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Whaia te iti Kahurangi: Efficacy,  
agency, achievement and success in  
the tertiary sector: Focus on  
students and parents from Pasifika  
communities

Report: A case study of an  
Institute of Technology



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## **Executive summary**

The present study is situated in Unitec Institute of Technology, a dynamic tertiary institution in New Zealand, catering to the needs of a large and diverse student population enrolled in courses ranging from certificate level to doctoral programmes. Annual summative evaluations of achievement of students reveal ethnicity based disparities in the rate of success and retention of undergraduate students, with Pasifika students positioned in the lower levels as compared to mainstream and Maori students in both Unitec campuses. In this research project, the reasons underpinning this disparity is assessed from the context of efficacy and agency of students, two constructs which correlate with academic achievement. Led by a research design underpinned by Kaupapa Maori, Pasifika, mainstream methodologies, and ancient philosophies, the findings are reported mainly from the perspectives of student and parent participants from Pasifika communities. Although an inclusive approach of inviting tertiary students across all ethnicities that had enrolled for a qualification programme to participate was the norm, the central aim was to unravel some of the challenges faced by participants from the Pasifika community which precluded optimal achievement. Unitec Centre for Pacific approved Tertiary Education Commission funding for this research.

Pasifika parents with teenagers enrolled in secondary schools or/ and with children in the tertiary sector were also invited to participate in focus groups to share their perspectives on higher education, and how they coped with emerging challenges. A mixed-methods approach was used to assess self-efficacy, agency, and perceptions of success. Findings reveal students in the tertiary sector reporting high levels of efficacy. Agency and perception of success seems to be more collective in nature, with a sense of responsibility towards oneself and one's family acting as agentic forces to succeed in the tertiary sector. Students are intent upon setting goals, using learning strategies, taking responsibility for their learning and attaining them. Teacher participation in this research was almost non-existent, despite being part of the research design. This was a major limitation of the study,

since there is no empirical data on culturally sensitive teaching strategies in use. The findings also capture the critical role of family, teachers, support staff, and peers in student achievement and success in bicultural and multi-cultural tertiary education context.

## CHAPTER ONE: A contextualized overview of the research

### 1.1 INTRODUCTION

*“I am asking you to believe. Not just about my ability to bring real change ... I am asking you to believe in yours”* (Obama, B. 2008 <http://www.barackobama.com/index.php>)

Self-belief, change and innovation are corner stones of progress and empowerment of peoples and nations. For self-belief to develop there has to be opportunities for participation, engagement, and success. The assumption underpinning the present study is that self belief and agency are critical constructs to bring about positive change for every individual, and to attain optimal achievement and success in education. This assumption is explored in-depth, in an empirical research on self-beliefs and agency of diverse group of students and Pasifika parents, and its links to achievement. Understanding Pasifika students’ perceptions of success and the efficacy of teachers in achieving the strategic goals of the New Zealand Tertiary Education Strategy are also part of the research aims.

<sup>1</sup>Changing thinking and practices are not “new to Tongan people. ... What is new is the change, as contemplated in the “Pacific” Education Proposal (New Zealand), ensuring that issues of cultural contexts, political structures, economic resources, social commitments, and responsibilities to them are incorporated and their intersection addressed and encountered through TalanoaMälie<sup>2</sup>. (Manu’atu & Kēpa, 2006, p.171)

We begin the introduction section with a snapshot of Aotearoa and the demographics of the people of New Zealand, an overview of the tertiary education sector, Unitec Institute of

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<sup>1</sup> Writing in parenthesis denote researchers’ insertion

<sup>2</sup> Ways of cooperative learning and education



Technology, and the research framework as it developed and progressed in our attempts to comprehend and share how TalanoaMālie can be attainable.

### **An overview of Aotearoa New Zealand**

New Zealand is an island nation of over four million people, with a resident population estimated at 4,296, 946 (Statistics New Zealand, 2009). With the majority population comprising Pākehā or European settlers, Māori as the indigenous people comprise 14.6 percent of the population, 6.9 percent of the people are of Pacific Island descent, and 9.2 percent are Asian (Statistics New Zealand, 2008). A programme of reforms that began more than twenty years ago has led New Zealand to be one of the faster growing economies, with an annual rate of 3.6% among the Organisation of Economic Cooperation and Development (OECD) countries (OECD, 2003).

Those reforms have provided the economy with several important strengths: a sound macro economic policy framework; low inflation and a fiscal surplus; a flexible labour market; high-quality public administration and regulation; and an education system that delivers top-class overall results of the majority. (OECD, 2003, p. 7)

### **The New Zealand tertiary education context**

In the higher education context, public tertiary education is extended through major provider institutions viz. universities (8), institutions of technology and polytechnics (20), wānanga (3), apart from registered private training establishments (734), and other providers which number thirteen.

The priorities for tertiary education in New Zealand are comprehensively presented in the Ministry of Education Tertiary Education Strategy document (2007 -2012). The intent of the tertiary education strategy is to contribute to the national goals by facilitating attainment of success by all New Zealanders through provision of “lifelong learning; creating and applying knowledge to drive innovation; and strong connections between tertiary education organizations and the communities they serve” (Ministry of Education, 2008, p. 18). The Ministry of Education report on profiles and trends in the tertiary sector highlights the

progressive increase in tertiary educated New Zealanders, with the number of people with a bachelors degree or higher comprising 18% of the adult population, an almost 100% increase from 9.2% in 1997. Forty-one percent of tertiary domestic students from the pool of 579,000 students enrolled in formal tertiary qualifications were undertaking bachelor's qualifications. About 13% of the population of 15 years or over participated in some form of tertiary education. The period 2006-2007 was also characterized by a 1.4% fall in growth in the number of students enrolled in tertiary education, caused by lesser demand in domestic students for level 1 – 3 certificate courses, although number of students at level 4 and above increased. There was a decline in international enrolments at bachelor's level, and at level 5- 7 diplomas and certificate levels. Forty-four percent of domestic students, who had enrolled in a qualification in 2002, were successful in completing it in 2006. European and Asian students had the highest five-year completion rates for bachelor's and higher level qualifications.

Enrolment figures for tertiary students in 2007 showed a decline from 2006, with 13% of New Zealanders 15 years and over enrolled in the sector. The main reason was the decline in Certificate level qualifications in the tertiary sector. The participation rates for Pasifika peoples increased during the year, while Maori and Asian decreased. There were no changes to Pakeha student enrolments (Ministry of Education, 2008). Further Pasifika students also showed the highest progression rate to higher studies after completing a tertiary qualification, however Pasifika have the lowest participation rates at degree level and above.

The Ministry (2008) reports 60% of students enrolled in bachelors programs achieve the qualifications, while 7% attain lower level qualifications such as diploma or certificates. Completion levels are highest for Asian students, while Pasifika and Maori students have lower rates of completion. Younger students do better in bachelors level, however once older students adjust for work-study balance, they achieve well. Factors such as full-time / part time study, gender, and demographic factors also act as variables in completion rates. Full time students have higher completion rates at Bachelors level, international students do better than domestic students, and so do female students. Universities had 59% qualification completion rates, while for institutes of technology and polytechnics the

corresponding figure was 38%. While 30% of students who have enrolled in bachelors' degree drop out without completing the degree, there is a shift which parallels changes in labour market needs/ trends, with greater participation by part time students in bachelors level programs, leading to subsequent delays in achieving qualifications. Hence retention or qualification cannot be considered sole indicators of efficacy of the tertiary sector in New Zealand.

The expenditure on education by the Government in New Zealand has been 5.3% of GDP (2007-2008), with the tertiary sector expenditure per student at \$10,262 being 11% below the OECD mean. However, when education expenditure is considered in the context of GDP, New Zealand ranks much above the UK, Australia, Ireland etc in terms of expenditure on education across all levels. In 2006, New Zealand's expenditure in the tertiary sector corresponded to the OECD average. Public education expenditure on education in New Zealand during 2005, stands at 19.4%, which is significantly higher than the OECD average of 13.2%. During the period 2000-2005, public funding at the tertiary level has shown a growth of 18%, lower than the 26% OECD average.

## **1.2 About the present research**

Situated in Unitec Institute of Technology, a tertiary institution in Auckland, the major aims of the research project were: (a) to assess students and parents efficacies and agency in achieving goals and objectives to succeed in the tertiary sector, (b) to provide insight into the challenges faced by students, teachers and parents in achieving the goals and objectives, (c) to seek students' and parents' perceptions of success in the tertiary sector, and (d) to identify effective culturally contextualized pedagogy and models for teaching-learning practices in higher education which are responsive to the needs of students and families belonging to Pasifika and Māori communities.

### **Unitec Institute of Technology**

Offering programmes extending from certificates and diplomas through to degrees and doctorates across a wide range of educational, professional and vocational areas, Unitec Institute of Technology is one of the leading polytechs in New Zealand. With a dual-sector

commitment to postgraduate and degree-level study on the one hand, and to vocational education and training on the other, the programmes and courses provide work-ready graduates with professional and vocational skills. Catering to the needs of a diverse student population averaging about 19,500 students from more than 80 countries, learners include school leavers, professionals studying to further their careers, international students, people training for jobs in industry and the trades, second-chance and adult students undertaking tertiary education for the first time, graduates returning to gain postgraduate qualifications, and people looking for a change of career (Unitec Institute of Technology, 2009). Tables 1 and 2 detail retention and success rates across major ethnicities during the year ending 2008. Two campuses, Unitec Mt Albert and Unitec Waitakere are included.

Table 1: *Course retention and success rates for formal courses ending in 2008*

*As at December 31<sup>st</sup> 2008 – Mt Albert Campus*

Student Populations	Retention Rate	Success Rate	Percentage not yet reported
All Students	90%	80%	8%
Maori	82%	73%	10%
Domestic Pasifika	80%	66%	11%
Government funded	89%	80%	7%
International	94%	80%	7%
With Disability	83%	75%	8%

Table 2: *Course retention and success rates for formal courses ending in 2008, Waitakere Campus As at December 31<sup>st</sup> 2008*

Student Populations at Waitakere Campus	Retention Rate	Success Rate	Percentage not yet reported
All Students	89%	79%	7%
Maori	76%	66%	11%
Domestic Pasifika	79%	67%	7%
Government funded	88%	78%	7%
International	98%	86%	9%

### **Research participants and programmes**

Cohorts of undergraduate students from the School of Communication, School of Computing and School of Applied Technology formed the major pool of participants. There were also a few students from the School of Architecture and School of Nursing. Pasifika students' perspectives were given greater focus in Semester Two. Parents who participated in focus groups comprised members from the Pasifika communities who had children in the secondary school / or and in the New Zealand tertiary sector. Teachers were invited to participate in a survey with the option to volunteer for an interview during the latter part of the year. Participation was sought by voluntary consent.

The tertiary education strategy (2007-2012), as explained earlier, encompasses three areas for the New Zealand tertiary sector to make significant contributions, viz: (a) success, (b) creating and applying knowledge and innovation, and (c) strong connections between the institutions and the communities around. One of the aims of the present research study was to explore successful attainment of these strategic goals from students and parents perspectives. Further, it is believed that the results will help inform the third major area of tertiary sector contribution, viz: to “improve the quality and relevance of education, support economic transformation, and support social, cultural and environmental outcomes” (p.21)

### **1.3 Research questions**

- What is the level of student efficacy in use of learning strategies in tertiary education?
- What is the relationship between efficacy and achievement in tertiary education?
- What is the level of agency of students in tertiary education?
- What is relationship between efficacy, agency and perception of success in tertiary education?
- What are Pasifika parents' perspectives on tertiary education in the New Zealand context?
- What are the implications of the research for Unitec Institute of Technology and the NZ Tertiary Education Strategy 2007-2012?

## **CHAPTER TWO: Constructs and concepts central to this research**

For the purpose of the present study, the concepts and constructs relating to culture, efficacy and agency have been adapted from different theoretical orientations. We have operationalised and applied the constructs in a way we believe is relevant to the educational and cultural context of Unitec Institute of Technology, a thriving and successful polytechnic of Aotearoa New Zealand.

### **2.1 Culture**

In the English language, the word culture is defined in many different ways and is not always used congruously. Anthropologists Kroeber and Kluckhohn (1952), after critically reviewing more than 150 different definitions of culture have suggested that culture consists of patterns, explicit and implicit, of and for behaviour acquired and transmitted by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts. Kroeber and Kluckhohn have insisted that the essential core of culture consists of traditional ideas which have been derived from historical facts and especially their attached values. Rocker (1937) maintained that cultural traits neither arise by the direction of higher authorities nor can they be compelled by the resolution of the legislature without the consent of those that would be affected. Culture is

... the collective programming of the mind that distinguishes the members of one group or category from another. ... Culture is to a human collectivity what personality is to an individual. Culture could be defined as the interactive aggregate of common characteristics that influence a human group's response to its environment. Culture determines the uniqueness of a human group in the same way personality determines the uniqueness of an individual. Moreover, the two interact... (Hofstede, 2001, pp.9-10).

He states that cultural differences cannot be understood without the study of history, and in studying culture we compare societies, data have to be analysed at both the individual and societal levels. Further, societal data should include population demographics (density, GDP etc), as well as data on economic, technological, political, social, historical indicators. He recommends that we also use data collected from individuals within cultures using tools such as survey questionnaires (focus groups / interviews etc). Such data will be valid only when it meets 4 criteria, viz. it is descriptive and not evaluative, it is verifiable from different sources, it applies to a majority of the population, and it states the characteristics which differentiates the specific population from others. For studying culture and related constructs as independent variables, correlation coefficient is the statistical tool.

Correlations could range from:

1. A global correlation
2. Within society correlations
3. Between society correlations

In developing the present research design, the methodology, the methods, the variables and results are positioned and analysed within the cultural context of indigenous, Pasifika and mainstream peoples.

## **2.2 Efficacy**

The construct of efficacy has broadened in scope over the past three decades. From an understanding of efficacy as "... concerned with people's beliefs in their capabilities to perform in ways that give them some control over events that affect their lives" (Bandura, 1997, p. 181), to his conceptualization (2006) of efficacy as influencing the nature of thinking of people, whether they think optimistically or pessimistically; their choice of goals and actions, the level of commitment and effort invested; outcome expectations, level of perseverance and resilience to adversity; their coping skills to deal with stress and depression as they deal with challenges, the construct has expanded and is inclusive of the notion of agency.



In the present research, self-efficacy is conceptualised as a multi-dimensional construct influencing the level of agency, which includes personal agency, proxy agency and collective agency, and achievement. Agency is defined by Bandura (2001) as an intentional act, with its key feature being the power to originate actions for given purposes. We have attempted to assess efficacy and agency of students and parents in the context of culture, and its role in achievement, success and aspirations for future.

### *Development of self-efficacy*

Efficacy is developed in four ways (Bandura, 2008a). Enactive mastery experiences, vicarious experiences, social modelling, verbal persuasion, and physiological and affective states are the major sources of information which determine self-efficacy (Bandura, 1997). Personal attainments in authentic mastery experiences provide the most influential source of self-efficacy information.

Self-efficacy emerges as the essential factor which enables effective utilisation of self-regulatory strategies and in motivating an individual to pursue a learning goal. Self-efficacy is developed during engagement on a task through various cues the student receives (Pintrich & Schunk, 2002). Some of the important cues they highlight include performance outcomes, attributions, and persuader credibility. While during the early stages of learning a task, students might be faced with failures, seeing that they are making progress promotes self-efficacy. Evaluation and feedback are also significant sources of self-efficacy information, which impact on subsequent achievements. Success enhances efficacy, repeated failure lowers them, especially if the failures occur early. Observations of others similar to oneself succeed act as motivators and enhance self-efficacy. Conversely, personal failures while attempting the task oneself or watching similar peers fail can discourage future performance. However, Schunk (2001) states that lack of success will not lower self-efficacy and motivation, provided there is the self-belief that one can perform better by adjusting the approach. Crucial to development of this self-belief in students, is

the self-belief and the role of the teacher in the classroom. Jackson (2002) found self-efficacy beliefs related to examination scores, and was significantly affected by efficacy-enhancing communication. Feedback with an emphasis on past successes, comparison with other students who had performed similarly, encouragement to continue to stay focused and work hard, and some stress reduction tips enhanced self-efficacy. According to Bandura (2008a) low efficacy leads to giving up attempting a task, while high efficacy increases resilience, impediments are not viewed as insurmountable, and there is perseverant effort, despite any adversity. The ability and self-efficacy link has to be considered in this context. Self-efficacy is dependant upon student ability, with high ability students more efficacious about learning than low ability students (Schunk, 2001).

Reviewing empirical studies on personal efficacy, Bandura (2008a), highlights the underpinning role of personal efficacy in determining the quality of psycho-social functioning through optimism, positive thinking about future, regulation of positive and negative affect with positive affect exceeding negative affect, and satisfaction with one's life. He states:

It is exceedingly difficult to maintain hope and optimism if one is plagued by self-doubt in one's ability to influence events and convinced of the futility of effort ... Resilient self-efficacy provides the needed staying power to weather a lot of frustration and to override repeated early rejections. The functional belief system in difficult undertakings combines realism about tough odds but optimism that one can beat these odds through self development and perserverant effort" (Bandura, 2008a, pp. 167-168)

In the ability and achievement context, the role of the teacher and teacher efficacy in particular are important considerations.

### **Teacher self-efficacy**

Teacher efficacy has been defined as “teacher’s belief in his or her capability to organise and execute course of actions required to successfully accomplish a specific teaching task in a particular context” (Tschannen-Moran, Hoy, & Hoy, 1998, p. 233). Teacher efficacy includes teacher beliefs in maintaining an orderly classroom conducive to learning, self-belief in instructional practices in different knowledge domains, enlisting resources and parental involvement, and counteracting social influences that subvert students’ academic pursuits (Bandura, 1997).

Self-efficacy also plays a significant role in teacher’s adoption of innovations in educational processes. Evers, Brouwers, and Tomic (2002) investigated the role of teachers’ beliefs, attitude and its impact on burnout when implementing an innovative educational system in the Netherlands. They hypothesised that the negative attitude towards new instructional practices would show a positive correlation with level of burnout, and self-efficacy in innovative practices, and coping with stress would show a negative correlation with burnout. Teachers who were engaged in a study-home system participated in the research. Results show negative correlations between all three domains of self-efficacy, that is, (a) involving pupils with tasks in learning processes, (b) differentially guiding groups, and (c) coping with the stresses involved in implementing such innovative educational practices, with the dimensions of depersonalisation and emotional exhaustion in burnout. There was positive relation between self-efficacy and personal accomplishment. Negative teacher attitude correlated positively with the two dimensions of burnout. The innovation programme aimed to activate and engage students in independent thinking, and on learning how to study based on individual capability. This called for transcendence in teachers’ role from conveying knowledge and skills, to becoming responsible for educational processes. This required specialised training in pedagogic-didactical changes to help enhance teachers’ capability in working with students. However, it was found that the degree of negative attitudes towards the new educational system was not significantly related to the reported burnout level. This is plausibly because of adoption of non-implementation of the innovation by the teachers, and their option to spend more time on traditional educational practices. The correlation analysis confirms this finding.

Consequently, there was no dissonance between attitude and behaviour and hence no burnout. Teachers with high self-efficacy showed greater readiness toward the innovative programme, and were also less susceptible to burnout than teachers with low self-efficacy.

To summarise the importance of teacher self-efficacy in students' achievement, Bandura (1994) highlights the following characteristics of efficacious teachers:

1. Teachers who are high in instructional efficacy devote more class-time to academic activities, guide those who are faced with difficulties, and praise their accomplishments. They rely on persuasory approaches to motivate students, and support development.
2. Teachers with high teaching efficacy create mastery experiences for their students, and those who have a low level of efficacy create classroom environments which undermine students' self-belief and thus their cognitive development.
3. Teachers' efficacy impacts on their receptivity to and adoption of new education technologies.
4. Teachers who are strong in instructional efficacy, are more likely to support parental educational efforts, and this produces a positive mutual bi-directional effect, the scholastic progress of students coupled with parental support further enhancing students and teachers' efficacy.

In the present study, teachers were invited to volunteer to participate in a survey designed to explore teachers' efficacy in using learning strategies, to be followed by an optional interview. Only one teacher responded positively. Despite repeat requests from the researchers there was no response from the teachers. Owing to validity concerns, the response of one teacher has not been incorporated in the analysis of the results.

### **2.3 Culture, efficacy and agency**

The cognitive processing of efficacy information involves two distinct functions which are influenced by culture. These include: (a) the types of information people attend to and use as indicators of self-efficacy; and (b) the combination rules they employ in processing the information (Bandura, 2002).

Information becomes useful only when it is appraised and cognitively processed through selection, weighting, and integration into self-efficacy judgments, and culture plays an influential role in this regard (Oettingen, 1995). Reviewing cross-cultural research on self-efficacy, Oettingen reports on cultural variations in source of self-efficacy information. Specific to cultures, some sources may be more prevalent, different forms of information sources may be used, and different value judgments may be applied. For example, in collectivist cultures, feedback on performance might be in a within group setting, individual attainments might not be very highly valued. Where there are large power differentials, the teacher is perceived as a powerful influence agent. Teacher evaluation becomes influential in students' appraisal of self-capabilities. In cultures with low power differentials, the verbal evaluations of teachers are less valued.

Ethnicity has been found to be an important variable in determining students' self-efficacy Gibson (1999), researching group efficacy and group effectiveness across tasks and cultures, had as independent variables level of task certainty, level of task interdependence and level of collectivism. Participants in this study were U.S. (ethnic mix of Asian, Caucasian, Latino, Pacific Island, and African American) and Hong Kong University students (comprising mainly Asian and a few Caucasian). Results showed collectivism and interdependence to be significantly related to group efficacy and group effectiveness, with group efficacy and group effectiveness positively correlated with groups high on interdependence, and not significantly correlated with groups low on interdependence. In a cross-cultural study on self-regulation strategies, self-efficacy and achievement, Chye, Walker, and Smith (1997), report differences in students' choice of learning strategies based on the country they were located in. Singaporean students in Singapore made greater use of effort regulation strategies than Singaporean students who studied in Australia. However, the former scored less in use of organisational strategies than their counterparts

in Australia. The authors reported that the strategies used by students were a better predictor of academic grade than self-efficacy.

While it can be concluded from these comparative studies that cultural-specific contexts impact on self-efficacy and agency in students, it is important to take into consideration that cultural orientations are not dichotomous, and the dimensional properties function as continuous variables operating in concert (Oettingen, 1995). Bandura (2002) cautions against adopting a disputable homogeneity assumption, and states “dichotomous cultural groupings, such as individualistic- collectivistic types, mask much diversity between cultural systems assigned to the same type and within a particular culture” (p. 274). While stressing the need for assessing self-efficacy from a socio-cultural perspective, he contends that efficacy beliefs operate in a similar manner whether in an individualistic society or collectivistic society. It is the way they are developed, exercised and the purposes that they are used for which vary across cultures.

Bandura (2002) also advises against contentious pitting of individualism against collectivism, and autonomy against interdependence in cross-cultural research. Both individualist cultures and collectivist cultures have heterogeneity among individuals. Social-cognitive theory is applicable to both individualistic and collectivistic cultures, with both personal agency and social structures functioning interdependently. Through agency, human functioning has the capability to operate proactively on social systems. “To be an agent is to influence intentionally one’s functioning and the course of environmental events. People are contributors to their life circumstances not just products of them. In this view, personal influence is part of the determining conditions governing self-development, adaptation, and change. “...Most human pursuits involve other participating agents so there is no absolute agency. They have to negotiate and accommodate their self-interests to achieve unity of effort within diversity” (Bandura, 2008b, p.87). He states that human agency comprises four core properties. These include (a) intentionality, (b) forethought, (c) self-reactiveness, and (d) self-reflectiveness. Since most human goals have other

participating agents, hence collective intentionality, shared intention, and coordinated plan of action are factors for success through agentic action. Forethought helps motivate purposeful behaviour through cognitive visualization of goals and future outcomes. Using self-guidance through forethought to bear on current activities provides meaning to one's life. The leap between thought and action is determined by self-reactiveness based on self-regulatory processes in executing the course of action. During the course of agentic action, there is ongoing self-reflectiveness, a metacognitive capability, examining personal efficacy, the meaning of their goals, the effectiveness of thoughts and action and corrective processes are put into place.

There are at least three modes of agency (Bandura, 2002), namely, personal agency, proxy agency, and collective agency. Personal agency is exercised individually with people directing themselves and their environment to manage their lives. Personal agency operates within the social context (Bandura, 1991). He states that social structures can be either a source of opportunity or constraints for personal development. Human agency is not merely reactive, but operates both generatively and proactively. Personal agency also works in tandem with proxy agency, and collective agency. Proxy agency is the way an individual enables or relies on another person or people to act as agents to achieve desired goals in situations where they do not have direct control over factors that effect their lives, and proxy agency thereby involves the mediation of others who have the expertise or influence to help attain the desired outcome. Collective agency refers to "people's shared beliefs in their collective power to produce desired results" (Bandura, 2000, p. 75). Agentic action enables people to devise ways to adapt to diverse environments. However, he contends that while there is universality in agentic capabilities, there is also diversity in the culturing of these capabilities, and the purposes for which they are used based on the psycho-social systems underlying cultures. While individual agency, proxy agency, and collective agency might show cross-cultural variations, all three modes of agency are required for successful functioning. Personal self-efficacy is not to be equated to individualism, and is crucial for achievement in both individual and collective situations. On the other hand, with the emergence of multi-cultural societies, collective efficacies are becoming critical.

It can be concluded that self-efficacy theory provides a theoretical framework on the role of efficacy within individual and collectivistic cultures which affirms one of the major assumptions underlying social-cognitive theory of personality, that is, reciprocal interactions between person, behaviour and environment, and individual and collective responsibilities towards each other, our communities, and the world.

### **Cross-cultural complexities and the teaching-learning context**

Crocombe (1987) rightly pointed out that a local sovereign or foreign governing body requires massive, expensive and highly organised coercive action to radically change the prevailing cultural realities of its subjects. It should be noted that teaching principles and techniques that are derived from the culture of a different society would not only be detrimental to the students originating from another society but they also would destroy the identities of indigenous students. As Johnston (1994) has commented:

*Why should Polynesian people be taxed, fined and imprisoned according to the rules of the civilisation of an alien race ? ... I must say that the system of Europeanisation rather than civilisation is not only imbeneficial but harmful to the native races.*

In the context of cross-cultural learning situations and the teacher-student relationships, Hofstede (1986) contends that these are deeply rooted in the culture of a society, and cross-cultural learning situations can be problematic for both. The problems could be caused by differences in the social position of teachers and students in their two cultural groups, differences in the relevance of the curriculum in the two groups, differences in the profiles of their cognitive abilities, and differences in expected patterns of interaction between students, and between students and teachers.

### **Consequences of acculturation, and important considerations**



Acculturation is a process whereby cultures of different societies interact, and the stronger cultured society conditions and changes the behavioural norms or customs of the weaker ones. During the cultural interaction, the traits of the stronger culture are usually adopted by the weaker. Experiences (Thaman, 2001) show that services, like education, which introduced new concepts and technologies that are alien to the culture of Pasifika students, should be made adaptable to and flexible enough to cope with and preserve, as much as possible, the cultural identities of all involved. As with the aborigines of Australia (Henderson, 1993), cultural appropriateness of ICT for empowerment and encouragement of Pasifika students must include both Western and indigenous knowledge, ways and conventions of learning, and that western content should be taught from the Pasifika's perspective. It is important to note that the more unlimited the power of new technology innovations over those that do not yet experience them, the more the former cripples the creative capacities and weakens the ability of the latter to act independently.

Educational providers of the 21st century should be aware of the important roles that ICT can play in facilitating diverse learners to learn. Roblyer, Dozier-Henry and Brunette (1996) stated that while some goals of multicultural education were being addressed, there were many others that technology cannot achieve and there were some problems that unplanned and irresponsible application of technology actually created. Sheffield (1997) advised that due to diversity of learners' characteristics in multicultural classrooms, teachers should employ a large set of instructional strategies and techniques to facilitate, optimise and ensure equal participation and achievement of learning outcomes for all students. Powell (1997) claimed that culturally insensitive educators failed to see the richness of cultural differences, or worse yet, viewed them as deficits needing to be corrected by assimilation into the dominant culture. It has also been argued that if we want to be successful in increasing indigenous participation in ICT courses and the ICT industry, then participation of indigenous people in the shaping of their involvement is crucial (Robertson, Dyson, Norman & Buckley 2002). Moreover, Williamson and DeSouza (2002) pithily supported the others by saying that even though educators have long recognised and considered prior learning and life experience in their pedagogical strategies, cultural differences have not been scrutinised. Consequently, knowledge and experiences

originating from within non-western cultural groups, whether indigenous or migratory, have not been valued and therefore, educators failed to comprehend the benefit to be gained by allowing students to engage in learning in a way that valued their own cultural and social heritage. Recognising the importance of computer literacy to indigenous education, Dyson (2002) argued that despite improvements in indigenous tertiary education, the failure rate remained unacceptably high, and advised that if a computer literacy course is to be successful, it must be culturally acceptable and appropriate to indigenous students' interest, values, learning styles, and identities.

Based on research on cultural differences in work-related values across more than fifty countries and personal experiences, a five-dimensional model of cultural differences is proposed by Hofstede (1991). Brief descriptions of these dimensions are as follows:

1. Individualism assumes that the person looks primarily after one's own interest and that of his/ her immediate family. In collectivist cultures, the individual belongs to one or more "in-groups" by birth, and later by other events.
2. Power distance refers to the extent to which less powerful in a society accept inequality in power, and consider it as normal. In cultures with large power distance obedience to parents and elders is the norm. There is perceived and expressed need for strong dependence on parents and elders all through life. In small power distance cultures children are almost treated as equals, and there is no perceived need for parents' permission or advice on important decisions. The power distance specific to cultural groups transfers to teacher-student relationships. "Effective learning in such a system depends very much on whether the supposed two-way communication between students and teacher is, indeed, established." (Hofstede, 1991, p. 34).
3. Uncertainty avoidance is the extent to which people in a culture feel nervous by situations that they perceive as unstructured and unpredictable and hence they try to avoid through certain codes of behaviour and beliefs.
4. Masculine cultures aim for high distinctions between male and female role

expectations. Males are expected to be assertive, ambitious, competitive, striving for material success, and they expect women to serve and to care for the children and the weak. Feminine cultures have more overlapping social roles and men can respect the weak.

5. Long-term versus short-term orientation: The choice of focus of people's efforts, viz. the present or the future.

“The norm prevalent in a given society as to the degree of individualism or collectivism expected from its members will strongly affect the nature of the relationship between a person and the organization to which he or she belongs” (Hofstede, 2001, p. 212).

For Māori, the indigenous people of New Zealand,

[C]ultural values and thinking tend to reinforce an *aku* (ours) mode. For instance, in the cultural worldview, knowledge is perceived as belonging to the whole group. Individuals have a responsibility to share knowledge with the group. If one person in the group fails to contribute, then the group as a whole loses, and the *mana* of the group may be diminished. (Smith, 2000, p. 218)

In diverse learning situations, the combinations emerging in teacher-student and student-student interactions are innumerable (Hofstede, 1986). He suggests two strategies to cope with the perplexities of cross-cultural learning situations, that is, to provide the teacher opportunities during teacher training on how to teach in culturally diverse situations. In case of small number of students from other cultures then the strategy should be to teach the learner how to learn in the new cultural context. The important factor is for the teacher to adapt both intellectually and emotionally to the ways of learning of people in different societies while acknowledging the intra and inter-cultural variations. However there are commonalities across cultural groups. Bandura (2002) states that cultures are insular no longer. In a comparative study of four countries, he examined the cultural embeddedness and structure of self-efficacy, and reports factor structures which were common to all three groups. These included self-regulatory self-efficacy, self-efficacy to master course work, to develop and manage interpersonal relationships, and to resist peer pressure to engage in

activities which would not be supportive. These factors were instrumental in developing the survey tool for the present study.

#### **2.4 Pasifika students in Aotearoa**

Pasifika students refer to offspring of people living in New Zealand who have migrated from the Pacific Islands or who identify with the Pacific Islands because of ancestry or heritage (Ministry of Education, 2004). Pasifika peoples comprise diverse groups originating from the insular nations of Oceania such as the Cook Islands, Fiji, Niue, Samoa, Tokelau, Tonga, Tuvalu, Kiribati and the Solomon Islands. Large scale migration after World War II, and in the 1960s and 1970s, has resulted in their being a well-established and integral part of New Zealand's social landscape. In 2006, Pasifika peoples represented 6.6% of New Zealand's population and 67% of the 265,974 Pasifika population in 2006 lived in the Auckland region. Economically, Pasifika peoples have faced many difficulties in New Zealand. Most of the early arrivals did not have all the skills that the labour market required. Industrial restructuring in the late 1980s and 1990s further compounded the difficulties for Pasifika peoples. Many of those who had taken many years to find employment, found themselves unemployed. Pasifika peoples were highly represented among the unemployed, lower-skilled workers and low-income earners in 2001 (Statistics NZ, 2002). The 2006 census found that 22% of Pasifika peoples aged 15 years and over had a post-school qualification. However, the 2006 census reported that proportion of Pasifika peoples aged 15 and over who did not have a formal qualification was at 35%.

Analysing the reasons for the widespread ethnic disparities in educational achievement, Taumoefolau (2002) pointed out that in Strategy Five of the NZ Government's plan for Pacific education, the roles of Pasifika students and their communities were not spelled out in the framework and that we have to encourage the students themselves to improve their English language literacy skills and devote more of their time to their academic works. Before doing what Taumoefolau has suggested, the present research proposes that researchers into the field of Pasifika students take few steps back and try to identify the root cause(s) of the issues of recruitment and retention. Otherwise, we will be spending valuable

resources in treating the symptoms instead of the causes of the issues. This research provides cultural information that teachers in classrooms where Pasifika students are involved should understand as a precursor to their efforts to diagnose the causes and get the right solution(s) to the 'problem' of recruitment, retention and success of Pasifika students.

## **2.5 Indigenous learning**

Diversifying pedagogy in terms of incorporating indigenous ways of knowing has entered educational debates in the last few years in an effort to acknowledge different ways of teaching and learning that are more culturally appropriate to certain groups of students in mainstream educational institutions (Pember, 2008).

There are several issues with this approach as higher education classrooms in New Zealand are multi-cultural and difficult thus to address all learning needs in a culturally appropriate way. However, one needs to be aware of these differences and make an effort as an educator to recognise that they play a role in how successfully a student can learn.

Several studies have been carried out in Canada and Australia regarding understanding the factors that affect indigenous students and in the latter case Aboriginal and Torres Strait Islander students' academic success (see DiGregorio *et al*, 2000; McIntire, et al, 1996; Harris, 1988; Byrnes, 1993; Bin-Sallik, et al, 1994). These studies can be useful in the NZ content in terms of addressing similar learning issues by Pacific Island students.

Indigenous ways of knowing refers to pedagogy (Adams quoted in Pember, op cit). Indigenous knowledge is tied to culture and it includes beliefs, values and practices that are usually passed on orally. Using stories for instance to engage learners is a method used by tribal institutions and the emphasis is on the process of learning than the outcome and a holistic understanding of a topic or situation. This is different to western education practices which focus heavily on learning outcomes. Instructors for instance in tribal colleges have found that American Indian students response to traditional western instruction was low. When though they were introduced to a more demonstrative style of teaching, their learning was improved (Pember, op cit). As a Pacific Island student at the School of Communication Studies has characteristically put, these students prefer learning

by demonstration and often they tend to underperform in heavily theoretical courses with lack of clear application.

Pacific people generally learn from hands-on experience. We are taught by observing others in doing. When in learning establishments, we excel better when many examples that relate to every day life are used in conjunction with what is being theoretically taught. In doing and achieving things, rules are observed.  
(Student's personal comment)

This type of learning allows students to explore and discuss concepts in contexts involving real-world problems and projects. It was also found that making analogies to culturally meaningful activities in students' lives has a positive learning impact on those students. Based on anecdotal evidence from Pacific students' advisors at the Unitec's Centre for Teaching Learning and Innovation (CTLI) and instructors' feedback, Pacific Islands students seem to respond well to this mode of learning too.

Adopting some of these teaching methods in mainstream education has its benefits and some mainstream institutions already do so. However there are ongoing challenges in assessment. Indigenous approaches to teaching see teacher's responsibility as more about helping students than simply ranking them while the western system of education uses standardised tests demanding reductionism. Instead of helping students to develop inner authority, the western education assessment system demands the student to recite outside sources of knowledge authority. These are some of the issues Pasifika students might be facing in terms of learning in a western educational system.

DiGregorio *et al* (2000) and McIntyre *et al* (1996) have also argued about the importance of culture in students' academic success. The findings from their research on Australian and Torres Strait Islander students can be related to Pacific Islands and Maori students in New Zealand. Amongst the factors affecting studying and academic success for these groups is culture. They argued that for many of these students attending university is a cross-cultural experience. The same can be said for Pacific Island students. However, they highlighted the fact that there is a need to acknowledge diversity within this student group (DiGregorio *et al*, 2000:304). Similarly, Pacific Island students tend to be grouped together when in fact

they come not only from distinct cultural/ethnic groups with unique cultural ways of learning but also from distinct levels of cultural awareness with some having been born in New Zealand and accustomed to the educational system here and others born in the islands and with more acute learning adjustment issues. They also found that whenever these students were in classes or groups with other students with the same or similar cultural background, they performed better as they were more confident when surrounded by their 'own' people. Perhaps this is a good indication in terms of group work for Pacific Island students.

DiGregorio et al (2000:307) demonstrated that students had awareness of their learning needs and styles. Factors beyond academic skills and educational experiences such as motivations and goals, previous life and work experience provide a sound basis for academic success and as such should be considered when making selection decisions.

McIntyre *et al* (1996:140) brought up another issue in terms of successful learning for this group of students. They argued that "successful experience in formal education means learning the 'academic culture' of its institution, which may be in conflict to Indigenous cultural meanings". It is a western academic culture which encourages independent learning, standardized knowledge assessment and knowledge removed from the socio-cultural context of most Pacific Islands students. Pacific Islands' students have multiple levels of adjustment to make in order to succeed at higher education.

### **Pasifika learning styles**

Understanding the way individuals learn is the key to educational improvement. Culturally speaking, Pasifika peoples had their own perception of education (non-formal education) before the introduction of the European-type of education (formal education) by the missionaries in the early years of 19th century (Thaman, 1999). Prior to the contact with the West, written languages were lacking in the islands and communications were done by word of mouth and sometimes with the help of pictures. When the missionaries arrived in the islands, they introduced Christian principles. The Biblical teachings of the missionaries resembled the military's 'command-and-do' technique, where the indigenous people must

keep quiet, listen carefully, and then later try to do what has been taught at the church, on their own. Since the missionaries were also the teachers, the same approach was used for academic teaching. On the other hand, the learning styles of the islander differ from the *listen-to-me-and-do-it-yourself* teaching techniques of the missionaries. The challenge for teachers of multicultural classrooms is to analyse the learning style characteristics of each student and to provide teaching and counselling intervention that are compatible with those characteristics.

The traditional mode of teaching and learning prior to the arrival of the missionaries was that of “supervising, observing and doing simultaneously” in which the learner must watch closely, under close supervision of the traditional teacher, and try to emulate what has been said and done, until the learner could do it alone. It is therefore necessary for teachers who are teaching in multicultural classrooms to apply different teaching strategies such as experiential and collaborative techniques, to guarantee benefits for all learners. The words of Confucius, two and half millenniums ago: “*Tell me, and I will forget. Show me, and I may remember. Involve me, and will understand.*” (Confucius, 450 B.C. quoted in Pickles, 2002) still hold today and are particularly applicable to the Pasifika students. Knowles (1981) contends that learners learned most effectively by experiential techniques than by lectures or reading didactic text. In addition, Kolb (1984) defines learning as the process (rather than the outcome) through which knowledge is created through the transformation of experience.

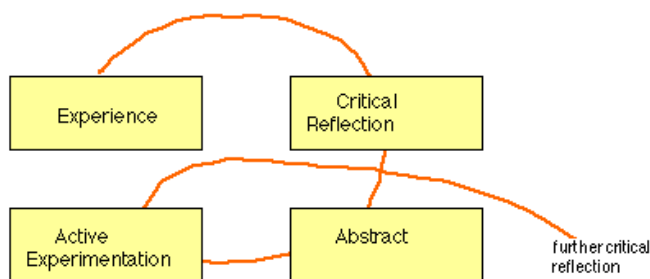


Figure 1 - Experiential learning cycle (adapted from Kelly, 1997)



Bruffee (1983) defines collaborative learning as a re-aculturative process that helps students become members of knowledge communities whose common property is different from the common property of the knowledge communities they already belong to. It is a process where two or more people help each other to reinforce and expand their ability to comprehend the challenges, risks and opportunities that they may be facing. The well known notion of “*give us the tools, and we can finish the job*” may be better stated as “*show us properly how to use the tools so that we will be able to finish the job*” from the Pasifika students perspectives. For collaborative learning to be effective, teachers should now understand their role as facilitator instead of the boss in the classroom. Accordingly, facilitators must consider teaching as a process of advancing and enhancing student’s ability to learn. The facilitator’s role is not to transmit information, but to facilitate learning. This involves creating and managing meaningful learning experiences and stimulating student’s thinking through real world problems. Collaborative learning activities help to solve shy, quiet and passive characteristics of Pasifika students in order to enhance their learning ability through interacting with more active learners. Furthermore, students have the opportunity and courage to meet new friends and develop a comfortable, relaxed community within the learning environment. It is hoped that through collaborative exercises, students who are burdened with low self-esteems, inadequate academic backgrounds, lack of support systems, and often lack of hope could learn to communicate socially, increase self-esteem, and perhaps be encouraged by group peers to remain in school when personal problems seemed insurmountable. Some Pasifika students only use computers at school and are therefore not familiar with the tool and its peripherals.

The increasing recognition of the importance to cultural diversity and need to preserve ethnic identities needs two-way top-down policy formulation and planning and bottom-up implementation starting from our classrooms. For Pasifika students to take advantage of the benefits offered by information and communication technology, teachers must be aware of their cultural background and expectations. Technologies which are foreign to their culture, and the associated terminologies, especially for the fast changing ICT, must be introduced cautiously to ensure that passive Pasifika students be able to see the benefits of using such technologies and adapt accordingly.

## **2.6 Schools and Programmes, challenges facing Pasifika communities**

The section which follows discusses in depth the programmes and cohorts of students who participated in the present research project.

### **The Bachelor of Communication Programme**

Unitec's School of Communication Studies offers New Zealand's only undergraduate and postgraduate qualifications in the field of international communication and in 2006 achieved one of the highest "Quality Scores" among Higher Education Institutions in New Zealand in the subject area of Communications, Journalism and Media Studies for the TEC Performance-Based Research Fund (PBRF).

The School offers four newly developed majors at the undergraduate level. Students interested in these areas are expected to obtain both a high level of theoretical and analytical understanding and capability of application of knowledge in the real world which is needed in their careers as professional communicators. In addition students learn reflexivity – the ability to reflect on one's own communication practices and adapt them to contexts.

The School has a strong research culture. Staff members are active outside Unitec, with many belonging to a range of different communication-related organisations and societies. International networks have also been strengthened with exchange agreements with foreign universities. The School culture of encouraging and supporting active engagement in communication research, the application of the discipline to industry, and the forging of strong academic links internationally, have contributed to the quality of the teaching and learning. The students benefit from having teachers who are actively engaged in a wide variety of research. The combination of communication theory, practical application and original research in the programmes contributes to a high level of critical thinking and intellectual independence in the graduates.

## **Undergraduate programmes**

- Bachelor of Communication 2008 (BC)
- Bachelor of International Communication (BIC) 1995 – 2007

The 2008 Bachelor of Communication (previously the Bachelor of International Communication) combines communication theory with specialist courses. BC students are trained to become competent communicators who can think critically and creatively, can use communication technologies well, understand a wide range of organisational cultures, and can function effectively and sensitively in a variety of bicultural and multicultural settings. This foundation of communication arts remains the platform of the Bachelor of Communication programme as established in the earlier BIC programme from its inception.

From 2008 with the newly accredited Bachelor of Communication, students select one of four majors for their degrees, including International Communication, Media Studies, Public Relations, and Event Management. They may also choose to complete one of two available double majors: PR and Event Management, or Media Studies and International Communication.

Intellectual independence is developed throughout the BC programme by students undertaking:

- Academic Skills in Communication Studies (establishing academic literacy essential for research)
- Professional Writing
- Creativity in Communication
- Challenging theory courses such as Communication Theory and Concepts
- Increasing emphasis on self-directed project work such as in the Level 7 Industry Internship or Communication Research Project, and
- The wide range of courses inviting critical thinking such as Mass Communication, Communication Ethics, Media and Government Communication, and many more.

*Pasifika students in the School of Communication Studies*

Historically, there has not been a strong or noticeable Pasifika students' presence in the program. There are presently eight Pasifika students in the School out of 78 full time students. An increase though has been noticed after the introduction of the new majors evidenced in 6 first year Pasifika students (only 2 currently in year 2 and 3).

There has also been a noticeable absence of Pasifika content in the curriculum, although efforts have been made recently in rectifying this by introducing a course (Asia Pacific Media Issues) and relevant content in other courses. Although the school offers specialised courses on intercultural communication, Pacific Islands as a subject has been noticeably absent. This could also be due to a general lack of interest in Pacific communication related research which has also changed recently with increased research activity in this area.

Discussions with the Pacific Coordinator at Unitec's Learning centre (CTLI) indicated the need to promote knowledge on the Pacific Islands as part of the curriculum in ways that are relevant to communication studies and perhaps take a similar approach to Maori inclusion in the courses by inviting Pacific specialists to give presentations in an effort to raise awareness about the region, the presence of Pacific people in NZ and contribute to a sense of belonging and acceptance for those Pacific Islands' students in the programme.

Historically speaking, Pasifika students' learning needs have not always been seen as different from those of other students in the School of Communication, although here again there is an increased awareness that cultural differences might play a role in the learning process. Pasifika students tend not to identify themselves as a distinctive students group with specific learning needs and as such these needs might go undetected by the instructors. Any efforts to address their needs is up to the individual instructor and experimental in the sense that it is not based on cultural knowledge. Sending a Pacific Islands student to the relevant learning centre at Unitec might address some of their learning problems but as there is traditionally very little communication between the lecturer/school and the learning centre/tutor very little is learned in terms of sustainable pedagogical practices (the instructor never finds out what the student's specific learning needs are and the learning centre never has the chance to pass on crucial teaching tools to the instructor).

As Pacific Island students they are still in small numbers, they tend not to be vocal as a cultural group and they tend to blend in with the rest of the students. They tend to perform well when a mentoring relationship is established with the instructor where trust and respect are present. The School of Communication has a mentoring scheme in place and all students are assigned to a mentor/instructor. Most Pacific Islands students seem to be using this service but they tend to disclose more freely their issues if they have a good relationship with the mentor beforehand or they feel that this person can understand their background (as indicated by an instructor's comment which stated that a Pacific student approached her to discuss her learning and family issues because she felt she can trust her seeing her attending church; also see DiGregorio *et al*, 2000). These students, as the research by DiGregorio *et al* (2000:307) on Torres Strait and Australian Aboriginal students indicated, prefer designated individuals to whom they can voice concerns, whether those are exclusively related to studies or personal matters. There is tendency to become overwhelmed when long term goals are asked of them with multiple tasks. They seem to perform better when clear tasks are given to them with short term goals. These students are also sensitive to criticism and they tend to take comments by their lecturers more personally if not appropriately expressed which can have an impact in their confidence. One Pacific Island student avoided courses taught by a certain lecturer because he was not feeling comfortable with this lecturer's feedback style. Role models work well with these students but there are not many Pacific Islands lecturers in tertiary education. A common agreement amongst instructors at the school is that most Pacific Islands students would benefit from a foundation studies semester or year. There is a need for a better selection process that can identify these students and offer them the option for preparation before undertaking full time degree studies.

It remains to be seen if this increase in Pasifika issues in terms of research and curriculum content has an impact in teaching and learning practices for Pasifika students in the School of Communication.

### **School of Computing and Information Technology**

Unitec's school of Computing and Information Technology (SCIT) offers computing programmes ranging from certificate, diplomas, bachelor, graduate and postgraduate diplomas, master to professional doctor of computing. The Doctor of Computing is the New Zealand's first professional doctorate in computing and it aims to help computing professionals gain the knowledge and skills required to contribute to New Zealand's knowledge economy. The Bachelor of Computing Systems programme requires students to develop and gain a sound knowledge of computer hardware, data communications, information systems, IT management, networking, software development and systems analysis and design. There is a strong emphasis on the practical application of these subjects, with regular focus on applied component of knowledge in assignments and case-study scenarios.

### ***Certificate in Information Technology***

The Certificate in Information Technology programme is designed as a bridge to higher level computing qualifications and has been restructured as the result of a five yearly review. In the restructured programme five courses are offered, involving about 600 student learning hours (one semester of full-time study): all at level 4 carrying 12 credits each. To obtain a Certificate in Information Technology students have to pass all five courses. The central philosophy of the CertIT is based on the principle that the qualification should provide an intellectual and applied framework through which students can develop the necessary abilities to solve simple problems within the field of computing and information technology. The programme therefore facilitates the integration of theory and practice and enables students to progress to a higher level of technical competence. This is achieved by developing essential literacy, numeracy and problem solving abilities required for further study in the field of computing and information technology. The knowledge, skills and life experience that each potential student brings to the programme are acknowledged and respected. The generic skills of learning, acquired or enhanced during the CertIT programme, are transferable to their further studies. The courses are designed to meet the needs of the students. Every course contains an appropriate balance of theory and practice, based on a belief that each is ineffective without the other. All students enrol in the five

courses listed in Table 1 (below). To obtain a certificate, a student shall pass all five of them (60 credits).

Table 3. *Schedule of Courses for Certificate in Information Technology*

<b>Course Title</b>	<b>Level</b>	<b>Credits</b>
Problem Solving	4	12
Information Technology	4	12
Software Applications for Business	4	12
Multimedia and Programming	4	12
Introduction to Professional Skills	4	12

Most students enrol for the programme full-time over a semester, but exceptions are made for students whose personal circumstances are such that part-time study over a longer period is more appropriate. Classes are held between 8.45am and 4.30pm.

### **Learning and teaching approaches**

Learning and teaching approaches for each course include:

- videos
- worksheets
- case studies
- class discussions
- small group work
- work on computers
- student presentations
- computer demonstrations
- lectures (predominantly interactive)

A high level of study commitment and motivation is required of students. In addition to formal, timetabled study sessions, students undertake:

- self - directed study
- independent research for assignments
- completion of assessment items

### **Assessment**

The assessment process is composed of both formative and summative elements and is designed to:

- assess the capabilities of the students in a fair, valid and reliable manner
- evaluate the students' performance in terms of the programme aims and objectives
- evaluate student performance and the demonstration of specified learning outcomes in order to generate a grade for each course
- stimulate and enhance learning (this applies to formative as well as summative assessment)
- provide students with feedback regarding their own learning for diagnostic and developmental purposes (this applies to formative as well as summative assessment).

Formative assessment is used to give students and lecturers feedback about the effectiveness of the learning and teaching approaches taken. Formative assessments include practice tests, peer feedback and lecturer review of draft assignments. As a general rule, the number of summative assessment items is restricted to a maximum of four per course. Summative assessments include assignments, oral presentations, practical tests and written tests.

### **Assessment procedures**

The assessment procedures for the Certificate programme recognise the demands of learning at level 4 and meet the requirements of Unitec Academic Statute and certificate regulations. The assessment procedures and regulations are communicated to students in the Programme Handbook. All courses have two to four assessment items which are explicitly related to specific learning outcomes and assessment criteria. Assessment emphasises a critical, conceptual and evaluative approach which integrates theory with professional practice. Assessment methods



include assignments and tests. Each course is assessed according to a schedule specific to that course, which has been approved by the Programme Committee. The components of the schedule may draw upon various methods of assessment; however the main purposes of the assessment process are to provide:

- clearly defined statements to students about assessment methods, criteria and purpose
- a balance of formative and summative assessment methods
- scope in the assessment process for student negotiated topics reflecting areas of professional interest
- mechanisms for well defined internal and external moderation of assessment
- assessment designed for specific learning outcomes

### **Assessment criteria**

Assessment criteria follow a generic pattern, with specific details related to the nature of the assessment item. Presentation of material and ideas is to be in a manner which demonstrates capabilities of consistency, organisation, style and appropriate referencing. All assessment items specify requirements to be met and the criteria on which assessment is based. Course grades are calculated by aggregating the weighted grades of the assessment items within the course. The weightings are approved by the Programme Committee and published in the course schedule.

### **Maintenance of assessment standards**

Several measures have been adopted to ensure appropriate assessment standards are met, including:

- moderation of assessment by peer moderators, the Programme Leader, and members of the Computing Advisory Committee, as outlined in Section 7.3.
- overall moderation of assessment by the Programme Committee, which is also responsible for ensuring that staff apply policy guidelines consistently
- ongoing staff development to maintain a high awareness of assessment requirements

### **Communication of assessment details**

At the beginning of each course students are provided with a “Green Card” and a course schedule, specifying details of assessment events. These will include the timing and nature of the assessment, the requirements, the learning outcomes assessed, the assessment criteria, and the contribution of each assessment event to the overall course grade. A student’s grade in a course is determined by the aggregation of weighted grades achieved in each summative assessment event. Assessment items are scheduled to ensure a manageable workload for students. Information regarding grading and feedback on graded assessment items is communicated to students by the Course Co-ordinator of the course involved. Final course grades are notified by the School support staff.

### **Receipt and return of assessment items**

Students are required to submit assessment items by specified dates, which are communicated at the beginning of each course. Extensions to submission dates may be made in keeping with the guidelines specified in the handbook. Normally, non-receipt of an assessment item by a due date will result in a fail grade unless the Programme Director has determined that Special Assessment Circumstances (as defined in the Academic Statute) apply. Graded assessment items are returned to students within two to three weeks of receipt, except where extensions have been granted, or in special circumstances such as when grading or moderation is undertaken by external lecturers.

### **Information and Communication Technologies (ICT), Pasifika students and the Unitec context**

The role that ICT has in increasing productivity, driving innovation, opening new opportunities, boosting profits and enabling a global presence has been recognised by the New Zealand government in the formulation of its digital strategy (Ministry of Economic Development, 2005). Although the digital strategy “is about creating a digital future for all New Zealanders”, it is not clear whether all New Zealanders are able to avail themselves of

the opportunities that the strategy affords. A digital divide may deprive some from accessing the new opportunities that the digital strategy provides.

In this report, the term ICT refers to information processing technologies such as computers and the internet, as well as fixed-line telecommunication devices, mobile phones and other wireless communication devices, networks, and various specialised devices ranging from barcode scanners to global positioning systems (Ministry of Economic Development, 2006).

### ICT and learners

The 2001 and 2006 censuses found that ICT was the least common field of study for a post-school qualification as depicted in the graph of Figure 1 below.

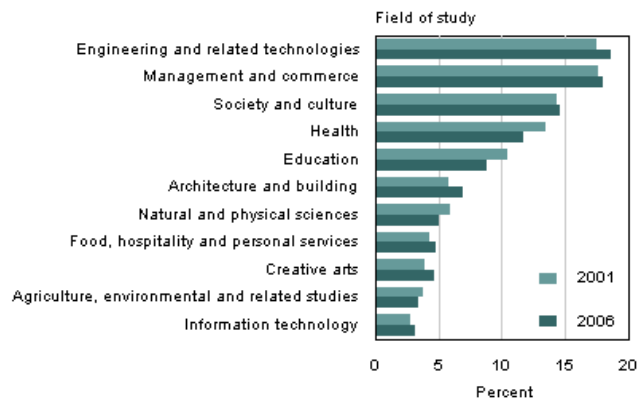


Figure 2. Field of study for people with post-school qualifications during the 2001 and 2006 censuses. (Source: Statistics New Zealand, 2007)

Pasifika peoples in education have to juggle traditional values, beliefs and culture with education. With rapid advances in technology, the challenge is much harder and can be a deterrent for those aspiring to engage in e-learning. Many tertiary institutions, around the world, are now exploring ways in which ICT can be mainstreamed to give students and relevant stakeholders easy access to a wide range of educational resources and services (Pocknee & Robbie 2002).

It was not until the final years of the past century that indigenous pedagogy and the impacts, positive or otherwise, that ICT has made on learners in multicultural classrooms received world wide recognition and attention. Powell (1997a) affirmed that issues associated with cultural, racial, and ethnic diversity had not previously received attention in the educational technology literature. He warned that we can no longer continue to ignore the critical challenges of educating diverse learners in our multifaceted classrooms because western styled classrooms were increasingly becoming cross-cultural laboratories.

Latu and Young (2004) have suggested that in order for Pasifika students in multicultural ICT classrooms to gain maximum benefit from their studies, teachers must be aware of their cultural background and expectations. Technologies and teaching approaches which are foreign to indigenous Pasifika islanders must be introduced cautiously so that all involved may fully appreciate the opportunities offered by such technologies instead of rejecting them. Teachers should recognise cultural diversities and understand the cultural background of their students and adjust their delivery modes accordingly. Furthermore, to allow students originating from less developed societies to act independently, lecturers from more developed societies should avoid imposing their ideas upon the indigenous systems of learning and doing things.

### **Challenges facing Pasifika students and communities**

The present research is a contribution towards increasing participation, retaining, and encouraging Pasifika Island background students to successfully complete their computing courses and programmes at tertiary level. Dyson (2003) concludes that the main factors inhibiting indigenous Australians from adopting IT are not rejection of Western values embedded in technology itself. Rather, Dyson claims that the issues of access and lack of awareness are the main obstacles. In an earlier study Robertson, Dyson, Norman, and Buckley (2002) found no evidence that Australian indigenous people had any specific problems with learning and using technology except access and awareness.

In 2001, the NZ Government released its plan for Pasifika Education. With regard to Pasifika tertiary education, the plan has the following long term goals:

- \_\_\_ increasing Pacific students' participation in tertiary education;
- \_\_\_ improving Pacific students' achievement in tertiary education
- closing the gaps with non-Pacific students within twenty years;
- \_\_\_ increasing the opportunities for Pacific adult education and community learning.

Strategy Five, of Government's Tertiary Education Strategy 2002/07, *Educate for Pacific Peoples' Development and Success* outlined four key strategic objectives for tertiary education over the five year period from 2002 – 2007 which may be summarised as follows:

- \_\_\_ encourage and assist Pacific learners to develop skills that are important to the development of both the Pacific and New Zealand;
- \_\_\_ the tertiary education system be accountable for improvement of Pacific students learning outcomes and connected to Pacific economic aspirations.

In support of the strategic statements, the New Zealand Vice-Chancellors' Committee agreed that Pacific people would play a central and significant role in the economic and social future of this country and that the tertiary education system has a crucial role to play in developing their capability (Ministry of Education 2002). According to the Ministry of Education's statistics, only 6.1% of the 2001 enumerated Pacific islanders were engaged in formal tertiary education (Ministry of Education 2002). The Government has set out a policy framework directing the tertiary education systems to act more responsibly to the needs and aspirations of the Pasifika students.

A number of studies have been carried out in attempt to implement this policy. Some of these studies focussed on the issues associated with recruitment, participation, retention, and success of Pasifika students. Neilsen (cited in Coxon, Anae, Mara, Wendt-Samu, & Finau 2002) investigated potential barriers to participation in post-compulsory education and training and found. With respect to Pasifika students they highlight factors such as: high cost of education and training, unrealistic cultural demands from families in New Zealand and relatives in the home islands, little or no access to private study areas or

private study opportunities in extended families' environment, English literacy, lack of assertion by some cultures, lack of culturally familiar courses, lack of role models and mentors as major barriers.

When exploring the issues affecting the recruitment and participation of Pacific islands students at Unitec , Apa and Keneti (1998) found the following as fundamental barriers for Pasifika students when enrolling and attending school:

- \_\_\_ lack of support,
- \_\_\_ lack of information and knowledge,
- \_\_\_ language and communication difficulties,
- \_\_\_ financial barriers,
- \_\_\_ exclusive qualification criteria,
- \_\_\_ lack of cultural sensitivity, and
- \_\_\_ lack of class management skills

In 1999 Unitec's Academic Board established a long-term student retention and success working party (SRSWP) to investigate and recommend approaches in which the retention and success of students in Unitec programmes may be improved. SRSWP submitted its report in October 2000 identifying:

- \_\_\_ lack of leadership,
- \_\_\_ staff overload,
- \_\_\_ lack of rewards/incentives for staff,
- \_\_\_ resourcing,
- \_\_\_ lack of integrated responsibilities for enhancing the development of tertiary literacy,
- \_\_\_ students' unrealistic expectations,
- \_\_\_ lack of clarity about responsibilities, and
- \_\_\_ mono-cultural culture as some of the barriers for students' success and retention (SRSWP 2000).

The Pasifika Research Framework Team of the Ministry of Education commissioned the Auckland Uniservices Limited, in 2001, to carry out a literature review of issues pertaining

to Pacific education. Uniservices' final report (Coxon, Anae, Mara, Wendt-Samu, & Finau 2002) was submitted to the Ministry of Education in January, 2002.

With regard to PIBS and tertiary education some of the report's findings were:

- \_\_\_ most of the Pacific tertiary students have attended low decile secondary schools,
- \_\_\_ Pacific students enter tertiary education with lower entry qualifications than their Palagi (*Pakeha/white European*) and other counterparts,
- \_\_\_ a greater proportion of Pacific students are enrolled in lower level qualifications than for the overall tertiary student population, and a lesser proportion in degree and postgraduate programmes, Auckland Uniservices Limited was also commissioned to gather qualitative information on the actual and perceived barriers to participation in tertiary education and training of Pacific peoples. The final report (Anae, Anderson, Benseman & Coxon, 2002) identifies financial hardship, health, and inadequate study environment at home as some of the personal barriers and lack of engagement with lecturers and not being familiar with academic workload as key institutional barrier to Pasifika students' success. During a statistical analysis of data on Pacific students in tertiary education and at Unitec, Yorston (2002) stated that prior to the year 2000, most of the PIBS attended Polytechnics, but there was a dramatic move towards universities as well as an increasing flow of students towards Private Training Establishments (PTEs).

Aumua (2009) in her research which focused on Pasifika communities, examined the relationships and challenges that existed between a local Government owned polytechnic and local Private Training Establishments (PTEs) as providers of tertiary education in Waitakere City, a Western suburb of the city of Auckland, and the Waitakere Pacific community. Investigating the reasons underpinning the desire to engage and forge relationships between these education providers and the Pacific Community, and whether this has influenced participation, delivery, outcomes or acceptance of the sector by the Pacific community, the findings highlight the problems around responsibility and responsiveness occurring in these relationships. The process to obtain the answers to the research questions on engagement and forming relationships involved examining the perceptions of individuals and community groups of their relationships with tertiary

education providers based on their lived experiences. The perception of the community was that the providers' primary interest was in their financial stability and survival and therefore recruitment of students was devoid of the needed attention to the real needs of communities. There was competition between providers, however a lack of genuine encouragement of Pacific people to further their education as a whole. The providers' intentions belied the strategic aims of TEC, and were not to educate the community as a whole but maintain their own financial position from Pacific student enrolments. The Community perceived the provider as the main body that interfaced with them, and had little understanding about TEC. While tertiary education remained a priority aspiration of the Pacific peoples in Waitakere, yet what the community wanted to achieve and what was actually possible were seen as "two strands that did not meet". The community did not feel agentic to achieve their goals and objectives. For example; some of the focus group members suggested the community wanted to attempt tertiary study but lacked confidence and was not willing to risk failure and even less willing to incur more debt through the student loan system. Other factors pertained to financial hardships, and that children's entitlement to enrol for tertiary study were determined by the results. Poor results did not merit the risk of taking a student loan to fund tertiary education. The focus was to work and support the family. Education providers who participated in the research also opined that they felt left out (not in a position), as being disempowered because of lack of access to power to help address the issues that impacted on the Pacific community.

The present research was a novel attempt to explore the challenges perceived by students and parents, in particular from Pasifika communities, who were stakeholders in the tertiary sector. The chapter which follows provides an in-depth understanding of some of the challenges.



## CHAPTER THREE: Philosophical foundations underpinning the research design, results and analyses

### 3.1 Methodology and methods

A mixed-methods approach inclusive of quantitative and qualitative techniques for data collection and analyses embedded in a Kaupapa Maori-Pasifika research framework underpinned the present project. In an emerging multi-cultural New Zealand, a team of researchers from diverse ethnic backgrounds, unified in their cause and commitment to a relevant piece of research for the stakeholders and the country, worked towards, “the adoption of a common approach to educational inquiry in which researchers and practitioners work together to solve educational problems” (Keeves, 1997, p. 5). The researcher –practitioner in this present study were the team members who engaged in both teaching and research. The two research paradigms of naturalistic forms of inquiry and scientific methods were used. Since the two paradigms are “not independent of the cultural and social context in which they operate” (Husen, 1997, p. 21), the principles of indigenous New Zealand research methods, the Kaupapa Māori approaches of respect, consultation and sharing processes and knowledge were also integral to the present research. See figure 3.

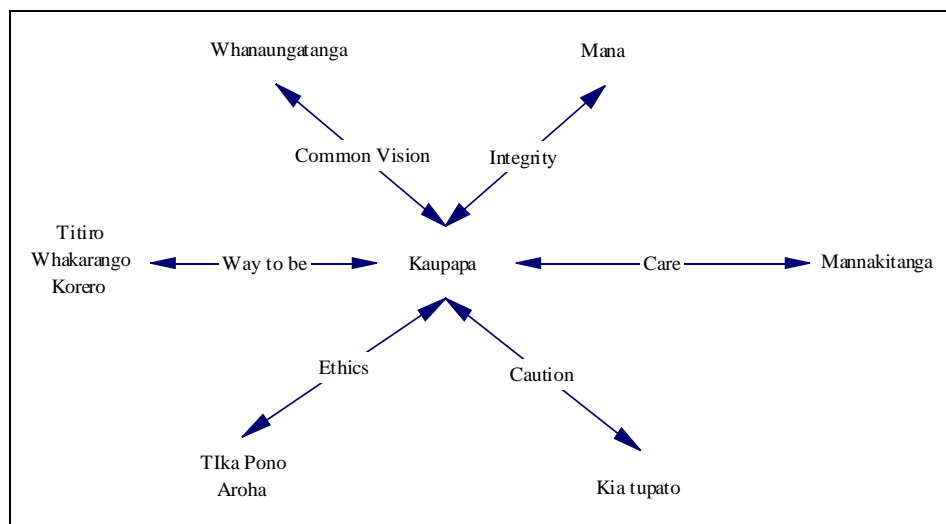


Figure2: The Maori Model underpinning the present study

Kaupapa Māori approaches to research are based on the assumption that research that involves Māori people, as individuals or communities, should set out to make a positive difference for the researched. This does not have to be an immediate or direct benefit...The research approach also has to address seriously the cultural ground of respect, of working with communities, of sharing processes and knowledge. (Smith, 1999, p. 191)

Approaches included five of the seven principles outlined by Mead (1997) (a) Aroha ki te tangata/Respect for people, (b) He kanohe kitea/meeting with people face to face, (c) Manaaki ki te tangata/caring for people, (d) Kaua e takahia te mana o te tangata/Do not trample the mana of people, and (e) Kaua e mahaki/Do not flaunt your knowledge. In the initial stages of the project, key people were identified of whom we had collegial relationships with, including Heads of Schools, and lecturers directly working with the student participants. This was important as whakawhanungatanga (making connections) (Bishop, 2003) assists both the researcher and the participant to work together with trust and respect, the research will have positive, pragmatic and innovative aims, and the outcomes useful to teaching and learning (Smith, 1999).

While participants in the present research were from indigenous and diverse ethnicities, with a significant number of Pasifika peoples; led by the belief that consultation, collaboration, sharing, respect and trust were universal foundations for research which could make a positive difference for all, the researchers adhered to culturally appropriate methods at every stage of the project.

A special focus of this project was on Pasifika participants, hence Pacific research practices of Sean Mitaera's concept of 'Researcher as the 'First Paradigm', Konai Helu-Thaman's 'Metaphor of Kakala' (1992), Timote Vaoleti's 'Talanoa Research Methodology' (2006) and Tevita Ka'ili's 'Communal Research Approach' (2008) were also integrated. The significance of embedding Pacific cultural values and practices which were similar to Maori research methodologies was a commitment by the whole research team, during each stage of the research process. This commitment was evident in honouring the context of the

participants during the designing of the research questions, the tools of data collection, and the process of seeking consent following transcribing interviews, and high inter-research reliability in validating and interpretation of results. As Tamasese and her colleagues suggest, "... a method which ... accurately reflects the cultural values and meanings of its research community" (Tamasese et al 1997, 10).

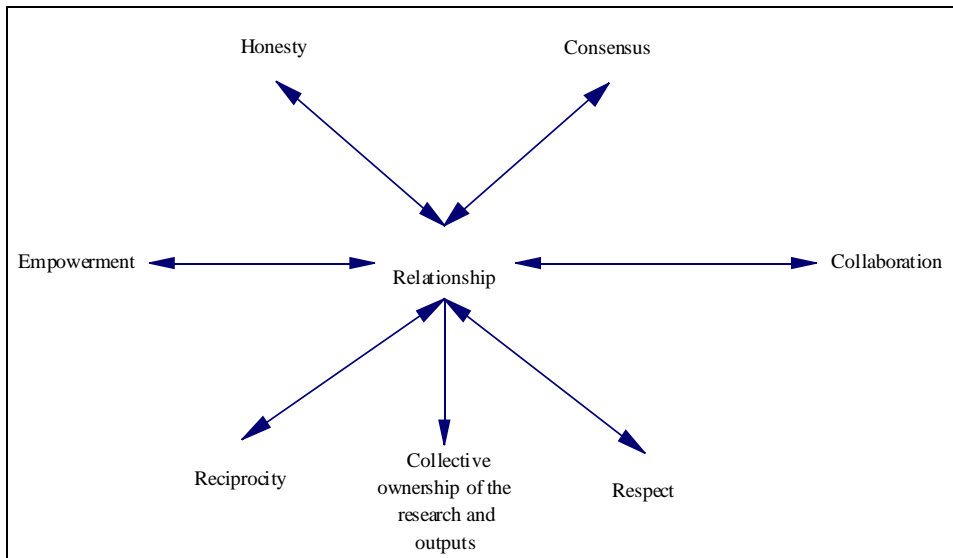
Collaboration, honesty and empowerment (Koloto 2000) of all stakeholders were also the corner stones of this research process. With an ongoing consultative process, the entire research team worked in partnership from the inception stage of formulating the research questions, the research design, developing the tools for data collection, submission of the research project for ethics approval and to funders, through to collecting data, working with communities of research participants, interpreting results and making presentations. On gaining ethics approval and funding, a strategic research plan was put in place with team meetings held once every month. The team comprised ethnically diverse group of researchers, both experienced and emerging. Driven by a spirit of shared mutuality of all knowledge and understandings gleaned in the course of the research, respect and acceptance of each team member, and value for the learnings each member brought to bear for the research, these underpinning philosophies were similar to the principles of Smith, Koloto, Konai Helu-Thaman, other indigenous researchers and ancient philosophies. Since the present research was an empirical project, with the scope delimited to collection of data and interpretation of results, with no intervention, or action learning introduced, we could not guarantee empowerment of the participants by engaging in the research. The reality was that through their consent to participate and engaging in the project, they were empowering the institutions, the researchers, the community and country. However, every member of the research team took responsibility to ensure that no participant felt disempowered after sharing their voices, truths and realities.

Konai Helu-Thaman's metaphor of 'Kakala', in the research process, was integrated into the research process. Culturally valued by the Tongan community, the making of 'Kakala' or beautiful garlands includes the processes of *Toli*, *Tui* and *Luva*. *Toli* is the gathering of Kakala or flowers. For the researchers, this would mean gathering and cleaning the data to

prepare for analysis with care, consideration, and precision. *Tui*, is the making or weaving of the Kakala, which could be equated to the process of analysing the data collected and the discussion of the results such that each shared voice is honoured based on consultation and correct interpretation of the meaning, contextualised against the backdrop of the Pacific culture. The final stage is *Luva* or the giving away of the Kakala, which parallels the presentation and publication of the research. A *karakia*, culturally appropriate honouring of all stakeholders preceded each presentation and publication.

Talanoa, conversations, was also a method of collecting data in the present research. Identified by Vaiotei (2006) as a relevant mode of data collection, talanoa is referred to as personal encounters where people share authentic information about realities and aspirations. This helps produce relevant knowledge and possibilities for addressing Pacific issues.

For a snapshot of the research processes underpinning the Pasifika strand of the research, see figure 3.



*Figure3:* The Pasifika model underpinning the present study

Thus, the present research was based on methodological triangulation and use of mixed methods (Morse, 2003), where two projects, using quantitative and qualitative strategies complemented and enhanced the attainment of the research aims. Effective application of this eclectic research paradigm was also enhanced by the integration of ancient philosophies of the world to the methodology.

Karmanye Vaadhika raste

Maa Phaleshu Kadachana

Maa Karma-phala-hetur-bhoorma

Mate Sangostwakarmini

Your right is to work only,

But never to its fruits;

Let not the fruits of action be thy motive

Nor let thy attachment be to inaction. (Prabhupada, Bhagvad Gita, Chapter II, Verse 47)

### **3.2 Results and analyses**

A survey comprising fifty-five items to be rated on a likert scale, and semi-structured questions, were completed by all student participants (See Appendix A). The response rate is difficult to gauge since the surveys were distributed in-class. Participants also consented to the researchers having access to their grades during the course of the year. Focus group interviews (7) and face-to-face interviews (3) were recorded and transcribed (See Appendices A, B). Participant consent was sought after emailing the draft of the transcripts prior to data analysis. Thematic analyses of the transcripts were based on inter rater reliability.

### **The Scales**

There were nine subscales comprising fifty-five items which focussed on efficacy in use of learning strategies and related constructs which share a reciprocal relationship with self-

efficacy. A five-point likert scale ranging from ‘not well at all’ to ‘very well’ was used to assess level of self-efficacy. The cognitive-behavioral subscales included thinking, motivation, resource management, self-regulation; leisure time and extra-curricular activities, and application beyond the learning context. The emotional-behavioral constructs included expectations, self-assertiveness, and support. Agency was assessed as part of the interview schedule. A 10-point likert scale was used to gauge level of agency, with subsequent related qualitative components. (See Appendix A)

### 3.3 Quantitative data analysis

Quantitative data were analysed using both descriptive and inferential measures. Cronbach’s alpha was calculated to assess reliability of the scale. Cross tabulations and correlation analyses were used to find the association between the independent and dependent variables.

Assessing for reliability, the overall alpha was a high .95. Subscale alphas, with the exception of items pertaining to ‘assertiveness’ and ‘support’, yielded alpha values greater than .70. See Table 4 for details on subscale alpha.

Table4: *Reliability Analysis of Subscales in the Survey*

<b>Items</b>	<b>Alpha</b>
Motivation	.75
Thinking	.91
Resource Management	.79
Self regulated learning	.83
Leisure activities	.76
Expectations	.82

Items	Alpha
Self assertiveness	.65
Support	.64
Application	.78
Full-scale reliability Alpha = .95	

### *Demographic data analysis*

#### **Semester One**

**Survey:** A total of 89 undergraduate students participated in the research. Seven participants were from the Bachelor of Social Practice programme, 14 participants from the Bachelor of Nursing, 22 participants from the School of Communication, 1 participant from English Certificate, 37 participants from Certificate IT and 8 participants from the Graduate Diploma in IT programme. Forty five (51%) were females and forty four (49.4%) were males. Ethnic breakdown shows majority participants belonging to Pakeha (14) and Indian ethnicities (14) (21% each), Maori (9), Pasifika (9), and Asian (9) comprising 13% each, Other ethnicities (11) 16%, and Mixed (1) 1.5%. Twenty two participants did not state their choice. Most of the participants were from the 18-25 yrs age group (45%), with 36 (40%) in the 26 yrs and above category, and 13 (15%) in the 16-18 years group.

#### **Semester two**

**Online Survey:** A total of 41 undergraduate students participated in the research. They were from a wide range of programmes from Foundation Studies to Bachelor of Design. Frequency of programme participation numbered on an average one from each programme. Twenty four (59%) were females and 10 (24%) were males. Seven did not state their gender. Ethnic breakdown shows majority participants belonging to Pasifika (25) 61%. Mixed ethnicity grouping numbered 5 participants (12%), with one Maori (2.4%), and Mixed 5 (12%). Seven participants did not state their choice. Majority of participants (24 – 58.5%) were from the 26 yrs and above category, and 9 (22%) from the 18-25 yrs group. One participant was from 16-18 yrs grouping, and 7 did not state their grouping.

*Analysis of self-efficacy scores*

Analysis of means and standard deviations show that participants rated high levels of self-efficacy. Within subscales, highest means were for cognition/thinking, self-assertiveness, and motivation. Lower means were reported for support, expectations, leisure activities, application, and resource management (See Table 5 for details).

Table 5: *Subscale Means for Semester One*

<b>Items</b>	<b>Mean</b>
Motivation	3.00
Thinking	2.86
Resource Management	3.10
Self regulated learning	3.00
Leisure activities	3.40
Expectations	3.00
Self assertiveness	3.00
Support	3.00
Application	3.00

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n = 89

Table 6: *Subscale Means for Semester Two*

<b>Items</b>	<b>Mean</b>
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<b>Items</b>	<b>Mean</b>
Motivation	3.50
Thinking	3.06
Resource Management	3.30
Self regulated learning	3.11
Reading strategies	3.42
Leisure activities	4.00
Expectations	3.33
Self assertiveness	3.33
Support	3.00
Application	3.75

n = 41

### *Achievement Scores<sup>3</sup>*

Analysis of achievement scores reveal a number of participants not sitting the exams during the semester they had enrolled in the course. Majority of the participants received B and C grades, and a sizable number also had A grades. A small percentage of students did not succeed. There were within subject variations in achievement scores, and also variations based on programmes. See Table 7 and Figures 4, 5, & 6 for details of grades.

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<sup>3</sup> The percentage of achievement grades are calculated in relation to the number of students whose grades were accessible, and not based on the total sample who participated in the survey. For a sizable number of participants, grades were not forwarded to the researchers, hence crosstabulations and correlations could not be undertaken. However, the self-efficacy scores, interview data and focus groups data help provide significant insights into culture-specific aspirations, motivations, challenges and ways forward for students to succeed in the tertiary sector.

Table 7: Achievement grades across courses and Programmes

<b>Course</b>	<b>A Grade (%)</b>	<b>B Grade (%)</b>	<b>C Grade (%)</b>	<b>D Grade (%)</b>	<b>Did not sit (%)</b>
<i>Certificate IT</i>	3.4	6.7	4.5	2.2	24.7
<i>Problem solving</i>					
Introduction to Professional Skills	2.2	10.1	13.5	3.4	12.4
Multimedia Programming	1.1	6.7	11.2		22.5
Software applications	6.7	15.7	7.9	1.1	10.1
Information Technology	7.9	12.4	5.6	2.2	13.5
<b>Graduate Diploma in IT</b>					
Information Systems	3.4	1.1	3.4		1.1
Project Planning/Control		3.4	2.2		3.4
Internet Applications I	1.1	2.2	1.1		4.5

<b>Course</b>	<b>A Grade (%)</b>	<b>B Grade (%)</b>	<b>C Grade (%)</b>	<b>D Grade (%)</b>	<b>Did not sit (%)</b>
Testing / Quality for IT		1.1	3.4		4.5
<b><i>Bachelor of Communication</i></b>					
Introduction to Communication Studies	6.7	4.5	2.2		11.2
Persuasion and Speech Communication	9.0	11.2	1.1		3.4
Principles and Practices	6.7	2.2	2.2		13.5
Communication theory and concepts	1.1	6.7	4.5		12.4
Digital Communication Applications	5.6	5.6	2.2		11.2

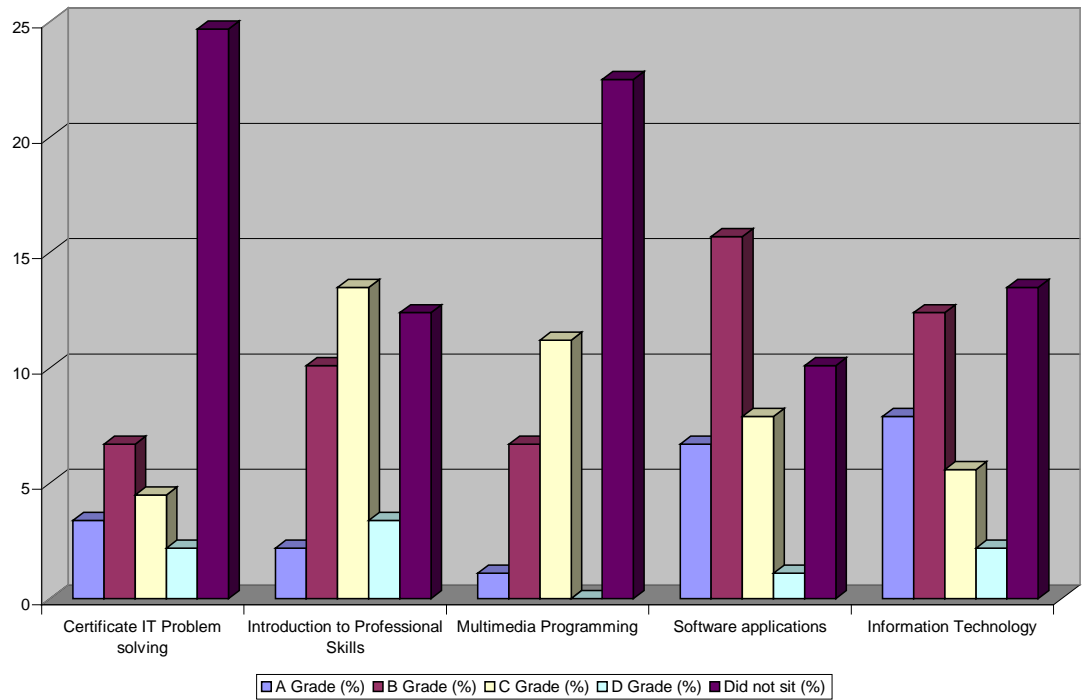


Figure 4: Certificate IT Achievement data

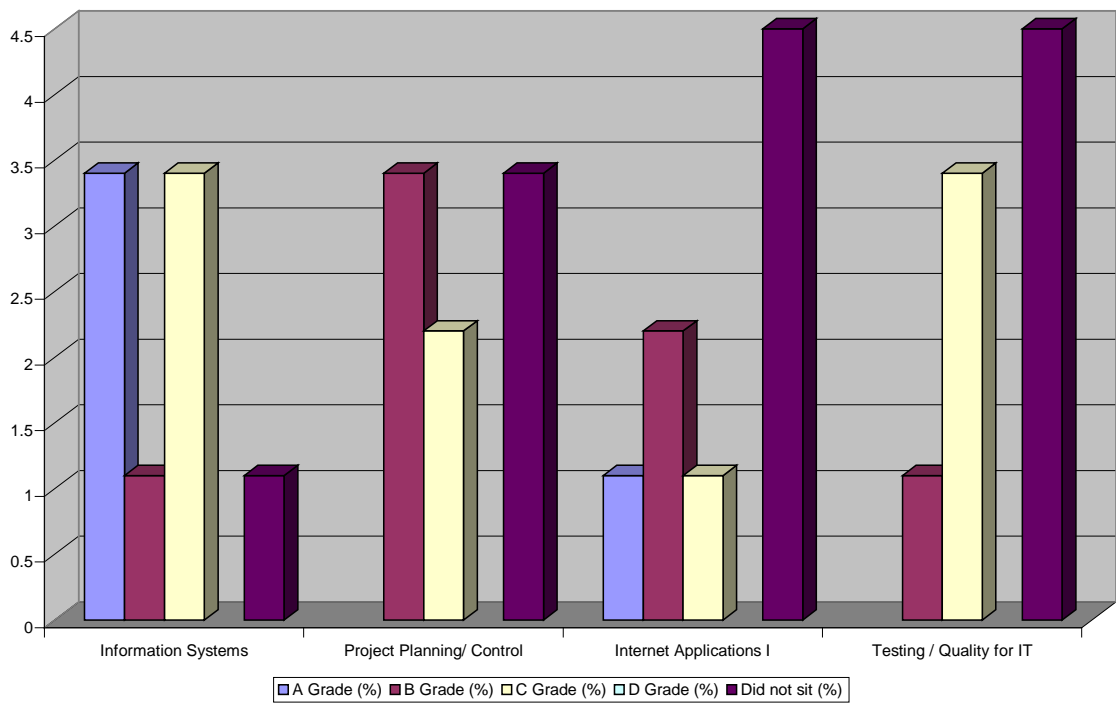


Figure 5: Graduate Diploma in IT achievement data

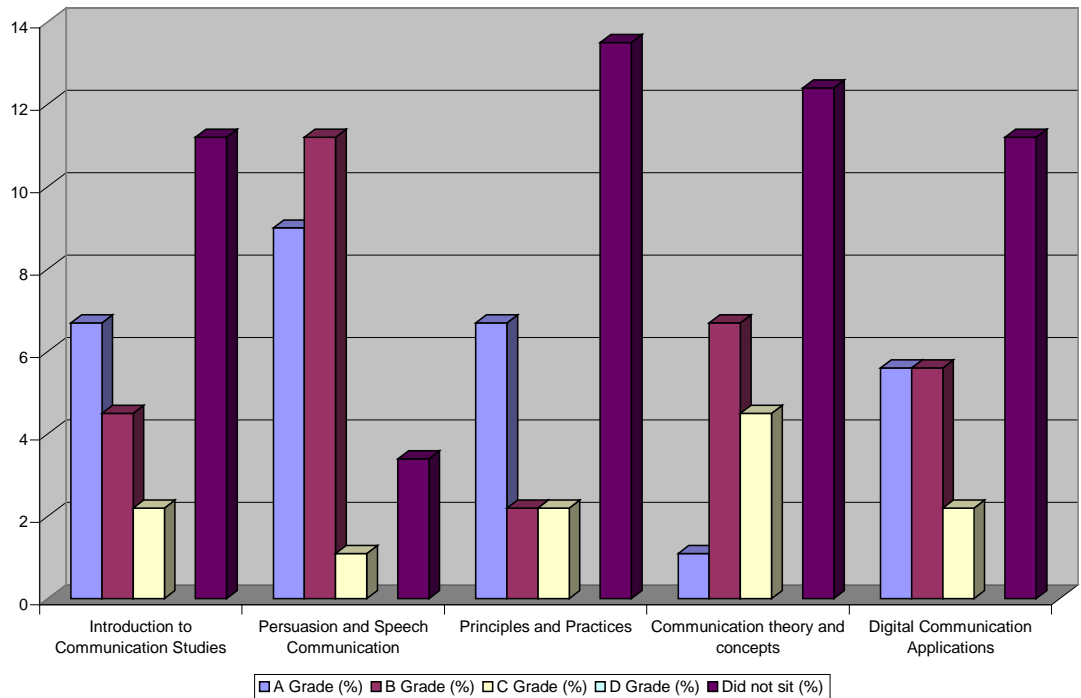


Figure 6: Bachelor of Communication Achievement data

Significant correlations between scores in self-efficacy and achievement data were in the moderate range. There were differences and similarities between programmes, and within each course. Most of the correlations were for cognitive scale items, with some emotional-behavioral components also correlating positively and significantly. See Table 8, 9 and Figures 7, 8, & 9 for details.

Table 8 Significant Correlation scores between survey items and achievement

Survey Items	Correlation
<b>Certificate in Information Technologies</b>	
<b>Software Applications</b>	
Motivation strategy – Understanding complex concepts	.33
Self assertiveness – Live up to self expectations	.36

<b>Survey Items</b>	<b>Correlation</b>
Self assertiveness – Stand up to self belief	.33
<b>Introduction to Professional Skills</b>	
Motivation strategy – To do an excellent job	.39
Self assertiveness – Standing up to self belief	.42
Application strategy – Apply knowledge in work	.40
Application strategy – Bring about necessary changes in one’s family	.34
<b>Multimedia Programming</b>	
Cognitive strategy – Memorising key words	.33
Support – Acquiring Community interest	.38
Application – Bring about necessary changes in one’s family	.45
<b>Problem Solving</b>	
Resource Management strategy–Working on one’s own	.38
Self assertiveness– Live up to self expectations	.38
Support – Getting family help	.37
Application strategy – Apply knowledge in work	.35
<b>Graduate Diploma in Information Technologies</b>	
<b>Internet applications</b>	
Cognitive strategy – Thinking using notes and readings	.72
Cognitive strategy – Thinking to determine key concepts	.76
<b>Project Planning</b>	

<b>Survey Items</b>	<b>Correlation</b>
Cognitive strategy – Thinking memorizing key words	.81
Resource management strategy – Stick to study schedule	.76
Resource management strategy – Keep up with the topics	.76
<b>Testing Quality for IT</b>	
Cognitive strategy – Thinking memorising key words	.80
Resource management strategy – Keep up with the topics	.75
Resource management strategy – Revise notes and readings	.71
<b>GUI Programme</b>	
Self-regulated learning strategy – Taking notes in class	.80
Self-regulated learning strategy – Planning and organizing work	.84
Learning applications - Become a member of the student union	.93
Learning applications - Learn skills for team sports	.79
Expectations - From the lecturer	.96
Expectations – From peers	.97
Expectations – From the family	.97
Expectations – From oneself	.98
Self-assertiveness – Express opinions when others disagree	.97
Self-assertiveness – Stand up to self belief	.87
Support – Get family support	.93
Support – Institutional support	.96

<b>Survey Items</b>	<b>Correlation</b>
Support – Community support	.97
Application – Apply knowledge in work	.96
Application – Bring changes in problem situation	.94
Application – Necessary changes in life	.94
<b>Communication</b>	
<b>Principles and Practice</b>	
Cognitive strategy - Thinking to fit the requirements of the paper	.52
Cognitive strategy – Thinking to determine concepts	.49
<b>Persuasion and Speech</b>	
Resource management strategy – Explain a topic	.41



## Maori participants

Table 9 Significant correlations

Survey items	Correlation
<b>Applied Technology Carpentry</b>	
<b>Paper 4525</b>	
Cognitive strategy – Thinking using related material	.61
<b>Paper 4526</b>	
Cognitive strategy – Thinking using related material	.44

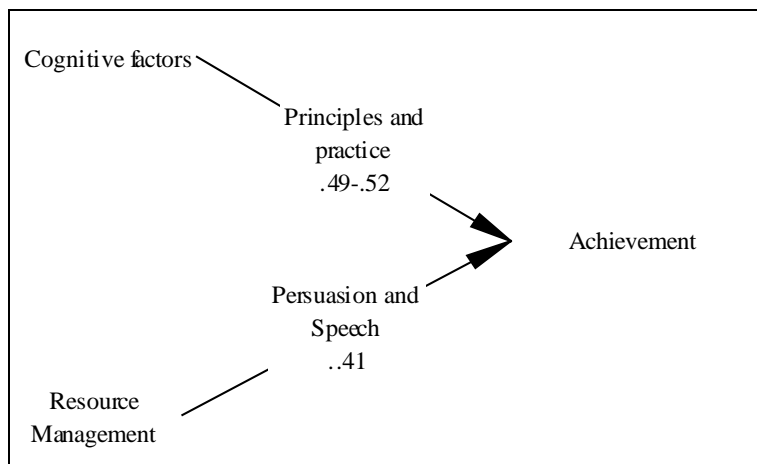
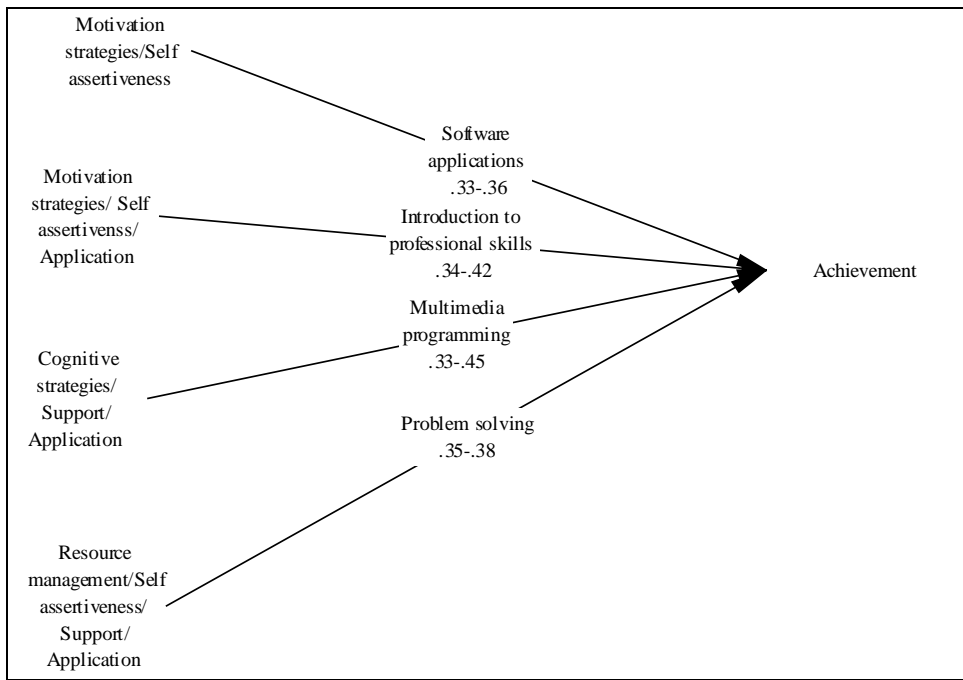
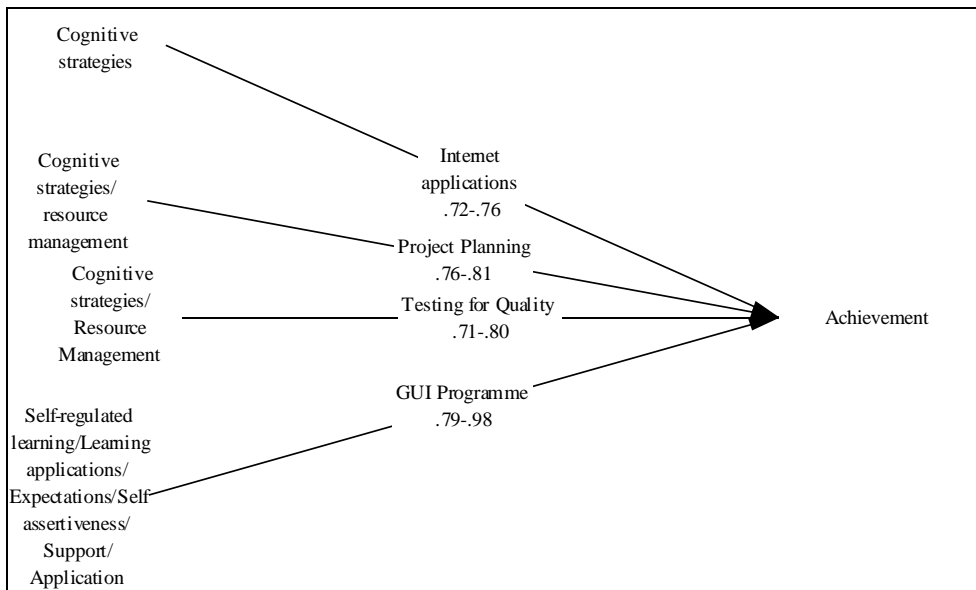


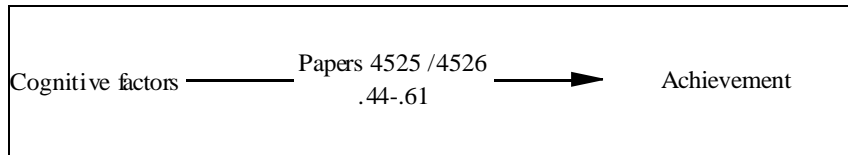
Figure 7: The range of significant correlations between major components of self-efficacy/subject areas and achievement in the Bachelors of Communication programme



*Figure 8:* The range of significant correlations between major components of self-efficacy/subject areas and achievement in the Certificate in Information Technology programme



*Figure 9* The range of significant correlations between major components of self-efficacy / subject areas and achievement in Graduate Diploma in Information Technology programme



*Figure 10:* The range of significant correlations between major components of self-efficacy / subject areas and achievement in Certificate in Carpentry programme

### **3.4 Qualitative data analysis**

Qualitative data was analysed using thematic analysis. Miles and Huberman’s model (Rouse & Dick, 1994) of data reduction, data display and conclusions was used to analyse the emerging themes. See Tables 10 – 22.

Triangulation of the results based on data types, and theories of self-efficacy, agency and the tertiary education strategy was adopted in discussing the implications of the findings.

The emerging themes have been categorized based semesters during the year, interview and focus group questions of students and parents. Definitions of ‘success’ ranged from family centred perspectives, a collectivistic approach, fulfilling responsibilities to the community and to the country, to goal orientation. Most of the participants reported a sense of feeling empowered and agentic. Among aspects critical for ‘success’, factors highlighted were accessibility to lecturers and the need for smaller classes to facilitate greater interaction with the lecturer, teaching and learning strategies. Learning strategies used included using model papers, making ones own personal notes, Challenges faced pertained to time management, better resources, greater support services, more online discussions with the lecturer, teaching-related issues, and attitudinal issues of students. For parents, the challenges which emerged were economic, and some specific to Pacific culture.

## Semester One Qualitative data analyses

Table 10: *Success defined*

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### Perspectives

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- Family perspective

*Selected response: I think if it comes down to it one of our goals is to graduate, but if you really think about it, its more time for the family than more for yourself ... I don't think there is much about yourself ...; I think when you finish in three years, and I see my father standing there because of me, then it's like one of our own said you achieved, and it's for them as well really ...*

- Goal setting and achievement

*Selected responses: ... For me success is achieving my goal; ... success is just going day by day, I do my goal ....but my first success is getting to the end of the day.*

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Table 11: *Agency (Average 70%)*

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### Perspectives

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*Selected responses: ...at times I feel like 50% of this and 50% of that, but with support and a goal setting focus, I know I can do better, so at this moment I will say that I can moderately do it; The positive belief in the self, knowing that all things are possible and the "I can" attitude empowers me to do so with the help and support of family, lecturers and most of all my Lord.*

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Table 12: *Participants' perspectives on learning strategies used (Mt Albert, Waitakere)*

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**Factors**

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- Time management

*Selected response: I have set a timetable, what I did is I got all the assignments' time due, and I made a timetable for that I can see when the assignment is coming out, also the times of the exams. For me it is really useful; I have the wall planner; What I usually do is I give two hours on a subject, I don't usually plan what I want, I just take a subject, go through it for 2 hrs, especially in the study week, ... I make post-its, like stick in the bathroom, exercising, memorising*

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Table 13: *Participants' perspectives on factors critical for success (Mt Albert, Waitakere)*

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**Factors**

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- Lecturers; accessibility of the lecturer

*Selected response: For me the main things is being able to approach a lecturer, have couple of them and known that they are going to respond to you positively and be able to help you and guide you through whatever query you have; after class accessibility of the lecturers is a huge advantage; I think our lecturers are very supportive; I was studying at AUT last year whole, I found they were not that supportive, and I found it was hard to approach them ... I ask questions about assignments but the lecturer said I should do it only by my own, so lot of things like that I found my way lost without support ... then I changed to Unitec, where I can get a lot of support*

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**Factors**

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- Small classes

*Selected responses: ... small group we are able to ask questions right through the lectures and don't need to wait for the end ... ; also you can show to the lecturer if you do understand or it gives you the opportunity to make sure you understood, so it's a clarification having a small group ... whereas in a bigger group there is less chance of being able to question or you feel a little bit frightened to ask a question.*

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Table 14: *Participants' perspectives on factors on challenges faced*

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**Factors**

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- Learning tasks to be specified

*Selected responses: While we can get the basic knowledge ..., but what definition we actually have to know, how do we know we need to know that one, not the twenty others; .... you do have a lot of requirements, and you got full of lectures, theories, and definitions and other bit things as well that you have to memorise.*

- Model papers

*Selected responses: ... you cannot get them ...; these should be on Blackboard.*

- Blackboard

*Selected responses: ... do the group discussion because we got Blackboard, we might be able to use ... like maybe lecturer says ok lets go to Blackboard to discuss that now, then everybody has to go to Blackboard and check it out, and put their opinion, where you can get more information out of it.*

- Time management
-

Selected responses: Just getting time to study. Every time I study at school it is fine, but when I get back home because of kids so I can't study properly. I have to cook ...by the time kids sleep it is already 10.30 p.m. and I feel tired ... I was a really active person but since I am studying I am feeling so tired ...

- Resources

Selected responses: When I am tired to study at the level 2 of the library, because it is a public library, always have student voices around, so it is hard to keep focus on the study.

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Table 15: *Additional support mechanisms as stated by participants to achieve successfully*

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**Mechanisms**

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- Text books

*Selected responses: Academic textbooks that give you skills on studying.*

- Learning Centre

*Selected responses: I get the help about memorizing and revising for the exam, I think that are quite helpful. And even they got Maori name they are there for everyone to use; Workshops are useful; I came to the referencing one, I thought they were excellent, and my reference was really good.*

- Family and friends' support

*Selected responses: For me I think more support from my family and husband, as I am a student he is able to take care of the kinds from the time I get home ... we set a timetable together; Like my dad really helps me.*

*I get great support from my friends, at school they are really helpful, and I also go to*

*group study to share experiences, ... especially when we study at night ... we do it like put a topic one day and everyone is going to study that topic ... and also my friends they help me get student allowance and student loans ... and they give me comments as well.*

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## **Semester Two**

Table 16: *Success defined*

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### **Perspectives**

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#### **Comprehension / Understanding and goal attainment:**

*Selected comments: I guess it's understanding what you have achieved, be able to understand or comprehensive; for me success is to able to get my degree, and apply what I have learned to my community or my family to make them succeed; for me is to complete the degree, and have good exam marks, and how you related to your next faith.*

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Table 17: *Agency (Average 70%)*

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### **Perspectives**

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#### **Responsibility:**

*Selected responses: For me, it is come to essential reasonability, for even though I am doing degree on my own, I am not really. Looking at from PI (Pacific Islands) perspective, actually is almost for me is in relation to my family, its obligation, the responsibility which I am carrying, I have to do well. I am not just to leave to left burn like other many things. I*



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## **Perspectives**

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*need complete it, Maybe because the responsibility I have to do well, there are lots of things, and it is not just me on my own. This course—Communication, I got lot of writing on it with help from tutors and other students, people I can build relationship, not just here, what I am doing degree, I hope things would be after I leave this place as well like the relationship with my tutors. Anything I find in the workplace it is building life time relationship not just tutor and student relationship. ...And also not giving back just to my community, to the government for giving me the opportunity to study and help me, so of course I have to give back to the society in that way.*

*My understanding in being a PI, first of all you are a minority, for me as a PI, and been given this opportunity, not my parents even my grandparents had been given...we are family orientated, so for something like this my whole family behind me, so that sort of empowerment then I can go to responsibility, but form individualistic it's something for yourself, once you achieving/ getting your degree it's something not only for yourself, but your community you family, that's responsibility to get back to help them get to where you are, I have younger brothers and younger sisters so I'd love to take /help them...*

### **Role model for the community**

*Exactly; Like I said I came here for myself... there is always room for improvement, that's how I am taking it...*

### **Keeping pace with family benchmarks**

*I guess I am doing this thing for my self. But just looking at my Dad family background...what they have ...I do not want to be left behind; I try to work way out by myself. ...we need to think.*

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Table 18: *Participants' perspectives on learning strategies used (Mt Albert, Waitakere)*

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**Learning strategies**

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Rewrite notes to clarify ideas Majority concurred, a few expressed lack of competency.

Selected responses: *Very well, I do (rewrite notes), and also I conjunction to that, also I include past assignments then incorporate what I got; I formulate additional questions to prepare for an examination.*

**Use model exam questions to prepare for an examination**

Majority stated that they used model papers

**Decode questions in an examination**

All reported high levels of self-efficacy in use of this strategy

**Memorise key concepts to prepare for an exam**

All reported high levels of self efficacy

**Use of memorising techniques (mind maps, acronyms) to aid in recall during exams**

Responses ranged from satisfactory levels of self-efficacy to high levels of self efficacy.

**Seek support to aid revision specifically**

Majority reported satisfactory levels of self-efficacy

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Table 19: *Participants' perspectives on factors critical for success (Mt Albert, Waitakere)*

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**Factors**

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## Factors

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- **Lecturers; accessibility of the lecturer**

Selected responses: *The tutors were explaining things more when they were teaching... they understand different students where they come from, understand the different cultures...;The first semester was been very difficult for me too, but the good thing is the lecturers they are very supportive, I think the way the things are structured, we need to finish (assignments) on time, because being a PI, you could just let it go... so it's good to have these structure in place...time management, time frame, definitely works.*

- **Support Services**

*I think also the support not only from the academic level but also from the computer labs, before I came here I wasn't computer literate...also the older students from the 2<sup>nd</sup> or 3<sup>rd</sup> years, I can just ask them... so the support not only from the academic, but also from the sector using the equipments... that's what works for me.*

*First of all the first semester for me was extremely difficult, because I came straight from Samoa; I wasn't used to the New Zealand ways of teaching...I came from kind of memory learning way of understanding, so it was so difficult for me to get into the classes and almost no motivation for me to study...so the factors that have helped me achieve, getting me to I think there are lot of services for PI students like Te Tari Awhina, their academic services, I didn't know there is a learning centre, but gradually I found there is a help available, they can help me, my education achievement is dependent on me, with the help... so come to the second semester I started to build relationship with teachers and so I can send email to my them and get answers tonight...*

- **Learning strategies**

Selected responses: *The way I am getting an essay done, I just break down into four*

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**Factors**

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*paragraphs, and each paragraph contains about 4-5 points, and I just labouring these points and I go back over and take out what I don't need in that, so the time is the most important thing for essay; I think I do short term goals, like some thing I need done in two weeks, I don't really look at the big pictures... so I just take one in a time, number 1,2,3,4,5 just go through them...; I set goals for whole semester.*

- **Teaching strategies**

*Making class interesting (Bob's class); Some teachers; Sometime computer labs; e application; There was a good mixture of theory and practical work throughout the programme; Activities set in class by the teachers with examples given on; presentation of topic by teachers; tutorials, blackboard; lecturers making me believe that I can do much more and get the job done.*

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Table 20: *Participants' perspectives on factors on challenges faced*

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**Factors**

- **Unstructured teaching-learning processes:**

*Selected responses: Last minute home work, Sam not really, One of the lectures I believe was not a very good teacher, an opinion hold by others as well, Timetable, not enough tutorials for certain subjects. In some papers keep changing the lecturers.*

- **Students' attitude**

*Selected responses: Playing too much computer games. Assignments and tests around the 1 week. Inconsiderate behaviour by younger students.*

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- **Subject related**

Selected responses: *Programming class, it's too hard; Programming class wasn't that helpful. Need more time for test and assignment; Programming and Information Tech; Work hard, difficulty of work, explanation of topics in class.*

- **Assignments / class size**

Selected responses: *I was not completely sure of what was expected of me in the assignment, Help with assignment not as accessible as expected. Lectures given us a one way process and there's little scope for discussion; Class strength is more, so no individualized approach for students, no interaction during lecture. The computer lab which is open only till 6 p.m. in weekends as that is the time not find most time to spend in the lab.*

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Table 21: *Additional support mechanisms as stated by participants to achieve successfully*

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**Mechanisms**

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- **Different support structures (summary of perspectives)**

Selected responses: *More time with Te Tari Awhina, 1 hour a week is not enough; More one on one student teacher time; More IT help; Tutorial for difficult topics; More computers; course related hardware for home (include in course cost); child care support; my own computer.*

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Table 22: *Parents' Focus Group*

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- **Importance of education for the family**

**Support the family**

*Selected responses: The significance of education to my family is the fact that we see our children go from primary school to high school and then to tertiary or university because they want to find knowledge and not only that but when they get degrees, they also get good jobs and when they get good jobs they are able to also help out their family.*

- **Support parents provide children**

**Encourage in children a positive attitude to education**

*Selected responses: My husband and I encourage our children to focus on their studies and this means, less time watching tv, when they return back from school and they do their homework and prepare for the next school day and not take their time up on their cell phone, but at the same time, we understand that their generation is different and the time is also different. So it is important for me to make sure they do their homework, prepare for next day and read their books.*

*I encourage them to focus on their studies and to also like going to school and also value education so that they understand that when they grow up, they will be able to look after and support their own family. It is important that children feel they like/belong at school so that they stay at school and not wag school.*

**Two-way communication**

*We make sure they can communicate to us and tell them to ask for things they want...we try talk to them.*

**Providing resources**

*We also bought them a computer and have the internet on.*

- **Challenges faced - Economic**

Selected responses: *Education is expensive here, text books are expensive and other educational needs of the children. At time, we are able to provide and sometimes, we are not able to help so we push them to use the loan*

*There are also other needs such as community needs, needs from families from Tonga, needs from needs and family responsibilities and needs, family obligations such as funerals, weddings and so forth.*

- **Ranking priorities**

**(Hypothetical situation: If given an amount where would the priority be)**

*For me, education is number 1, 2 church matters because I know church matters /responsibilities are a group responsibilities, and for me, it is better for me that the children do their studies before church, than family stuff...*

*I think education is still most important...I will give for my child's education than church will be number 2.*

*I think for me, it is important to give it to my child's education if he/she is focussed with his/her studies and is doing well but if not, maybe it is important not to just give it to their studies but also to share with relative back in the island.*

- **Social factors as challenges**

*It is not right to tell our children not to go to school so that they can drive the visitors around or to go and pick up visitors from the airport, take, drive people to church functions or to family functions...education and going to school is still most important to me and it is nonsense and waste of time to prevent them from going to class to do those things.*

*I think it is important for us parents not to pull our children away from school and let them go and focus on school while we as parents do all those church obligations.*

*Our relatives are also important and we can't let them stranded at the airport. If it means taking few hours to go to the airport, family is important too...*

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The results highlight some culture-specific challenges related to success and achievement in the tertiary sector. Although the challenges are not exclusive to a particular community, they are unique since there is a historic trend in underachievement and higher rates of unemployment among people in the indigenous and Pasifika communities in New Zealand. The next chapter discusses the results in the context of published literature, and literature in the public domain.



## **CHAPTER FOUR: Insights and implications**

### **4.1 Insights gained and implications for Unitec and the tertiary sector**

This chapter discusses the results of the research in the context of the aims of the project. The research aimed to assess students' self-efficacy in use of learning strategies in tertiary education, and to explore the relationship between efficacy and achievement. Students' level of agency was also investigated, along with perception of success. Parents' perspectives on tertiary education, agency and challenges were also discussed in focus group sessions.

#### **Research Aim: Assessing self-efficacy in use of learning strategies -**

Analysis of means and standard deviations show that participants rated high levels of self-efficacy in use of most learning strategies, particularly in the cognitive domain. Within subscales, highest means were for the domains of cognition/thinking, self-assertiveness, and motivation. Lower means were reported for the emotional and behavioral domains related to support, expectations, leisure activities, application, and resource management. There were a few exceptions as can be seen in the analysis of results in the programme from School of Computing and Information Technology.

#### ***Efficacy in learning strategies across programmes***

In the programmes from School of Computing and Information Technologies, students' efficacy scores in learning strategies in cognitive and behavioral domain correlated significantly with achievement grades. In the Certificate course, in the paper entitled Software Applications, motivational strategy and self assertiveness correlated moderately yet significantly. In Introduction to Professional Skills, the correlations in the cognitive domain were similar, however use of application strategies, in particular to bring about changes in one's family also correlated significantly. These were strategies in the behavioral domain. Similar significant correlations were also seen in Multimedia programming. In the paper on Problem Solving, apart from significant correlations in affective domain related strategies, the strategy of applying knowledge in the work place also correlated moderately yet significantly.

In the Graduate Diploma in Information Technology programme, there were differences in the type of strategy used in the cognitive domain, as measured by significant correlations with achievement scores. Students who used concepts, notes and readings, resource management strategies such as revising notes and readings, keeping up with topics, and adhering to study schedules achieved better. The correlations were between .70 - .80 range. Exception was the GUI programme, where apart from self-regulated learning strategies, expectations of lecturers, peers, family and oneself correlated in the .90 range with achievement. Those who reported efficacy in support from the community, institutions, and family also achieved better. In use of application strategies to bring about changes in problem situations and necessary changes in life, applying knowledge in the environment correlated with achievement.

Students from the Bachelors in Communication programme used fewer strategies as measured in terms of correlation between learning strategies in use and achievement. Three learning strategies used were from the cognitive domain, including resource management.

Analysis of qualitative responses in use of learning strategies show high levels of efficacy in students in rewriting of notes, using model exam papers, memorizing techniques, and revision through support. In difficulties in use of learning strategies, analysis of qualitative responses reveal there were issues related to specification of learning tasks, availability of resources such as model papers, effective and efficient use of Blackboard for discussions and clarification of doubts.

*Selected responses: While we can get the basic knowledge ..., but what definition we actually have to know, how do we know we need to know that one, not the twenty others; ....  
... like maybe lecturer says ok lets go to Blackboard to discuss that now, then everybody has to go to Blackboard and check it out, and put their opinion, where you can get more information out of it.*

Students also reported the need for model papers to be put up on Blackboard.

### **Research Aim: Students' agency and achievement**

In Semester One, students reported high levels of agency to achieve successfully in the programme. The average was 70%.

One student commented: *“The positive belief in the self, knowing that all things are possible and the “I can” attitude empowers me to do so with the help and support of family, lecturers and most of all my Lord”*.

Pasifika students, interviewed during Semester Two, rated level of agency at 70%.

However they equated agency with a sense of responsibility, setting an example to the community, and matching up to family benchmarks. Comments ranged from:

- *Looking at from PI (Pacific Islands) perspective, actually is almost for me is in relation to my family, its obligation, the responsibility which I am carrying, I have to do well. I am not just to leave to left burn like other many things. I need complete it, Maybe because the responsibility I have to do well, there are lots of things, and it is not just me on my own.*
- *Exactly; Like I said I came here for myself... there is always room for improvement, that's how I am taking it...*
- *I guess I am doing this thing for my self. But just looking at my Dad family background...what they have ...I do not want to be left behind; I try to work way out by myself. ...we need to think.*

The relationship between agency and achievement in Semester Two could not be analysed because of lack of access to achievement data.

### **Research Aim: Perceptions of success and relationship between efficacy, agency, success**

### **Students' perspectives:**

In Semester One, perception of success included a family orientation, and was linked to goal setting and achievement.

Selected responses: *I think if it comes down to it one of our goals is to graduate, but if you really think about it, it's more time for the family than more for yourself ... I don't think there is much about yourself. For me success is achieving my goal; ... success is just going day by day, I do my goal ... but my first success is getting to the end of the day.*

During Semester two, Pasifika students equated agency with comprehension and attainment of goals.

Selected comments: *I guess it's understanding what you have achieved, ... and apply what I have learned to my community or my family to make them succeed.*

Among factors critical for success, students highlighted the role of the lecturer, and above all access to the lecturer, as also access to support services. This is very similar to the research by Digregori et al.

Selected responses: *For me the main things is being able to approach a lecturer,...; after class accessibility of the lecturers is a huge advantage; I think our lecturers are very supportive; I was studying at AUT last year whole, I found they were not that supportive, and I found it was hard to approach them ... I ask questions about assignments but the lecturer said I should do it only by my own ...*

*I think also the support not only from the academic level but also from the computer labs, before I came here I wasn't computer literate...also the older students from the 2<sup>nd</sup> or 3<sup>rd</sup> years, I can just ask them...*

*First of all the first semester for me was extremely difficult, because I came straight from Samoa; I wasn't used to the New Zealand ways of teaching... so the factors that have helped me achieve, getting me to I think there are lot of services for PI students like Te Tari Awhina, their academic services, I didn't know there is a learning centre, but gradually I found there is a help available, they can help me, my education achievement is dependent*

*on me, with the help... so come to the second semester I started to build relationship with teachers and so I can send email to my them and get answers tonight...*

**Parents' perspectives:**

Pasifika parents were invited to participate in focus groups. Three focus groups were facilitated by members of the research team. Analysis of the responses, highlight the commitment of Pasifika parents to foster and facilitate tertiary education and qualification for their children.

*Selected responses: ...encourage our children to focus on their studies and this means, less time watching tv, when they return back from school and they do their homework and prepare for the next school day and not take their time up on their cell phone ...; I encourage them to focus on their studies and to also like going to school and also value education so that they understand that when they grow up, they will be able to look after and support their own family. We also bought them a computer and have the internet on.*

Challenges faced were economic and a few culture-specific.

*Selected responses: Education is expensive here, ... At times, we are able to provide and sometimes, we are not able to help so we push them to use the loan*

*There are also other needs such as community needs, needs from families from Tonga, needs from needs and family responsibilities and needs,...; I think it is important for us parents not to pull our children away from school and let them go and focus on school while we as parents do all those church obligations; ... Our relatives are also important and we can't let them stranded at the airport. If it means taking few hours to go to the airport, family is important too...*

**Analytical summary:** Students in the tertiary sector are reporting high levels of efficacy. Agency and perception of success seems to be more collective in nature, with a sense of

responsibility toward oneself and one's family emerging in the comments of Pasifika students. They are also intent upon setting goals and attaining them. However the rate of success and retention appeared to be lower for Pasifika students in both Mt Albert, and Waitakere campuses in Unitec Institute of Technology. See Tables 1 & 2. There was a 1% higher rate of retention for Waitakere Pasifika students as compared to Mt Albert students. The section which follows discusses the results in the backdrop of literature and research in the indigenous and mainstream context.

#### **4.2 Raising achievement of all students to mainstream benchmarks: Whaia te iti kahurangi In pursuit of excellence: translating the vision into reality**

##### **Efficacy, agency and achievement**

In the present research, self-efficacy is conceptualised as a multi-dimensional construct influencing achievement, and level of agency, including personal agency, proxy agency and collective agency. Our student participants and parents are reporting high levels of efficacy and individual and collective agency to achieve set goals. However, proxy agency seems to be the greatest challenge, with students reporting the need for greater accessibility to the lecturers, and resources such as Blackboard, and support services. Agency is a critical factor in self-efficacy. Lack of agency precludes attainment of the goal, since self-efficacy is developed during engagement on a task through various cues the student receives (Pintrich & Schunk, 2002). Cues include performance outcomes, attributions, and persuader credibility. Evaluation and feedback are also significant sources of self-efficacy information, which impact on subsequent achievements. Success enhances efficacy, repeated failure lowers them, especially if the failures occur early. Observations of others similar to oneself succeed act as motivators and enhance self-efficacy. Further, Schunk(2001) states that lack of success will not lower self-efficacy and motivation if there is the self-belief that one can perform better by adjusting the approach. Crucial to development of this self-belief in students is the self-belief and the role of the teacher in the classroom. An important finding to note is that our students and parents are reporting high

levels of efficacy and agency. We need to further this advantage, since as stated by Bandura (2008) high efficacy increases resilience, impediments are not viewed as insurmountable, and there is perseverant effort, despite any adversity. The challenges as reported by the students, if addressed with adequate interventions, can be overcome. “The functional belief system in difficult undertakings combines realism about tough odds but optimism that one can beat these odds through self development and perseverant effort” (Bandura, 2008, pp. 167-168)

### **Culture, efficacy, agency and achievement**

Culture is an important determinant of efficacy and agency, and hence achievement. Selection of the type of information, and manner in which it is processed is also influenced by culture. Oettingen (1995) reports on cultural variations in the preference for source of self-efficacy information. He gives the example of collectivist cultures in which group-based feedback on performance is desired, as compared to one-on-one feedback. Teacher evaluation and feedback are highly valued in collectivistic cultures. The results of the present study reveal students from Pasifika communities expressing a need for greater access to the teacher, both face-to-face and online. A point to note is that most of the students are migrants to New Zealand, a country predominantly European. Many students are second generation migrants, who have achieved adequate mastery at secondary level of schooling to access tertiary study. However, there are a sizable number of first-generation migrants, and also adult learners who have returned to tertiary studies after a prolonged period of time. Hence, the cultural orientations are not dichotomous (Oettingen, 1995), at the same time not homogenous, and amidst the diversity, efficacy beliefs operate in a similar manner (Bandura, 2002). Besides, Bandura also highlights cultural commonalities across cultural groups. These included self-regulatory self-efficacy, self-efficacy to master course work, to develop and manage interpersonal relationships, and to resist peer pressure to engage in activities which would not be supportive. However, the purposes they are used is what varies across cultures. Most of the Pasifika participants had a high level of agency, with a strong orientation toward helping their family’s progress with their assistance, following completion of tertiary study. However to achieve this goal successfully, Bandura

highlights the need for proxy agents. “Most human pursuits involve other participating agents so there is no absolute agency. They have to negotiate and accommodate their self-interests to achieve unity of effort within diversity” (Bandura, 2008b, p.87). In use of learning strategies to achieve successfully, there was positive correlation in use of cognitive strategies and achievement. With the exception of one programme from the School of Computing, there were no significant correlations between efficacy in perceived support and achievement. Bandura (2008b) refers to collective intentionality, shared intention followed by a coordinated action plan for success through agentic action. For such a shared vision to succeed, there has to be proxy agency and collective agency.

Proxy agency is the way an individual enables or relies on another person or people to act as agents to achieve desired goals in situations where they do not have direct control over factors that affect their lives, and proxy agency thereby involves the mediation of others who have the expertise or influence to help attain the desired outcome. Collective agency refers to “people’s shared beliefs in their collective power to produce desired results (Bandura, 2000, p. 75).

While our students report high levels of personal agency, all three modes of agency are required for successful functioning (Bandura, 2002). The role of the teacher, family and peers are critical in this regard. In the present research, despite repeat requests the teacher participants, with one exception, did not return the completed survey schedules. This became a major limitation of the project. Hence we do not have access to teacher perceptions on learning strategies in use, and level of efficacy and agency.

There is an increase in number of indigenous advisors for students from different ethnicities in Unitec Institute of Technology. With provision of access to culturally specific and flexible ways of teaching-learning support services for students, there will be a narrowing of the achievement gap between Pasifika and mainstream students. With ethnic diversity the emerging norm in New Zealand classrooms, Sheffield’s (1997) advise for teachers to employ a large set of instructional strategies and techniques to facilitate, optimise and ensure equal participation and achievement of learning outcomes for all students becomes an important consideration.



With the renaissance of indigenous ways of knowledge and being valued in an emerging multicultural New Zealand, there is steering away from deficit conceptualisation of disparities in achievement, and the focus is more on equitable achievement. However, there is a need for greater incorporation and integration of knowledge and experiences of non-Western cultural groups in the curriculum at the secondary and tertiary levels of education. Knowledge and experiences originating from within non-western cultural groups, whether indigenous or migratory, have not been valued and therefore, educators failed to comprehend the benefit to be gained by allowing students to engage in learning in a way that valued their own cultural and social heritage (Williamson & DeSouza, 2002). Hofstede (1986) suggests strategies to cope with the perplexities of cross-cultural learning situations. One strategy is by providing the teacher opportunities during teacher training on how to teach in culturally diverse situations. The important factor is for the teacher to adapt both intellectually and emotionally to the ways of learning of people in different societies while acknowledging the intra and inter-cultural variations.

Another factor to be considered is whether the students, parents, and other stakeholders from minority communities, have a sense of efficacy in achieving long-term goals. Most of the students who responded to the survey item on learning strategies such as goal setting, planning only reported on short-term goals. Laar (2000) reporting on African-American students in the USA, states that while African American students begin university with optimism, pessimism takes over as they progress. Attrition rates are very high, 62 percent among African American students, as compared to 40 percent for all students. While both African American and White students start school with similar test scores, the longer the students are in school, the wider the gap grows between the two groups.

...the story seems to be very little about beliefs about the self, and instead is concerned with external attributions: beliefs African American students have about the world around them and their place in it. The changes evidenced are in terms of African American students increasing doubts that their efforts will make a difference in their outcomes. (Laar, 2000, p. 54)

He recommends that educators ensure good opportunities for students of all ethnic groups, at all levels, and policies and procedures which are succeeding needs to be identified, and those that fail need to be researched. For New Zealand, these socio-cultural explanations for continued high attrition rates, and low levels of achievement can be of importance in the context of wide disparities in achievement among ethnic groups (Jones, 2000). Unitec Annual Report (2008) states about 80% of students who enroll in a programme attaining a successful outcome. There was a 3% drop in student completion rate, and 4% drop in student success rate in 2008. However the rate of retention and success were much lower for Maori and Pasifika students, who comprised 9% (697 full-time students), and 11% (813 full-time students) of the total number of full-time students enrolled in the institution. Four percent of full-time academic staff were of Maori ethnicity , and 4% Pacific. There were 456 full-time academic staff during 2008. Since staff who were surveyed did not respond, we do not have data on ethnicity-specific teaching-learning strategies in use for Pasifika students. For details of survey items see Appendix C.

### **Raising achievement and reducing disparities in diverse learning contexts**

The Mission statement of Unitec states “Unitec inspires people to discover and apply their intellectual and creative potential and to contribute responsibly to their societies and cultures.

Three of the nine statements of intent highlight:

- Be student-centred in all our services and activities
- Ensure the principles of Te Noho Kotahitanga (Partnership between Maori and Pakeha communities) inform all activities
- Understand and respond effectively to the needs of Pacific peoples (Unitec Annual Report, 2008, p.2.)

The aim of the New Zealand tertiary education strategy is to contribute to the national goals by facilitating attainment of success by all New Zealanders through provision of “lifelong learning; creating and applying knowledge to drive innovation; and strong connections between tertiary education organizations and the communities they serve” (Ministry of Education, 2008, p. 18). It would be worthwhile to have easily accessible resources for culturally enriched teaching-learning practices in the tertiary sector. In her paper entitled “The power of engagement”, Reedy (2008) reflects on her role as a coordinator of English language programme in an Institute of indigenous tertiary education in Northern Territory, Australia, and recommends structured delivery with sufficient scaffolding to support learning outcomes of indigenous students. Such a strategy she believes would encourage participation by increasing the ability of students to engage in the classroom context. She had noted that indigenous students were reluctant to give opinions in the classroom. Ascribing this to shame, on exploration she discovered that there were other reasons she was not aware of, including the kind of topics chosen for discussion, who would be impacted through sharing of opinions, and consequences which followed giving of opinions. In indigenous communities opinion giving and decision making were reached at the community level by elders. The process included talking quietly among themselves, going back and forth, listening to one another and understanding everyone’s opinion. Aided by an indigenous teacher, she facilitated a whole-class mind mapping activity, using focus groups to study the process of decision making. She states

Connections need to be made between the Western ... and the indigenous world view. ... From this knowledge base I was able to reposition the concept of opinion giving and exposition writing to the lives of my students, and together we were able to look at the purpose of these skills ... apply them to their own lives and communities. (p.8)

The need for similar connectivity to diverse cultures is also evident in a model for change in the New Zealand context, suggested by McNaughton and Lai (2009). They propose an evidence-based model of school change to raise achievement of culturally and linguistically diverse students in New Zealand. Based on an intervention programme, the study was

underpinned by the assumption that that instructional effectiveness in schools can be increased by building the expertise of the teachers to aid achievement levels in reading and comprehension of Maori and Pasifika students. This research led programme of development and change has been successfully implemented and replicated in three clusters comprising 48 schools, a student participant population of up to 10,000, and over 250 teachers during a five-year period. The project was located in areas with high number of Maori and Pasifika students and communities. For such changes to be sustained the authors propose long-term partnerships between researchers, policy makers and schools. The major processes involved in the successful model include:

- (a) Facilitating teachers to be adaptive experts, with extensive knowledge about the content area, pedagogy, and about the students and communities, their global and cultural identities. Teachers also need to be innovative and adaptable along with technical expertise. .
- (b) Instructional design enhanced by local and evidence about teaching and learning. This provides opportunities to personalize instruction, encouraging critical thinking in students, and generalisability.
- (c) Fostering professional school learning communities for effective use of teacher analysis and achievement data. The intent is for the learning communities to provide opportunities for praxis, not merely sharing of ideas. This would help raise achievement.

Partnerships between the researchers, practitioners, and policy makers; effective instructional leadership, and ongoing fine tuning of teaching practices has also been proposed. Sustainability across time and to new learners is also important to measure success of such interventions to raise achievement. The authors propose fidelity of the intervention to the content or the programme to be spread across classrooms based on the processes used, at the same time being open to ongoing problem-solving. The processes involve analysis of student achievement and progress as a baseline, classroom observation data, designing instructions to match student profiles, and continuing collection of data on achievement, observation, reflection, and reporting of results.

Bishop et al. (2009) are engaged in a longitudinal intervention project entitled Te Kotahitanga. A research and professional development project which aims to improve achievement of Maori students in mainstream secondary schools, the researchers sought student opinions to create a model for effective teaching, entitled the Effective Teaching Profile. Among others, students have proposed that teachers reject deficit theorizing. The authors recommend indigenous philosophical principles to bring about the desired change in students achievement which has been applied in a model of effective teaching. . Effective Teaching Profile for teachers of indigenous students is based on the principle that when teachers engage in critical reflection about marginalized students, and develop a relationship with these students, they are more likely to engage in power sharing practices, thereby encouraging successful participation by students in education on their own culturally constituted terms. Such praxis leads to avoidance of deficit theorizing, and teachers accept responsibility for the educational outcomes of students.

An empirical project comprising 12 schools and 422 teachers, the intervention involved induction, structured classroom observations, feedback, problem-solving sessions based on student outcomes, and shadow-coaching. Teachers demonstrate an understanding of Manaakitanga (care for the students and their culture, and nurturing a supportive environment in the classroom; Mana motuhake (caring for the identity, performance and outcomes of the students); Whakapiringatanga (incorporation of appropriate pedagogical knowledge in a secure, well managed environment where learners knowledge is acceptable and legitimate); Wananga and Ako (effective and enriched teaching-learning interactions); Kotahitanga (reflection on the shared goals and outcomes achieved). Most of these indigenous philosophical principle are applicable, and ways of knowledge and being of other cultural groups.

For Pasifika student communities, Robinson, et al (2004) recommends improving quality of teachers, increasing the number of Pasifika teachers, better school-community liaison, bilingual programmes, and access to appropriate assessment and resources.

The OECD review of tertiary education in New Zealand (Goedegebuure, et al., 2008) commends the achievement in teaching-learning and research of a small country with a small population and much diversity. The report highlights the valued ethos of New Zealand which is articulated in planning and policy. Among others, the major components include:

- The love for the land and its people.
- Getting people to think strategically about tertiary education and life in New Zealand and its contributions to the international scene.
- An ethos of working together to support economic and educational development of regions.
- The integrity of 'going beyond lip service' to enact certain goals and objectives related to equity and Māori and Pasifika Peoples engagement with tertiary education.
- The validation of human potential.
- The principles of equity, excellence and access are seen as added value.
- The ethos of commitment, pride, relationships, variety, and international and intersectional working.
- The willingness for all those involved in tertiary education to engage in the struggles of implementing a vision (p.70)

It is up to individual institutions, teaching-practitioners and stakeholders to ensure that achievement of this ethos is equitable across all ethnicities in the New Zealand tertiary sector. As New Zealand teacher and teacher educator Colin Gibbs (2006) concludes in his chapter on the culturally responsive teacher:

Teachers today teach students from diverse cultural backgrounds. All teachers bring with them their own cultural backgrounds and experiences. ...Culturally responsive teachers react with students from diverse cultural backgrounds in ways that show genuine respect. They value the uniqueness and importance of each student and

their sense of connectedness with their cultural heritage. They empathise ... have high but realistic expectations that they will succeed, and value their life experiences as source of inspiration and connectedness for teaching, rather than as obstacles for learning. They also work to cultivate a critical sensitivity and proactivity in dealing with social justice (p. 201)

## **CHAPTER FIVE: Concluding comments: A prologue for future consideration**

The major aims of this research were to investigate the role of self-efficacy and agency in success of students from diverse cultural groups, in particular Pasifika communities in the tertiary sector. While students are reporting high levels of efficacy and agency, disparities in achievement and retention persist between students from indigenous / Pasifika communities, and mainstream communities.

Bishop et al (2009, p.2) state “What precludes significant advancement being made in addressing these educational disparities is that current educational policies and practices were developed and continue to be developed within a framework of neo/colonialism and as a result continue to serve the interests of a mono-cultural elite”.

A suggestion by the authors is for culturally sound pedagogies.

alternative pedagogies that are both appropriate and responsive, can be developed out of the cultural sense-making processes of people previously marginalized by the dominance of colonial and neo-colonial education relations of power. Such pedagogies can create learning contexts for previously pathologized and marginalized students in ways that allow them to participate in education on their terms, to be themselves and to achieve as Māori ... (p.9)

Marat (2008) proposes a five-pronged strategy for raising and sustaining achievement of students across diverse cultural groups. The strategy highlights the urgent need for:

1. *Statements of intent on learning strategies to be used by students to be articulated in the planning documents of Schools / programmes*



These include culturally appropriate strategies for goal setting, self-regulation, revision, and review which facilitate development and application of metacognitive strategies and cognitive strategies.

## *2. Statements of teaching strategies used by the teacher and critical review*

Well qualified teachers with subject specialisation, sound cultural understanding of indigenous and minority communities, ongoing professional development, teaching for understanding and mastery, and deeper understanding of their role, beliefs and attitudes towards students and teaching is the need of the hour. A schedule for self-appraisal and performance feedback by the teacher which is related to the set goals, and strategies used, and focused on efforts made by the students, their achievement data, and collegial feedback will enhance the teaching-learning process to promote and sustain student achievement.

## *3. A responsible and collective approach to students' achievement*

Bandura's (1994) recommendations which calls for a collectivistic school cultural orientation merits consideration here. Very similar to recommendations by Bishop et al. (2009), these include, among others:

- High academic standards and firm belief in students' capabilities to achieve them;
- Teachers with high instructional efficacy and mastery-oriented instruction;
- Teacher acceptance of responsibility for students' progress;
- Student-control over their academic performances.

## *4. Empowering parents through partnerships - Whānau relationships between home and school.*

As proposed by Biddulph, Biddulph, and Biddulph (2003), encouraging parental and community involvement in programmes that aid in their understanding of how to help their children. An important aspect to be considered is that these programmes add to the existing

repertoire of strategies of the parents, and respect the dignity and cultural values of the parents.

##### *5. Culturally responsive assessment practices*

Klenowski (2009) suggests adoption of a culturally responsive approach to assessment which values cultural differences and ways of being. This will enable learners to develop new insights, teachers have to distinguish the funds of knowledge that students draw on and adopt a culturally responsive pedagogy that opens up the curriculum and assessment, and in so doing allows for different ways of knowing and being (p. 90). Such pedagogical practices will help maintain culturally sound self-identities, in a challenging and increasingly global world.

...people have to navigate through complex environments of innumerable variations, novelties, ambiguities, and unpredictability ... requiring adaptive flexibility in multiagent transactions in which the participants are both actors and acted upon. ...In even more consequential exercise of agentic capability, individuals create environments not simply react to them in programmed ways. Being a self-governing human is a quite different matter from being a self-regulating thermostat. (Bandura, 2008b, pp.88-89)

#### **Strengths and limitations of the study**

The topic of research is valid for both the New Zealand context, and the world, since research on efficacy and agency of tertiary students, and in particular from minority and diverse ethnicities is negligible. The research design enriched by indigenous, Pasifika and Eastern philosophies and principles, is reliable and robust, the tools and techniques for data collection are culturally appropriate and has helped yield rich data via student and parent voices. However the validity of the study is limited, due to insurmountable challenges in obtaining a random sample of participants, and difficulties in accessing student achievement data. Another major limitation of the study has been lack of buy-in by teachers. Having access to practitioner voices, intervention projects could have been implemented 6-months into the present project, and feedback provided to students, teachers

and the institution on integrating culturally valued practices which work to help reduce disparities in achievement among students from diverse ethnicities. However, it is hoped that the findings will provide confidence to the Institution to encourage teachers to be collaborative and cultural praxis led teaching-research practitioners, which will enhance student engagement, learning and outcomes for Unitec Institute of Technology.

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## **APPENDICES**

### **APPENDIX A**

#### **STUDENTS' SURVEY**

#### **INFORMATION SHEET**

### **STUDENTS', TEACHERS' AND PARENTS' EFFICACY AND AGENCY: IMPLICATIONS FOR SUCCESS FOR ALL IN THE TERTIARY EDUCATION SECTOR: A TERTIARY EDUCATION COMMISSION FUNDED RESEARCH**

Kia Orana, Faka'alofa Lahi Atu, Ni Sa Bula Vinaka, Talofa Lava, Taloha Ni, Malo e lelei and Greetings

We are a team of staff/researchers from Unitec who are carrying out a study on Students', Teachers' and Parents efficacy and Agency: Implications for Success in the Tertiary Education Sector.

#### **The major goals of this research project are:**

1. To identify and evaluate levels of efficacy in use of learning strategies in students and teachers at Unitec.
2. To identify factors which facilitate or inhibit the use of learning strategies. . To seek student and family perspectives on agency in the New Zealand context.
3. To identify socio-cultural factors critical to the development of agency as perceived by students and their families.
4. To assess the relationship between self-efficacy, agency, and student achievement, progression and success in the tertiary sector.

***What is self-efficacy?***

Self efficacy is your belief in capability to achieve a particular task/goal successfully based on the knowledge and skills you have acquired in the teaching-learning context. Kindly note that self-efficacy is task specific. For e.g. What is your self-efficacy to achieve an A grade in an assignment in a particular course.

***What is Agency?***

Agency is an individual's self-belief in the power to bring about positive change in one's life based on the knowledge and skills one has acquired. This positive change can be achieved either by oneself, facilitated by another individual, or collectively.

***The major benefits of this research are:***

1. This project enables an in-depth understanding of the role of learning strategies, student self-efficacy and agency in student achievement, progression and success in the tertiary sector, within a holistic framework of student, family, and the education community;
2. The results of this research will feed directly into each School's teaching-learning practices;
3. This will be of benefit to you, students in Unitec and other tertiary institutions.

***We would like to invite you to take part in this study which will be conducted in three ways:***

1. Completing a survey and providing consent for the researchers to have access to your academic grades during the course of the year;
2. If agreeable to you, participate in a focus group in which you will join other students in a discussion group to be held later this month;
3. An in-depth interview at your discretion. A member of the team will contact you to organise an appropriate time and place for your interview.

We would appreciate it very much if you participate in all three processes. Kindly note that participation is voluntary, and your decision will not have any effect on your academic grades.

With your consent, the focus group and the interview will be audio taped and later transcribed by the researchers. The information collected will be treated confidentially and will only be used for the purposes of this study. We intend to complete all data collection in the first semester by the end of July 2008.

This research has obtained ethical approval from the Unitec Research Ethics Committee. The members of the research team are:

Dr Deepa Marat, Dr Evangelia Paupatsaki, Dr Savae Latu, Linda Aumua, & Malia Talakai

If you have any questions or would like to receive more information about this research project, please contact Dr Deepa Marat, 8154321 Ext 6161 [dmarat@unitec.ac.nz](mailto:dmarat@unitec.ac.nz), or Malia Talakai. Ext: 8681, [mtalakai@unitec.ac.nz](mailto:mtalakai@unitec.ac.nz) Concerns regarding the conduct of the research should be notified to the UREC Secretariat,

09-8154321 Ext 7254.

**SINCERE THANKS FOR YOUR TIME AND PARTICIPATION**

**Consent to Participate in Research**

**Title of Project: Students', teachers', and parents' efficacy and agency: Implications for success for all in the tertiary education sector**

**Researchers:** Dr Deepa Marat, Dr Evangelia Papoutsaki, Dr Savae Latu, Linda Aumua, & Malia Talakai

- I have had an opportunity to ask questions and to have them answered.
- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way. If I withdraw, I understand that all information I have provided will be destroyed.
- I agree to the School providing the researcher with information about my grades in (subject).
- I understand that participation in this study will in no way affect positively or negatively my academic grades
- I understand that everything I say is confidential and none of the information I give will identify me and that the only persons who will know what I have said will be the researchers.
- I agree to take part in this research.
- If I am part of the interview group I understand that my conversation will be taped and transcribed.

Participant signature: .....

**Participant name:**

Date:



**Withdrawal from the Research**

**Title of Project: Students', teachers', and parents' efficacy and agency: Implications for success for all in the tertiary education sector**

I would like to withdraw from the research.

Participant signature: .....

**Participant name:**

Date:

**Students', teachers', and parents' efficacy and agency: Implications for success for all  
in the tertiary education sector**

**MOTIVATION** (✓ Tick your choice of response – only one per item)

Items	Not well at all	Not too well	Satisfactorily	Pretty well	Very well
How well do you believe you can study in ways that will help you achieve successfully?					
How well do you believe that you understand the most complex concepts in the papers you are studying?					
How well do you believe that you can master the skills taught?					
How well do you believe that you can do an excellent job in assignments and examinations?					

**THINKING** (✓ Tick your choice of response – only one per item)

Items	Not well at all	Not too well	Satisfactorily	Pretty well	Very well
When studying how well do you believe you can set goals for yourself?					
When you study how well do you believe you can					

outline the material to help organise your thoughts?					
When you study how well do you believe you can formulate questions to focus your thoughts?					
When studying how well do you believe you can go through your notes and readings to find out the most important concepts?					
When studying a new concept how well do you believe that you can skim it to see how it is organised?					
When studying how well do you believe you can think through the topic to decide what it is you are supposed to learn rather than just reading it over?					
When studying how well do you believe that you can use information from different sources such as class notes, text books and discussions?					
When studying how well do you believe that you can ask yourself questions to make sure that you have understood the material?					
When studying how well do you believe that you can change how you study to fit the requirements of the paper?					
When studying how well do you believe you can memorise key words to help recall important concepts?					

When studying how well do you believe you can summarise concepts of the topic of study?					
When studying how well do you believe you can determine the concepts you have not understood well?					
When studying how well do you believe you can relate ideas from one paper to another?					
When studying how well do you believe you can try to relate material to what you already know?					
When studying how well do you believe you can sort out confusion which arises over missing classes?					

**RESOURCE MANAGEMENT**

(√ Tick your choice of response – only one per item)

Items	Not well at all	Not too well	Satisfactorily	Pretty well	Very well
How well do you believe you can explain a topic to your classmate/ friend?					
How well do you believe you can work on your own?					

How well do you believe you can work in groups?					
How well do you believe you can stick to your study schedule?					
How well do you believe you can seek clarifications from your lecturer when you do not understand a concept?					
How well do you believe you can persist on a topic when you find it difficult?					
How well do you believe you can ask a peer/ another student in class for help when you cannot understand what is being taught?					
How well do you believe you can keep up with topics and assignments?					
How well do you believe you can manage to keep working in papers even when you find the material uninteresting?					
How well do you believe you can revise your notes / readings before an exam?					

## **SELF-REGULATED LEARNING**

(√ Tick your choice of response – only one per item)

<b>Items</b>	<b>Not well at all</b>	<b>Not too well</b>	<b>Satisfactorily</b>	<b>Pretty well</b>	<b>Very well</b>
How well do you believe you can finish your assignments on time?					
How well do you believe you can learn when there are other commitments?					
How well do you believe you can concentrate in class?					
How well do you believe you can take notes in class?					
How well do you believe you can use the library to get information for assignments?					
How well do you believe you can plan and organise your work?					
How well do you believe you can motivate yourself to do school work?					
How well do you believe you can participate in class discussions?					
How well do you believe you can clarify doubts in class?					

## LEISURE TIME AND EXTRACURRICULAR ACTIVITIES

(✓ Tick your choice of response – only one per item)

Items	Not well at all	Not too well	Satisfactorily	Pretty well	Very well
How well do you believe you can learn sport skills?					
How well do you believe you can learn dance skills?					
How well do you believe you can learn music skills?					
How well do you believe you can do the kinds of things needed to be a member of the Students' Union?					
How well do you believe you can learn the skills for team sports (for example basket ball, volleyball, swimming, cricket, rugby)?					

## EXPECTATIONS

(✓ Tick your choice of response – only one per item)

Items	Not well at all	Not too well	Satisfactorily	Pretty well	Very well
How well do you believe you can live up to what your lecturers expect of you?					
How well do you believe you can you live up to what your peers expect of you?					
How well do you believe you can you live up to what your family expects of you?					

## SELF ASSERTIVENESS

(✓ Tick your choice of response – only one per item)

Items	Not well at all	Not too well	Satisfactorily	Pretty well	Very well
How well do you believe you can express your opinions when other classmates disagree with you?					
How well do you believe you can live up to what you expect of yourself?					
How well do you believe you can stand up to someone when they are asking you to do something unreasonable?					



**SUPPORT** (✓ Tick your choice of response – only one per item)

Items	Not well at all	Not too well	Satisfactorily	Pretty well	Very well
How well do you believe you can get your family to help you with a problem?					
How well do you believe you can get institutional support to help you with a problem?					
How well do you believe you can get people in the community to take an interest in your institution (Community groups)?					

**APPLICATION BEYOND THE LEARNING CONTEXT**

(✓ Tick your choice of response – only one per item)

Items	Not well at all	Not too well	Satisfactorily	Pretty well	Very well
How well do you believe you can apply the knowledge and skills in the work context?					
How well do you believe you can bring about changes required in a problem situation?					
How well do you believe you can bring about necessary changes in your family based on the					

knowledge and skills you have?					
How well do you believe you can bring about necessary changes in the community based on the knowledge and skills you have?					

**(SUB SECTION WHICH WILL BE EXPLORED IN GREATER DEPTH DURING THE INTERVIEW)**

**OPEN-ENDED QUESTIONNAIRE**

**What are some of the factors you would consider as significant in achieving success during the course of the past four weeks?**

**What do you believe worked well for you in the programme?**

**What do you believe did not work for you in the programme?**

**Do you believe, you will continue in this programme to successfully accomplish the qualification? (Circle your choice)**

**Yes      No**

**What additional support mechanisms will help facilitate your achievement and success?**

**Programme/School-based factors**

**Work place based factors**

**Family/ Home based factors**

**ABOUT YOU**

YOUR NAME:

STUDENT ID:

PROGRAMME/QUALIFICATION:

(Tick  $\surd$  your choice)

Q1. **Gender** Female (1) ' Male (2) '

Q2. **Age group** 16-18 years (1)' 18-25 years (2) ' 26 and above (3) '

Q3. **Present work status** Employed (1) ' Unemployed (2) '

Q4. **Work experience** 0-2 years (1) ' 2 years and over (2) '

Q5. **Ethnicity:** Maori (1) ' Pasifika (2) ' Pakeha (3) '

Asian (4) ' Indian (5) Mixed (6) '

Other (6) '

**Q6. Consent to participate in focus group sessions Yes (1) ' No (2) '**

**Q7. Consent to participate in an interview Yes (1) ' No (2) '**

***THANK YOU FOR YOUR PARTICIPATION***

## APPENDIX B

### PARENTS' SURVEY-BASED FOCUS GROUP

#### Information Sheet

**This research project is about Pasifika students', teachers', and parents' beliefs on Pasifika students engagement and achievement in the tertiary sector. We aim to investigate factors which Pasifika parents' believe are crucial in facilitating students' engagement and success in tertiary education. The findings will be communicated to all stakeholders, and it is hoped that the research will benefit Pasifika families, students, and the New Zealand community**

*What it will mean for you:*

Your participation is voluntary. **Agreement to participate involves two aspects:**

- 
- 1. Signing the consent form to participate in a focus group / and interview session**
  - 2. Your participation**

*What we will do with the data you contribute:* **The findings from the study will benefit Pasifika tertiary students and families, school leavers, the participating institution, the wider community, and New Zealand.**

***Confidentiality:* We will keep all your information confidential. Anonymity in reporting of results is guaranteed. All data will be stored in locked cabinets and accessible only to the researchers. Once you agree to participate, you can withdraw during any stage of the data collection process, by signing the withdrawal form and contacting the researcher/s.**

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Any concerns regarding the nature of this project should be notified in the first instance to the principal researchers. Concerns regarding the conduct of the research should be notified to the UREC Secretariat, 09-8154321 Ext 7254. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Thank you

**Dr Deepa Marat, Dr Evangelia Papoutsaki, Dr Savae Latu, Linda Aumua, & Malia Talakai**

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1. Your comments on **factors which facilitate or inhibit Pasifika students' engagement and success in the tertiary sector**

<b>Facilitators</b>		<b>Inhibitors / Way forward</b>
Family-centred		
Community-centred		

<b>Facilitators</b>		<b>Inhibitors / Way forward</b>
Economic		
Socio-cultural		



Facilitators		Inhibitors / Way forward
Policy-related		
Other factors		

**Thank you for your participation**

*This study has been approved by the Unitec Research Ethics Committee from February 2008 to December 2009. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretariat (Ph: 09 815 4321 ext.7254). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.*

**Consent to Participate in Research**

**Title of Project:** Pasifika students’, teachers’, and parents’ efficacy and agency: Implications for success for all in the tertiary education sector

**Researchers:** Dr Deepa Marat, Dr Evangelia Papoutsaki, Dr Savae Latu

I have had an opportunity to ask questions and to have them answered.

- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection. If I withdraw, I understand that all information I have provided will be destroyed.
- I understand that everything I say is confidential and none of the information I give will identify me and that the only persons who will know what I have said will be the researchers.
- I agree to take part in this research.
- I understand that my conversation will be taped and transcribed.

Participant signature: .....

**Participant name:**

.

**Withdrawal from the Research**

**Title of Project: Pasifika students', teachers', and parents' efficacy and agency: Implications for success for all in the tertiary education sector**

I would like to withdraw from the research.

Participant signature: .....

**Participant name:**

Date:

## APPENDIX C

### TEACHERS' SURVEY

#### Information Sheet

*Dear teacher participant*

This research project is about Pasifika students', teachers' and parents' self beliefs on success for all Pasifika students in the tertiary sector.

*What it will mean for you:*

**Your participation is voluntary.** Agreement to participate involves:

1. Signing the consent form to participate
2. Completing a self-study questionnaire.

The survey is designed for ease in answering. The aim is to explore teachers' beliefs use of learning strategies in the teaching-learning context. Some questions are inclusive of teaching-learning in mainstream and bicultural contexts. Some are specific to Pasifika students. It will take about 20 minutes to complete a self-study questionnaire.

***What we will do with the data you contribute:*** The findings from the study will benefit tertiary students, school leavers, the participating institution, and the wider community.

***Confidentiality:*** We will keep all your information confidential. During data entry all names will be coded. Anonymity in reporting of results is guaranteed. All data will be stored in locked cabinets and accessible only to the researchers.

Once you agree to participate, you can withdraw during any stage of the data collection process, by signing the withdrawal form and contacting the researcher. If you withdraw from the research, you will not be disadvantaged in any way.

Any concerns regarding the nature of this project should be notified in the first instance to the principal researchers. Concerns regarding the conduct of the research should be notified to the UREC Secretariat, 09-8154321 Ext 7254. Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

**Thank you**

Dr Deepa Marat, Dr Evangelia Papoutsaki, Dr Savae Latu, Linda Aumua, & Malia Talakai

Contact details: 09-8154321 X 6161

During the course of Semester One, your views on **factors which facilitated or inhibited the effective use of learning strategies** in the teaching-learning process. You can contextualise it to specific instances.

<b>Facilitators</b>	<b>Inhibitors / Do not use - Reasons</b>
Cognitive strategies  (Relevance of learning is highlighted while discussing the content; information about learning is provided)	
Strategies for self-regulated learning  (Self-directed learning by setudents, encouraging student responsibility for learning)	

Resource management strategies

(Guiding students to locate resources, and to utilise the resources effectively to achieve goals)

1. As a teacher what are **your beliefs** about the role of **learning strategies** for Pasifika students' engagement and success in the tertiary sector?

2. How does the **curriculum, and teaching – learning resources** provide for the use of learning strategies in the classroom which ensure that learning is teacher-directed and pupil centred?
  
3. Your **suggestions** for incorporating the strategies in the teaching-learning context.
  
4. It is likely that if time permits, we will incorporate interviews in the research in Semester Two.

Your consent to participate in an interview in Semester Two kindly tick the relevant box. Yes  No

This study has been approved by the Unitec Research Ethics Committee from February 2008 to December 2009. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretariat (Ph: 09 815 4321 ext.7254). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

***Thank you for your participation***

**Consent to Participate in Research**



Title of Project: Pasifika students', teachers', and parents' efficacy and agency: Implications for success for all in the tertiary education sector

**Researchers:** Dr Deepa Marat, Dr Evangelia Papoutsaki, Dr Savae Latu, Linda Aumua, & Malia Talakai

I have had an opportunity to ask questions and to have them answered.

- I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection. If I withdraw, I understand that all information I have provided will be destroyed.
- I understand that everything I say is confidential and none of the information I give will identify me and that the only persons who will know what I have said will be the researchers.
- I agree to take part in this research.

Participant signature: .....

**Participant name:**

**Withdrawal from the Research**

**Title of Project: Pasifika students', teachers', and parents' efficacy and agency: Implications for success for all in the tertiary education sector**

I would like to withdraw from the research.

Participant signature: .....

**Participant name:**

Date: