why many Tongan parents send their children to single sex schools which tend to be church-affiliated schools.

Tongan parents' academic responsibilities are linked to schools with good relationships; schools that provide quality education, social status, positive assessment, teaching and learning. Their cultural responsibilities are linked to relationships, Christian, academic and

teaching. At the same time, the Tongan parents wanted teachers to help their children achieve high self-esteem. Their reasons for their children's poor academic performances are shared between the three places their children spend most of their time: their homes, their schools, and their churches. The greater weights were put on church and school. Hence, the Tongan community respects schools and teachers and wants a Christian education for its children, but at the same time holds these two groups partially responsible for underachievement.

We also know that these beliefs are shaped by being Tongan and being involved in Tongan social and cultural activities. We can also speculate that these beliefs and attitudes have contributed to Tongan students' underachievement in schools. We can also speculate that Tongan parents' beliefs may not be helpful in facilitating achievement if they perceive that they cannot control their children's schooling (i.e., schools factors) and accept that they do not have the resources to support their children (i.e., low SES, second language speakers). However, Tongan parents' attitudes have shown that performance in education is positively valued and their normative beliefs have shown that Tongan parents place high value on education. Their behavioural belief is that a good education will improve life standards and qualities. They may have subjective norms that do not help, such as pressures from their church to engage time and resources in the church rather than in their children's schooling.

The challenges for Tongan parents are to review some of their prevailing beliefs about schooling. For example, Tongan parents have enormous respect for good education and yet their behaviours (observable responses) to their children's schooling are a mismatch. Their attitudes towards their children's schooling may not be right and therefore their intentions to perform appropriate behaviours to improve achievement are absent. Tongan parents should be taught to prioritize their beliefs and optimize what control they have to better support their children. For example, Tongan parents have control of the limited resources (i.e., manpower, monetary) they have but if these resources are misdirected and spent unwisely (i.e. church offerings, birthday celebrations) then their children's educational needs are not matched.

If Tongan parents have high aspirations for good education then they should show highly positive attitudes towards good education. These should stop them from engaging

subjective norms that do not contribute to achievement, and boost their intention to behave in behaviours that promote achievement. Knowing all these facts about Tongan parents and their community help improve understanding and hence better informed and evidence-based support to help Tongan parents change their schooling beliefs and attitudes. We know their expected outcome and we know that we cannot change some of the controls they have, but it is possible to change their beliefs and improve their intentions and their readiness to advance their children's achievements.

CHAPTER FIVE

TEACHERS' CONCEPTIONS OF SCHOOLING RELATIVE TO TONGAN PARENTS AND STUDENTS

5.1 Teachers' Focus Group

It is interesting to find out what teachers conceptualize to be major aspects of schooling in relation to their students. In this chapter, the conceptions of assessment, teaching held by a non Tongan teachers are explored through focus groups and surveys. Special interest is focused on their perceptions, beliefs, and attitudes towards the Tongan community. This study is important to help us explore the possibility that Tongan low achievement is partly caused by the beliefs and practices of schools and teachers. Tongan parents and students have been found to have positive attitudes towards schooling yet schools and teachers have not been able to use these to improve students' academic achievement.

5.2 Teachers' Focus Group Findings

The participants for this focus group were New Zealand secondary school teachers who were currently teaching Tongan senior students in 2007. The group was a mixed group of non-Tongan teachers (five female and five male) who shared 115 years teaching experiences in the school, an average of 11.5 years for each teacher. They were all teaching in one secondary school in South Auckland which has high percentage of Tongan students. Data from this focus group had three pre-determined categories: Assessment, teaching and learning. These domains were discussed in their relation to Tongan parents and students at their school. The data were analyzed under these three domains and the results are reported below.

5.2.1 Assessment

Analysis of teachers' data for assessment found these sub-categories: **(1) n**egative improvement for Tongan students, (2) relevant, (3) ignored, (4) ability grouping, and (5) positive feedback.

Teachers believed that assessment improved students' learning but did not do so for most Tongan and Pasifika students. Participants used different kinds of assessment in their

teaching such as diagnostic, formative, and summative assessments, but believed the majority of Tongan and Pasifika students failed to use assessment to improve their learning. Participants acknowledged that some Tongan and Pasifika students performed really well in the assessments, but believed that the majority of the students did not perform well.

> Assessment helps students to improve their learning but it does not seem to work with a lot of Pasifika students. You can only improve your grades if you pay attention to it but most of them do not bother at all (T3).

Teachers saw no difference between Tongan and other students at the school because they had the same results. 'Other students' are made up of Pasifika students who constitute about 80% of the school population.

> Assessment results for the whole Pasifika and Māori students are the same. Samoan, Tongan; they in general produced the lowest identical results. This is what the stats said about these students. Their whole attitude toward assessment is very poor. If you give them the same assessment after two days they will make the same mistakes all again (T7).

Teachers saw assessment as relevant to students' schooling.

> I don't think assessment is irrelevant at all, there are individual cases maybe where teachers test their students, but assessment as a whole is totally relevant to our education system here in New Zealand (T1).

However, participants believed that Tongan students were not doing enough to gain better results from their assessment tasks. Tongan students, like most Pasifika students in the school, treated assessment lightly; like any other classroom activity. Participants said that it was a huge challenge for them to get students to complete their Internal Assessment (IA) tasks. It was even harder to ask them to resubmit tasks to improve their grades or to even pass them. Most students ignored these and eventually failed to achieve any credits from those assessment tasks. Most often, teachers had to really force them to stay in class during lunch and interval to complete these tasks.

> We have a system where students can easily accumulate their credits to get their certificates and I think this system may work well for Pasifika students because of the supportive nature of the tasks, but it seems that they still not performing (T5).

The 'system' this teacher (T5) referred to was the NCEA. He thought that the standard-based assessment, the resubmission of assessment tasks, and the internally assessment of standards were easy ways of gaining credits but obviously it did not work for Tongan and Pasifika students in this school. In the opinion of the teachers, the majority of Tongan and Pasifika students tended to ignore assessment and its relevance to their schooling. They seemed not to see assessment as an important part of their schooling.

> Most students ignore assessment. They may do one assessment task in one or two subjects now and then, but to be consistent with their work, no they can't do that and they don't care. This is a pity because we want them to do well and I'm sure their parents do as well, but somewhere along the way they just give up like most of their friends (T9).

Some students were inclined to ignore assessments once they knew that they had got the recommended credits for the qualifications. An example is the eight compulsory credits they must obtain in both literacy and numeracy at Level 1. Once some students got these credits they ignored other assessment tasks in English and Mathematics at Level 1.

> Sometimes you see students start to relax when they've got their eight credits in literacy and numeracy. Even in Year 12 and 13, they know that twenty credits from their Level 1 and 2 can be counted to their Level 2 or 3 certificates and so they sort of relax because they know they have got the credits needed (T4).

Schools have policies of deciding which students are allowed to take which course. Participants believed that ability grouping of students helped them in the long run to achieve some NCEA certificates. The school grouped students who were involved in NCEA (Year 11 to 13) according to their abilities. In each Level and subject, there was an examination class for the more able students. For example, in Mathematics Level 1, the top students were put into one class where their mathematical knowledge was expanded to cope with the academic rigor expected in Level 2 courses. These examination classes studied mainly achievement standards, whereas the rest of the Mathematics groups studied

mostly unit standards. In some of these examination classes, especially in Level 2 and 3 Science (i.e., Physics, Chemistry and Biology) and Mathematics (i.e., Calculus and Statistics) classes, the numbers are very low with some subjects having less than ten students.

> Grouping students helped those who really try to do well in their NCEA. We separate them from the rest, provide them with the resources and support and they will be fine. Some of them, a lot were Tongans really do well and continue on to university studies. The rest who are happy to do what they want, unit standards are the best option for them and we can't argue with that because that is what they wanted (T10).

According to participants, the majority of Tongan and Pasifika students were in non-examination classes, meaning that most students were doing primarily unit standards. This had significant impact, according to teachers, on student effort and attitude towards learning.

> Students who had no examinations do not really care about doing assessment. If they do, good on them if not who cares? That's their kind of attitude to assessment. They seemed to start Year 11 with enthusiasm and energy but at Year 12 and 13 they don't care (T8).

The school has a policy of providing only 'positive' feedback to parents. Participants believed that providing parents with 'positive feedback' helped both parents and students, especially because there is a lot of negativity about the South Auckland area in the media. Participants believed that the negative publicity associated with the area was a reflection of the public perception of low socioeconomic suburbs in urban areas.

> School has a policy of providing positive feedback to parents. There is lots of negativity especially from the media about schools in South Auckland, but it is important to let parents know that there are also positive things that come out of schools in this area (T8).

> Schools need to make the community feel positive about schooling and their schools and I believe that the school has contributed well to that positive image. You see a lot of students from outer areas coming here instead of going to …

> College or …… The last thing we want to do is to take away hope from the community and tell them that their children are failures (T2).

This policy extended to preparing reports to parents; teachers could only comment on students' learning and nothing else. This feedback is based on individual teachers' in- class assessments because there were no cross-class common assessments for students in the same Year. Students with problems (i.e., behavioural or attitudinal) are not reported and parents were unaware of these.

In the light of the various competing theories earlier discussed about underachievement, we can see some of the teachers' damaging views of assessment in relating to Tongan parents and students. It seemed that teachers had absolutely accepted that assessment did not help Tongan students to improve learning. From these negative mindsets, schools and teachers actions, behaviours and communications with Tongan students were instigated like dumbing down the curriculum and trying to avoid academic challenges for students. Teachers asked less academic tasks and expected less from Tongan students and this gave them very few incentives to work hard. Negative information about students learning was obscured from parents and teachers attributed psychological student effects as the causes of students' low achievement. These false stereotypes allow schools and teachers to maintain a view on Tongan students that are false and largely inaccurate.

5.2.2 Learning

After the categorical analysis of teachers' data for learning, the sub-categories were found: (1) **Cooperative learning, (2) English language problems, (3) different systems, (4) time spent in schooling, (5) limited life experience, (6) bad school culture, (7) few academic role models, and (8) lack of parental responsibility.**

According to the teachers and contrary to many advocates (e.g., Pasikale, 1998; Silipa, 2001; St. George, 1983; Taufe'ulungaki, 2003), group work does not work well with Pasifika students. Participants believed that group work was effective only with a high level of teacher supervision. In the case of Tongan students, participants believed that group sizes should be kept small and each member of the group must be given a role to play. If groups were too large or some had no roles or tasks to perform, the lesson objectives would not be achieved.

> Group work was ok with them but I used to keep numbers to three or four, not more, and give each one some tasks to do either reporting, drawing or whatever, as long as they had something to do. No floaters because they are the ones that disturb the others (T3).

English language is a problem for a lot of students' learning. This is increasingly true with the increasing number of students coming from overseas for whom English is their second language. Although schools have extra remedial classes in English for these students, this takes quite some time. One participant thought that it was a problem with their students' learning. She thought that Tongan and Pasifika students who were born here or came at a younger age cope better with the system than those who came later.

> I think it makes a difference if they've been here a long time, not necessarily born here, but if they come at a younger age. I think the students that we see are less focused here or struggling; perhaps haven't been here as long as some of the other students. You can pick that up with just listening to them talking and their written skills, it's a constant struggle to be understood. I think the kids maybe pull back a bit or to be very quiet in the classroom… Or perhaps feel more comfortable in that bigger Tongan Cultural group, so by being in that bigger group they can't be seen. I think it's a bit of lack of confidence (T7).

This teacher also connected English language skills with students' confidence and self-esteem, on the assumption that if they are not fluent in English this may reduce willingness to participate and learn.

The teachers believed that Tongan students struggled to cope with the New Zealand system of schooling, especially those who had just come from Tonga. The number of students coming from Tonga was increasing. It took time for these students to adjust to a much freer education system and to the usage of the English language. Without the proper support to help them, these students have struggled here. This affected the academic performance of these students.

> The school and even the social system in Tonga are totally different from the ones they find here. The schools are doing their best to help them with extra classes in English and to provide a smooth transition to mainstream classes, but it takes a

> while. Some of them leave schools without being fully integrated into the mainstream; maybe because they were not confident at all. It is really hard for these kids (T6).

Despite staying longer at school, Tongan and Pasifika students are leaving school with lower qualifications than the total population (Education, 2001). The participants believed that some Pasifika parents thought that keeping their children at school for as long as possible was the best thing for them. Some teachers believed that some Tongan parents thought that staying longer at school would eventually produce a better education for their children.

> They [Tongan parents] think the longer they [Tongan students] stay at school the better the education they're going to get and in many occasions that's not true. Some of these students are wasting their time here instead of doing courses that will help them find employment. They may help Mum and Dad and the rest of the family (T2).

Teachers also believed that Tongan students have limited life experiences compared to the dominant ethnic groups. A Pakeha teacher believed that her children had been exposed to more life experiences than the average Tongan student and therefore her children's world views were broader than that of an average Tongan child. Tongan parents are known to impose a lot of restrictions on their children, such as places to visit, choosing their friends, clothes to wear, and many other decisions they may make. This may not broaden children's world views and therefore limits the life skills that may be helpful in their schooling.

> I think it's things like limited life experiences and their lack of general knowledge because of that. When you're starting a lot further down then what you say you wouldn't do say for example like my children, because they've been exposed to a lot more different things than perhaps your average Tongan student. So you have to explain everything to them.T9.

> Kids in South Auckland think that South Auckland is their world. When we went on a school trip across the Harbour Bridge, one boy was surprised that he never knew that the bridge existed. The other kids were laughing but that showed how

> small their worlds are. When you have a whole lot of experiences and broad perspectives on many issues, you are in a better position to excel at school (T5).

Teachers also believed that there is a school culture that has a strong negative effect on students' assessment tasks and their whole schooling experience. The culture is that 'it is not cool to be a scholar'.

> I think there's a culture at school generally but it's kind of not considered to be cool to be a scholar and I think the kids are very social in the fact that they will follow in what the majority does (T1).

A few brave students were known to have defied the odds and managed to be successful academically. One participant mentioned a Tongan brother and sister who excelled academically as students in the school; the brother was now a medical doctor and the sister, a top scholar at university. This is a serious problem for the students to think that it is not socially acceptable to be a good student academically; the very reason for their schooling. This school 'culture' has been reported in other studies especially in low decile schools where the majority of Tongan and Pasifika students attended (Hill, 2005).

Generally speaking, academic role models for Tongan students in New Zealand are rare compared to other areas like entertainment and sports. There are Tongan scholars, but they do not have the same exposure as sports people and entertainers have. One participant had previous teaching experience in the Pacific Islands as an English teacher. She observed that Pasifika students in general did not have a lot of academic role models here in New Zealand compared to her experiences in the Pacific Islands. For example, in Tonga she said that most Tongan students know of the Pasifika scholars around the region. They revered people with tertiary qualifications and seemed to know all their teachers' qualifications, the institutions they graduated from, and clearly understood the hierarchical order of those qualifications. Here, a lot of Pasifika students do not even understand these qualifications. The values of academic qualifications have long gone from Tongan and Pasifika students here. Most of their role models are either entertainers or sports people. This does not help to inspire Tongan students to succeed in the classrooms.

> When I was a teacher there, there were a lot of role models for the kids. They knew within their own family circles someone that they aspired to be and as a role model

> for the rest. If not then probably from their village, church, or even their teachers at school. They knew their teachers' qualifications and even the institutions they graduated from. Here, they do not have or do not know of a lot of scholars, except sport people or entertainers (T4).

In the participants' opinions, Tongan parents did not take a proactive role in their children's schooling. Teachers believed that parents should take more responsibility, ask more questions of teachers and school administrators and listen more to their children. The participants did not see themselves as playing any part in the underachievement of the students. They believed that the students and their homes were the main reasons behind the achievement results they had. They believed that students' homes and upbringing do not offer the relevant life experiences to be successful in the school environment. The teachers asserted that even if Tongan parents attended parents' evening, they asked very few questions. They only came to listen to teachers telling them about their children and then they left. One participant had this to say:

> I think you are right, even in Parent-Teacher interviews... I think it's an issue because in New Zealand, the education system is very different and parents need to take responsibility for their child's learning…you need to question the teacher, and listen to your child a bit more to where he is, a lot of Tongan parents, they don't listen to their children, they need to listen to their children and get more involved (T6).

Students staying longer at schools are positively associated with increased qualifications, income, education, and intelligence but teachers seemed to get this wrong with Tongan students. The claim by teachers that Tongan students had limited world views prompted the question of whose worldviews teachers were referring to because Tongan students had their own world views that teachers had limited knowledge of. The onus is for teachers to recognize that Tongan students have their own worldviews and to use them to help students' learning.

5.2.3 Teaching

Teachers' responses about teaching Tongan students were divided into these sub-categories (1) **Structured activity based lessons, (20 one-to-one teaching, (3) student–centred learning, (4) slow academic maturity, (5) teachers fostering good relationships, (6) school as irrelevant, and (7) proud and strong personalities.**

Participants believed that Tongan and Pasifika students seemed to respond well to lessons that were structured. For example, when they came into classes, they started off with a DO NOW exercise for the first ten minutes. After that the next activity was given to them followed by other activities until the class finished. In addition, participants also believed that Tongan and Pasifika students like teaching to be activity based. They wanted to do activities rather than teacher lecturing or note taking. Participants said that students hardly took notes and if they took notes they would never read them.

> When they entered the class, the DO NOW is ready for them. This is more like getting them to settle down quickly. After ten minutes, you introduce your topic briefly and give them the next activity. Try and vary the length of the activities. Once you notice that they've started to do other things, it's a signal that new tasks need to be given to them. When lessons are structured like this, they tend to do some work (T10).

Tongan students wanted teachers to help them individually. Teachers also needed to show interest in their work and move around the classroom when students are working. One participant said that after a class discussion, some Tongan students still wanted the teacher to help them, even repeating the same thing to them individually.

> They also wanted a one-to-one session with the teachers. The students wanted the teachers to sit next to them and help them individually. The teachers need to show interest in what they are doing and have to move around the class (T8).

At this school there had been a paradigm shift away from teaching to an emphasis on learning. Participants agreed that they practiced a student-centred learning approach and students responded well to it. Student-centred learning focuses on the student and although the content is prescribed by the curriculum, student's needs and perceptions are central to

teachers teaching**.** Participants also recognized the contribution of the teachers' Professional Development (PD) programme at schools in shaping teachers' pedagogy.

> The last thing they want is a long lecture from teachers. Yes.. There has been a shift towards emphasizing students' learning and we now see our roles as facilitators and students as active learners and we get a lot of PD in this area (T6).

Students' intellectual maturity was seen as an issue for Pasifika students at school. Participants believed that Pasifika students' mental maturity was slow compared to other students. Students from other ethnic groups had no problem with their mental maturity, but Pasifika students seemed to reach their intellectual maturity after they left school. Pasifika students left school at Year 13 with the lowest qualifications compared to other students and participants believed that this happened because they had not matured intellectually.

> The other thing is maturity too. I think a lot of Polynesian kids, they're mature physically, but at school often their mental thinking hasn't developed, and it comes a couple of years after they leave school (T2).

Participants noted that establishing good relationships with the students is very important. Participants believed that the teachers who built good relationships with Tongan students would maintain those relationships for their whole school life and beyond, to any sisters or brothers who were yet to start at the school. Participants believed that if teacher failed to establish these connections with the students, then it would be very difficult to teach the students. One participant emphasized that by saying:

> I think especially with Tongan kids the relationship that you have with them is really important and if you can connect with the Tongan students, you sort of seem to have that connection for the whole of their school life plus you also have any connection with their brothers and sisters that start at the school and if you don't have a connection with a Tongan student then I think it's very difficult teaching them (T7).

Some participants believed that school was irrelevant to most of the students. They thought students only saw school as a compulsory entity; a system that they must go through for the reward of jobs at the other end. The teachers believed students to school for social

reasons, to meet their friends and socialize, but not for academic reasons. Students appeared to feel safe at school and so they remained there thinking that they may eventually obtain their qualifications. Teachers also considered that Tongan and Pasifika students found the school environment gave them more space, time and freedom compared to the stricter environment of their homes.

> Some students only come to school to meet up with their friends, maybe because they are not allowed to do that at home. It's interesting because they don't enjoy schooling and yet they still turn up and they still go on to Year 13. Most only managed to complete Level 1, or maybe 2, but not 3 (T1).

Tongan students have strong personalities and are very proud of their heritage. According to one participant, the Tongan students have the strongest personalities and are very influential inside the classroom. They are also very proud of their heritage.

> Tongans are incredibly proud. If you are studying social studies (we are studying the Pacific Islands) and we get the kids to do something about their own islands. All the Pasifika kids are very proud of their background, but Tongans just seem to have the extra little edge to them, you know their coat of arms or flag, they seen to do with such pride and such detail (T3).

One participant said that Tongan students were not the majority group in the school, but they were the most dominant individuals in the classroom, and often they emerged as leaders in their own classes. To support her opinion, she said that the school head prefects have been Tongan students for the last three years.

> Most often you find that the leaders and stand out students in classes are Tongans and if you manage to build good relations with them then you get the whole class with you. These relationships last their school years and go beyond when their little sisters and brothers come over to school (T5).

5.3 Discussion of focus group

The overall findings from this focus group highlighted a lot about what mainstream New Zealand teachers think about their experiences with teaching Tongan students. These are

conceptions that appear to shape teachers' performances, decision making, and actions in the classroom.

Most of teachers' beliefs in teaching Tongan students were not based on research but mainly based on their own observations and sometimes 'taken for granted' perceptions and these are beliefs that need to be challenged with evidence-based research and findings to help improve students' achievement. For example, one participant raised a very serious concern for Tongan and Pasifika parents and the whole New Zealand school system when he said that Pasifika children matured physically, but their intellectual development lagged behind students from other ethnic groups. This type of thinking is not supported by any research evidence, it is prejudiced and it is hoped that not many teachers currently teaching hold this derogatory and damning belief.

The claim that Pasifika students, including Tongans, think it is not socially acceptable to be successful at school has been reported by previous studies like the AIMHI and SEMO (Hill, 2005; Timperley, 1999; Robinson, 2000; Robinson, 2004). The participants again raised the issue. The theory of 'peer influence' may help to explain why the students behave in such a way. This theory suggests that students' performances are influenced by their fellow students. Peer effects strongly influenced educational aspirations of the students. Students who performed well academically may have friends who are academically oriented. On the other hand, students who have marginal success in school were more likely to have friends who were not achieving (Coleman, 1961; Hallinan, 1983; Kao, 2001).

However, Hattie (2003) predicted that peer effects only accounts for about five to ten per cent of the variance in students' achievement. He believed that the influence of peers is minimal and teachers should encourage peers as co-teachers in the classroom to promote learning and minimize adult/teacher domination. Peers' influence can be directed into positive learning, but a lot of teachers are not utilizing that possibility. Teachers also seemed to forget that were contributing factors in this negative 'school culture'.

There are other interesting findings about the Tongan students according to the participants. One is that the Tongan students were incredibly proud of their heritage in comparison to the other students. How can this tradition on pride be converted into

academic achievement for Tongan students? The other is that the Tongan students have the strongest personalities among the student body. They are the most dominant group even though they are not the majority in the school. Due to their having the strongest personalities, they are often leaders in the class. One participant said that if you can get the Tongan students on your side, then you get the whole class on your side. Again this highlights the importance of forming good relationships with the students. If teachers can foster good relationships with the Tongan students, it will be easier for them to teach their classes.

Another participant believed that Tongan boys were only interested in sports and Tongan girls were often tired and hungry when they came to school. This negative labelling of students by their own teachers may contributed negatively to students' schooling experiences and perpetuates a school culture in which teachers do not expect high academic achievement from Tongan students.

However, quality teaching has been identified as a key influence on high quality outcomes for diverse students. Teaching needs that response to students' diversity which can have a positive impact on their achievement (Alton-Lee, 2003). Hattie (2003) accounted that 30 per cent of the variance on students' achievement comes from the teachers. He pointed out that this is the greatest source of variance that can make the difference and therefore suggested that teachers should be resourced and optimized to have a powerful effect on their learners. Teachers must be supported to have an exceptional positive effect on students' learning; to direct attention to higher quality teaching; to have higher expectations that students can meet with the appropriate challenges; and all of these must take place in the classroom.

Even the Ministry of Education admitted that the most important challenge facing teachers in New Zealand schools is their ability to manage simultaneously the complexity of learning needs of diverse students (Alton-Lee, 2003). Even though the participants did not see themselves as a factor in students' underachievement, teachers must be supported to understand that they are the greatest variance that can make the greatest contributions to improve students' achievement. The government and the Ministry of Education should also be supported to shift the focus of interventions to develop teachers so they can deliver quality teaching to diverse students such as Tongan and Pasifika.

5.4 The Survey

The survey adopted and adapted pre-existing survey instruments identified in the research literature, especially where there was evidence for their validity in New Zealand. Out of the 120 secondary school teachers who participated in the survey (Table 20), nearly two-thirds were teachers and the balance were made up of middle and senior school leaders or managers. As per New Zealand employment expectations, secondary school teachers are subject specialists, half had bachelor degrees and another quarter had a postgraduate diploma or certificate; only nine per cent had an undergraduate diplomas as their highest qualification. Just under half were New Zealand European or Pakeha, with just over a quarter being of Pasifika ethnicity; very few (< 5%) were Asian or Māori. Sex ratios were more–or-less as expected in the New Zealand teaching population (40% male, 60% female) (http://www.educationcounts.govt.nz/publications/schooling/teacher_census). All the teachers came from three co-educational, decile 1 schools in the Auckland metropolitan region. The three schools had 105, 55, and 48 teachers and the percentage of teachers who participated were 65, 62 and 38 per cent respectively.

Table 20. Teacher Participants' Characteristics

Characteristics	Frequency	%
Role at school		
Teacher	79	65.8
Dean	10	8.3
Head of Department	26	21.7
Deputy Principal	4	3.3
Principal	1	.8
Qualifications		
Diploma	11	9.2
Bachelor	59	49.2
Postgraduate diploma/certificate	28	23.3
Masters	22	18.3
Ethnic group		
European/Pakeha	54	45.0
Maori	3	2.5
Pasifika	32	26.7
Asian	4	3.3
Others	23	19.2
Years of teaching		

Characteristics	Frequency	%
1 – 5	32	26.7
6 – 10	30	25.0
11 – 15	17	14.2
16 – 20	7	5.8
Over 20 years	34	28.3
School types		
Co-educational	120	100.0
School decile		
One	120	100.0
Gender		
Male	52	43.3
Female	68	56.7

The three main domains explored in the teachers' surveys were assessment, teaching, and learning. Except for teachers' conceptions of learning, all other models for each of these domains have been established by researchers and these models were used as starting points of analysis. In doing this, CFA was used initially to determine fit of this sample to the proposed models. Only if the model was found to be unsatisfactory was EFA carried out.

5.4.1 Teachers' Conceptions of Assessment

Initial analysis based on the Brown (2006a) model had poor fit statistics (χ^2= 629.5; *df*= 309; χ^2/df= *2*.24; *p*= 0.41; CFI = .64; gamma hat= .81; RMSEA=.102; 90%CI= .092 - .112; SRMR= .098). Complex models (i.e., those with more than three factors) require large sample sizes (i.e., at least 500) (Chou, 1995). The current survey only had 120 teachers and generated two inadmissible error variances and one inadmissible latent factor variance. Because previous studies reported that the model was well-fitting, it was decided to resolve discrepancies in the Tongan group by fixing the offending variance parameters to the same values found in Brown's (2007) survey of New Zealand secondary students. Reanalysis with the fixed parameters still produced an unacceptable fit for the group of teachers in this study (χ^2= 697.05; *df*= 314; χ^2/df= 2.22; *p*= 0.14; CFI = .61; gamma hat= .77; RMSEA=.112; 90%CI= .100 - .123; SRMR= .11). While this approach produced an admissible solution, it was poorly fitted. It is most likely that the poor fit was a factor of small sample size rather than model deficiency.

To resolve this sample size problem, it was possible to combine this small and focused group of teachers with the nationally representative sample of secondary teachers Brown (2007) used. That produced a sample of over 500 teachers and an acceptable fit, without having to fix error variances, was found (χ^2= 842.56; *df*= 311; χ^2/df= 2.71; *p*= 0.10; CFI = .86; gamma hat= .93; RMSEA=.59; 90%CI= .054 - .064; SRMR= .072). Hence, it was decided to accept that the four major conceptions of assessment could be used to summarize this group of teachers' conceptions of assessment (Figure 10). Nevertheless, this result indicates that future studies with teachers of specific sub-groups of students may shed light on our understanding of the impact of environmental contexts on teachers' conceptions of assessment; it may well be that who a teacher teaches influences how the teacher conceives the purpose of assessment.

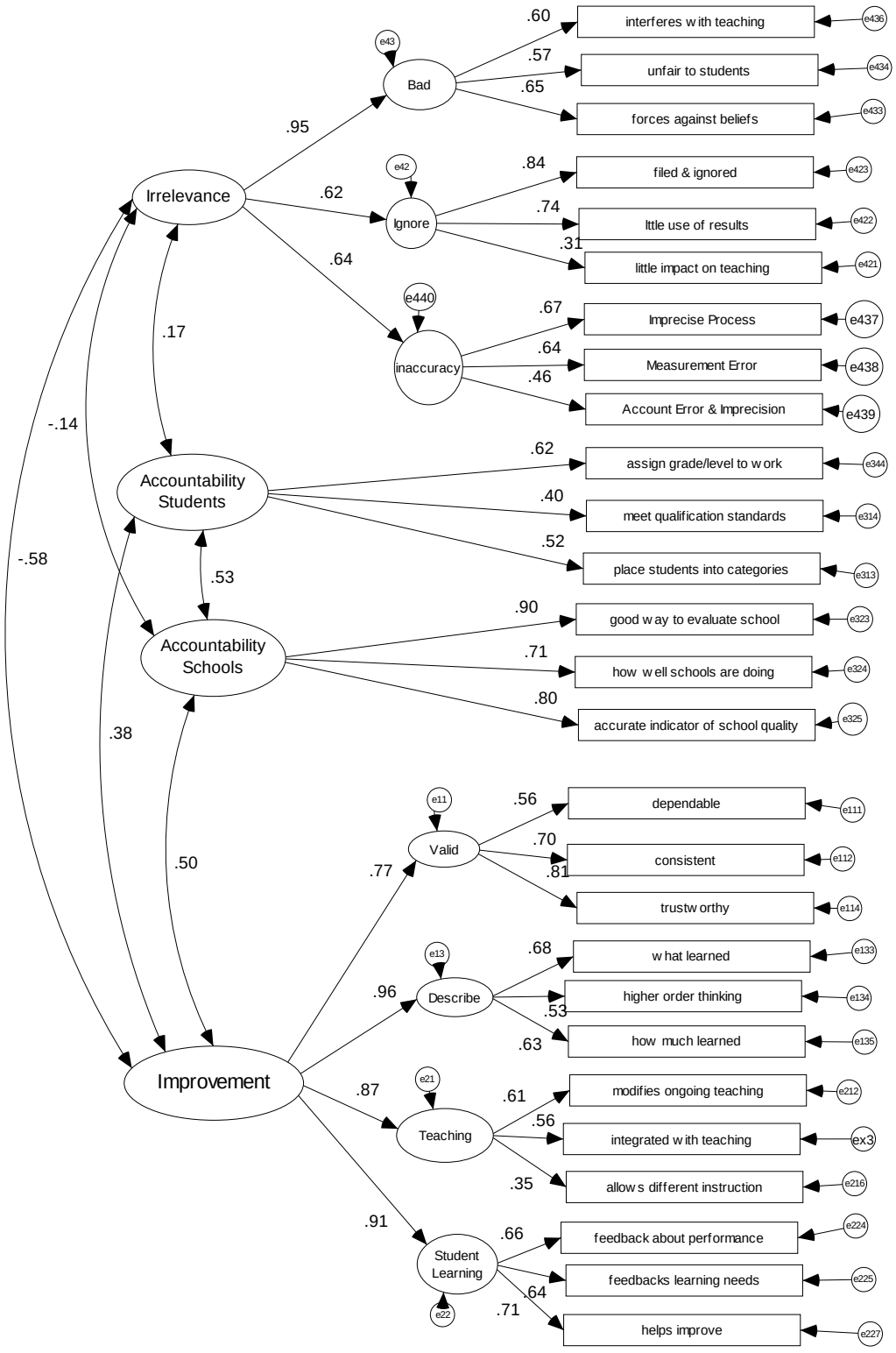

Figure 10. Teachers' Conceptions of Assessment Inventory Model (Brown, 2007 data plus this study)

The model found four major factors: Irrelevance, students' accountability, school's accountability and improvement. It had nine first-order factors including both of the accountability factors. The other two second-order factors (i.e., improvement and

irrelevance) were correlated to both of the accountability factors. This is the same model structure that Brown (2007) found. The inter-correlations between the improvement and the two accountability factors were moderate. The three factors, (i.e., school accountability, student accountability and improvement) were similar and correlated strongly to each other, while the irrelevant factor was different and has a low and inverse correlation to the other three factors.

Teachers in this sample slightly agreed with the assessment for school accountability and assessment is irrelevant factors (Table 21). They moderately agreed with assessment. Effect sizes showed two conceptions (i.e., student accountability and improvement) which were much more positively endorsed than the weakly endorsed conceptions (i.e., school accountability and irrelevance). It seems that teachers were saying if students do poorly in their assessments, the schools should not be held accountable. In other words, teachers did not want themselves or their schools to be blamed for students' poor assessment results. More positively, the teachers were saying that they agreed with assessing students and using assessment to improve learning and teaching.

Table 21. Mean and Standard Deviation of Factors (Teachers' CoA)

			Effect sizes (Cohen's *d*)		
Factors	*M*	*SD*	II	III	IV
I. Student Accountability	4.30	.74	0.38	1.08	1.45
II. Improvement	4.04	.64		0.81	1.17
III. School Accountability	3.32	1.08			0.10
IV. Irrelevant	3.23	.74			

The irrelevance factor had statistically non-significant correlations with the two accountability factors (r = -.14 and .17, p=.13, .06 respectively). This meant that irrelevance of assessment had a zero relationship with both school and student accountability. This suggests that teachers were relatively evenly split about the relevance of assessment for accountability purposes. The irrelevance factor was inversely correlated

with the improvement factor (r = -.58). Understandably, if assessment is used to improve teaching or learning then it can hardly be irrelevant.

The improvement factor was positively correlated with school accountability (r = .50) and with student accountability (r = .38). The two accountability factors were also correlated to each other (r = .53). Brown (2008e) found similar results in a survey of New Zealand primary school teachers in which he concluded that

> The relationship between assessment for improvement and student and school accountability make it clear that while teachers associate school improvement with using assessment, they were much less willing to associate student accountability mechanisms with improvement. Hence, assessment for improvement, in the minds of this sample of teachers, was relevant and oriented towards improvement of schooling rather than grading of students (p. 280).

5.4.2 Teachers' Conceptions of Learning

Five items were used to establish teachers' conceptions of learning. Using CFA, the two-factor inter-correlated model reported by Brown, Lake, and Matters (2008) had acceptable fit statistics (χ^2= 2.71; df= 4; p=.61; χ^2/df=.68; p= .41; CFI = 1.00; gamma hat= 1.00; RMSEA=.000; 90%CI= .000 - .116; SRMR= .019) (Figure 11).

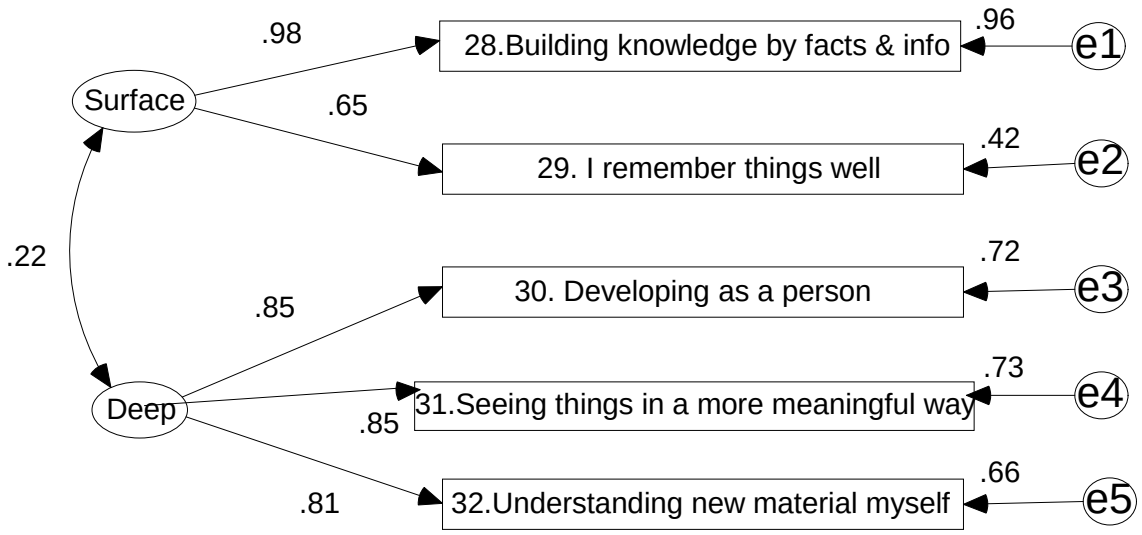

Figure 11. Teachers' Conception of Learning Inventory Model

The two factors were surface or reproducing learning and deep or transformational learning. Surface learning had two items, building knowledge by facts and information and remembering well. Deep learning had three items, developing as a person, seeing things in a more meaningful way, and understanding new material for myself. The teachers more than slightly agreed with the surface learning factor and almost mostly agreed with the deep learning factor (Table 22). The effect size difference was huge (Cohen's d = 1.19) indicating big differences in teachers' endorsement of deep and surface learning conceptions.

Table 22. Mean and Standard Deviation of Factors (Teachers' CoL)

Factors	*M*	*SD*
Deep	4.92	.88
Surface	3.69	1.16

The correlation between the two factors was weak (r =.22) indicating that teachers' two learning conceptions were relatively independent of each other. Brown (2008e) found similar weak inter-correlations and similar distributions of mean scores. Together, these values indicated that the sample of teachers conceived of learning in a very similar way to New Zealand secondary school teachers in other studies. By implication, these results may suggest that teachers would put less stock in the use of reproducing or memorizing teaching and learning strategies than transformational approaches. This may cause some conflict with the views of Tongan parents who may put greater stock in the use of memorization as the primary means of learning.

5.4.3 Teachers' Conceptions of Teaching

Using CFA to confirm Pratt and Collins' (1998a) and Brown's (2008e) models found acceptable fit statistics for a five factor inter-correlated model (χ^2= 154.88; df= 80; χ^2/df=1.94; p=.049; CFI = .92; gamma hat=.92; RMSEA=.089; 90%CI= .068 - .109; SRMR= .073) (Figure 12). The model identified five conceptions (i.e., apprenticeship, development, nurturing, social reform, and transmission) each with three items. Teachers' conceptions of teaching were generally positive but moderately correlated with each other. The highest correlations were between the nurturing and the development factors (r = .76),

transmission and apprenticeship factors (r = .73), and the development and apprenticeship factors (r = .69). The other correlations ranged between r = .38 and .58.

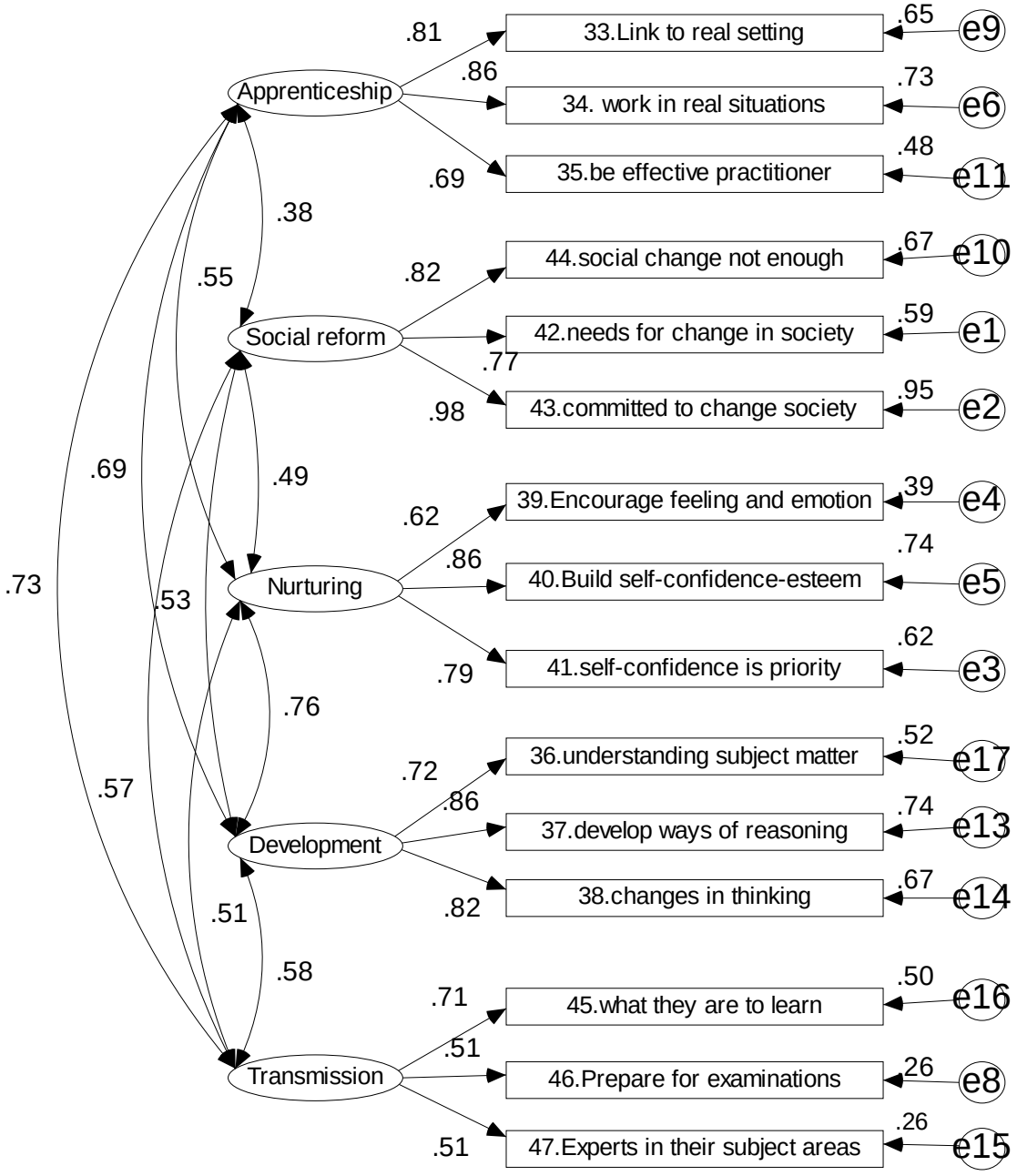

Figure 12. Teachers' Conceptions of Teaching Inventory Measurement Model

Generally, teachers in this survey were very positive about each teaching perspective giving levels of agreements either side of mostly agree (Table 23). Teachers here expressed most agreement with the nurturing conception and the least agreement with the social reform conception. The effect sizes were moderate between Nurturing and Transmission,

and Nurturing and Social Reform (Cohen's d = .56 and .53 respectively). All other mean score differences were medium or insignificant.

Table 23. Mean and Standard Deviation of Factors (Teachers' CoT)

			Effect sizes (Cohen's *d*)			
Factors	*M*	*S*	II	III	IV	V
I. Nurturing	5.09	.70	.22	.29	.56	.53
II. Apprenticeship	4.93	.75		.07	.35	.34
III. Development	4.88	.77			.29	.29
IV. Transmission	4.64	.89				.03
V. Social Reform	4.61	1.08				

These results suggest that teachers have a view of teaching that is consistent with the parental view that teaching is foremost about developing student self-esteem. Just as the teachers had a reduced agreement with reproducing learning, they also had a reduced endorsement of teaching as transmission.

5.5 Discussion and Summary of Teachers' Survey

Mean scores for each factor are presented in Table 24 in descending order along with effect size differences from the most strongly endorsed factor. Relative to the nurturing teaching perspective, there are three levels of endorsement: Firstly, a group with very little differences (i.e., apprenticeship and development teaching perspectives and deep learning); a second group with medium differences (i.e., transmission and social reform teaching perspectives); and a third group with large differences (i.e., the four assessment factors and surface learning).

Table 24. All Teachers' Factors Mean and Standard Deviation

Agreement Level	Factors and Domains	*M*	*SD*	Cohen's *d* from Nurturing
Mostly agree	Nurturing (Teaching)	5.09	.73	
	Apprenticeship (Teaching)	4.93	.75	.22
	Deep (Learning)	4.92	.88	.21
	Development (Teaching)	4.87	.77	.29
	Transmission (Teaching)	4.64	.89	.55
	Social Reform (Teaching)	4.61	1.08	.52
	Student Accountability(Assessment)	4.30	.74	1.15
Moderately agree	Improvement (Assessment)	4.04	.64	1.43
	Surface (Learning)	3.69	1.16	1.44
	School Accountability (Assessment)	3.32	1.08	1.92
Slightly agree	Irrelevant (Assessment)	3.23	.74	2.53

The inter-correlations among the 11 factors are displayed in Table 25. The correlations marked in bold are the correlations within each topical section of the survey. Values highlighted in orange are greater than .40, and those in yellow are values between .30 and .39. There is clearly a method-type effect in that the inter-correlations among the factors from the same topic area are generally among the strongest observed values. The only correlation values in the same range of values are those between four of the teaching perspectives and deep learning ($.42 \leq r \leq .62$). All other inter-correlations were relatively weak, suggesting very little shared variance among the remaining factors.

Table 25. All Teachers' Factors Correlation

	Teaching					Assessment				Learning	
	1	2	3	4	5	6	7	8	9	10	11
1. Apprenticeship	—										
2. Social Reform	**.36**	—									
3. Nurturing	**.44**	**.49**	—								
4. Development	**.63**	**.53**	**.66**	—							
5. Transmission	**.55**	**.39**	**.26**	**.38**	—						
6. School Accountability	.09	-.04	-.11	-.10	.24	—					
7. Student Accountability	.22	.13	.18	.19	.30	**.44**	—				
8. Improvement	.34	.12	.17	.19	.36	**.49**	**.48**	—			
9. Irrelevant	.07	.15	.06	.12	.01	**-.20**	**.02**	**-.29**	—		
10. Surface	.21	.26	.11	.20	.38	.24	.19	.28	-.02	—	
11. Deep	.61	.28	.42	.57	.44	.11	.32	.31	.09	**.19**	—

Note. Values in bold are the correlations between factors of the same domain, values highlighted in orange are correlations equal or above .40 and values highlighted in yellow are correlations between .30 and .39.

5.5.1 Assessment

The irrelevant factor, as expected, correlated very weakly with all other factors, suggesting that whatever might make assessment bad is not related to teaching or learning as evaluated by these scales. Only the student accountability and the improvement conceptions of assessment had correlations greater than.30 with any of the teaching or learning conceptions. Student accountability was weakly associated with the transmission perspective of teaching and deep learning, while the improvement conception was associated with the apprenticeship and transmission teaching perspectives and deep learning.

The results for student accountability are somewhat puzzling. Generally, it is expected that transmission orientations would be associated with surface learning approaches and student grading, while improvement conceptions of assessment are associated with deep learning (Samuelowicz, 1994). However, here grading students involves not just transmission teaching, as expected, but also deep learning. Transmission teaching includes making clear to students what they are to learn, intends to prepare students for examination, and requires teachers to be experts in their subject areas. This means that teachers are improving their students by telling them and by demonstrating and modelling for them how to improve. It is possible that the NCEA qualifications system permits teachers to associate more direct instruction with deeper learning, but this is an aspect that requires much more study than this small survey.

The pattern of association around the improvement assessment factor are logically clear – assessment that informs teaching leads to deep learning, and within the context of NCEA involves much modelling and apprenticeship of transformed practices.

5.5.2 Teaching

Teachers mostly agreed to all their teaching perspectives with all mean scores above the 4.5 mark. Surprisingly, transmission teaching was linked to deep learning. In fact, this link is stronger (r = .44) than between transmission and surface learning factors *(*r = .38), although the difference is not statistically significant. When considering teaching senior students for NCEA qualifications, it is possible that teachers have incorporated

transmission teaching as a means of helping students reach the more cognitively demanding requirements of NCEA achievement standards and bring about deep learning.

In an earlier survey of New Zealand primary school teachers (Brown et al., 2009b), the group of teachers had a similar pattern of endorsement to all teaching perspectives, except for the much stronger agreement with the transmission perspective. A sample of Queensland secondary school teachers agreed less than this sample with the transmission perspective. This difference may be attributed to this sample working with senior secondary school students (Year 11 – 13) rather than primary or junior secondary school students, or because they were teaching for the National Certificate of Educational Achievement (NCEA) instead of in-school or in-class assessments. Furthermore, this sample of teachers were working in the lowest socio-economic environment, an environment that often elicits strong usage of traditional, reproduction approaches to teaching (Brown, 2002b). A further explanation may be in the higher proportion of Pasifika teachers in this sample. Perhaps those teachers have somewhat different views than their Pakeha colleagues. Nonetheless, these results are consistent with the claim that New Zealand secondary school teachers 'tended to resort to transmission of memorisable information in order to prepare students for end of year qualification examinations, despite having student-centred, deep-learning beliefs about the nature of teaching' (Brown, 2009 p. 222). This may be a washback effect from university models of lecturing as the dominant approach to teaching.

This potential mismatch between student-centred, deep-learning beliefs about teaching and a strong emphasis on transmission teaching perspectives may reflect the teaching that Jones (1991) identified as experienced in Pasifika classes. Her description suggested low level memorization, reproduction teaching and learning as the dominant method in Pasifika classes, despite the teachers adopting quite different approaches with high-achieving New Zealand European classes. While transmission teaching may be aligned with the traditionalist emphasis of Tongan culture and parents, there are some difficulties in how it seems to be practiced with Tongan students. Perhaps the missing ingredient is not so much a pedagogical style, but rather challenging instruction and objectives. Irving (2004) showed that both New Zealand and American secondary school mathematics students identified highly-accomplished teaching with academic challenge. This may be the missing ingredient in the experience of Tongan students and their teachers.

5.5.3 Learning

This group of teachers had very similar priorities for understanding learning as those reported by Brown et al. (2008b). Furthermore, deep learning was correlated most strongly, although only moderately, with all the teaching perspectives except social reform. Teachers with social reform conceptions of teaching view social and structural change as more important than individual learning. To them, a change in society is the purpose of teaching. It appears that these teachers were more concerned with their students' individual learning which is similar to the reasons for the strong link in accountability assessment and transmission. This is consistent with the conservative view of teaching proposed by scholars such as Bourdieu (1986; 1992) who believed that schools are central to both changing and reproducing social and cultural aspects from one generation to another. He argued that it was the culture of the dominant group (the group(s) that controls the economic, social, and political resources) which is embodied in the schools, and that it is this 'embodiment' that works as a reproduction strategy for the dominant group (Harker, 1990).

Teachers' conceptions of assessment, learning and teaching would benefit more from further research. The sample for the teachers was small however, the four major purposes of assessment were still identified: Improvement of teaching and learning; making students accountable for learning; accountability of schools and teachers; and assessment is irrelevant to teaching and learning. Teachers' deep and surface conceptions of learning were found and the five teaching conceptions were also identified.

This sample of teachers from low decile secondary schools believed that nurturing students' self-esteem and confidence was their dominant role. It seems the teachers believed that students from low SES fail to learn because they have low self-esteem and confidence. While the Tongan parents have strong academic and career ambitions for their children, they too believed that the goal of schooling is the well-being of their children. Hence, it would appear that between the teachers and the parents, there is a commitment to an understanding of teaching that places well-being ahead of learning growth. It is logical to consider that this would create difficulties for the Tongan parent community's ambition of high academic results for their children. Furthermore, there are issues around the nature of teaching being delivered by these teachers—it seems that transmission is being given a

high priority and while that may not be bad, what may be missing from the Tongan student experience is academic challenge along the growth pathway. Investigating the level of challenge in classrooms is an obvious next step in disentangling causes of the low academic performance of Tongan students in New Zealand schools.

5.6 Summary

The theory of planned behaviour framework proposed in Chapter Two helps us understand the relationships in teachers' behavioural beliefs, subjective norms, and control beliefs, attitudes and intentions toward their Tongan students and parents. For example, teachers in the focus group believed that there was a school culture that devalues academic achievement and Tongan and Pasifika students are perpetuating this at schools. We know from the Tongan parents' focus group that they have high ambitions for good education and yet their children may be pressured by their peers not to do well at school. This subjective norm may be a result of peer pressure. However, the challenge is for teachers, schools and the parents to find ways to reverse this non-academic norm. Schools and teachers need new ways of helping Tongan students' value academic performance and just as importantly helping teachers of Tongan students also value academic performance for Tongan students. Negative school cultures should be identified and challenged so that students are not victims of these. At the same time, Tongan parents should promote academic achievement at home and help support their children as much as they can.

This investigation helped identify some of New Zealand's teachers' beliefs about Tongan students and their parents that may have some contributing effects on Tongan underachievement. New Zealand secondary school teachers' conceptions of their Tongan students and their parents were explored through focus group discussion. Study 1 identified how New Zealand teachers conceptualized the Tongan students and parents. Teachers have identified some specifically Tongan characteristics like strong personalities and pride. The question is how teachers and schools can use these Tongan characteristics to improve Tongan students' achievement.

CHAPTER SIX

TONGAN STUDENTS' CONCEPTIONS OF SCHOOLING

6.1 Tongan Student Focus Group

> We claim that studying children's views and perceptions is indispensable, as children's views entail invaluable contextual and personal information of their experiences. Their views, for instance, may inform us of what they like or dislike or what they deem important or unimportant. Children views can be seen as 'capital materials' for teachers to work on, when necessary, to build relevance between content knowledge and children's experiences (Ai-girl, 2004, p.xvii).

Exploring students' conceptions of schooling may be a step towards better understanding why Tongan and Pasifika students' achievements are lower than any other student groups in New Zealand. This chapter reports three studies: (1) a focus group with Tongan secondary students, (2) a survey of Tongan secondary students' conceptions of teaching, learning, and assessment, and (3) a survey of Tongan secondary students' conceptions of assessment and their performance in English and Mathematics at Level 1 of the National Certificate of Educational Assessment.

6.2 Tongan Students' Focus Group Findings

Data from the students' focus group was collected from Tongan secondary students who attended a number of schools in the Auckland region and analyzed using the categorical analysis discussed in detail in Chapter Three. The data was analyzed under the three domains of schooling, assessment, teaching experiences, and learning approaches. The participants were senior students involved in NCEA programme.

6.2.1 Students' Conceptions of Assessment

The analysis of students' data on assessment found these sub-categories: **(1) accountability, (2) flexibility, (3) motivation, (4) boring, (5) celebrated and (6) ignored.**

Students believed that assessment is for students' accountability only. Most participants believed that assessment was mainly to assess how much they had learnt. They believed it was not to check on teachers' teaching because teachers still got paid regardless of the assessment results. They knew the effects of having good or bad assessment results on their future. They believed that their parents showed more interest in their results and hoped that they had shown interests in all their schooling throughout the year. They also knew that their parents wanted them to do well in their schooling and they believed that they were doing their best to achieve better results.

> I think assessment is to check on us; whether we're doing any work. It's not for teachers because at the end of the day they still get paid more and more. Yeah assessment is to make sure we do our work and our parents know from our reports if we study or not (S3).

> Everything for us students comes down to our results. It is the results of our assessment that gave us certificates and determined what we do after school. If you want to find a good job they want your NCEA results. The school will still be there, teachers will still be teaching but us students will be gone with our results (S9).

Some participants really liked the flexible structure of the NCEA framework because it pushed them to work hard throughout the year. In NCEA, a participant can do a mixture of standards and levels. This means that a student can do both unit and achievement standards in two or more levels depending on his or her ability in that subject area. They also felt that the internal component of the course provided better chances for them to gain credits. Some of their teachers allowed them to resubmit their assessment tasks if they did not do well in the first submission as two participants said.

> I didn't pass all my credits and my Maths teacher gave me the chance to do the work after school and in that way I managed to pass my credits (S5).

> I reckon that NCEA is a very good system because it allows us to resubmit our work if teachers are not happy with them. It pushes us students to do our assessment tasks and if you have problems you ask the teachers for help. What I really like is knowing my credits all along the way. When you have lots of credits, you don't feel the pressures of the exam (S4).

The opinions that assessment was boring and not enjoyable were voiced strongly but participants believed that was the main reason for schooling. Participants knew that they were expected by schools, teachers and their families to do well in their assessments but they were often careless and unmotivated. Sometimes students deliberately missed classes to avoid doing assessments. Sometimes they claimed they were not aware of assessment schedules but admitted that they had been given timetables and course outlines at the beginning of the year. Participants recalled when they had formal speeches in English. Some students missed classes because they did not want to stand in front of the class and be laughed at.

> Sometimes I am not aware that there is an assessment going on until the teacher gives it out or asks us to do it. Because I didn't prepare for it, I find it boring. The only assessments I enjoy are some Sports Leaderships ones in the gym (S10).

> You don't enjoy assessment but you can't escape from it and you know that it is important. This is only true when you come to Year 11 and you start to do a lot of assessments. But when you got a good one you have good feelings and eventually you start to enjoy it (S2).

Academic achievements are valued and celebrated in many ways by the Tongan people. Participants said that their church celebrated education on the third Sunday of January every year. Church members who graduated from tertiary institutions wore their graduating regalia and their names and qualifications are called out as they walk down the aisle to the front of the church. Some thought that this public recognition motivated them to work hard. The participants believed that academic achievement, especially graduating from university, was one of the most celebrated occasions by Tongans (others were birthdays and weddings). Some participants recalled attending family and friends' celebrations for relatives who graduated from universities. On two occasions there were double celebrations of a graduation and a 21st birthday.

> At church you see few people with their university costume and their families are proud of them. It's kind of special with their long gowns and their headdresses. At the end of the church people had photos with them and then the feast and speeches all on education and achievement. I guessed all of us students wanted to be like them (S6).

> My cousin graduated in May and we had a big celebration because she was my nana's first grandchild to be graduated plus she had her 21st birthday in January but was delayed to be celebrated together with her graduation. It was good, and lots of our relatives were there; some from Tonga and Australia came over (S1).

Assessment is one way of motivating the students. Participants believed that assessment helped them to pay more attention to their schooling. Participants believed that trying to get credits drove them to complete the work given to them. Sometimes students ignored activities that do not get them credits. Participants believed that when they were in Year 9 and 10 they did not do a lot of work, but this changed when they started Year 11. They had to work hard because of the NCEA assessment. They knew that their parents expected them to do well especially in their NCEA assessment.

> You can tell that students tried to complete tasks because there are credits to be achieved and you often heard students asking teachers if the activities were IA [Internal Assessments] or not. When they knew that there were no credits to be gained, there was no pressure to complete them (S7).

One participant wanted mock exams to be given to them around term three so that when the examination came at the end of the year, they knew what to expect. She believed that this would better prepare them.

> For the exam like term three they should give us not the real but just a practise one so we can go home and practise it with our books and stuff so that when it comes to fourth term its similar so you know what's happening in the real exam (S11).

The moderator probed for more information on this topic because the participants were hesitant to discuss it. One research assistant's notes might help explain why not much discussion was generated by the examination. He noted that while this was discussed one participant mumbled that he had no examination to worry about. Perhaps many students were not sitting their examinations at the end of the year. If this result generalises beyond the focus group participants, it may raise some problems of Tongan students since it was apparent from the Tongan parents that success in formal education was highly prized expectation. Furthermore, it is well established that access to higher tertiary education depends in part on success with externally assessed examination subjects (SPR, 2002).

Assessments are ignored by a lot of students, including some in this research. One participant admitted that a lot of senior students, including himself, sometimes ignored assessments and admitted that it seemed alright because his friends were doing the same thing. They just attended classes and if they wanted to then they would do assessment tasks and if they did not want to then they just ignored them. Students had no pressures to complete their assessment tasks and sometimes teachers felt powerless to do anything.

> In our English class, we have a reading log. This is four credits and we have to read six texts to complete it. Our teacher had provided us with all we needed and he is not allowed to help us to do it, but guess what? Only one of us had done that and we spent the whole of term one doing it (S8).

Generally, Tongan students' conceptions of assessment were mainly influenced by peers, schools, social, and system factors. Peer effects are highlighted when students deliberately missed assessment for fear of being ridiculed in front of their peers and ignored assessment because most of the class were doing it. There are social influences associated with pride (i.e., graduation celebrations) and shame (i.e., laughed at) emotions of achievement and system effects in that it permits avoidance of examinations (i.e., doing only unit standards) which potentially deceive participants that they will gain access to valued outcomes through doing Unit Standards and Internal Assessment only. To succeed academically, Tongan students need to reconceptualise assessment; to challenge negative peer influences and to support and promote positive emotions associated with achievement.

6.2.2 Quality of teaching experienced at school

The analysis of students' data for their teaching experiences found these sub-categories: (1) w**ell prepared teachers, (2) easy work, (3) fair and kind, (4) control, (5) boring, (6) fun, and (7) racial issues.**

Participants liked teachers who come to class well prepared. These teachers kept them busy most of the time. They explained and made sure that students understood the topic before students were given exercises to do. Participants said that well prepared teachers have a lot of activities and students were kept busy most of the time.

> I like teachers who are well prepared when they give us exercises that explain everything more in depth instead of yelling at them (S12).

> My geography teacher, he's really on the talk. He like before he teach us, he will discuss with us what we know about the topic first. See if we know anything. We discuss it in the beginning before we get into it, so when we get into it, we don't get lost. He is well prepared and if you need help you must ask and he will help you (S6).

The participants did not believe that the work given to them as Tongan or Pasifika students was different than work given to other students in other higher decile schools. The question was probed because studies have found that teachers taught Pasifika students differently from other students and may be given easier work (Jones, 1991; Pasikale, George, & Tupuola, 1996; St. George, 1983).

> No, no I reckon it's the same. At the end of the day we are going to sit the same exam and we are doing the same standards (S1).

Tongan senior students did not believe that work given to them was easier than work given to higher decile students. Indeed, they too follow the NCEA requirements when they start NCEA Level 1 at Year 11.

In contrast, one participant said that he liked his English teacher because he gave them easy work.

> I like my English teacher because our teacher is bossy, makes us do our work. Other teachers like stand around and they were like easy. That English teacher, he gave us all very easy work, like everything about reading. He will give us work that's not too hard and tells us to break it down (S3).

Participants liked teachers who were fair and kind and always gave students the chance to finish work or to ask questions. Some teachers gave second chances to students if their internal assessments were not completed or were not good enough. Some teachers were very strict; they never shared jokes and were negative all the time. Participants liked teachers who walked around the room and helped students individually if needed, and they knew who these teachers were.

> My Maths teacher treats us the same and he is very kind and stuff. He allowed us into his classroom anytime to do our work and he often helped us during this time. Sometimes he had his lunch there while he helped us. I liked him and I also liked Maths because of him (S7).

> It will be better if they [teacher] go around the students to help them up, one by one, and giving those students the time to ask questions (S12).

Trying to control the students is an issue the students themselves identified that a lot of teachers are facing in their classrooms. Participants said that some teachers cannot control the class and students ignored these teachers. They said that students knew this and played up in these classes, and often students disrupted class activities or teachers' teaching. These students could not do the same to other teachers because they would be removed from the class straight away.

> It is always annoying that our teacher cannot control the class. Some students knew that and they play up in class. They also do this when we have relievers and some relievers are good, but it's annoying (S9).

A number of participants felt that some teachers' methods of teaching were very boring. For example, some teachers talked a lot or sometimes the content of their teaching was uninteresting. An example was given by two participants.

> In our history class, we study about World War 1 and this is really boring. There are names of places that no longer exist on world map. I mean, instead of that we should have study about the history of New Zealand or even Samoa or Tonga because we would love, to but that's what the teacher chooses for us to do (S11).

> We used to copy notes all the time in our biology class from the OHP or the board. While we copy the teacher explains the notes and we end up with notes that we don't understand. He used to sit in his desk and explain the notes. He never moves around and this is boring for us (S8).

> Sometimes teachers take up students' time. They probably think the work would take two days but it's their talking that takes up time (S12).

Some participants believed that teaching can be fun if teachers are active and resourceful. They said that young teachers seemed to be more active and energetic and they talked like the students. Old teachers are not very active and they talked in a monotonous voice which is boring to them.

> English is fun. The teacher is very active and talks the way we students talk; sometimes yelling at us. We had a lot of activities to do like do now, brainstorming, group activities, class debates and giving real life examples. She had good relationships with all of us and she is kind. I always look forward to her classes (S12).

The participants also believed that some of their teachers were racist. This impression came from different sources; some were told this when they first came to school by senior students, whereas others were told stories about incidents in certain teachers' classes by friends. Students seemed to have categorized their teachers into good/bad, fair/unfair, well/not well prepared, racist/not racist dichotomies. When asked why they thought their teachers were racist, one participant said:

> Cause you can tell, if you're in class with the teacher and this guy does not even talk much and Sir kicked him out of class, and this other guy, he swore at the teacher and the teacher just laughs with him, and the teacher helps out the white people in their work and stuff then helps out the Islanders after (S5).

> Some teachers are racists (S12).

Tongan students in this sample reported mainly teacher effects on how they are taught and their learning experiences. They seemed to distinguish between teachers who lectured a lot and those that fostered student-centred learning. Negative teachers' influences like being racists, boring, and lack of control affected students' learning in similar fashions to what Bishop and Berryman (2006) reported in their 'collaborative storying' of Māori students' experiences with their mostly Pakeha teachers. Negative peer effects like disruptive behaviours also affected students' learning. Building good relationships (i.e., fair and kind) between teachers and students is also crucial to promote students' effective engagement. The challenge here is for teachers of Tongan students to be aware of what the students think of them and make possible changes to promote improved achievement for students.

6.2.3 Students' Approaches to Learning

The analysis of students' data for their approaches to learning found these sub-categories: **(1) group work, (2) no academic pathways, (3) discipline problems, and (4) parents' lack of support.**

The participants believed that group work, like any other learning method, needed supervision from teachers to work. They did not believe that group work worked well for them just because they were Tongan or Pasifika. They said that when they were doing group work, the only group working was the one with the teacher, while the others were not. Some preferred whole class discussion to smaller groups, but all agreed that group work was very effective only if organized well.

> Group working is ok if the teacher moved around and check all the groups because the only group working is the one with the teacher. The others won't do any work, so it's important for the teacher to move around during group work (S9).

Contrary to this, one participant believed that group work is more effective in some subject areas and teachers should know this. He gave an example that in his Sports Leadership class, they often worked in groups and they had no problem with it. Most of their activities were based on group work and they had to complete the tasks because they were for their assessment.

> We had to work together because if not then we cannot complete the task. For example, we had a group of junior students and we had to give them warm-up exercises before letting them play volleyball. One of us needs to do the warm-up exercises one to umpire and one to record the scores. We had to do it, otherwise we couldn't complete it (S11).

Most of the participants had no clear academic pathway to follow. They chose subjects that their friends picked and the teachers and school made decisions on subjects like Mathematics and Science. Some participants described how they often chose subjects for which they could easily get credits. Most had some idea of a career after school, but when asked if the subjects they were doing were the right ones, many did not know. It seemed that they had their own choice of profession in mind, but there were no clear links with

those choices of subjects they were learning at school. Most of their parents and caregivers also had no idea what subjects they were doing at school.

> I know if I'm into my studies, I'll have a good job and good money. My dad even wants me to be a doctor, but I guess I'm too lazy to be serious with my studies (S6).

> I wanted to be an engineer. My cousin worked in the airport loading and unloading cargoes and he said that lots of his friends there were engineers and they told him it was good money and that, but I guess I can't do that because my Maths sucks (S7).

Some participants also believed that their learning was often disturbed by students who some teachers could not control or discipline. They believed that the teachers and their class time were often wasted in trying to control some students' behaviour. They also believed that some students were disrespectful to teachers. This was not helped by the rest of the class who seemed to encourage this behaviour.

> Some of the students disrespect some of our teachers. This takes up a lot of the teachers' time. Some classes we hardly do anything; just the teacher telling off these students. It wasted our time too (S4).

> In our Maths class, the teacher is new and he cannot control the class. Two boys have been moved to other classes and other Maths teachers often visit our classroom, but this is stupid. I don't know if they behave the same at their homes or not (S1).

All participants agreed that learning would provide them with a good future**.** One participant described how all students know that, but still most of them do not utilize their time well at school. Other students may not be thinking too much about their future. Only a few students used their time well and these students would have better opportunities than those who did not.

> We are told at schools, at homes, and at churches by our teachers, parents, and elders to work hard at schools. Everybody knows how good education is but only a few do really good. Most of us know that but maybe we rely too much on others and the system. People know that they can get jobs easily and if not you go on benefits (S6).

Tongan students felt that their parents and caregivers offered little help at home with their studies. This was because they were busy with other matters or they could not understand the work themselves. One participant mentioned that their parents offered little help with their academic work, not because they did not want to, but because they did not know how to. When asked if they were doing work at home, most of the participants said they did, but not on a regular basis. Time spent on homework and study varied from two to four hours per night. Most said that they are not supervised by an adult during this time, and even if they are supervised, the participants felt that their parents and caregivers do not offer much help in their studies.

> Yeah because our parents how they came from Tonga, my parents don't understand credits 'cause you know in Tonga… They didn't know what credits was until I got my certificate so yeah you don't really get much back-up from home; they try but they don't know much stuff (S10).

> Yeah you should get teachers to send out notes to your parents, not to like growl you, but just to encourage you to do your work (S3).

Participants also felt that their parents needed to take a more positive role and be involved strongly in their schooling. Participants knew that their parents wanted them to have a good education, but felt that they must do more than just tell them to have good education. Their parents seemed to accept that a good education is mainly the student's responsibility. However, the students wanted more from their parents. The interesting issue here is how parents and children can reconcile their different views and beliefs to improve Tongan students' academic performances.

> They shouldn't always put their job before their kids, if you're working late and you know your child's got an interview, you should come straight away to the interview. You should always get involved like when your kids come home and go "How was school? What did you do? Show me your books (S2).

> For me I was really surprised when my old man really hassled me over my result this year. I think it was in late December he started asking me. I told him that results came in January and when I received it he asked to look at it, didn't understand most of it and asked me if I passed. I thought: Man! Since when were

> you interested in my studies? But he really wanted to know if I passed. Lucky for me I did. If only he showed that interest at the beginning of the year maybe I would have got a good pass (S12).

Tongan students in this sample seemed to identify school and home environment as barriers to their schooling aspirations. For example, the lack of parental involvement and support for their children's learning is a problem that Tongan parents need to address in order to help improve students' achievement. Assistance is needed to enable Tongan students to understand learning strategies and the importance of regulating their own learning. Self-regulated students are able to choose appropriate strategies to given tasks. Tongan parents and their children could also be assisted to reconcile their different views and beliefs to improve Tongan students' academic performances.

6.3 Discussion of Focus Group

The data from this group of Tongan students has helped us to understand more of what the literature has said about both Tongan and Pasifika students in New Zealand. In the study the participants believed that assessment was fair and an important part of their schooling and the NCEA framework allowed them a better chance of gaining a lot of credits, especially with the internal component. Some participants really liked the flexible structure of the NCEA framework because it pushed them to work hard throughout the year. This claim may also have negative effects, especially for Tongan students, because NCEA allows students to get credits and obtain certificates by doing a lot of unit standards. Doing a lot of unit standards will disadvantage students wanting to enter into university. The Starpath Project Report (Starpath Project [SPR], 2009) found that

> The flexibility and complexity of the NCEA system, and the wide range of subjects it offers, contribute to these disparities, benefitting some students but at the same time making it easy for other students to make non-strategic course choices or to find themselves on a pathway that leads away from achieving University Entrance (p. 292).

Academic emotions associated with Tongan students' experiences were reported. For example, students reported the positive emotions of pride and enjoyment in members of family graduating from universities. The celebrations of academic achievement are

positive events that may motivate Tongan students to value education more. The families' celebrations of academic achievement bring families and relatives from different parts of the world to celebrate together. These celebrations remind Tongan students what the Tongan community consider important; what is valuable to them. Academic achievement is judged by Tongans as a value and therefore an important part of their lives. The challenge for Tongan parents, students, and teachers of Tongan students is to promote positive academic emotions like enjoyment, pride, and hope because these are positively related to academic achievement (Goetz, Frenzel, Hall, & Pekrun, 2008; Pekrun, Goetz, Titz, & Perry, 2002).

In addition, negative academic emotions like shame and boredom were reported in relate to students' teaching experiences. Students also believed that some of their teachers are racist. This is not a new issue and has been reported in previous studies (St. George, 1983; Biddulph, 2003; Benton, 1986; Bishop & Berryman, 2006; Carkeek, 1994). Phillips et al. (2001) found that

> Effective and responsive teaching can enable high standards for Pasifika students in low decile schools, and that a classroom-based, research-informed, professional development program can enable quality teaching for these children. The challenge for schools with a lot of Tongan and Pasifika students is to 'show their teachers that quality teaching can optimize outcomes for diverse learners across the curriculum (p. 34).

Some of the studies on Pasifika students in New Zealand schooling found that some teaching methods were favoured such as learning in small groups or cooperative groups, non-verbal emphasis, observations, participation and imitation, group discussions, take-home assignments, work experience, group activities, experimental learning, role play, practical skills, discovery projects, workshops, tutor presentations, and field trips (Brown, 1995; Dunlop, 1982; Pasikale, 1998; Nakhid, 2002; Silipa, 2001; St. George, 1983; Taufe'ulungaki, 2003).

This sample of Tongan secondary school students did not agree that grouping automatically works well for Tongan students. Like any other approach teacher supervision is needed for groupings to work. They wanted whole class discussions, not just small group

discussions, because they believed that the only group working would be the one with the teacher. Hence, whole class work limited negative peer effects.

Meaningful parental involvement in their children's schooling may enhance the educational process. In this investigation, parental support was seen as an issue by the participants. Participants felt that their parents need to support them in their schooling and they knew that some parents wanted to support them but their limited education constrained their efforts. Parents who wanted to support their children did not know how to. There seemed that there is a mismatch between Tongan parents' high aspirations for education and their support for their child's schooling. The challenge for Tongan parents is to be actively involved in the process of schooling so that more Tongan students graduate from secondary schools to tertiary institutions.

6.4 The Survey

There were 381 Tongan secondary school students who participated in this survey (Table 26). Most of the participants were Year 12 and 13 students, females, New Zealand born and were church goers, attending Tongan language churches.

Table 26. Student Participants' Characteristics

Characteristics	Frequency	%
School Year		
Year 9	45	12
Year 10	52	14
Year 11	44	12
Year 12	116	30
Year 13	124	33
Gender		
Male	138	36
Female	243	64
Country of Birth		
New Zealand	268	70
Tonga	96	25
Elsewhere	17	5
Attending Church		
Yes	333	87
No	48	13
Language at Church		
Tongan	220	58
English	120	32
Both	27	7
Missing	14	4

The three main domains explored in the students' surveys were assessment, teaching, and learning. Models for each of these domains have been established by researchers and these models were used as starting points of analysis. In doing this, the EFA analysis had been done by those researchers and therefore the analysis of students' domains used CFA only.

6.4.1 Students' Conceptions of Assessment (SCoA)

The 33 assessment items were analyzed based on the theoretical model Brown (2007, 2008a) derived from a survey of New Zealand secondary school students' conceptions. The original model was inadmissible for the Tongan students' data because of negative error variance estimates and the covariance matrix being not positive definite. This suggests either that the model is wrong or the sample is too small (Joreskog, 1984).

Since the sample was over 350 and thus, not too small, various alternative models were tested. An alternative that removed the two sub-factors within the factor of irrelevance (Figure 13) had acceptable fitting statistics (χ^2= 1109.73; *df*= 438; p= .001; χ^2/df=2.59; *p*=.13; CFI = .87; gamma hat =.90; RMSEA=.058; 90%CI= .054 - .063; SRMR= .062). This alternate model indicates that for Tongan students the irrelevance factor does not conceptually separate into two sub-factors. The instability of the sub-factors within the irrelevance conception has been confirmed in an independent re-analysis of Brown's 2007 model (Weekers, 2009). This revision is conceptually identical to the original model (Brown, 2008e).

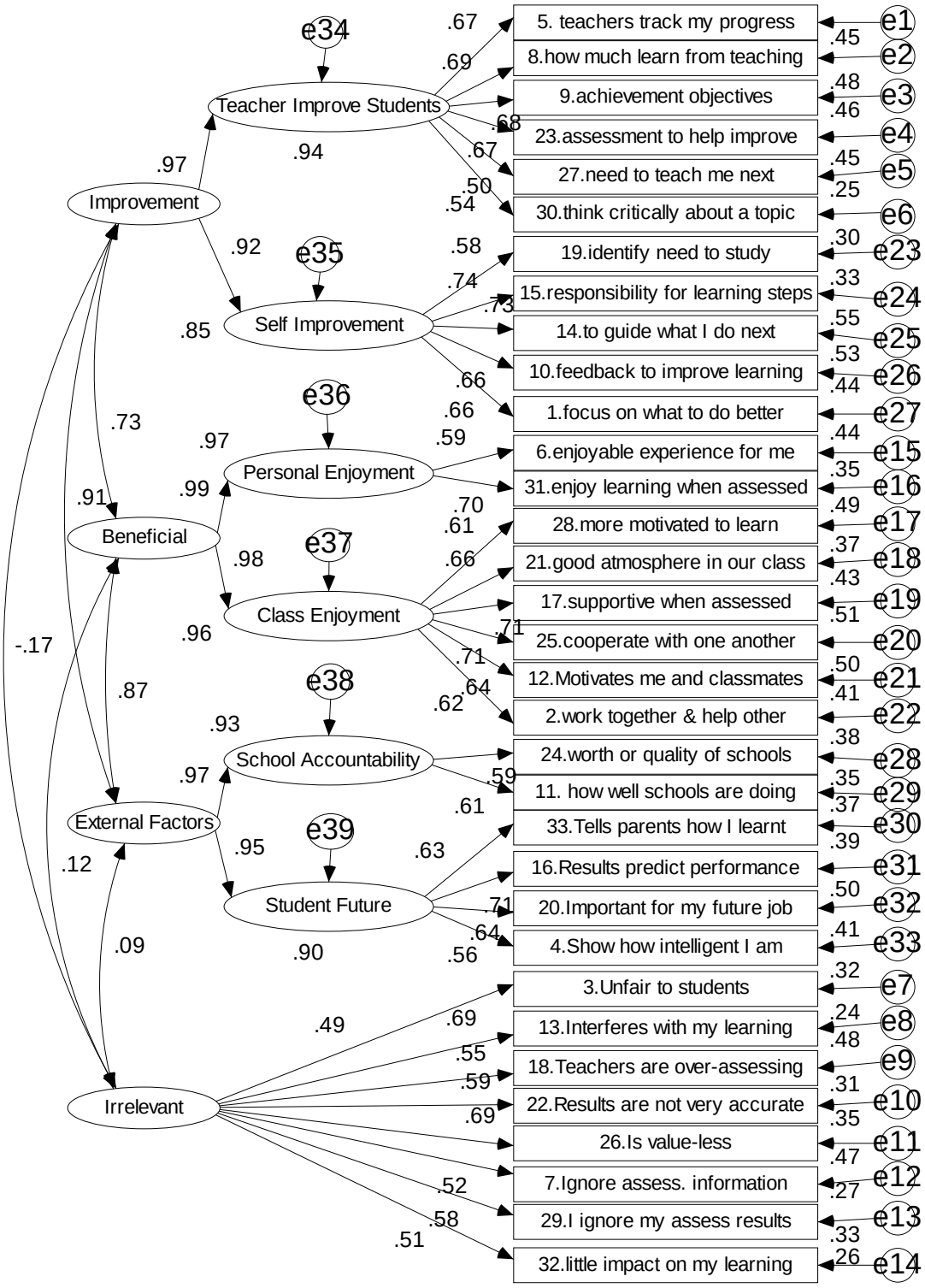

Figure 13. Students' Conceptions of Assessment Inventory Measurement Model

The Tongan students' conceptions of assessment were hierarchically arranged as shown in Figure 13. As expected, the model consisted of seven first-order conceptions (i.e., teacher improves students, self-improvement, personal enjoyment, class enjoyment, school accountability, student future and irrelevant). Three second-order factors were found (i.e.,

improvement, beneficial and external factors) onto which six first order factors (excluding irrelevant) were loaded.

These three second-order factors were inter-correlated with each other and the first-order irrelevance factor. There were three very strong correlations among Tongan students' conceptions of assessment; the improvement and the external factor (r = .91), the beneficial and the external factor *(*r = .87), and the beneficial and improvement factor (r = .73). The irrelevance factor had a statistically non-significant correlation with the improvement factor (r = -.17), the beneficial factor (r = .12) and the external factor *(*r = .09). Combined with a very strong pathway regression weights from the 2nd- order correlations to the 1st – order factors (all >.90), there is an indication that this sample of students did not distinguish between these various purposes as much as previous samples had. The Tongan students mostly agreed with their improvement factor and moderately agreed with their external and beneficial factors (Table 27). In contrast, they only slightly agreed with the irrelevant factor which was significantly less than the three other factors.

Table 27. Mean and Standard Deviation of Factors (Students' CoA)

			Effect Size (Cohen's *d*)		
Factors	*M*	*SD*	II	III	IV
I. Improvement	4.65	.89	.23	.54	1.70
II. External	4.43	1.05		.28	1.35
III. Beneficial	4.15	.97			1.11
IV. Irrelevance	3.07	.97			

Tongan students in this survey think that assessment may lead to improvement but it is really for the future and external attributions. This is generally associated with lower academic performance (external attributions) in educational psychology. If students do it for the future or for their parents, they just do not use the information in assessment in a self-regulating way even if they believe they are. Because they think that assessment is socially and emotionally beneficial, this probably prevents them from working hard in response to low grades. To really learn means to break away from peers and accept that growth in learning is painful. These inappropriate beliefs in assessment may explain in part why so many Tongan students do badly.

6.4.2 Students' Teaching Evaluations (STE)

Since Peterson et al. (2000) settled on a single factor solution, despite having initially identified as many as four factors in the 13 items making up the Quality of Teaching survey, it was decided to first evaluate the Tongan data with EFA analysis using maximum likelihood with oblique rotation. Two factors were identified and CFA analysis found good fit characteristics (χ^2= 137.03; *df*= 53; p= .001; χ^2/df=2.59; *p*=.11; CFI = .97; gamma hat=.96; RMSEA=.065; 90%CI= .051 - .078; SRMR= .041). Hence, it was accepted that the two factor model need not be rejected (Figure 14).

Two distinct yet strongly inter-correlated factors were identified. The individual factor involved having a personal understanding of how classroom activities relate to learning; a positive evaluation of the school, classroom, and rate of learning. In contrast, the collective factor involved a much stronger sense of collective classroom identity involving content being taught; time to finish work; teacher relationship with the class; peer relationships in the class; and behaviour in class. Clearly, the strong inter-correlation between the factors shows that these two facets are strongly linked.

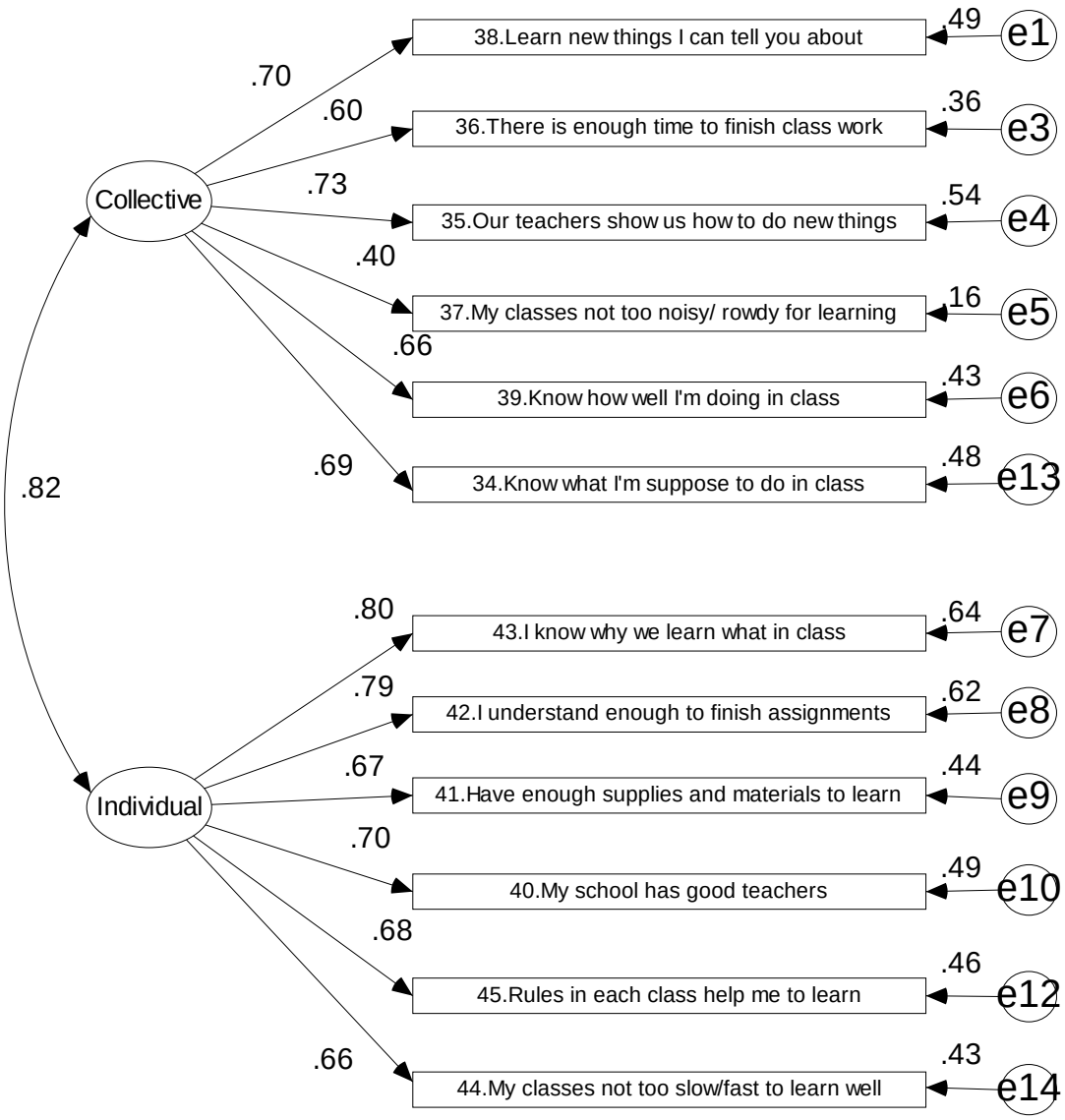

Figure 14. Students' Teaching Evaluation Inventory Measurement Model

The students moderately to mostly agreed with both facets of quality teaching. The two mean scores were almost identical and the effect size difference was trivial (Cohen's *d* = .04). This means that students reacted positively in exactly the same way to both their teaching experiences.

Table 28. Mean and Standard Deviation for Factors (Students' STE)

Factors	*M*	*SD*
Individual teaching experiences	4.48	1.09
Collective teaching experiences	4.44	.97

Tongan students did not differentiate between their individual experience of classroom teaching and their collective sense of teaching quality. This suggests that Tongan students may not distinguish strongly between their individual identity and practices in terms of school learning from their collective identity and practices. Whether this is a contributing factor to underachievement will be investigated when these factors are related to academic performance.

6.4.3 Students' Approaches to Learning (SAL)

The SAL has 10 factors related to three dimensions. A hierarchical model in which the ten first order factors were loaded into three second order factors had a marginal fit: (χ^2=1818.97, *df*= 736; χ^2/df =2.47; p= 0.01; CFI=.88; gamma hat=.88; RMSEA=.062; SRMR=.064) but given the robustness of the SAL in previous studies it was decided to retain these 10 factors (Figure 15).

The interpretation of the Tongan student responses to the SAL is thus the same as that put forward by Marsh et al (2006). The students' responses indicate that there were three general understandings of self, four aspects of motivation, and three aspects of learning strategies.

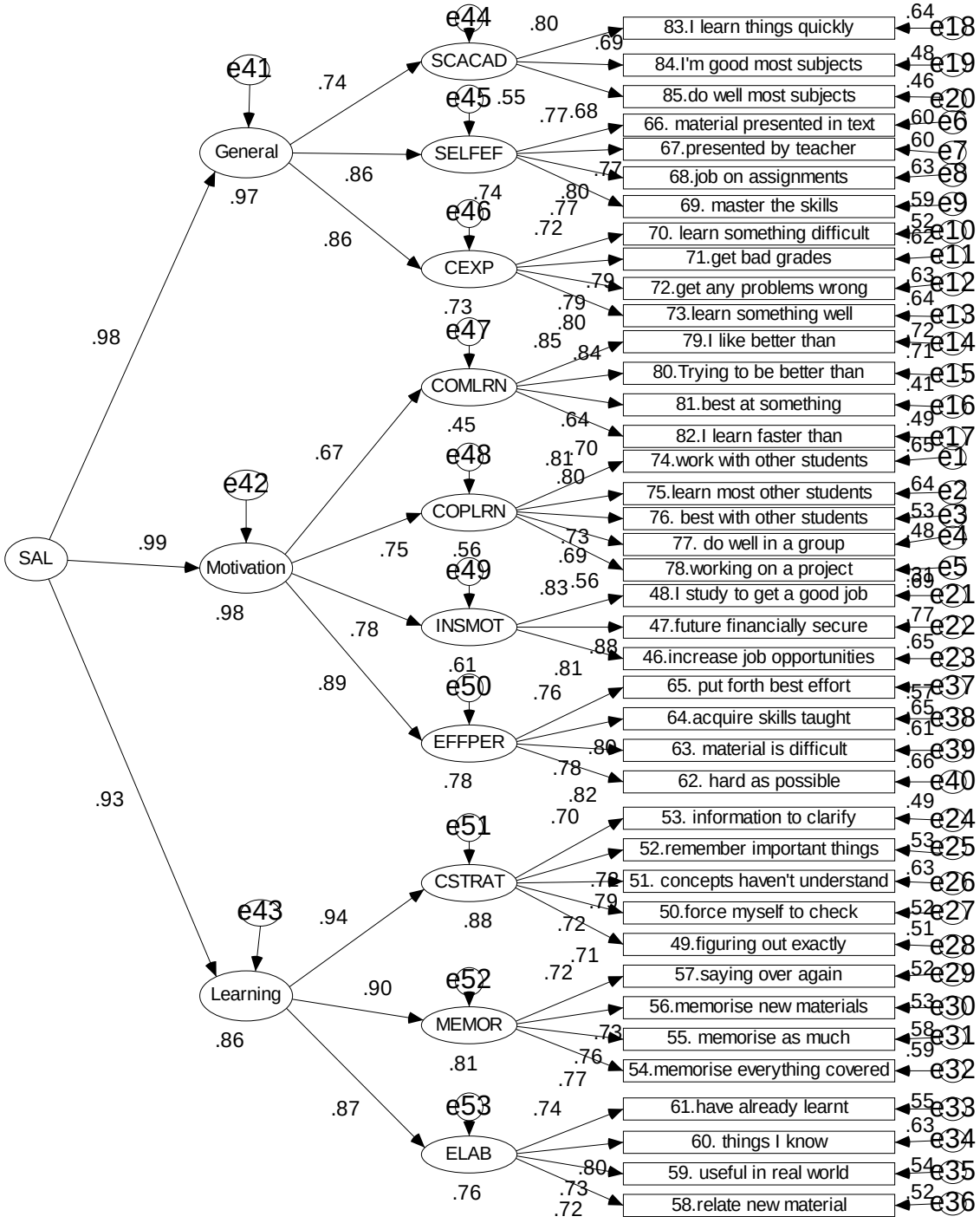

Figure 15. Students' Approaches to Learning Inventory Measurement Model

Tongan students mostly agreed with all of the major dimensions related to learning. The mean scores were all greater than moderately agree (Table 28). The effect size difference between motivation and general was small *(d* = .22) suggesting Tongan students in this sample did not distinguish among the three dimensions. What this may mean is that various aspects of learning which might have different degrees of impact on academic performance are not distinguished by Tongan students – learning is learning insofar as this

sample is concerned. This lack of a sophisticated and nuanced conception of learning may be problematic in helping students implement productive strategies, motivation, and self-beliefs.

Table 29. Mean and Standard Deviation for Factors (Students' SAL)

			Effect Size (Cohen's *d*)	
Factors	*M*	*SD*	II	III
I. Motivation	4.70	.91	.12	.22
II. Learning	4.59	.93		.10
III. General	4.50	.95		

6.4.4 Interconnections between student responses to assessment, teaching, and learning

Table 30 shows the mean scores and the standard deviations for each of the major scales identified. Tongan students most strongly agreed with (M>4.50) the three approaches to learning and assessment for improvement. Somewhat weaker agreement (4.00<M<4.50) was given to all the other scales except for assessment is irrelevant which was given only slight agreement. The mean score differences among the more endorsed scales was moderate at best (d=.56); whereas the mean difference was large between all factors and the irrelevant assessment factor.

Table 30. All Students' Factors, Mean and Standard Deviation

Factors	*M*	*SD*
Motivation (SAL)	4.70	.91
Improve (Assessment)	4.65	.89
Learning (SAL)	4.59	.93
General (SAL)	4.50	.95
Individual (Teaching)	4.49	1.08
Collective (Teaching)	4.44	.98
External Factors (Assessment)	4.43	.97
Beneficial (Assessment)	4.15	1.05
Irrelevant (Assessment)	3.07	1.06
Average	4.34	.98

It may well be that this consistently positive response by Tongan students across all scales reflects a response style or bias in which members of this ethnic group are inclined to react positively. Nonetheless, the current data suggests that the students are in general positive about their reasons and approaches for learning, all purposes of assessment, and the quality of teaching they experience. However, a lack of discrimination between factors which have been shown elsewhere to have differential effects on academic performance may result in reduced outcomes; a naïf assumption that everything is good may prevent students from adopting more sophisticated and powerful learning strategies.

The inter-correlations among the 9 factors are displayed in Table 31. The correlations marked in bold are the correlations within each topical section of the survey and values highlighted in orange are values greater than .40. As before, there is a strong correlations (generally greater than .60) within method effect (shown in bold) for each topic area. Except for the irrelevance factor, all other assessment, teaching, and learning factors are moderately inter-correlated with values falling within the range (*r*=.45 to .68).

Table 31. All Students' Factors Correlation

	Assessment				Teaching		Learning		
	1	2	3	4	5	6	7	8	9
Irrelevant	—								
Improve	**-.14**	—							
Beneficial	**.07**	**.62**	—						
External	**.08**	**.71**	**.66**	—					
Collective	-.03	.57	.53	.51	—				
Individual	-.11	.56	.51	.45	**.68**	—			
General	-.07	.64	.50	.48	.59	.58	—		
Motivation	-.12	.68	.47	.54	.61	.60	**.79**	—	
Learning	-.07	.68	.51	.56	.57	.57	**.75**	**.77**	—

Note. Numbers in **bold** are correlations between factors of the same domain, values highlighted in orange are correlations equal to or above .40.

6.4.5 Discussion and summarizing students' focus group and survey:

Tongan students in this sample appeared not to make strong distinctions between the improvement, benefits, and external purposes or aspects of assessment; whereas they clearly distinguished and rejected the irrelevance conception. This appears to be a very simplistic and non-judgmental evaluation of the role assessment plays in their lives. Since the social benefit and enjoyment aspects and the school evaluation and personal future external aspects are highly interlinked with improved learning, it may well be that the adaptive learning-oriented power of self-regulation on the growth pathway in response to assessment is not in the thinking of the Tongan students. What this may mean is that the adaptive growth-enhancing power of self-regulating conceptions of assessment reported elsewhere with New Zealand secondary school students (Brown & Hirschfeld, 2008; Brown, Peterson, & Irving, 2009; Hirschfeld & Brown, 2009) may not be true for Tongan students. Those studies found that external and beneficial factors had either negative or neutral consequences on academic performance. It is possible that this way of thinking is reflective of a low level of expertise in learning and may be ameliorated by direct instruction in more sophisticated approaches and strategies for learning (Kiewra & Dubois, 1997).

This current result would suggest that due to the strong inter-connection between adaptive and maladaptive conceptions of assessment, Tongan students' conceptions of assessment may not be a force for academic growth. If this is true, then this would indicate that Tongan students need to be educated to adopt a different conception of assessment which places greater emphasis than is currently shown on the notion of assessment as a means of self-regulating one's own learning and performance. The current results suggest this is not a dominant understanding of assessment among Tongan secondary school students.

The two conceptions of Tongan students' teaching experiences suggested that the nature of these two conceptions were similar or overlapped. It could be because the Tongan community is more communally oriented or that Tongan students see what is going on in the classroom as one teaching experience. Similarly, Tongan students in this sample seemed not to differentiate their learning approaches either. Tongan students conceptualize different learning approaches as all learning. It could help them if they were supported to understand the differences in learning approaches. For example, that memorization and

rote learning, which the Tongan community is more familiar with, are low order learning strategies, which are essential but not sufficient for the grades needed (i.e., Merit or Excellence) for entry to university.

In general, Tongan students' assessment, teaching, and learning conceptions are all significantly linked. The learning approaches show consistently strong correlations among them. As expected, the irrelevance factor is the only factor that has no significant connections to all other factors.

6.5 Attitudes and Academic Performance

Study Three with Tongan students was designed to explore the nature of any relationships between Tongan secondary school students' attitudes to schooling and their academic performance. Students' conceptions were captured by a self-administered survey which asked them to rate their degree of agreement to attitudinal items about assessment, teaching and learning. Academic performances were students' NCEA results which were collected with their permission from their various schools. Students' achievement is not often linked to their perceptions/conceptions, but it is important to explore. If there are any relationships, what are they and how they can be best used to inform potential improvements in Tongan students' academic achievement?

Generally, the academic performance of immigrant minority students is a matter of real concern in most of their adopted countries. Literature discussed in Chapter Two revealed that immigrants often come with high aspirations for education, often expecting their children to perform well in the educational opportunities they are exposed to, but experience has shown that most immigrant minorities hardly ever experience significant academic success (Artelt, Baumert, Julius-McElvany, & Peschar, 2003; Steele & Aronson, 1995).

If reasons and beliefs predict behaviour (Ajzen, 1991), it seems important to establish the relationships of what students believe about schooling to their academic performances. This may help us identify beliefs which, if developed by Tongan students, would contribute to practices that reduce underachievement.

6.6 Participants

The participants were Year 12 and 13 Tongan students who were enrolled in 2008 in secondary schools in the Auckland region. Schools identified from the ERO webpage (www.ero.govt.nz/) to have substantial number of Tongan students were approached. Seven schools agreed to participate in the survey. Four schools had a decile 1 ranking and three schools had 2, 4 and 9 decile ranking. 81% of the students were in decile 1 and 2 schools and only 6% were in decile 9 school. The participants were mostly female (63%), there were equally year 12 and 13 students, mostly born in New Zealand (65%) and most of them (85%) were attending churches, 62 per cent of them Tongan churches (Table 32). These students had sat and obtained NCEA results from 2007. There were only 189 participants in the survey and the numbers of participants in each of the two selected subjects (English and Mathematics) for this study were less than 189.

Table 32. Participants' Characteristics

Characteristics	Frequency	%
Gender		
Male	69	36.5
Female	120	63.5
School Year		
Year 12	96	50.8
Year 13	93	49.2
Country of Birth		
New Zealand	123	65.0
Tonga	59	31.0
Attending Church		
Yes	161	85.2
No	28	14.8
Tongan Language Church		
Tongan	118	62.4
European	50	26.5

6.7 Instruments

The attitudes to assessment, teaching, and learning survey questionnaire that was used in this study was the same students' self-administered questionnaire used in Study 2

(Appendix D). The only difference was that students in Study Two were anonymous, but whereas in this study the students were identified in order to link their beliefs and attitudes to their academic outcomes.

6.7.1 Learning Outcomes

There were only 189 participants in the survey and only in two subjects (i.e., English and Mathematics) were enrolments greater than 100 and only at Level 1 (Table 33). A total of 21 different subjects at Level 1 and 20 at Level 2 could be identified, indicating the students had taken a wide range of courses. Interestingly twice as many Level 1 courses were identified as Level 2 despite equal numbers of Year 12 and 13 taking part in the study. This suggests that many of the Tongan students were not keeping pace with the expectation that they would complete all full course load at Level 2 in Year 12. This is consistent with the pattern of relatively low academic achievement in that students are remaining at school but not making expected progress. The sample size in this study made it incapable of analysing all the subjects the participants did, so it was decided to use only English and Mathematics Level 1 results. These two subjects are compulsory in NCEA Level 1 and therefore most participants had results for these two subject areas. In Mathematics Level 1, 38 standards were attempted by participants, 30 of these were unit standards. In English Level 1, 32 standards were attempted in which 27 were unit standards (Table 33).

Table 33. Number of students by Subjects, Levels and Standards for Maths/English L1 only

Subjects/*Standards*	Level 1	Level 2
Maths *(Unit/Achievement)*	149 *(30/8)*	52
English *(Unit/Achievement)*	108 *(27/5)*	75
Science	54	7
Physical Education	40	20
Biology	34	14
Chemistry	30	14
Health	26	5
Geography	24	11

Subjects/*Standards*	Level 1	Level 2
History	23	9
Physics	20	12
Information Management	19	0
Visual Arts	17	7
Generic	14	13
Social Science Studies	13	7
Accounting	11	8
Economics	9	5
Dance	8	16
Computing	7	18
Drama	6	8
Music	6	5
Hospitality	3	7
Total	621	313

The outcome measures were secondary school students' NCEA results. The NCEA system has been outlined in Chapter 3, section 3.4.2.1. The GPA conversion of students' grades was outlined in Chapter 3, section 3.4.3.1. Each student had three sets of scores: GPA Internal (the total credits from all internally assessed standards); GPA External (the total credits from all externally assessed standards); and GPA Total (all credits from both internally and externally assessed standards).

Table 34 provides a summary of the two subjects (English and Mathematics Level 1), mean, and standard deviations. The internals are higher than the externals, more students did the internals than the externals (ratio is 2:1 in English, 3:1 in Mathematics) and the mean GPA score is very low – everyone got achieved so in fact we can conclude that in English the average is close to achieved but in Mathematics it is well below achieved. There is considerably more variability in English than Mathematics *(SD* nearly 4 times bigger in English than Mathematics). This suggests that the Tongans as a whole did very

poorly in Mathematics while some did quite well in English though the average was still below passing.

Table 34. Subjects, Means, and Standard Deviations

	Internal	External	Total
English			
M (*SD*)	1.76 (.82)	1.48 (1.47)	1.72 (.86)
N	97	50	108
Mathematics			
M (*SD*)	.96 (.19)	.77 (.42)	.96 (.21)
N	148	54	149

6.7.2 Parcelling

The relationship of the three types of school attitudes was explored for each of these three different types of GPA for both subjects. However, the sample size was small resulting in a low ratio of participants to items. In order to overcome this problem parcelling procedure was adopted.

In parcelling, the items belonging to each factor were summed or parcelled into manifest variables by creating the mean of all items belonging to all nine students' conceptions (CoA: improve, external, affect, irrelevance; SAL: general, motivation, learning; STE: collective and individual). Measurement models using these nine parcel factors were analysed against the three sets of GPA scores for the two subjects: English and Mathematics.

6.8 Data Analyses

In order to address the issue of how student beliefs related to student academic performance, confirmatory factor analysis of the beliefs inventories was used to establish the validity of the belief scales. Then structural equation modelling was used to examine the impact of those belief scales on NCEA performance.

All participants who had answered less than 90 per cent of the survey items were dropped from the analysis. With the balance, data missing at random was computed using the SPSS

EM missing values procedure (Little & Rubin, 2002). As a result, 189 students were available for analysis.

Study Two had established the structural characteristics of Tongan students' conceptions of schooling (i.e., assessment, learning, and teaching). Conceptions of assessment had four factors (i.e., improve, external, affect, and irrelevance), conceptions of teaching experiences had two factors (i.e., individual and collective), and conceptions of best approaches to learning had three factors (i.e., general, motivation, and learning). These models were accepted as applying equally to the responses in this study. After parcelling the nine factor scores into summed or parcelled scale scores a simplified model of three intercorreleted factors (i.e., assessment conceptions, teaching conceptions, and learning conceptions) was created. This approach was taken because it was expected that students beliefs about teaching, learning, and assessment would tend to overlap, meaning that separate models might produce spurious results. By allowing the three belief constructs to be inter-correlated any multicollinearity could be properly addressed. Structural equation models were created to predict the three GPA types in each subject: hence, six models were explored. Statistically non-significant pathways were removed leaving models with significant pathways and acceptable fit characteristics.

Based on previous studies it was expected that students' academic performance would be positively predicted by 1). SCoA improvement, 2). SAL and 3). STE; while the remaining SCoA constructs (i.e., external, affect, and irrelevant) would have a negative relationship to performance.

6.9 Results

6.9.1 NCEA English Level 1 External:

Only 50 students had GPA scores for the external component of NCEA Level 1 English. After removing statistically non-significant pathways an acceptable fitting structural model was found (χ^2= 51.92; *df* = 31; χ^2/df= .091; p=0.01; CFI=.95; gamma hat=.91; RMSEA=.117; 90%CI= .057 - .172; SRMR= .048) (Figure 16). The three constructs (SCoA, SAL and STE) were highly correlated to each other (*r* = .90, .93, and .94), indicating that Tongan students' beliefs of these constructs were highly interrelated. Each construct strongly predicted its own parcelled factor scores.

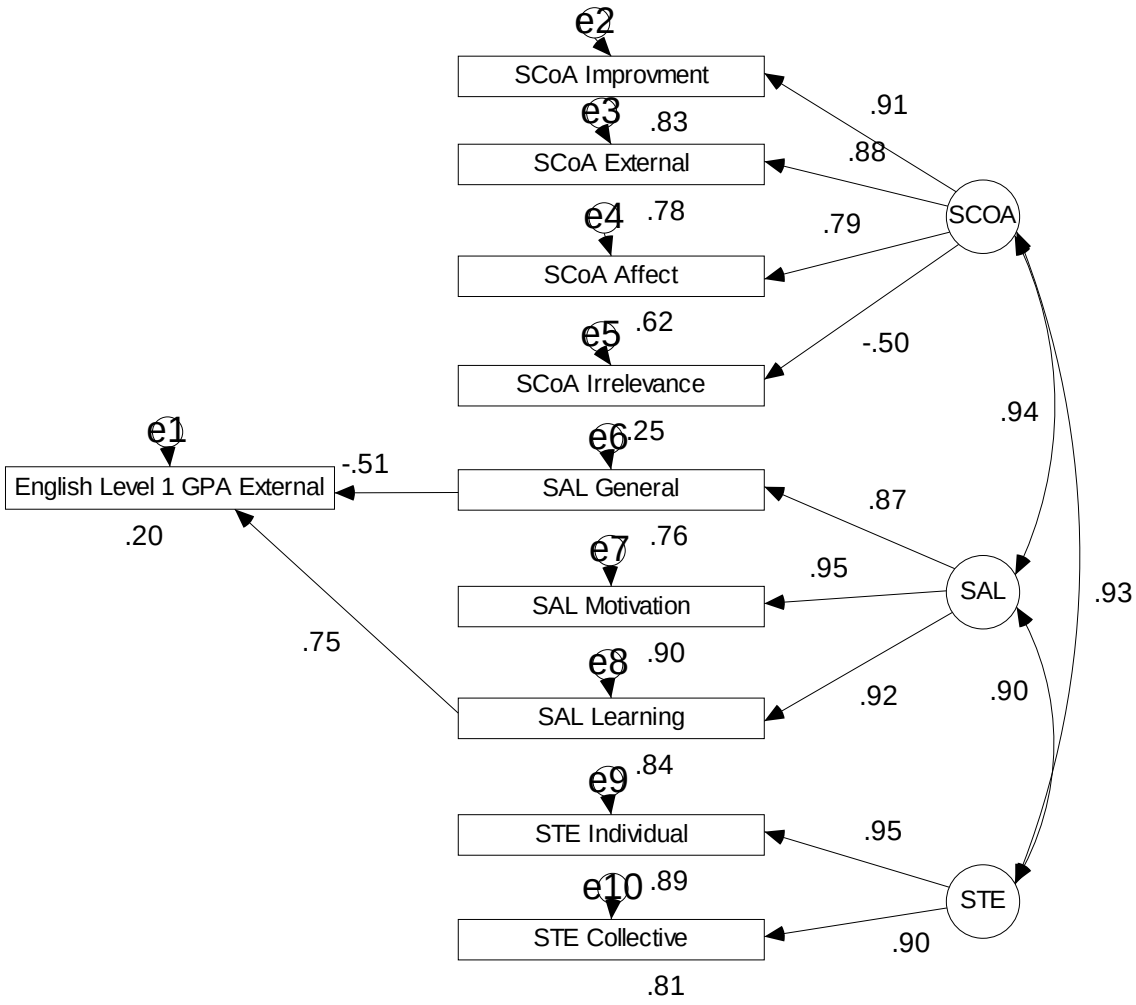

Figure 16. Measurement models for Students' CoA + SAL + STE and NCEA English L1 GPA External

The model contained only two significant pathways that had statistically significant predictions towards Level 1 English GPA External scores. SAL general (academic self concept, self efficacy, and control expectation) had a moderate negative loading β= -.51, meaning that an increase of 1.0 standard deviation in SAL general would decrease English external scores by .51 of one standard deviation. SAL learning (i.e., control strategies, memorization, and elaboration) had a high loading β= .75 meaning that an increase of 1.0 standard deviation in SAL learning would also increase English external scores by .75 of a standard deviation. In total these two constructs explained 20% of the variance in English Level 1 External GPA.

The lack of effect from SCoA and STE is surprising, but may be a consequence of the strong inter-correlation between the constructs. The negative effect of SAL General is also surprising. It may be that the alienated nature of the one-off examination made participants

nervous and unconfident. This would lead to lower self-efficacy and expectations which are obstacles to academic success (Marsh, 2006).

6.9.2 NCEA English Level 1 Internal:

Only 97 students had a GPA for the internal component of NCEA Level 1 English. A simplified model of the students' parcelled variables (i.e., external, improvement, irrelevance, affect, motivation, general, learning, collective and individual) with regressions from the nine parcelled variables to the English Level 1 Internal GPA was tested. The three constructs (SCoA, SAL and STE) were highly correlated to each other (r = .81, .87, and .88) indicating that Tongan students' beliefs of these constructs were highly interrelated and one construct could not be studied in isolation from the other two constructs. Each construct strongly predicted its own parcelled factor scores.

After removing statistically non-significant pathways an acceptable fitting model was found (χ^2= 53.80; df = 32; χ^2/df= 1.68; p=0.00; CFI=.96; gamma hat=.95; RMSEA=.84; 90%CI= .042 - .122; SRMR= .055) (Figure 17).

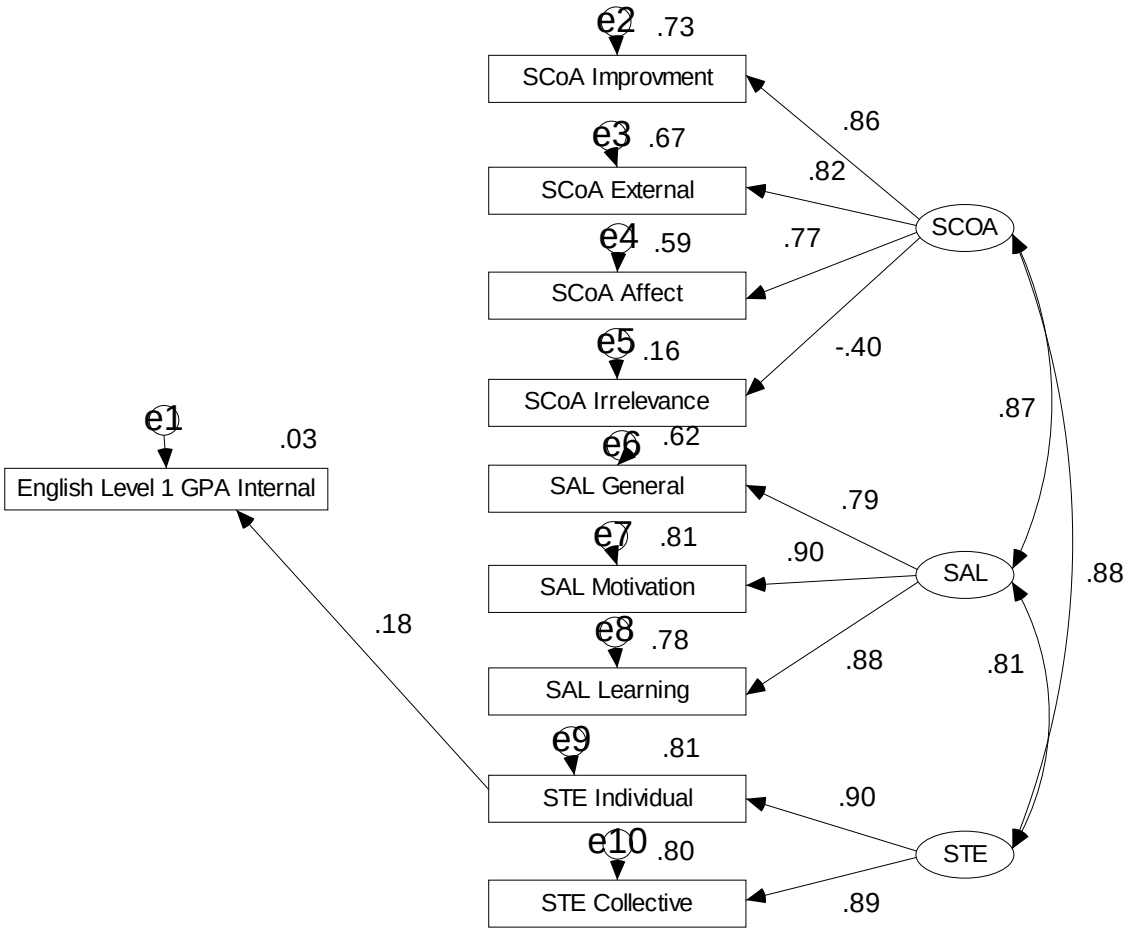

Figure 17. Measurement models for Students' CoA + SAL + STE and NCEA English L1 GPA Internal

Only one conception (i.e., STE Individual) (Figure 17) had a statistically significant prediction towards English Level 1 (β=.18) and explained 3% of the variance in the Internal Level 1 English GPA. As STE individual is increased by one standard deviation, English Level 1 GPA internal also increases by .18 of a standard deviation.

Again, the lack of effect from SCoA and SAL was not expected but may be a consequence of the strong inter-correlations between the constructs. The positive effect of STE individual (i.e., know why we learn what in class, understand enough to finish tasks, my school has good teachers, rules in class help me to learn, school has enough supplies, class is not too slow or too fast to learn well) may be a reflection of students' experiences with how internally assessed standards, including unit standards, are implemented at school.

6.9.3 NCEA English Level 1 Total:

Only 108 students had a GPA for the Total NCEA Level 1 English. After removing statistically non-significant pathways an acceptable fitting model was found (χ^2= 48.83; *df* = 32; χ^2/df= 1.53; p=0.02; CFI=.98; gamma hat=.97; RMSEA=.070; 90%CI= .023 - .108; SRMR= .046) (Figure 18). The three constructs (SCoA, SAL and STE) were highly correlated to each other (*r* = .82, .87, and .88), indicating that Tongan students' beliefs of these constructs are basically the same and could not be isolated. Each construct strongly predicted its own parcelled factor score.

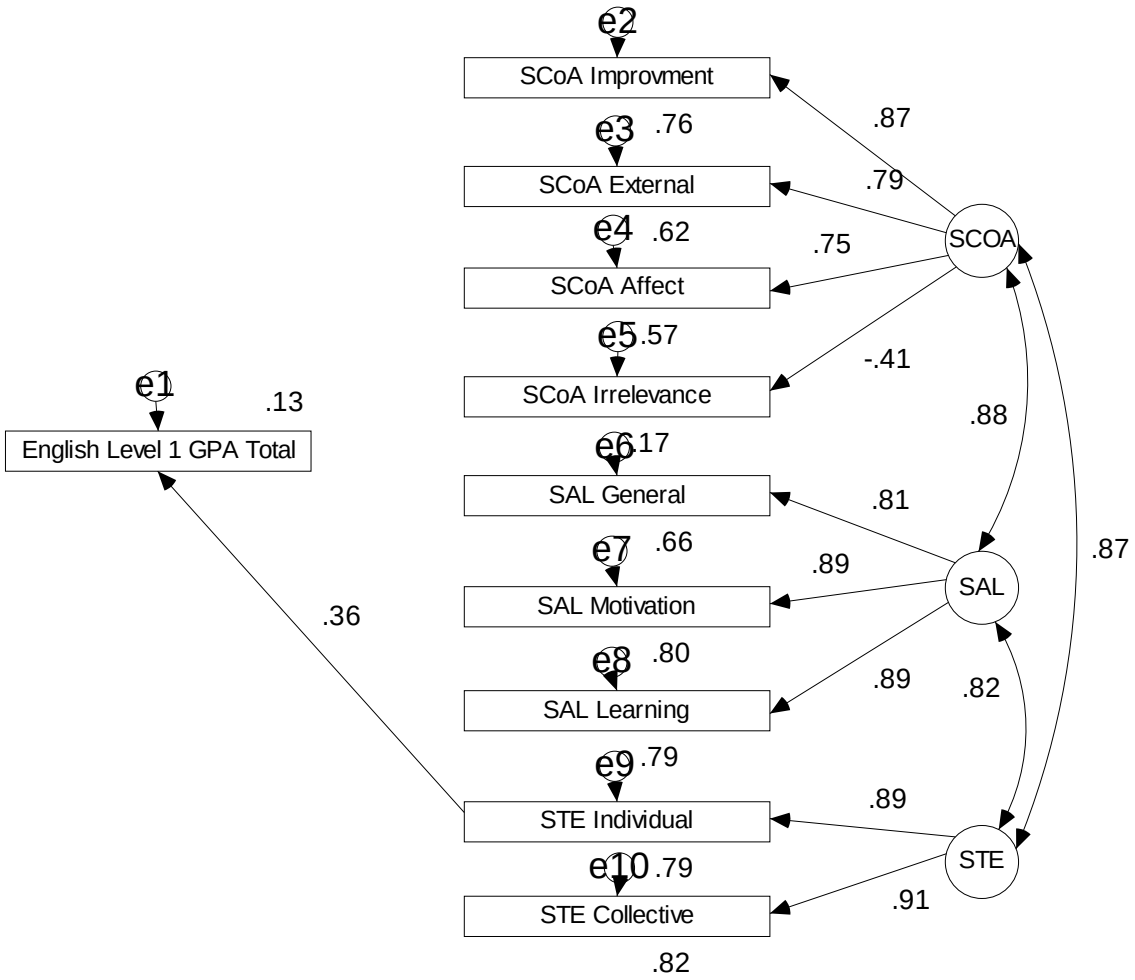

Figure 18. Measurement models for Students' CoA + SAL + STE and NCEA English L1 GPA Total

Only one conception (i.e., STE Individual) (Figure 18) had a statistically significant prediction (β=.36) towards English Level 1 and explained about 13% of the variance in the Internal Level 1 English GPA.

Again, there was no effect from SCoA and SAL. STE individual (i.e., know why we learn what in class, understanding enough to finish tasks, my school has good teachers, rules in class help me to learn, school has enough supplies, class is not too slow or fast to learn well) was the only construct that has an effect on Total similar to Internal. This similarity may be a reflection of the fact that a lot of students were doing unit standards which were internally assessed and therefore the number of students doing external assessments and total assessments were similar.

6.9.4 NCEA English

Table 35 summarizes the effects of the student beliefs on academic performance in NCEA English Level 1. Only four statistically significant pathways were found. The external had two significant pathways, one negative and one positive, explaining 20% of the variance. Internal had only one significant pathway, explaining just 3% of the variance. Total had only one significant pathway, explaining 13% of the variance.

English is compulsory at NCEA Level 1 and to gain an NCEA certificate in Level 1, students need to get 80 credits of which at least eight of those are literacy credits from English. Students can obtain those eight credits by doing all unit standards and do not need to do achievement standards at all, nor do they have to take external assessment to obtain the required eight credits.

This helps explain why so few students did the external assessments; however, it does not explain why the relationships of beliefs to internal and external GPAs are so different. This study is not able to determine whether this is a function of chance artefacts associated with the small number of students taking external assessments or is a function of some inherent characteristic related to the nature of external assessments. Nonetheless, there appears to be a different quality of how individual student beliefs relate to academic performance when it comes to external assessment; clearly, this is a matter for future in-depth study.

Likewise, this study is not able to explain why the relationship of assessment conceptions to performance is not statistically significant when a previous study reported strong relations to performance in reading (Brown & Hirschfeld, 2008). This may be a function of the participants being from a single ethnic group or else it may reflect unique characteristics associated with qualifications assessments as opposed to research or school-

based assessments. Again, future studies need to examine more clearly the impact of assessment structure (e.g., internal vs. external; qualifications vs. school-based) and the role of ethnic identity (i.e., Tongan vs. other Pasifika vs. all other New Zealand ethnic groups) on how students conceive of assessment and how those conceptions relate to academic performance.

Table 35. Parcelled effects on NCEA English L1 performance

	Student Beliefs									
	Conceptions of Assessment				Approaches to Learning			Teaching		
NCEA English Level 1	Ext	Imp	Aff	Irr	Gen	Mot	Lrn	Ind	Col	Variance explained (SMC)
Internal								.18		.03
External					-.51		.75			.20
Total								.36		.13

Note. Ext=External Attributions, Imp=Improvement; Aff=Affective/Social Benefit; Irr=Irrelevant; Gen=General; Mot=Motivation; Lrn=Learning; Ind=Individual; Col=Collective; SMC=squared multiple correlations.

6.9.5 NCEA Mathematics Level 1 Internal:

Only 148 students had a GPA for the Internal NCEA Level 1 Mathematics. After removing statistically non-significant pathways an acceptable fitting model was found (χ^2= 43.67; *df* = 32; χ^2/df= 1.37; p=0.08; CFI=.99; gamma hat=.98; RMSEA=.050; 90%CI= .000 - .084; SRMR= .039) (Figure 19). The three constructs (SCoA, SAL and STE) had high correlations among them (r = .80. .81, and .84). Each construct strongly predicted its own parcelled factor score.

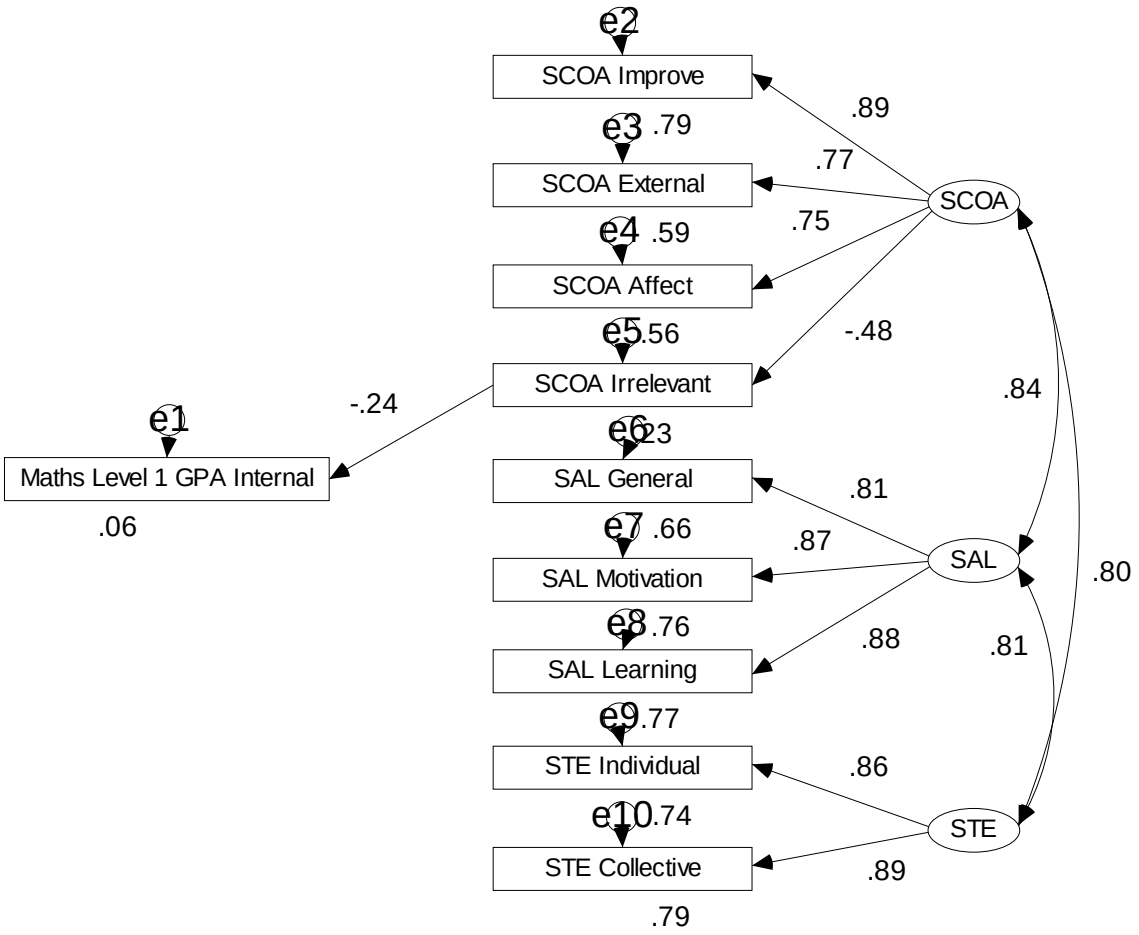

Figure 19. Measurement models for Students' CoA + SAL + STE and NCEA Mathematics Level 1 GPA Internal

Only one conception (i.e., SCoA Irrelevance) (Figure 19) had a statistically significant prediction (β= -.24) towards Mathematics Level 1 Internal and explained about 6% of the variance in the Level 1 Mathematics Internal GPA. Mathematics Level 1 GPA internal decreased by .24 of a standard deviation when SCoA irrelevance increased by one standard deviation. The negative effect from SCoA Irrelevant was expected, but the lack of effect from SAL and STE was unexpected.

6.9.6 NCEA Mathematics Level 1 External:

Only 54 students had a GPA for the External NCEA Level 1 Mathematics. After removing statistically non-significant pathways an acceptable fitting model was found (χ^2= 43.38; *df* = 31; χ^2/df= 1.40; p=0.07; CFI=.97; gamma hat=.95; RMSEA=.087; 90%CI= .000 - .144; SRMR= .055) (Figure 20). The three constructs (SCoA, SAL and STE) had high correlations among them (r = .80. .83, and .91). Each construct strongly predicted its own parcelled factor score.

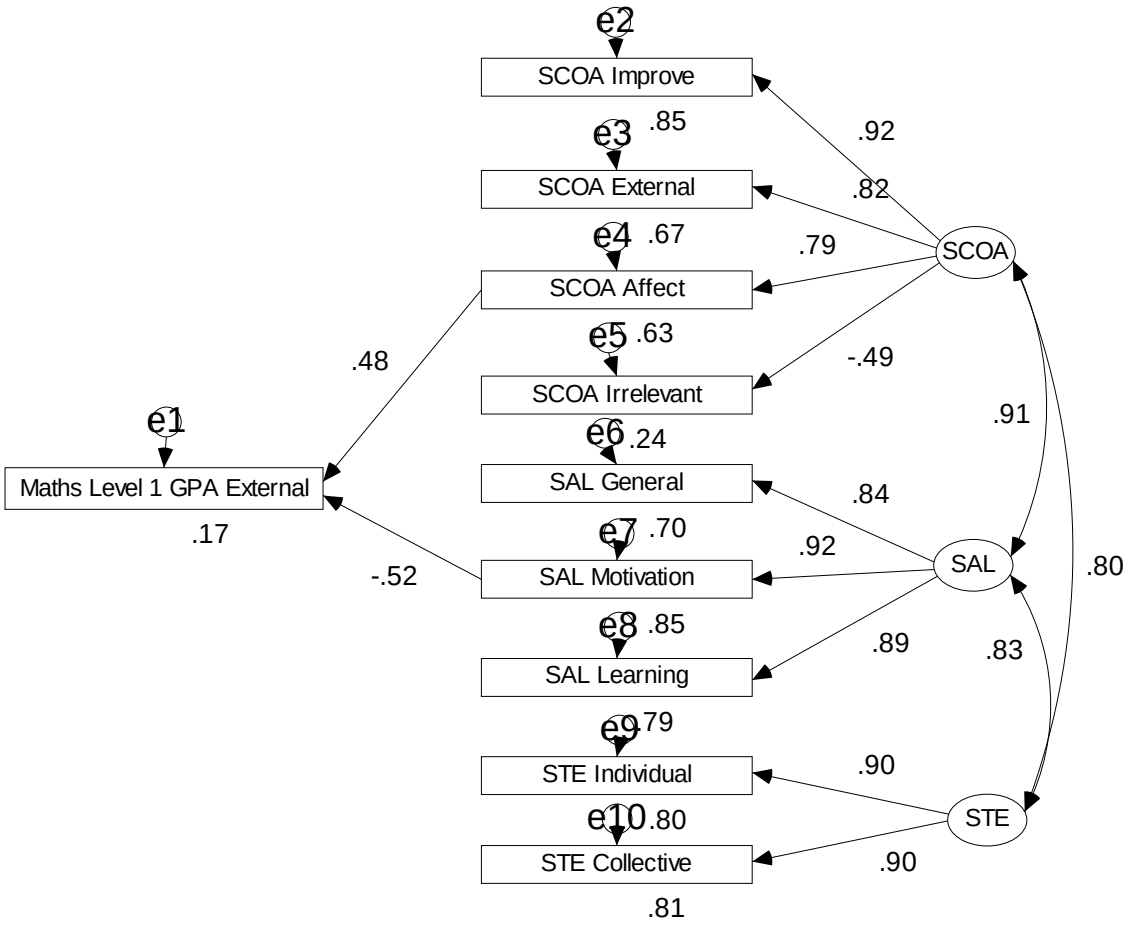

Figure 20. Measurement models for Students' CoA + SAL + STE and NCEA Mathematics Level 1 GPA External

The model contained only two significant pathways that had statistically significant predictions towards Level 1 Mathematics GPA External scores. SAL Motivation had a moderate negative loading (β= -.52) and SCoA Affect had a moderate loading β= .48 (see Figure 20). SAL motivation had a negative prediction (β= -.52) and explained about 26% of the variance in the external Level 1 Mathematics GPA. SCoA affect had a positive prediction (β= .48) and explained about 23% of the variance in the external Level 1 Mathematics GPA. The negative effect from SAL motivation (i.e., cooperative learning, competitive learning, instrumental motivation, effort and perseverance) was surprising. This may be the result of the nature of the one-off examination because there is no possibility for cooperation during its administration. Similarly, the positive effect of the social affective benefit assessment conception was surprising, although it is potentially consistent with the Motivation result. Students who endorsed more strongly the conception that assessment improved class morale and cooperation did better on the external mathematics examination. For this to be true, it would seem that this small group of

Tongan students must have prepared in a collegial, group-fashion for the external mathematics assessments. While this is consistent with common understanding of collectivist traits in Tongan society, it remains speculative here as there is no direct observation of the students' study and learning behaviours prior to the examinations.

6.9.7 NCEA Mathematics Level 1 Total:

Only 149 students had a GPA for the Total NCEA Level 1 Mathematics. After removing statistically non-significant pathways an acceptable fitting model was found (χ^2= 45.09; *df* = 32; χ^2/df= 1.41; p=0.06; CFI=.99; gamma hat=.98; RMSEA=.053; 90%CI= .000 - .086; SRMR= .037) (Figure 21). The three constructs (SCoA, SAL and STE) had high correlations among them (*r* = .80. .81, and .84). Each construct strongly predicted its own parcelled factor score.

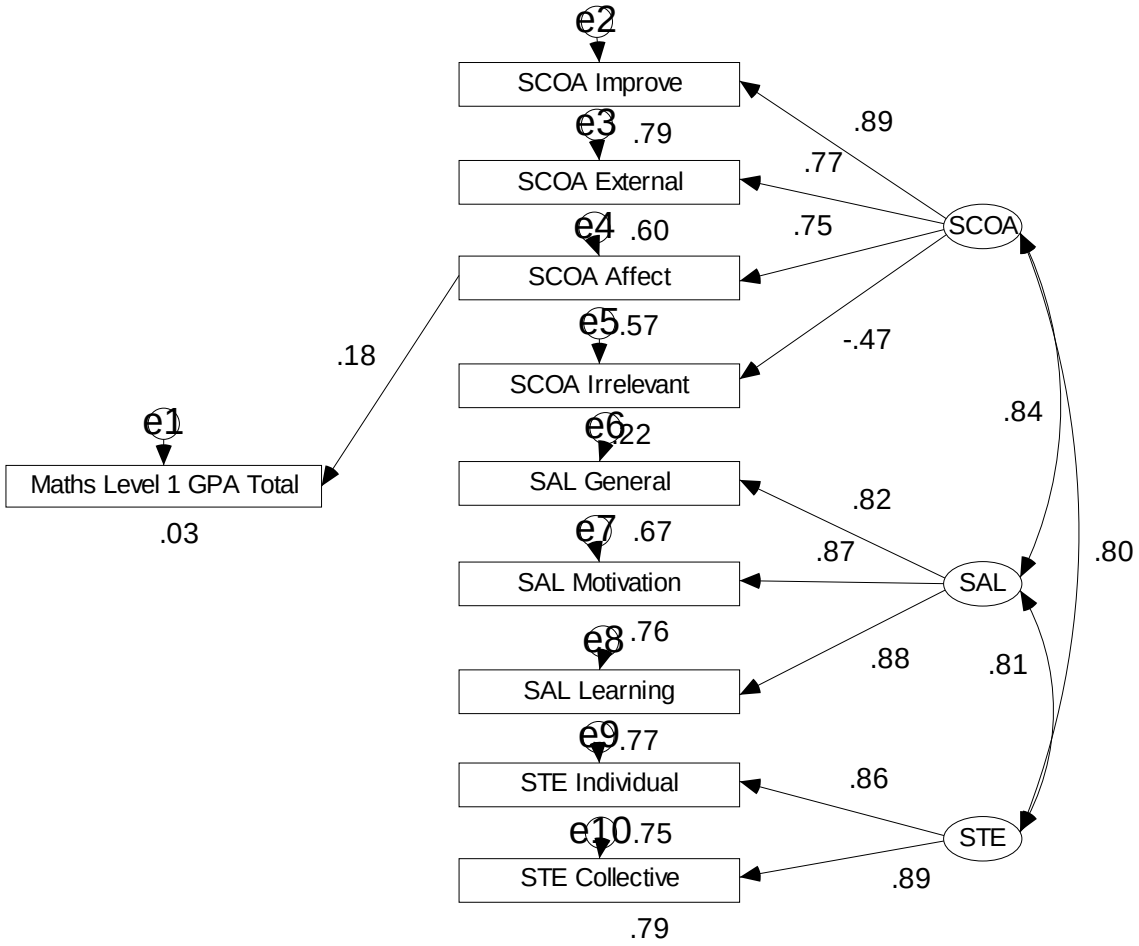

Figure 21. Measurement models for Students' CoA + SAL + STE and NCEA English Level 1 GPA Total

Only one conception (i.e., SCoA Affect) (Figure 21) had a statistically significant prediction (β= .18) for Mathematics Level 1 GPA Total and explained about 3% of the variance in the Level 1 Mathematics GPA Total. The lack of effect from SAL and STE is surprising, but may be a consequence of the strong inter-correlation between the constructs. Nonetheless, even in the context of classroom environments for the NCEA, there appears to be a positive effect among Tongan students from believing in the positive social effects of assessment. However, the aggregation of internal and external assessment contexts clearly dilutes the relationship of assessment beliefs and assessment scores.

6.9.8 NCEA Mathematics

Table 36 summarizes the effects of the student beliefs on academic performance in NCEA Mathematics Level 1. Only four statistically significant pathways were found. The external had two significant pathways, SAL motivation and SCoA affect explaining together 17% of the variance. Internal had only one significant pathway, explaining just 6% of the variance. Total had only one significant pathway, explaining 3% of the variance.

Table 36. Parcelled effects on NCEA Mathematics Level 1 performance

	Student Beliefs									
	Conceptions of Assessment				Approaches to Learning			Teaching		
NCEA Mathematics Level 1	Ext	Imp	Aff	Irr	Gen	Mot	Lrn	Ind	Col	Variance explained (SMC)
Internal				-.24						.06
External			.48			-.52				.17
Total			.18							.03

Note. Ext=External Attributions, Imp=Improvement; Aff=Affective/Social Benefit; Irr=Irrelevant; Gen=General; Mot=Motivation; Lrn=Learning; Ind=Individual; Col=Collective; SMC=squared multiple correlations.

Mathematics is compulsory at NCEA Level 1 and to gain an NCEA Level 1 certificate, students need to get 80 credits of which at least eight of those are numeracy credits from Mathematics. Students can obtain their eight credits by doing all unit standards and do not need to do achievement standards at all, nor do they have to take external assessments to obtain the required eight credits.

Again, this helps explain why so few students did the external assessments; however, it does not explain why the relationships of beliefs to internal and external GPAs are so different. This study is not able to determine whether this is a function of chance artefacts associated with the small number of students taking external assessments or is a function of some inherent characteristic related to the nature of external assessments. Nonetheless, there appears to be a different quality of how individual student beliefs relate to academic performance when it comes to external assessment; clearly, this is a matter for future in-depth study.

Likewise, this study is not able to explain why the relationship of assessment conceptions to performance is not statistically significant when a previous study reported strong relations to performance in mathematics (Brown, Peterson, & Irving, 2009). This may be a function of the participants being from a single ethnic group or else it may reflect unique characteristics associated with qualifications assessments as opposed to research or school-based assessments. Again, future studies need to examine more clearly the impact of assessment structure (e.g., internal vs. external; qualifications vs. school-based) and the role of ethnic identity (i.e., Tongan vs. other Pasifika vs. all other New Zealand ethnic groups) on how students conceive of assessment and how those conceptions relate to academic performance.

6.10 Discussion on attitudes and academic outcomes

There are two major patterns of difference in these data. There are differences in the type of assessment (i.e., internal and external assessment conditions generate different patterns of predictors and proportion of variance explained) and there are differences between subjects (i.e., different beliefs are statistically significant in English and Mathematics). However, discussion of the interesting patterns in the data needs to first take into account some technical difficulties with this study.

6.10.1 Technical Considerations

First and foremost, Study 3 had a very small sample size (i.e., no more than 190 students) and it is advised that generalizations to the Tongan student population be made cautiously because such a sample size can be highly influenced by individuals in the sample who may not be representative. However, this is the largest survey of its kind with Tongan only

samples. The results should be treated as indicative of possible patterns, subject to corroboration with a much larger sample. Furthermore, in order to address the small sample size, the three major constructs of SAL, SCoA, and STE had to be modelled as parcelled items rather than their full factors. This causes considerable loss of precision in the modelling and can only be rectified with larger samples.

Besides, there is considerable co-linearity among the constructs (seen in the correlation values between the three constructs (i.e., assessment, learning, and teaching) in the six models ranging from .80 to .94. This means, without larger sample sizes, it is difficult to identify the unique effects of each belief properly and that there is the possibility that the results (i.e., strength and sign of parameters) are attributable to chance characteristics related to the individuals in this small sample. It is also worth noting that the strong inter-correlations imply that future studies into how Tongan students think about learning, assessment, and teaching should examine student thinking about these three constructs simultaneously. Beliefs about teaching cannot be properly understood without access to student thinking about learning and assessment simultaneously.

Nonetheless, some testable hypotheses can arise from this study but much larger studies are needed to come to definitive views.

6.10.2 Internal vs. External Assessments

The evidence from the study of two subjects (i.e., English and Mathematics) at Level 1 is that there are considerably different patterns of enrolment in the external standards to the internal standards. This suggests that the belief patterns may have quite different effects since the people are quite different. The impact of enrolment patterns will be considered first, followed by an evaluation of the results according to the form of assessment.

6.10.2.1 Enrolling in External Assessments

Internal and external assessment modes are quite different in application. For example, many internal GPA grades are based on unit standards rather than achievement standards, meaning that the maximum score available is 2.00 rather than 4.00 for Achievement Standards. Further, many schools permit multiple submissions for internal assessments and these are often completed in-class with considerable guidance and support, in contrast to external assessments which are individual, invigilated, timed, and on-demand

examinations. Thus, it makes sense to evaluate the impact of beliefs separately rather than simply rely on the models related to total score. This is especially so since there were clear differences in the number of students doing the internal assessment standards compared to those students doing the external assessment standards, usually in a 2 to 1 ratio. This meant that models for GPA total scores would be more likely to mirror GPA internal models simply because of the numbers involved.

In this study, a total of 108 students had scores in English Level 1, but only 50 students had scored for external assessment, while 97 students had scores for internal assessment. Less than half the participants (46%) were doing achievement standards and had the examination at the end of the year. The low number of students attempting the external component of the NCEA assessment system is a disturbing finding. Furthermore, it is evident that many Tongan students did more unit standards rather than achievement standards. The SPR (2009) makes clear the implications of students doing lots of unit standards

> Students who choose or are directed into subjects made up predominantly or solely of unit standards or the applied versions of core subjects (such as mathematics and science) early in their NCEA career are likely to find it difficult or impossible to meet the prerequisite requirements for university study in these and related subjects (p. 5).

6.10.2.2 The effect of beliefs on performance

The most noted impact is that the strength of predictors and proportion of variance explained are much higher for the external assessments in both subjects. The proportion of variance explained for external was medium-sized (i.e., f^2=.20 Maths; .25 English) and consistent with the previous studies using the SCoA which found that between .20 and .25 of the variance was explained in the one-off Assessment Tools for Teaching and Learning assessments (Brown & Hirschfeld, 2008; Brown, Peterson, & Irving, 2009; Walton, 2009). Indeed, studies with the SAL have shown that it predicts variation in PISA mathematics and reading achievement in 25 OECD countries to a similar degree (i.e., mathematics *M* = .11; reading *M* = .08, range -.22 to .44) (Marsh, Hau, Artelt, Baumert, & Peschar, 2006). Thus, the results here are entirely consistent with previous studies using quite different

one-off test systems. In contrast, the proportion of variance in the internal assessment GPA by these beliefs was very small (i.e., f^2=.03 Maths; .06 English).

This suggests that there is something in how students respond to specific, one-off, high-salience examinations or tests that allows student beliefs to have a greater systematic variation with performance. It may be that the test-like nature of such events triggers adaptive motivational responses or the more individualistic nature (i.e., no group work, no help) of the test environment allows individual differences to have a greater influence on performance. Indeed, the school-based internal assessment practices and students' emphasis on group interaction and access to support may contribute to diminishing the impact of individual beliefs on performance. This may even raise doubts as to the integrity of the internal GPA scores—is the performance really and uniquely that of the individual responding to the questionnaire? Alternately, it could be argued that beliefs about other constructs (e.g., the self or the subject or studying) are more critical in predicting performance on school-based assessments.

Hence, this study opens the door to the possibility that studying the impact of student beliefs on assessed performance is valid only insofar as the assessment is test-like. This hypothesis could be tested in a future study using the SCoA survey instrument but with specific instructions as to what type of assessment should be evaluated (e.g., either a one-off examination at the end of the year or in-class tests during the year or non-test assessments used in NCEA internal assessment unit standards).

6.10.3 Mathematics vs. English: Domain effects

Thirdly, there is a clear difference between English and Mathematics in how students' performance is influenced by their belief systems. In English the SCoA factors had no statistically significant effect, whereas in mathematics the SCoA factors had statistically significant effects for both internal and external GPA scores. This, of course, is contrary to previous research with the SCoA and the asTTle testing system which has found similar patterns of prediction in both reading and mathematics (Brown & Hirschfeld, 2008; Brown, Peterson, & Irving, 2009). At the same time, the SAL factors only had an effect on the external assessment of both subjects. This too is in contradiction to the PISA studies which found that the SAL had statistically significant predictions to both reading and mathematics. In contrast, the STE factor related to the internal assessment of English only.

Given that the constructs were highly inter-correlated, it is possible that the pathways from factors to performance are somewhat spurious. Some credibility could be given to this possibility as larger-scale studies find similar patterns of relations between self-beliefs and performance. However, Hirschfeld and Brown (2009) reported that students of Māori ethnicity had different structural patterns between the SCoA and asTTle testing than other ethnic groups, including Pasifika students. Thus, this pattern of results, suggests that beliefs about educational processes could be domain specific or ethnic-group specific. If it is the former, it would suggest that student beliefs are responsive to the differences in the material being taught, the processes used to teach it, and the means of assessment in each subject. While we might expect self-related competence and control beliefs to generalise, there is clear evidence that domain specific measures are more powerful in predicting performance (Schunk & Zimmerman, 2006). Hence, this study points towards domain, and potentially ethnic, effects, and, of course, research with a larger body of Tongan students, and no doubt other ethnic groups, is needed to resolve the question.

6.10.4 Surprising Results: Unexpected Patterns of Belief to Performance

Notwithstanding the technical issues outlined earlier in this section, there are some interesting anomalies in how the structural models represent the relationship of student beliefs to their performance on the NCEA.

6.10.4.1 Student Approaches to Learning

In both English and Mathematics, one of the SAL factors had a negative regression toward performance (i.e., general in English and motivation in Mathematics). In both cases the strength of the negative predictor is nearly identical (i.e., β= -.51 English, -.52 in Mathematics). This negative effect of the SAL factors, which contains such constructs as academic self concept, self efficacy, instrumental motivation, interest, and control expectation, on the external GPA is surprising as this runs contrary to general evidence that SAL general positively predicts achievement (Marsh et al., 2006).

However, Suliman and McInerney (2006) reported that Lebanese immigrant students in a study in Sydney also had a negative relationship between self-efficacy and academic performance. Like the Tongan students in this study, the Lebanese students had high self-efficacy and low performance. The authors speculated that the Lebanese students had a

response bias to rate themselves as high on self-related constructs. This may be a possible explanation here as the Learning related SAL had a positive relationship to academic performance. Further, the authors speculated that the Lebanese students might have had a weak frame of reference; that is, they compared themselves to other students in their own school (i.e., frame of reference) and concluded that they were among the better students, without realizing that in reality they were not very good. This explanation may apply to this study, since there is evidence among New Zealand students of Pasifika background that teachers and schools prioritize success on easy school work (Nakhid, 2003). This would suggest that there is a strong teacher effect, as argued by 'Otunuku and Brown (2007), contributing to Tongan students' misunderstanding of their real academic ability. They argued that students are made to feel good at the expense of knowing the truth; that they are not doing well academically. Nonetheless, this interpretation should be taken very cautiously as it is based on just 50/108 Tongan students and is only found in the external assessment condition. Nevertheless, if borne out in larger-scale or experimental studies, this mechanism may contribute significantly to understanding why Tongan students are underperforming.

6.10.4.2 Student Conceptions of Assessment

In Mathematics only, two of the SCoA factors had statistically significant paths to performance. Consistent with self-regulation theory and previous empirical work, the irrelevant factor was a negative predictor of performance. Clearly, not paying attention to assessment or treating it as unfair leads to maladaptive behaviour and lower academic performance and has been found in multiple studies using the SCoA inventory (Brown & Hirschfeld, 2007, 2008; Brown, Peterson, & Irving, 2009; Walton, 2009). However, the positive effect of affect on external mathematics performance was surprising. It has been hypothesised that this factor reflects an undue emphasis on personal or social well-being which has a maladaptive effect on learning outcomes (Boekaerts & Cascallar, 2006; Boekaerts & Corno, 2005). Indeed, a negative outcome from the affect factor was found in New Zealand studies (Brown, Irving, & Peterson, 2009; Brown, Peterson, & Irving, 2009).

There may however, there may be a socio-cultural effect at work here. Matos (2009) has used a Brazilian Portuguese version of the SCoA with university students in Brazil. He found that the social aspect of the affective scale (i.e., assessment improves class atmosphere) positively predicted defining assessment as student controlled activities and

informal teacher-controlled activities and that the two affective factors were moderately correlated with improvement. Matos argued that this reflected the beneficial effect of interactive, group assessment activities that counted towards final grades in Brazilian university practice. Hence, it may be that Tongan students respond to the challenge of external examinations by collaboratively studying for a challenging task. It seems likely that Tongan students preparing for examinations would work together, though there is no direct evidence as yet to support this hypothesis. Nonetheless, students of different ethnicities may well experience and respond to assessment in quite different fashions, hence it is plausible that awareness of group cohesion and collaborative study action in face of assessment may lead to greater performance for students of Tongan background. If this hypothesis is borne out, it would give all participants a clear mechanism by which to take advantage of strong group-orientations among Tongan students—use the groups to prepare for examinations, rather than as a dominant classroom pedagogical activity. This would probably be a culturally-sensitive practice that leads to higher academic performance outcomes, but one which may be resisted by teachers and students themselves.

6.10.4.3 Student Evaluation of Teaching

In English only, STE individual had two statistically important paths to performance: internal and total. Perhaps it suggests that in English, the individual things matter rather than the collective things. This goes against the stereotypes of Pasifika students being very group oriented. A closer look at the standards offered in English Level 1 may help explain this. There are nine achievement standards offered at Level 1, worth a total of 24 credits. Five of these standards worth 12 credits are externally assessed, but four standards worth 12 credits are internally assessed by teachers. These four internally assessed standards are individually presented (three are individual presentations and one is producing a piece of creative writing). There are 43 unit standards offered and only one of these standards (worth two credits) is group oriented (www.nzqa.govt.nz). Even with the flexible nature of the unit standards, it still comes down to the individual candidate to perform. In-depth investigations into how students understand and respond to these varying assessment formats would contribute to a deeper understanding of how to design assessment for greater learning for Tongan students. It may well be that less group work and more

individual work is needed to prepare students for being assessed individually. This appears consistent with the comments made about student conceptions of assessment.

6.11 Summary

Tongan senior secondary school students' conceptions of schooling were firstly explored through focus group discussions in Study One. Study Two extended that using questionnaire items with a larger sample. Study Three also attempted to understand Tongan senior secondary students' thinking about teaching, learning, and assessment by relating self-reported factor scores to academic performance on the high-stakes NCEA assessments of performance in English and Mathematics. The structural models for all internal, external, and total grade point average scores across both subjects showed that some beliefs had statistically significant impacts on academic performances, supporting the idea that students' beliefs do matter for learning outcomes. It was noted that different beliefs became statistically significant predictors of performance, depending on the subject and type of assessment. Nonetheless, all three constructs (teaching, learning, and assessment) played some role in at least one subject. A small to moderate proportion of variance in NCEA performance could be attributed to student beliefs, suggesting that efforts to help students adopt adaptive beliefs will have beneficial consequences for those students. Furthermore, the results point to future studies and experiments in changing classroom practices that may well lead to greater academic performance. Given the technical difficulties related to doing this type of research with small samples, these results are tentative. Nonetheless, potential implications for educational practice and for the Tongan community will be considered in the concluding chapter.

CHAPTER SEVEN

OVERVIEW AND CONCLUSION

7.1 Overview

The research in this thesis investigated the Tongan community's beliefs about the nature and purpose of schooling with a special focus on the processes of assessment, teaching, and learning. The goal was to identify whether beliefs, values, and attitudes held by Tongan parents and caregivers, Tongan students, and teachers of Tongan students contributed in a meaningful way to the high levels of student under-achievement observed among Tongan secondary students in New Zealand. As an adjunct to well-established causal factors such as socio-economic status, educational background, and linguistic resources, the goal of this thesis was to identify potentially powerful belief systems or conceptions that were under-utilised to support academic success and potentially negative belief systems that conspired against academic success. The assumption was that educational practices and policies, as well as family and community practices, could be developed that took advantage of conceptions associated with positive academic outcomes and suppressed those that are associated with negative outcomes. While much research in this area has been conducted with non-Tongan, European/Pakeha populations, little has been undertaken to understand the role of the belief systems of the Tongan community resident in New Zealand, Tongan secondary students, or their teachers.

Three interconnected studies sought to examine in depth the conceptions New Zealand Tongan caregivers and parents, New Zealand Tongan secondary students, and teachers of Tongan students have about the nature and purpose of schooling and its important processes. Rather than being satisfied with describing and evaluating the belief systems expressed by these three groups, throughout the research, efforts were made to understand how those beliefs related to practices. This latter concern was approached by examining evidence of how the beliefs of New Zealand Tongan secondary students related to their academic performance in the official New Zealand qualifications system.

To approach this problem, a combination of qualitative, quantitative, and indigenous methods of investigation were used. The thesis sequentially made use of talanoa-guided,

qualitative focus groups, factor analysed survey inventories, and structural equation modelling to explore the meaning of schooling to the Tongan community resident in New Zealand. The point of the series of studies was to not only create new understanding, but also to inform future policy and practice innovations and the evaluation of such innovations.

This chapter provides a brief overview of the major findings of the thesis. In addition, implications for educational policy and practice and Tongan community practices will be examined. The design of future studies to evaluate the recommendations is also discussed. The contribution of this dissertation to New Zealand education in general and to Tongans in particular will also be considered.

7.2 What are the conceptions of the New Zealand Tongan caregivers and parents towards schooling?

This thesis reinforced much of what the literature has shown about Pasifika parents in New Zealand, however, because it has focused on the Tongan community, new insights have been gained. Chapter Four discussed some of the Tongan parents' conceptions of schooling that the focus group and self-reported survey uncovered. Generally, Tongan parents have high aspirations for educational success for their children and viewed their aims of schooling positively, but even so, Tongan students continue to exhibit lower achievement levels relative to European or Pakeha and Asian students in New Zealand. Based on this mismatch between beliefs, aspirations and reality it seems reasonable to infer that the majority of Tongan parents are disappointed by the academic results of their children. Secondary schooling in New Zealand has not delivered what the Tongan parents had expected. The major emphasis across talanoa, focus-group, and survey results was that Tongan parents in New Zealand expect schooling and its processes to be very similar to the educational system they experienced in Tonga. Consequently, they had extremely high expectations for their children, a high degree of confidence in the teachers and the school, and a growing realization that they themselves did not fully understand or appreciate the significant differences in the systems, and that the New Zealand system may be preventing their aspirations for their children from being fulfilled.

The Tongan parents' beliefs about assessment appears to be consistent with a culture dominated by high-stakes public examinations in which high student performance on

examinations is publicly applauded in society and in church, and in which such performance brings about significant social consequences (i.e., entry into elite government schools). For these parents, the student accountability function of assessment is justified in part because selection examinations permit hard-working, talented students access to rewards that would otherwise be denied. Furthermore, because assessment has such powerful positive inducements, from the parental point of view, it acts as a significant lever for motivating students to improve their learning. Doing well at examinations and assessments is rewarded. Some of the Tongan parents in this sample indicated that they have a traditional and positive view towards assessment. They do not view assessments as fundamentally unfair or biased against their students. However, there are large differences in the New Zealand system of secondary school assessment compared to the traditional public-examination framework practiced in Tonga and so there are bound to be real difficulties for Tongan families in adjusting to New Zealand practice. Nonetheless, the positive view of assessment is a potential positive force in helping Tongan students appreciates the importance of working hard for end-of-year examinations. The emphasis on assessment as a legitimate means of evaluating learning, suggest that greater emphasis on helping Tongan students take up the challenges of NCEA end-of-year examinations may bear more fruit.

Contrary to the widely held view that Pasifika-friendly schooling is only about culture and language, was a relatively new finding that Tongan parents' beliefs about success in education are to prioritise the push and pressure on students to work hard; to be successful. Many New Zealand Tongan parents who were born in Tonga have schooling experiences defined by success in examinations and the community put enormous value on it. They tend to believe that success will bring well-being and satisfaction. In New Zealand, an education is offered which emphasizes students' positive feelings and well being and this may reduce inadvertently pressure on students to perform and to achieve. The education system itself (through mechanisms such as unit standards, certificates obtained without doing external examinations, and non-university entrance pathways through secondary schooling) may not challenge Tongan students strongly enough to fulfil parental expectations.

Based on this new finding, a new direction in school-parent partnership needs to be developed in schools with substantial number of Tongan students in addition to the home-

school partnership (HSP) initiatives that the Ministry of Education already established. The MOE has recognized the importance of parent-teacher interactions and has encouraged this partnership to be interpreted in a culturally responsive manner rather than an academic ambitions manner which Tongan parents want in addition to culture and language. These parental academic ambitions have been ignored by schools and the MOE for a while but this new approach is needed in which schools are given permission to challenge Tongan students academically. Tongan students are partners to this low academic challenge as well because they have sought easy options instead of seeking out the hard way while parents have rested on their assumption that everything is the way it was back home. So all three parties need to be involved in revising what happens in school. The thesis proposes a possible solution; a discussion by parents, students and teachers of how to bring about academic challenges and how to handle the challenges and difficulties that academic challenges will bring.

Tongan parents in general viewed school positively with building and maintaining good relationship with the schools highly emphasized. With small scale communities, like that of and within the Kingdom of Tonga, relationships are an important aspect of life. Parental reasons for school choice are highly consistent with both traditional Tongan values and current New Zealand government policy initiatives. Respecting Tongan values is a priority for Tongan parents, however, whether current form of these initiatives and priorities will lead to increased schooling outcomes is debatable.

There are obstacles and difficulties that Tongan parents face. For example, evidence from this research shows that some Tongan parents are unaware of what actually happens at secondary schools, have a lack of understanding of the New Zealand school system, and the exact nature of their roles in this system and in supporting the academic achievement of their children while at secondary school. This thesis also found Tongan parents had too much reliance and trust in schools and teachers. Such reliance limits parents' active participation in their child's school and impedes their involvement in making informed decisions about their children's schooling. For example, schools, parents, and students could be involved in deciding students' academic pathways and the consequences of such choices for all parties, from as early as Year 9. There is some indication that Tongan parents have limited involvement in important decisions such as academic pathways from an early stage.

This subsequently poses a social justice issue. Do parents have sufficient knowledge about what subjects their children are doing at school? Do schools give students genuine choice what they want to learn? The challenge is for schools to bring parents on board, engage them in making important decisions about their children's schooling and develop a partnership that supports students' education.

Christian religion and academic success are important parts of the Tongan identity. Tongans attend church at much higher rates than the rest of New Zealand's population and they also send their children disproportionately higher levels to religious schools. It remains however, that Tongan parents in this research provided mixed messages with regards to church, religion, and schooling. They wanted schools to teach Christian values, teachers to be role models (i.e., to observe Christian values), to see Tongans as having obligations to church, and send their children to religious schools. At the same time, they believed that church activities were taking up most of the parents' and students' time, leaving less time both to support and supervise children at home or for children to do their homework. Tongan parents in this research signalled that they are aware that to some extent an involvement in church is a potential threat to their children's academic achievement. Clearly, there is a tension between academic ambitions and Christian ones. A practical implication is that church leadership may need to act to ensure church does not become an obstacle to other legitimate life's priorities, such as academic success.

Tongan parents were reluctant to blame themselves for their children's poor results. Their responses indicated that external obstacles were more to blame. Whereas teachers and society in general hold parents to blame; they do not think of themselves as the primary cause of this academic failure. They also believed that the teachers' main task was to nurture the students. Unfortunately, this strong concern for personal well-being may be counterproductive to growth in learning. Boekaerts' (2006) dual pathway of learning self-regulation makes it clear that focusing on personal well-being does not lead to improved learning outcomes (Boetaerts & Cascallar, 2006; Boekaerts & Corno, 2005). Hence, it may be that the Tongan parent priority for teaching is self-defeating when considered against their dominant ambition of academic success for their children. By implication, Tongan parents, students, and their teachers would have to realize that their children's success may have to come at the cost of some pain to their personal well-being.

Tongan parents want honest feedback from schools about their children's behaviour and academic performance. Parents are being told by schools that their children are doing well. They received New Zealand qualifications, but they cannot enter into university programmes or get into courses that lead to university entrance. Most school reports they received did not say anything about behaviour at school, yet Tongan parents see behaviour as an important part of their children's learning. They wanted reports to include both the good and bad sides, so that they are fully aware of their children's schooling. Schools and teachers may be trying very hard to portray a positive outlook for schools and students at the expense of being honest and upfront with what actually happens at schools. Schools could address this by giving Tongan parents more comprehensive and accurate reports on their students' overall performance. This would require the ability to report on behavioural and academic deficiencies as much as cultural successes. Schools may need community assurances that such reporting will not result in negative consequences for the school (e.g., withdrawal of student from school) or the child (e.g., corporal punishment) before such a practice could be implemented.

Finally, Tongan parents strongly believed that their responsibilities were to support children to achieve academically and at the same time maintain children's cultural identity and values. While parent-school relationships are considered an important policy initiative (as discussed in the previous section), it is imperative for schools to seek ways in which to engage as much participation as possible from the Tongan parents. It may also be that the message New Zealand schools need to prioritize is not so much respect for Tongan culture and language, but rather respect for Tongan educational priorities—high academic performance on examinations. It may be that such a message will be more successful in relating to Tongan parents.

7.3 What are the conceptions of schooling of teachers teaching Tongan students?

With this thesis's emphasis on Tongan students, conceptions that specifically related to Tongan students were found through focus group investigation and the self-reported survey discussed in Chapter Five. Generally, the major premise was that teachers see all the problems related to Tongan students' schooling as presiding in factors outside their domain of control. The Tongan students are generally seen as academically unable. Therefore a well-being form of education was prioritized instead of one that emphasized academic

growth. Effective teaching involves teachers taking responsibility for every student's achievement, to value diversity, have high expectations, and build on students' experiences (Alton-Lee, 2003). The challenge, then, is for teachers to accept and believe that changing some of the factors to improve students' achievements are within their control.

At the same time teachers are unaware of the Tongan emphasis on high academic performance and vested interest in academic achievement. Tongan parents wanted to help their children to be successful in their schooling, but sometimes they do not know how to or they simply cannot because they do not understand the work. Schools and teachers need to establish effective partnerships with Tongan parents to help improve students' achievement.

According to teachers, students tend to believe 'being a scholar is not cool'. Teachers believed that this is a negative school culture that Tongan and Pasifika students had. Again, they saw this as outside of their control. However, a school culture is a collective product of all the on-going dynamic activities and relationships that happen in schools. Teachers seemed to view this as students' bad behaviour without realising that they were active participants and contributing factors in upholding this non-academic culture at school. Teachers need to divert this negative culture into something productive for students. For example, if students are convinced and supported from an early stage to do as much achievement standards as they can, this may improve students' achievement, motivate them to achieve better, and help modify this negative school culture. Positive communication and theorising of Tongan students and Pasifika by teachers is fundamental to eradicate this problem.

Teachers held stereotypical attitudes (deficit theorising) towards Tongan students that may have negative impacts on students' schooling outcomes. Teachers believed that Tongan boys were not interested in their academic programme; girls come to school tired and hungry and Tongan and Pasifika students' intellectual maturity lags behind others. This negative stereotyping of Pasifika students by their own teachers has been reported for about thirty years ago (Bishop et al., 1999; St. George, 1983; Nakhid, 2003a; Hawk, 1996) and still exists in 2008 (when data for this study was collected). This is a huge challenge for teachers in low decile schools who may have beliefs that are counterproductive to achievement. These teachers need support to believe in their students, to have high

expectations for them, and to know how to implement effective teaching strategies that will fulfil those expectations. Quality teaching focuses on raising student achievement regardless of their ethnicity, socio-economic status and demographic characteristics.

Finally, teachers believed that Tongan and Pasifika students have limited worldviews compared to other students and this affected their school performance. This is an interesting issue because Tongan students have their own language, culture and worldviews that their teachers may have limited knowledge of. Tongan students may have limited knowledge of the mainstream students' worldviews, but they have their own, which are different from the other students. Schools and teachers in New Zealand need effective links with other cultural contexts to facilitate learning rather than having deficit perceptions of students. Quality teaching recognises and builds on students' prior experiences and knowledge.

7.4 What are the conceptions of Tongan students towards schooling and how do these conceptions influence achievement, if at all?

Chapter Six has discovered some Tongan students' conceptions of schooling through the analysis of the focus group and the self-reported survey. For example, this thesis found that the enrolment patterns for the types of standards studied were quite different; a larger group of Tongan students did unit standards rather than achievement standards. Furthermore, on average, the Tongan students in the one cohort sampled in this study, did not do well (i.e., average grade was below achieved for both English and mathematics). If nothing is done to change this pattern then Tongan students will continue to maintain the current underachievement trend. The obvious implication of this practice means that the majority of Tongan students will continue to produce low academic results and may end up working alongside their parents in low paid jobs; conditions their parents hoped to avoid by coming to New Zealand.

In the New Zealand school system, the pressure to perform appears to be taken off students. There are no entrance examinations and students are promoted to the next grade regardless of academic results. Furthermore, New Zealand uses a complex mixture of school-based internal assessments and external examinations allowing students 'soft' options to accumulate credits. Additionally, students can complete enough credits to receive the National Certificate without earning the right type of credits to progress to

higher levels of schooling. Thus, this NCEA system contributes to a situation for Tongan students in New Zealand in which students are able to maximise their results (i.e., obtain certificates) while doing the least difficult work (i.e., avoiding achievement standards and external examinations). Thus, it may be that without pressure from home or school to attempt the more challenging aspects of school work, the New Zealand school system, designed to cater for diversity of interests and abilities inadvertently contributes to Tongan students' underperformance relative to their potential and community expectations.

Contrary to the widely held view that Pasifika students in New Zealand found group work as a learning preference, this study found that Tongan students did not agree. They believed that group work can only be effective with maximum supervision from teachers, otherwise the only group supervised by the teacher will be the one working; the rest of the groups will do nothing. New Zealand teachers, who believe that Tongan and Pasifika students prefer group work, or that group work is the best learning strategy for Tongan students, are misinformed. Students' success depends largely on individual performance, as self-regulated learners are responsible for setting, regulating, monitoring, and guiding their efforts to secure academic achievement.

Tongan students need to be educated very early on of the consequences of making decisions about subjects and qualifications they are doing at school. Tongan students need to realise that their parents want their children to be doctors and lawyers (Study 1) and want their children to have prestigious jobs (Study 2). It would appear that students and schools are emphasizing students' ability to accumulate credits and pass the NCEA examinations rather than looking ahead and concentrating on the quality of credits (achievement standards) which will enable students to pursue university studies. Consequently, Tongan students need to consider how they will respond to parental and community expectation. Is getting NCEA Level 1 enough, if it means not really applying themselves to the aspirations their parents have? How Tongan students can become active participants in reaching for their community's goals within the parameters of the New Zealand school system is a complex problem. However, it would appear that taking on the challenge of external, formal, end-of-year examinations would appear to be an important first step.

Tongan students claim that the work given to them is not different from that given to students (of the same level) in higher decile schools. This may be true in NCEA levels because they have to meet the prescribed standards, but why is the level of achievement for Tongan and Pasifika students so much lower than other students? This may be because Tongan and Pasifika students do 'catch-up' schooling from as early as primary education. For children to become confident learners and succeed in all aspects of life, they must gain a strong foundation in literacy and numeracy in their early years. Phillips (2001) reported that New Zealand research indicated that children in decile 1 schools in Mangere and Otara (where up to 90% of whom are Māori and Pacific Island children) have low achievement in conventional school literacy on entry to school compared with national patterns. This initial disparity in reading and writing continued throughout their schooling, hence the SEMO initiative was introduced (Phillips, 2001). Teachers teaching Tongan students at intermediate and primary schools need to minimize this disparity as early as possible so that when they start secondary schools and NCEA, Tongan students are in better and comparative positions to succeed.

Finally, it was also found that there was a clear difference between English and Mathematics in how Tongan students' performance was influenced by their schooling conceptions. This may result from students' responding to different subject content, different teaching approaches, and different means of assessment between the two subjects. It may also result from the students being Tongan, but research with a larger sample is warranted to resolve the exact nature of this difference.

7.5 Implications

7.5.1 Implications for School and MOE

Teachers in Study 1 maintain that schools with Pasifika students have a policy of providing only 'positive' feedback to parents (Section 5.2.1.). Teachers are advised to comment only on students' learning, but parents are concerned with their children's behaviour. They see inappropriate behaviour as leading to inappropriate actions and outcomes. This 'positive' feedback may not help students and their parents get the real picture of what is going on at school. Schools, under the recent National Standards policy, are being directed to provide 'the good and the bad' in plain English and to report performance against National

Standards. This is the kind of information the Tongan parents need from their children's schools.

This study may also contribute to professional development (PD) and teaching improvements in multiethnic classrooms. There are increasing numbers of teachers in New Zealand who were trained overseas in countries like South Africa, England, India, and Sri Lanka and consequently these teachers have little experience or understanding of the cultural background of their New Zealand students. For example, teachers should be helped to understand some of Tongan parents' beliefs, intentions and actions towards their children's schooling. They have high aspirations for education, total respect for schools, and they do not really understand the system (i.e., NCEA). The understanding of these may change teachers' perceptions of Tongan students and their parents and may contribute to improve outcomes.

The Ministry of Education has implemented culturally appropriate initiatives to improve Pasifika and Mâori students' achievement. These culturally responsive stances may help students reaffirm their identities, their languages, and cultural values but still fail them academically. This thesis speculate that what is missing from these initiatives and the Ministry's overall approach to education is a vigorous mechanism that challenges and pushes the students to perform and the schools to expect that. This is what the Tongan parents want from their children. While New Zealand has high international ratings in education, the education system at the same time provides means by which students can avoid excellence and challenge New Zealand's system priorities tolerance and understanding, but this may have resulted in a stereotypical assumption that brown-skinned do not have to perform well academically. Focusing on culture alone may have shifted a focus away from the Tongan values of academic achievement. This is part of Tongan culture and the Ministry policy needs to support the traditional academic ambitions of immigrant Tongan communities.

Teachers and schools should support Tongan students to decide on career pathways where students enter into a range of academically challenging subjects that lead to the possibility of university entrance as early as Year 9. What matters is having the possibility of entering university by not going down the pathway of 'soft' subjects. Students should understand that in Year 9 and 10 they need to commit to doing approved subjects and passing the

examinations for those subjects in which there are many (not just Math, Science, & English). This will help students make the right subject choices from an early stage. Normally, support is given to Year 13 students for their career pathways, but this is too late for most of the students who have done mostly unit standards in NCEA Level 1 and 2. Schools should bring in parents and students to discuss their pathways with teachers. Any changes to these pathways should be reported back to parents for their opinion. This may help parents and schools identify the appropriate support for their children.

Teachers need to change their assumption that group work is best for Tongan and Pasifika students. They should also change their reporting practices because Tongan parents wanted to know more about their children's performances, encourage greater participation in examination or test taking, and believe that challenging academic work is valuable for Tongan students.

7.5.2 Implication for the Tongan community

This study highlighted the tensions between the three major institutions in which Tongans are heavily involved: the school, the home, and the church. The study showed that Tongans had mixed responses to the role of the church in relation to schooling. Some parents blamed the church as contributing to students' underachievement, and they saw the church as a 'problem'. Tongan church authorities may have to adapt church community practices so that they contribute more robustly to strong academic performance. Tongan churches should continue to promote morality, education, and health equally because that is what the Tongan parents believed they should be doing (tangata kakato). The challenge is how to 'harmonize' the tensions and bring the three institutions to work together to promote achievement for Tongan students. The church is the centre of most Tongans' life in New Zealand and the challenge is how this 'resources' be best use to help students' schooling. Tongan church authorities may be looking at promoting schooling too. Perhaps they could offer the church as a venue for afternoon classes, where students come in for their homework, supervised by members of the church who are able help students. Additionally, time spent at church could include, in addition to traditional choir practice, bible studies, and worship times, study seminars in examination taking or tutorials in key subjects.

At the same time, while their children are doing their homework, parents may be asked to attend parents' evenings in churches where teachers and guest speakers explain to them in

their own language the education system, the NCEA framework, the best ways to support their children's schooling, and any other matters that parents want to know more about. These meetings could also provide a forum where the parents and their children can 'talk' to each other. In doing this, the churches could also be a useful medium for promoting all the valued goals of Tongan society, including schooling success.

Tongan parents and caregivers should be helped to match their actions with their aspirations. They have high aspirations for schooling, but they do not always back this up with their actions. They should be helped to prioritise education and to invest accordingly to promote academic success, over cultural and non-academic functions. For example, a lot of Tongans spend resources, money, time, and energy on cultural and community activities such as birthday celebrations and church obligations. This may hinder their ability to provide for the academic needs of their children, and eventually affect achievement. Tongan parents should be helped to invest in activities that promote education, and when their children succeed then they could include those academic achievements in their celebrations.

Consequently, there may need to be greater communal recognition and celebration of students' academic performance. Academic achievement is highly valued in the Tongan society and schools should help uphold this tradition by recognizing and celebrating students' academic achievement. In Tonga, school prize giving ceremonies are among the most important events in the school calendar. It is a whole-day event where academic achievements are recognized. Students who top each subject in each level are awarded with prizes and the climax of the ceremony is the announcing of the school dux and the proxime accessit. Here in New Zealand, at most schools with high percentage of Tongan and Pasifika students, academic awards evenings are only for prize winners, and the ceremonies take place in the afternoon. How can students value or aspire to do well if they are not rewarded or recognised or if they are not present when their peers are so recognised? It is hoped that schools would include all students and their families when they recognize and celebrate students' achievement together with their communities. This may motivate the non-prize winning students to improve their performance.

7.5.3 Theoretical implications

This thesis has contributed to the possible development of complete theory of planned

behaviour models for Tongan parents, their secondary school children, and their teachers in New Zealand by collecting their attitudes, beliefs, and intentions which are all central components of the TPB model (Figure 1). Complete TPB models for these three participants will enable professional and behavioural interventions to be developed and administered to improve academic achievement for Tongan students in New Zealand.

In addition, the role of beliefs as a contributing factor to practices seems evident—practices and priorities can be understood from the reasons, intentions, and purposes people have. In this thesis, the participants' beliefs about schooling were contributing factors in their schooling practices.

There is also evidence that beliefs influence outcomes. There are new contextual factors in how Tongan students' assessment beliefs relate to performance (i.e., internally assessed standards verses externally assessed standards; math verses reading; high vs. low stakes examinations). The thesis contributed to a more sophisticated understanding of how specific ethnic students' beliefs of assessment interact with their teaching and learning beliefs.

The thesis also implied that migration creates belief-practice tensions especially if migrant populations assume that the education system in their new home is like the one in their homeland. Tongan parents in this thesis seemed to base their schooling beliefs and attitudes not on the New Zealand education system but on the education system they experienced in Tonga. This is far removed from the actual reality of the school system in New Zealand and an understanding of this current system will help minimize these tensions.

Finally the using of talanoa as a data collection method for the Tongan parents demonstrated how an indigenous method can be used to collect quality data while observing participants' cultural protocols and at the same time using the participants own language. It also shows how indigenous and western paradigms can be used to complement each other in conducting research on indigenous populations like Tongans in New Zealand.

7.5.4 Future Research

The TPB, which has not been fully tested, provided the framework for this study. The studies did not explicitly ask participants to state what they believed other people like them

believed (i.e., subjective norms) nor did it ask them to state their level of agency or control. Instead, the study focused on understanding participant attitudes, cognitive beliefs, and intentions towards schooling, assessment, teaching, and learning, all of which are part of the theory of planned behaviour model. This study has helped to identify some of the Tongan people's beliefs about schooling, their attitudes and their subjective sense of control which are gaps in the existing literature. Future studies can now build on the findings of this study. The data constitute a type of objective norm for future studies against which other groups can be compared. Future studies should ask participants about their sense of control and their sense of what others believe to fully use the theory of planned behaviour. Nonetheless, the current study has identified a number of behavioural interventions that could be experimented with. Behavioural interventions for teachers of Tongan students can also be carried out to help improve Tongan students' achievement. Interventions like this have been done and found to improve Pasifika students' achievement (Phillips, 2001).

It is also recommended that further in-depth research be conducted with the Tongan community on the domains investigated in this research. The models that were created by the parents' domains were restricted by the number of items in the survey questionnaire. It is recommended that more items per domain be developed to fully capture participants' conceptions. It is hoped that domains be researched separately and allow the development of more items per domain.

It was also found in Study Three that Tongan students reacted differently to the internal and external parts of their NCEA assessment. From this result, it was hypothesized that students beliefs on assessed performance is valid only insofar as the assessment is test-like. To fully understand this issue, it is recommended that future study using the SCoA survey instrument, but with specific instructions as to what type of assessment, should be evaluated. For example, participants will be instructed clearly that when they attempt the survey, they should be thinking of assessment as either a one-off examination at the end of the year, or in-class tests during the year, similar to the assessment activities used in NCEA internal assessment of unit standards.

7.6 Contributions

One of the substantial contributions of this research is laying a platform for further exploration of Tongan behavioural beliefs, subjective norms and behavioural controls toward schooling which are absent from the literature. This research also contributes to an understanding of what Tongan subjective norms are in terms of school achievement. Self-reported beliefs are taken as predictors of behaviour which are also predictors of outcomes. The results showed reference points for what a large number of Tongan students and parents believe. These constructs need to be explored, identified and established if we want Tongans' attitudes be changed to improve achievement. Behavioural interventions can only happen when these constructs are identified. Although the context of the thesis was the Tongan community in Auckland, New Zealand, its implications may be of equal importance to Tongan communities in other parts of the world. There are a lot of Tongans overseas especially in Australia, Hawaii, and the United States of America and the findings may be of relevant to their situations.

In addition, understandings of Tongans' beliefs control in relation to schooling were found. For Tongan parents, success in examinations matter so much but that priority is subverted by schools, the students, and the teachers. Data also shows parents do not understand the school system, and in particular the NCEA system. We can infer that they do not have very much control over the school and its systems. Tongan parents do not really get to chose the very top public or private schools for their children, whether they do exams or not. They have confidence in the teachers, so they do not question the choices that are made for them. It can be inferred from the data that Tongan parents do not have much control. In a future study it would be interesting to ask what would happen if dimensions of control were adjusted – choice of schools, choice of subjects, and the assumptions about exams.

Besides, insights into the fields of schooling conceptions and beliefs by a particular ethnic group, in this case, the Tongan community in New Zealand were observed. The thesis managed to explore some of the Tongan parents' and caregivers' beliefs about schooling: Assessment, teaching, learning, aims of schooling, underachievement, responsibilities, and school choices. It provides insights into how Tongan parents' understand schooling in New Zealand. As most Tongan parents surveyed had their secondary education in Tonga, most

of their belief systems were formulated within the context of their schooling experiences in Tonga.

As well as contributing to research on students' and teachers' conceptions of assessment (CoA) by producing Tongan students' and their teachers' conceptions of assessment, it also contributed to Tongan students' approaches to learning (SAL), and their teaching experiences (STE). Basically Tongan students have similar conceptual beliefs about assessment as other New Zealand students. They also showed similar patterns of learning approaches found by the OECD in the PISA program for New Zealand students.

Significantly, this study also contributed to an understanding of indigenous research methodology and the debate of culturally responsive methods of research when it employed talanoa. Talanoa is a social activity of sharing worldviews and experiences that helps foster good interpersonal relationships and rapport, sharing participants' world views, informing participants of what is going on in different sectors (churches, villages, schools, politics, sports, etc) of their own communities as well as other communities (locally and worldwide). The adoption of talanoa as a data collection method in the Tongan parents' focus group, and the using of categorical analysis method, was a good example of incorporating Pasifika indigenous and western paradigms to produce quality information. Here, the engagement that happens is not only to generate data, but it develops interpersonal relationships between the researchers and the participants to share their time, their world views, their genealogies and heritages, and even food or other necessities together. The participants feel ownership of the research, the whole process observed their cultural protocol, and the medium of communication was in the participants' own language. When the participants are empowered in this way, they are encouraged to open up and give valid, authentic, honest and quality information.

Finally, designing the research to bring the three major contributors to schooling together and also their conceptions, beliefs, values, and attitudes is a novel achievement. Moreover, deciding to study Tongan ethnic students and their parents is also a step into better understanding New Zealand Pasifika populations and their diverse cultures. To improve Tongan and Pasifika students' underachievement we need to unpack what it is to be Pasifika and to explore the beliefs, attitudes and intentions of each ethnic group, so that behavioural interventions can be correctly designed and implemented. Given the presence

of generic 'Pasifika' accounts in past research, this research contributes to an increasing pool of culturally- and linguistically-specific research in the area of improving Tongan and Pasifika education outcomes.

7.7 Summary

The three studies reported here have identified significant conceptions of Tongan parents, their secondary school children, and their teachers in New Zealand. These conceptions may have originated from their own experiences of schooling in the context of New Zealand and abroad, like most Tongan parents or overseas-trained teachers. However, these conceptions are very important to explore and to understand in the hope of elevating Tongan students' academic achievement. It is hoped that the research reported here will contribute to a better understanding of conceptions of assessment, teaching and learning and see improvement in academic achievement by Tongan students. It is also hoped that this thesis will help Tongan parents, students, and their teachers re-examine their beliefs and practices about schooling, because their current beliefs and practices do not generate a high level of achievement for the majority of Tongan students in New Zealand.

APPENDICES

Appendix A: Moderator's Guide

1. Introduction: Introduce yourself and thank participants for agreeing to participate.

2. Explain group guidelines and tell how long the focus group will last.

We have the discussion schedule for one hour today. During the group discussions we want to get your perceptions of schooling especially your perceptions about teaching, learning, and assessment.

I am here just to facilitate the discussions. My two assistants are here to help me but will not participate in the discussions. We are interested in hearing your point of views even if it is different from what the others have expressed.

I'm going to make every effort to keep the discussion focused and within our time frame. If too much time is being spent on one topic, I may move the conversation along so we can cover all of the topics. Please talk one at a time in a voice as loud as mine.

We would like to hear from everyone in the course of the discussion, but you don't have to answer every question.

Feel free to respond directly to someone who has made a point. You don't have to address your comments to me all the time.

3. Confidentiality: As you have agreed to, we are going to audio-tape the discussion but we will be only using first names. There will not be any names attached to the comments on the final report. We would also ask that you similarly maintain the confidentiality of what is said in the group.

4. Participant introduction: Please introduce yourselves – first names are fine.

5. Questions:

a. Tell us your perceptions of assessment at schools.

Probe: any negative aspects of assessment?

b. What are your perceptions of teaching?

Probe: Is teaching kids to memorize stuff good?

c. What are your perceptions of learning?

Probe: cooperative or competitive learning?

6. Wrap up (last 5 minutes). Is there something else you would like to tell us about schooling? Thank you.

Appendix B: PEPA SAVEA ‘A E MATU’A TAUHI FANAU

Ko e Fakakaukau faka-ako ‘a e kau tauhi fānau Tonga.

‘Oku faka’amu e ki’i savea' ni ke tānaki mai ho’o tui ‘o fekau’aki mo e ako' mo ho’o mahino’i e ngaahi felāve’i ‘i he ako', ‘o hange ko e faiako' mo ‘ene founga faiako', taumu’a ‘o e ako', founga ki he ako ‘a e fānau', ‘uhinga ‘o e ‘ikai ola lelei e ako', mo ha ngaahi me’a kehe pe ‘i he ‘elia ‘o e ako'.

Kātaki pe ‘o fakakaukau’i lelei pe ho’o tali pea ke ngaue’aki e ki’i sikeili ko ‘eni ‘oku ha atu ‘i lalo. Kataki ‘o fili pe ‘a e tali ‘e ***ofi taha*** *ki ho’o tui mo ho’o fakakaukau pea ke tiki’i leva e ki’i puha ko ia'.*

- *Ta’e tui ‘aupito*
- *Ta’e tui*
- *Tui*
- *Tui malohi*
- *Tui malohi ange*
- *Tui ‘aupito*

Manatu’i tiki’i (√) pe puha ‘e taha ke fakahaa’i’aki ho’o tali.

Ka lava leva ho’o tali e ngaahi fehu’i ‘oku oatu' pea ke kataki ‘o fakafoki ho’o pepa savea' kia Mo’ale ‘Otunuku, ‘Univēsiti ‘o ‘Aokalani, ki hano ‘analaiso. Kapau ‘oku to e ‘i ai ha me’a teke fie‘ilo ki ai fekau’aki mo e ki’i savea ni' pea ke kataki ‘o fetu’utaki pe ki ai ‘i he fika telefoni (09) 623 8899 ext 48384.

Mālō mo e faka’apa’apa.

Mo’ale ‘Otunuku, ‘Univesiti ‘o ‘Aokalani.

	Ko e tefito'i taumu'a 'o e ako ke lava e fanau 'o:	Ta'etui malohi 'aupito	Ta'etui malohi	Tui vaivai	Tui Mamalohi	Tui Malohi	Tui Malohi 'aupito.
1	'ilo'i 'a e 'Otua	❒	❒	❒	❒	❒	❒
2	fakatupulekina e tangata kakato, 'atamai, sino mo e laumalie.	❒	❒	❒	❒	❒	❒
3	fakapapau'i 'oku lava e fanau 'o fakahoko honau fatongia ki he famili	❒	❒	❒	❒	❒	❒
4	fakapapau'i 'oku lava e fanau 'o fakahoko honau fatongia ki he siasi	❒	❒	❒	❒	❒	❒
5	fakapapau'i 'oku lava e fanau 'o fakahoko honau fatongia ki he fonua	❒	❒	❒	❒	❒	❒
6	maama e 'atamai mo poto	❒	❒	❒	❒	❒	❒
7	fekumi ki he 'ilo.	❒	❒	❒	❒	❒	❒
8	ma'u ha kaha'u 'oku lelei	❒	❒	❒	❒	❒	❒
9	lava ki he 'univesiti mo ma'u ha mata'itohi.	❒	❒	❒	❒	❒	❒
10	ma'u ha ngau lelei 'o hange ko e loea pe toketa.	❒	❒	❒	❒	❒	❒
	Ko e ha ho'o tui ki hono sivi'i e fanau 'i 'apiako? Ko e sivi mo hono ola'oku ne:						
11	fakahaa'i e lelei 'o ha 'apiako.	❒	❒	❒	❒	❒	❒
12	fakapapau'i 'e taliui e fanau kihe'enau ako.	❒	❒	❒	❒	❒	❒
13	tokoni ki hono fakamatala'i e me'a 'oku ako 'e he fanau.	❒	❒	❒	❒	❒	❒
14	tokoni ki hono fakalakalaka e ako 'e he fanau.	❒	❒	❒	❒	❒	❒
15	tokoni ki hono fakalakalaka e tu'unga fakafaiako.	❒	❒	❒	❒	❒	❒
16	'omai e fakamatala tonu 'o fekau'aki mo e me'a 'oku lava 'e he fanau.	❒	❒	❒	❒	❒	❒
17	'ikai tokoni ia ki he ako 'a e fanau mo e faiako 'a e faiako.	❒	❒	❒	❒	❒	❒
18	'oku fa'a tukunoa'i pe ia 'e he fanauako mo e kau faiako	❒	❒	❒	❒	❒	❒

19	‘oku ‘ikai ma’u ai ha fakamatala tonu ia ‘o fekau’aki mo e kau faiako.	❒	❒	❒	❒	❒	❒
	Ko e ‘apiako ‘oku ke faka’amu ke hu ki ai ho’o fanau:						
20	‘oku nau talitali lelei e ngaahi matu’a	❒	❒	❒	❒	❒	❒
21	‘oku ma’u mei ai e fakamatala lelei fekau’aki mo e feinga ‘a e fanau.	❒	❒	❒	❒	❒	❒
22	‘oku nau mahu’inga’ia he kehekehe ‘a e fanau	❒	❒	❒	❒	❒	❒
23	pule’i lelei mo fefeka e fanau	❒	❒	❒	❒	❒	❒
24	‘oku fengaue’aki lelei mo e kau tauhi fanau.	❒	❒	❒	❒	❒	❒
25	. ‘oku nau fakamamafa’i e lava tokolahi ‘a e fanau ki he ‘univesiti.	❒	❒	❒	❒	❒	❒
26	‘oku tu’unga ma’olunga ‘aupito e ako.	❒	❒	❒	❒	❒	❒
27	ko ha ‘apiako fefine pe tangata	❒	❒	❒	❒	❒	❒
28	ko ha ‘apiako fefine mo tangata.	❒	❒	❒	❒	❒	❒
29	ko ha ‘apiako ‘oku ofi pe ‘i ‘api.	❒	❒	❒	❒	❒	❒
30	ko ha ‘apiako ‘i he feitu’u e kau ma’ume’a	❒	❒	❒	❒	❒	❒
	Ko ngaahi fatongia ‘o e kau tauhi fanau ke:						
31	toutou ‘a’ahi ki he ‘apiako ‘o faka’eke’eke e tu’unga ‘oki ‘i ai ‘e te fanau.	❒	❒	❒	❒	❒	❒
32	totongi e ako, teunga ako mo e ngaahi fiema’u kehe ‘a e ‘apiako.	❒	❒	❒	❒	❒	❒
33	tokoni mo fakapapau’i ‘oku fai ‘e he fanau ‘enau ako ‘i ‘api.	❒	❒	❒	❒	❒	❒
34	tokoni’i e fanau ‘i he’enau polokalama ki tu’a.	❒	❒	❒	❒	❒	❒
35	fakapapau’i ‘oku ‘i ai e feitu’u lelei ke ako ai e fanau ‘i ‘api.	❒	❒	❒	❒	❒	❒
36	fakapapau’i ‘oku ‘i ai e taimi ako e fanau ‘i ‘api.	❒	❒	❒	❒	❒	❒
37	fakapapau’i ‘oku ‘ulungaanga lelei e fanau ‘i ‘apiako.	❒	❒	❒	❒	❒	❒
38	fakalotolahi’i e ‘ulungaanga fakafonua ke hoko ko e konga ia e ako hange ko e lea Tonga.	❒	❒	❒	❒	❒	❒

39	fakamanatu ki he fanau e mahu'inga o e ulungaanga faka-Tonga ki he ako.	❒	❒	❒	❒	❒	❒
40	'ave e fanau ki he lotu he taimi kotoa pe.	❒	❒	❒	❒	❒	❒
	Ko e faiako mo 'ene founga faiako.						
41	Ko e founga faiako 'oku totonu ke ne fakafehokotaki e me'a 'oku ako'i mo e me'a mo'oni 'oku hoko.	❒	❒	❒	❒	❒	❒
42	Oku totonu ke pole'i 'e he kau faiako 'a e tukunga anga maheni 'o e faiako pea mo tokoni ki he fanau ke fa'u ha fa'unga 'ilo fo'ou ki he ako'i e ngaahi lesoni.	❒	❒	❒	❒	❒	❒
43	'Oku 'i he kau faiako ke fakatupulaki e tui mo e falala 'a e fanau.	❒	❒	❒	❒	❒	❒
44	'Oku 'i he kau faiako ke teuteu e fanau ke nau lava 'o fakahoko ha ngaahi liliu ki he fonua.	❒	❒	❒	❒	❒	❒
45	'Oku totonu ke nofo taha pe e kau faiako ki he feinga'i ke mahino'i mo mou'i'aki e to'onga faka-Kalisitiane.	❒	❒	❒	❒	❒	❒
46	Ko e kau faiako 'oku totonu ke nau mataotao 'i he ngaahi lesoni pea lava 'o tokoni ki he teueteu sivi 'a e fanau.	❒	❒	❒	❒	❒	❒
	Ko e ha e 'uhinga 'oku 'ikai ola lelei ai e ako 'a e fanau?						
47	'Oku 'ikai ma'u 'e he kau tauhi fanau ha poto'i mo ha ako fe'unga.	❒	❒	❒	❒	❒	❒
48	'Oku fu'u masiva e ngaahi 'api 'o e fanau.	❒	❒	❒	❒	❒	❒
49	'Oku fu'u tokolahi e ngaahi 'api pea 'ikai ma'u ha taimi ako lelei.	❒	❒	❒	❒	❒	❒
50	'Oku 'ikai ma'u 'e he fanau 'a e taukei mo e poto ke ma'u ai ha ola 'oku lelei.	❒	❒	❒	❒	❒	❒
51	'Oku fu'u lahi e ngaue pa'anga 'a e fanau.	❒	❒	❒	❒	❒	❒
52	'Oku 'ikai ako'i lelei 'e he kau faiako mo e ngaahi 'apiako e fanau.	❒	❒	❒	❒	❒	❒
53	'Oku totonu ke tukuaki'i 'a 'api moe matu'a i he 'ikai ola lelei e ako 'a e fanau.	❒	❒	❒	❒	❒	❒
54	Ko e kove pe ia 'a e fanau mo honau ngaahi kaungame'a	❒	❒	❒	❒	❒	❒
55	'Oku fu'u lahi e taimi 'o e matu'a he ngaue mo e lotu.	❒	❒	❒	❒	❒	❒

56	‘Oku ‘ikai poto e matu’a hono poupou’i e fanau ke ma’u ha ola ‘oku lelei.	❒	❒	❒	❒	❒	❒
57	‘Oku fu’u lahi e taimi e fanau ‘i he ‘api siasi kae li’ekina ‘enau ako.	❒	❒	❒	❒	❒	❒
	Ko e ha e founga ako lelei?						
58	Ko e ako ke ma’u ha ngaue lelei ki he kaha’u.	❒	❒	❒	❒	❒	❒
59	Ko e ako ‘oku felave’i ia mo ‘e te lava ke liliu ‘e te to’onga ako.	❒	❒	❒	❒	❒	❒
60	Ko e ako ke ma’uloto pea mo manatu’i e ngaahi me’a fo’ou.	❒	❒	❒	❒	❒	❒
61	Ko e ako ko e lava ke faka’uhinga’i ha me’a fo’ou ke ‘uhinga malie mo e taimi.	❒	❒	❒	❒	❒	❒
62	Ko e ako ‘oku fiema’u e ngaue lahi, kataki mo e mateaki.	❒	❒	❒	❒	❒	❒
63	Ko e ako e lava ia kapau ‘oku falala e tokotaha ako ki honomafai.	❒	❒	❒	❒	❒	❒
64	Ko e ako ‘oku fakatefitope ia ‘i he’ete tui te te lava’i e me’a kotoa pe.	❒	❒	❒	❒	❒	❒
65	Ko e ako ‘oku lava lelei ia he ngaue fakakulupu.	❒	❒	❒	❒	❒	❒
66	Ko e ako ‘oku lava lelei ia he taimi ‘oku fe’au’auhi ai e kau ako.	❒	❒	❒	❒	❒	❒
67	Ko e ako ‘oku fakatefito ia ‘i he’ete tui te te lava ‘o ako’i e ngaahi lesoni.	❒	❒	❒	❒	❒	❒
68	Ko e ako ‘oku fakatefito ia he’ete tui te te lava ‘o ako’Ii e ngaahi lesoni ‘a e ako’anga.						

Kataki mu’a ‘o tali mo e fehu’i ko eni

69 Ko ho ta’u fiha eni?

70. Na’e fa’ele’i ko e ‘i fe?

71. Ko e ha e loloa ho’o nofo ‘i Nu’usila ni?

72. Na’a ke ako kolisi ‘i fe?

73. Kataki o tiki e puha ‘oku tonu kia koe? ❒ Fefine ❒ Tangata

74. Ko e ha ho’o ngaue ‘oku fai he taimi ni?

75. Ko e ha e lea ‘oku ngaue lahi’aki ‘i ‘api?

76. Ko e toko fiha ‘oku mou nofo ‘i homou ‘api?

77.’Oku ke kau ki ha lotu lea faka-Tonga?

Appendix C: Parents' Conceptions of schooling

This survey asks about your beliefs and understandings of different aspects of SCHOOLING. Please answer the questions using your own understanding of the items.

Use the following rating scale and choose the one response that comes closest to describing your opinion.

- Strongly Disagree
- Mostly Disagree
- Slightly Agree
- Moderately Agree
- Mostly Agree
- Strongly Agree

Please **TICK** (√) one box per statement only to indicate your rating.

Once you have completed the survey, would you please return it to the Principal Investigator, Mo'ale 'Otunuku, University of Auckland, for analysis. If you have any queries please do not hesitate to contact him on 623 8899 ext 48384.

	The main aim of schooling is:	Strongly Disagree	Mostly Disagree	Slightly Agree	Moderately Agree	Mostly Agree	Strongly Agree
1	To ensure that students know God personally	❒	❒	❒	❒	❒	❒
2	To develop the whole being, mind, body and soul	❒	❒	❒	❒	❒	❒
3	To make sure young people can fulfil their obligations to the family	❒	❒	❒	❒	❒	❒
4	To make sure young people can fulfil their obligations to the church	❒	❒	❒	❒	❒	❒
5	To make sure young people can fulfil their obligations to community	❒	❒	❒	❒	❒	❒
6	To be enlightened and knowledgeable	❒	❒	❒	❒	❒	❒
7	To search for knowledge	❒	❒	❒	❒	❒	❒
8	To help young people have a very good future	❒	❒	❒	❒	❒	❒
9	To help young people get to university and obtain a degree	❒	❒	❒	❒	❒	❒
10	To get a prestigious job, such as lawyer or doctor	❒	❒	❒	❒	❒	❒
	Conception of Assessment						
11	Assessment shows how good a school is	❒	❒	❒	❒	❒	❒
12	Assessment holds students accountable for their learning	❒	❒	❒	❒	❒	❒
13	Assessment helps describe what students have learnt	❒	❒	❒	❒	❒	❒
14	Assessment helps to improve students learning	❒	❒	❒	❒	❒	❒
15	Assessment helps improve the quality of teaching	❒	❒	❒	❒	❒	❒
16	Assessments provide accurate information about what students can do	❒	❒	❒	❒	❒	❒
17	Assessment does not help students' learning or teachers' teaching	❒	❒	❒	❒	❒	❒

18	Assessment results are often ignored by students and teachers	❒	❒	❒	❒	❒	❒
19	Assessment does not give accurate information about the quality of schools or student learning	❒	❒	❒	❒	❒	❒
	The school I would like my child to attend						
20	will make parents feel welcome and accepted for who they are	❒	❒	❒	❒	❒	❒
21	Provides excellent information on students' progress	❒	❒	❒	❒	❒	❒
22	celebrates students' cultural diversity	❒	❒	❒	❒	❒	❒
23	disciplines students well and firmly	❒	❒	❒	❒	❒	❒
24	has established a successful communications channel with parents	❒	❒	❒	❒	❒	❒
25	will concentrate on making sure that the majority of its students make it to the university	❒	❒	❒	❒	❒	❒
26	has very high quality of education	❒	❒	❒	❒	❒	❒
27	is a single sex school	❒	❒	❒	❒	❒	❒
28	teaches Christian values and lifestyles	❒	❒	❒	❒	❒	❒
29	is a co-educational school	❒	❒	❒	❒	❒	❒
30	is the one closest to my home	❒	❒	❒	❒	❒	❒
31	is a high decile school	❒	❒	❒	❒	❒	❒
	What are the responsibilities of a parent?						
32	To visit the school regularly to enquire about her/his child schooling	❒	❒	❒	❒	❒	❒
33	To pay for a child's school fees, uniform, and other school needs	❒	❒	❒	❒	❒	❒
34	To help and to make sure the child is doing his/her homework	❒	❒	❒	❒	❒	❒
35	To support children in their extra curricular activities, like cultural groups and sports	❒	❒	❒	❒	❒	❒

36	To ensure that there is a study place for the child at home	❒	❒	❒	❒	❒	❒
37	To ensure that there is a study time for the child at home	❒	❒	❒	❒	❒	❒
38	To ensure a child behaves well at school	❒	❒	❒	❒	❒	❒
39	To encourage the child's culture as part of schooling (e.g., Tongan language)	❒	❒	❒	❒	❒	❒
40	To remind the child of the importance of Tongan values to schooling	❒	❒	❒	❒	❒	❒
41	To take the child to church regularly	❒	❒	❒	❒	❒	❒
	Beliefs about teaching and teachers						
42	Teaching should link school learning to real settings and situations	❒	❒	❒	❒	❒	❒
43	Teachers should challenge familiar ways of understanding and help students develop deep and new ways of thinking about subjects	❒	❒	❒	❒	❒	❒
44	Teachers should build up the self-confidence and self-esteem of students	❒	❒	❒	❒	❒	❒
45	Teachers should help prepare students so that they can make important changes to our society	❒	❒	❒	❒	❒	❒
46	Teachers should focus on children understanding and practising Christian values	❒	❒	❒	❒	❒	❒
47	Teachers should be expert in what students learn and should be effective in helping students prepare for examinations	❒	❒	❒	❒	❒	❒
	Why do students NOT achieve?						
48	The parents lack adequate skills and education	❒	❒	❒	❒	❒	❒
49	There is too much poverty at the students' home	❒	❒	❒	❒	❒	❒
50	Students are living with large families and have no privacy to	❒	❒	❒	❒	❒	❒

	study						
51	Students' lack the kind of experiences and knowledge needed for school success	❒	❒	❒	❒	❒	❒
52	Students are working too much at paying jobs	❒	❒	❒	❒	❒	❒
53	Teachers and schools do not teach Tongan children well	❒	❒	❒	❒	❒	❒
54	Parents and home life are to blame for lack of success	❒	❒	❒	❒	❒	❒
55	Students and their peers distract themselves from learning	❒	❒	❒	❒	❒	❒
56	Parents spend too much time at work or church	❒	❒	❒	❒	❒	❒
57	Parents do not know how to support their children in being successful at school	❒	❒	❒	❒	❒	❒
58	Students spend too much time on church or youth activities rather than studying	❒	❒	❒	❒	❒	❒
	What are the best approaches to Learning?						
59	Learning is all about getting a good job in the future	❒	❒	❒	❒	❒	❒
60	Learning involves knowing how to check and change study approaches	❒	❒	❒	❒	❒	❒
61	Learning requires memorising and remembering new material	❒	❒	❒	❒	❒	❒
62	Learning means changing new material so that it makes sense in new situations	❒	❒	❒	❒	❒	❒
63	Learning requires hard work, persistence, and effort	❒	❒	❒	❒	❒	❒
64	Learning happens when the learner believes is confident in his or her abilities	❒	❒	❒	❒	❒	❒
65	Learning depends on believing that you can learn anything	❒	❒	❒	❒	❒	❒
66	Learning happens best when working with other learners in a group	❒	❒	❒	❒	❒	❒

67	Learning happens best when learners compete with each other and one comes out on top	❒	❒	❒	❒	❒	❒
68	Learning depends on believing that you can learn school subjects	❒	❒	❒	❒	❒	❒

69) How old are you? (*Tick one only)*

❒ 20 – 30 years ❒ 31 – 40 years ❒ 41 - 50 ❒ 51 - 60 ❒ 61 - 70 ❒ 71 and older

70) Where were you born? (*Tick one only)*

❒ Tonga ❒ New Zealand ❒ Elsewhere

71) How long have you been living in New Zealand?

_____ years.

72) Where did you have your secondary schooling?

❒ Tonga ❒ New Zealand ❒ Elsewhere:_____

73) What is your sex? *(Tick one only)*

❒ Female ❒ Male

74) What is your current job or occupation? _____

75) What language do you use most at home? *(Tick one only)*

❒ English ❒ Tongan ❒ Other: (*give details*) _____

76) How many people normally living at your house? *(Tick one only)*

❒ 1 to 5 ❒ 6 to 10 ❒ more than 10

77) Are you a member of a Tongan language church? *(Tick all that apply)*

❒ Yes ❒ No

Appendix D: Students' Conceptions of Schooling

This survey asks about your beliefs and understandings about different aspects of schooling, namely, ASSESSMENT, TEACHING, and LEARNING. Please answer the questions using your own understanding of the items.

Use the following rating scale and choose the one response that comes closest to describing your opinion.

- Strongly Disagree
- Mostly Disagree
- Slightly Agree
- Moderately Agree
- Mostly Agree
- Strongly Agree

Please **TICK (√)** the box(es) to indicate your rating.

Once you have completed the survey, would you please return it on the enclosed envelope to the Principal Investigator, Mo'ale 'Otunuku, University of Auckland, for analysis. If you have any queries please do not hesitate to contact him on 623 8899 ext 48384.

	Conceptions of Assessment	Strongly Disagree	Mostly Disagree	Slightly Agree	Moderately Agree	Mostly Agree	Strongly Agree
1	I pay attention to my assessment results in order to focus on what I could do better next time	❒	❒	❒	❒	❒	❒
2	Assessment encourages my class to work together and help each other	❒	❒	❒	❒	❒	❒
3	Assessment is unfair to students	❒	❒	❒	❒	❒	❒
4	Assessment results show how intelligent I am	❒	❒	❒	❒	❒	❒
5	Assessment helps teachers track my progress	❒	❒	❒	❒	❒	❒
6	Assessment is an engaging and enjoyable experience for me	❒	❒	❒	❒	❒	❒
7	I ignore assessment information	❒	❒	❒	❒	❒	❒
8	Assessment is a way to determine how much I have learned from teaching	❒	❒	❒	❒	❒	❒
9	Assessment is checking off my progress against achievement objectives or standards	❒	❒	❒	❒	❒	❒
10	I make use of the feedback I get to improve my learning	❒	❒	❒	❒	❒	❒
11	Assessment provides information on how well schools are doing	❒	❒	❒	❒	❒	❒
12	Assessment motivates me and my classmates to help each other	❒	❒	❒	❒	❒	❒
13	Assessment interferes with my learning	❒	❒	❒	❒	❒	❒
14	I look at what I got wrong or did poorly on to guide what I should learn next	❒	❒	❒	❒	❒	❒
15	I use assessments to take responsibility for my next learning steps	❒	❒	❒	❒	❒	❒
16	Assessment results predict my future performance	❒	❒	❒	❒	❒	❒
17	Our class becomes more supportive when we are assessed	❒	❒	❒	❒	❒	❒
18	Teachers are over-assessing	❒	❒	❒	❒	❒	❒
19	I use assessments to identify what I need to study next	❒	❒	❒	❒	❒	❒

20	Assessment is important for my future career or job	❒	❒	❒	❒	❒	❒
21	When we do assessments, there is a good atmosphere in our class	❒	❒	❒	❒	❒	❒
22	Assessment results are not very accurate	❒	❒	❒	❒	❒	❒
23	My teachers use assessment to help me improve	❒	❒	❒	❒	❒	❒
24	Assessment measures the worth or quality of schools	❒	❒	❒	❒	❒	❒
25	Assessment makes our class cooperate more with each other	❒	❒	❒	❒	❒	❒
26	Assessment is value-less	❒	❒	❒	❒	❒	❒
27	Teachers use my assessment results to see what they need to teach me next	❒	❒	❒	❒	❒	❒
28	When we are assessed, our class becomes more motivated to learn	❒	❒	❒	❒	❒	❒
29	I ignore or throw away my assessment results	❒	❒	❒	❒	❒	❒
30	Assessment shows whether I can analyse and think critically about a topic	❒	❒	❒	❒	❒	❒
31	I find myself really enjoying learning when I am assessed	❒	❒	❒	❒	❒	❒
32	Assessment has little impact on my learning	❒	❒	❒	❒	❒	❒
33	Assessment tells my parents how much I've learnt	❒	❒	❒	❒	❒	❒
	The Quality of Teaching I experienced this Year						
34	I know what I’m suppose to do in class	❒	❒	❒	❒	❒	❒
35	Our teachers show us how to do new things	❒	❒	❒	❒	❒	❒
36	There is enough time to finish class work	❒	❒	❒	❒	❒	❒
37	My classes are not too noisy or rowdy for learning	❒	❒	❒	❒	❒	❒
38	I learn new things I can tell you about	❒	❒	❒	❒	❒	❒
39	I know how well I’m doing in my classes	❒	❒	❒	❒	❒	❒
40	My school has good teachers	❒	❒	❒	❒	❒	❒

41	We have enough materials and supplies to learn	❒	❒	❒	❒	❒	❒
42	At the end of each class, I understand well enough to finish the assignments by myself	❒	❒	❒	❒	❒	❒
43	I know why we learn what we learn in class	❒	❒	❒	❒	❒	❒
44	My classes are not too slow or fast to learn well	❒	❒	❒	❒	❒	❒
45	The rules in each class help me to learn	❒	❒	❒	❒	❒	❒
	Approaches to Learning						
46	I study to increase my job opportunities	❒	❒	❒	❒	❒	❒
47	I study to ensure that my future will be financially secure	❒	❒	❒	❒	❒	❒
48	I study to get a good job	❒	❒	❒	❒	❒	❒
49	When I study, I start by figuring out exactly what I need to learn	❒	❒	❒	❒	❒	❒
50	When I study, I force myself to check to see if I remember what I have learnt	❒	❒	❒	❒	❒	❒
51	When I study, I try to figure out which concepts I still haven't really understand	❒	❒	❒	❒	❒	❒
52	When I study, I make sure that I remember the most important things	❒	❒	❒	❒	❒	❒
53	When I study, and I don't understand something I look for additional information to clarify this	❒	❒	❒	❒	❒	❒
54	When I study, I try to memorize everything that might be covered	❒	❒	❒	❒	❒	❒
55	When I study, I try to memorize everything that might be covered	❒	❒	❒	❒	❒	❒
56	When I study, I memorize all new material so that I can recite it	❒	❒	❒	❒	❒	❒
57	When I study, I practice by saying the material to myself over and over	❒	❒	❒	❒	❒	❒
58	When I study, I try to relate new material to things I have learnt in other subjects	❒	❒	❒	❒	❒	❒

59	When I study, I try to figure out how the information might be useful in the real world	❒	❒	❒	❒	❒	❒
60	When I study, I try to understand the material better by relating it to things I already know	❒	❒	❒	❒	❒	❒
61	When I study, I try to figure out how the material fits in with what I have already learnt	❒	❒	❒	❒	❒	❒
62	When studying, I work as hard as possible	❒	❒	❒	❒	❒	❒
63	When studying, I keep working even if the material is difficult	❒	❒	❒	❒	❒	❒
64	When studying, I try to do my best to acquire the knowledge and skills taught	❒	❒	❒	❒	❒	❒
65	When studying, I put forth my best effort	❒	❒	❒	❒	❒	❒
66	I'm certain I can understand the most difficult material presented in texts	❒	❒	❒	❒	❒	❒
67	I'm confident I can understand the most complex material presented by the teacher	❒	❒	❒	❒	❒	❒
68	I'm confident I can do an excellent job on assignments and tests	❒	❒	❒	❒	❒	❒
69	I'm certain I can master the skills being taught	❒	❒	❒	❒	❒	❒
70	When I sit myself down to learn something really difficult, I can learn it	❒	❒	❒	❒	❒	❒
71	If I decide not to get bad grades, I can really do it	❒	❒	❒	❒	❒	❒
72	If I decide not to get any problems wrong, I can really do it	❒	❒	❒	❒	❒	❒
73	If I want to learn something well, I can	❒	❒	❒	❒	❒	❒
74	I like to work with other students	❒	❒	❒	❒	❒	❒
75	I learn most when I work with other students	❒	❒	❒	❒	❒	❒
76	I do my best when I work with other students	❒	❒	❒	❒	❒	❒
77	I like to help other people do well in a group	❒	❒	❒	❒	❒	❒

78	It is helpful to put together everyone's ideas when working on a project	❒	❒	❒	❒	❒	❒
79	I like to try to be better than other students	❒	❒	❒	❒	❒	❒
80	Trying to be better than others makes me work well	❒	❒	❒	❒	❒	❒
81	I would like to be the best at something	❒	❒	❒	❒	❒	❒
82	I learn faster if I'm trying to do better than the others	❒	❒	❒	❒	❒	❒
83	I learn things quickly in most school subjects	❒	❒	❒	❒	❒	❒
84	I'm good in most school subjects	❒	❒	❒	❒	❒	❒
85	I do well in tests in most school subjects	❒	❒	❒	❒	❒	❒

Please tell me something about yourself:

86. What is your gender? Male ❒ Female ❒

87. What year are you in at school? 9 ❒ 10 ❒ 11 ❒ 12 ❒ 13 ❒

88. Which secondary school do you go to? Give the name please. _____

89. What country were you born in? New Zealand ❒ Tonga ❒ elsewhere ❒ (give details) _____

90. Do you go to church regularly? Yes ❒ No ❒

91. What language is used most in that church? Tongan ❒ English ❒

Appendix E: Teachers' Conceptions of Schooling

This survey asks about your beliefs and understandings about different aspects of schooling, namely, ASSESSMENT, TEACHING, and LEARNING. Please answer the questions using your own understanding of the items.

Use the following rating scale and choose the one response that comes closest to describing your opinion.

- Strongly Disagree
- Mostly Disagree
- Slightly Agree
- Moderately Agree
- Mostly Agree
- Strongly Agree

Please **TICK (√)** the box(es) to indicate your rating.

Once you have completed the survey, would you please return it on the enclosed envelope to the Principal Investigator, Mo'ale 'Otunuku, University of Auckland, for analysis. If you have any queries please do not hesitate to contact him on 623 8899 ext 48384.

	Conceptions of Assessment	Strongly Disagree	Mostly Disagree	Slightly Agree	Moderately Agree	Mostly Agree	Strongly Agree
1	Assessment provides information on how well schools are doing	❒	❒	❒	❒	❒	❒
2	Assessment places students into categories	❒	❒	❒	❒	❒	❒
3	Assessment is a way to determine how much students have learned from teaching	❒	❒	❒	❒	❒	❒
4	Assessment provides feedback to students about their performance	❒	❒	❒	❒	❒	❒
5	Assessment is integrated with teaching practice	❒	❒	❒	❒	❒	❒
6	Assessment results are trustworthy	❒	❒	❒	❒	❒	❒
7	Assessment forces teachers to teach in a way against their beliefs	❒	❒	❒	❒	❒	❒
8	Teachers conduct assessments but make little use of the results	❒	❒	❒	❒	❒	❒
9	Assessment results should be treated cautiously because of measurement error	❒	❒	❒	❒	❒	❒
10	Assessment is an accurate indicator of a school's quality	❒	❒	❒	❒	❒	❒
11	Assessment is assigning a grade or level to student work	❒	❒	❒	❒	❒	❒
12	Assessment establishes what students have learned	❒	❒	❒	❒	❒	❒
13	Assessment feeds back to students their learning needs	❒	❒	❒	❒	❒	❒
14	Assessment information modifies ongoing teaching of students	❒	❒	❒	❒	❒	❒
15	Assessment results are consistent	❒	❒	❒	❒	❒	❒
16	Assessment is unfair to students	❒	❒	❒	❒	❒	❒
17	Assessment results are filed & ignored	❒	❒	❒	❒	❒	❒
18	Teachers should take into account the error and imprecision in all assessment	❒	❒	❒	❒	❒	❒
19	Assessment is a good way to evaluate a school	❒	❒	❒	❒	❒	❒
20	Assessment determines if students meet qualifications standards	❒	❒	❒	❒	❒	❒
21	Assessment measures students' higher order thinking skills	❒	❒	❒	❒	❒	❒

22	Assessment helps students improve their learning	❒	❒	❒	❒	❒	❒
23	Assessment allows different students to get different instruction	❒	❒	❒	❒	❒	❒
24	Assessment results can be depended on	❒	❒	❒	❒	❒	❒
25	Assessment interferes with teaching	❒	❒	❒	❒	❒	❒
26	Assessment has little impact on teaching	❒	❒	❒	❒	❒	❒
27	Assessment is an imprecise process	❒	❒	❒	❒	❒	❒
	Conceptions of Learning						
28	Learning is building up knowledge by getting facts and information	❒	❒	❒	❒	❒	❒
29	Learning is making sure I remember things well	❒	❒	❒	❒	❒	❒
30	Learning is developing as a person	❒	❒	❒	❒	❒	❒
31	Learning is seeing things in a different and more meaning way	❒	❒	❒	❒	❒	❒
32	Learning is understanding new material for myself	❒	❒	❒	❒	❒	❒
	Conceptions of Teaching						
33	I link the subject matter with real settings of practice or application	❒	❒	❒	❒	❒	❒
34	My intent is to demonstrate how to perform or work in real situations	❒	❒	❒	❒	❒	❒
35	To be an effective teacher, one must be an effective practitioner	❒	❒	❒	❒	❒	❒
36	I challenge familiar ways of understanding the subject matter	❒	❒	❒	❒	❒	❒
37	My intent is to help people develop more complex ways of reasoning	❒	❒	❒	❒	❒	❒
38	Teaching should focus on developing qualitative changes in thinking	❒	❒	❒	❒	❒	❒
39	I encourage expressions of feeling and emotion	❒	❒	❒	❒	❒	❒
40	My intent is to build people's self-confidence and self-esteem as learners	❒	❒	❒	❒	❒	❒
41	In my teaching, building self-confidence in learners is priority	❒	❒	❒	❒	❒	❒

42	I help people see the need for changes in society	❒	❒	❒	❒	❒	❒
43	I expect people to be committed to changing our society	❒	❒	❒	❒	❒	❒
44	Individual learning without social change is not enough	❒	❒	❒	❒	❒	❒
45	I make it very clear to people what they are to learn	❒	❒	❒	❒	❒	❒
46	My intent is to prepare people for examinations	❒	❒	❒	❒	❒	❒
47	Effective teachers must first be experts in their own subject areas	❒	❒	❒	❒	❒	❒

Would you also provide the following personal information?

48. What is/are your role(s) at your school? (Teacher, HOD, Dean, assistant HOD etc.)

_____

49. What is your highest qualification? (Diploma, Bachelor, Postgraduate Diploma, Masters etc)

_____

50. How many years have you been teaching?

_____

51. What is/are your specialist teaching subject(s)?

_____

52. What type of school do you teach in? Please circle one.

a). Single sex BOYS b). Single sex GIRLS. c). Coeducational

53. Which ethnic group do you belong to? Please circle.

a) European b) Maori c) Pasifika d) Asian e) Others

54. Which year levels do you teach?

Levels: _____

55. What is your gender? Please circle one.

a) Male. b) Female.

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