

Get a twenty-inch frying pan: Enhancing success for Pasifika bilingual education

Meaola Amituanai-Toloa

Abstract: This paper describes a research project alongside two other studies designed to bring about major improvement in school and Pasifika student success. The three studies together illustrate critical components for building success for Pasifika students in large scale, high-quality schools. The paper reports on evidential aspects of Pasifika education in particular bilingual education work that are aimed at long-term changes in Pasifika education to bring greater success through research, practice, collaboration and policy change.

Keywords: educational reform; Pasifika bilingual education; student achievement

Introduction

The Quality Teaching Research and Development (QTRD) project in 2008 was an exploratory research undertaken with the big ideas and the histories of South Auckland educational achievement in mind (e.g. Amituanai-Toloa, 2005; McNaughton, MacDonald, Amituanai-Toloa, Lai, & Farry, 2006; Ramsay, Sneddon, Grenfell, & Ford, 1981). These ideas and histories provided a solid foundation and set a scene for this exploratory research and development programme proposed by the Ministry of Education. The QTRD project included ten hubs, two of which we were involved in. The two literacy hubs were the QTRD (English medium) and QTRD (Samoan bilingual). The former included teachers of Pasifika students in mainstream classes and the other, teachers of Samoan students in bilingual classes. All these classrooms were in South Auckland schools. The general purpose of the QTRD, and building on these past histories, was to integrate what we knew ‘worked’ for Pasifika students, and particularly Samoan students, to improve teacher instruction through inquiry. Of particular importance had been the creation of a provision within the project whereby teachers developed a research role that was expected to become part of their professional lives (Robinson & Lai, 2006). The OECD (2004) has described this role as research shaped and research transformed. It has also identified it as an outcome, resulting from embracing the research role with the teaching role—the product of which is excitement. It argues that excitement is what teaching has yet to offer (OECD, 2004).

Initial thoughts and steps

At the outset of this project a certain excitement existed. The envisaged outcomes from this project, whatever they may be, would give the Ministry much needed evidence of what is effective and what ‘works’ for Pasifika students generally, and in bilingual classrooms in particular, for the purposes of goal setting, reform and policy. Added to that, was excitement in the knowledge that from the production of these limited but intensive and highly informative and evidence-based studies, outcomes could be implemented and taught across schools to raise achievement for Pasifika students. That excitement still exists.

The project was driven and supported by seven major principles: a recognition that culture counts; *ako* (reciprocal teaching and learning); the need for productive partnerships and co-construction of knowledge/learning processes; the need for multiple, structured opportunities to learn; the need for high quality evidence-based practices to enhanced Māori student and Pasifika student outcomes; the need for collective inquiry processes which engage teachers’ personal theories; and the need for culturally inclusive and responsive learning communities. All these principles apply to the two hubs but specifically to the bilingual hub. The first

principle appeared to be the umbrella principle under which they all operated and, given their own awareness of literacy practices students in their classrooms were exposed to in-the-home environment.

Two other projects underpinned the QTRD work. One was the Woolf Fisher Research Centre work on enhancing reading comprehension (known in this paper as the McNaughton and colleagues' study) and the other was a doctoral study (known in this paper as the sub-study) which was posited within this overall work to examine specifically the achievement of students in Samoan bilingual classrooms (see McNaughton et al., 2006; Amituanai-Toloa, 2005). In South Auckland in particular, where the majority of Pasifika children are known to be low achievers and attending low decile schools, the McNaughton and colleagues' (2006) position is that teaching practice and quality of teaching can have such strong effect on student achievement. This position underpinned the work aimed at enhancing Pasifika children's reading comprehension in English. Two major questions were tested. First, can a research-practice collaboration develop cluster-wide and school-based professional learning communities that are able to critically analyse and problem-solve issues of instructional effectiveness, thereby developing more effective instruction that has a powerful educationally significant impact on Māori and Pasifika children's comprehension at Years 4 to 9? Second, can a set of effective instructional activities be identified that is able to be used by teachers to enhance the teaching of comprehension for Māori and Pasifika children in Years 4 to 9? The project created opportunities for us to examine other aspects of teaching and learning that might be useful in thinking about how to increase achievement of Pasifika students in the New Zealand curriculum overall (McNaughton et al., 2006).

An initial step in the study involved collecting baseline profiles of achievement using standardised assessments of reading comprehension and collecting baseline profiles of classroom instruction, using systematic observations in classrooms. Together these baselines provided detailed evidence about strengths and weaknesses in the students' reading comprehension. These were then mapped onto patterns of instruction in the classroom. For example, it showed that patterns of checking and detecting threats to meaning in paragraph comprehension and the size and knowledge of a student's vocabulary were problematic rather than low decoding levels. An unpredicted finding was that while high rates of explicit strategy instruction occurred, students focused on the strategies as ends in themselves, and often resorted to guessing. Classroom observations showed a low incidence of teachers and students monitoring and checking strategies, and low rates of identifying and elaborating meanings of low frequency words, unusual uses of common words or idiomatic uses (see McNaughton et al., 2006, for further descriptions).

The achievement pattern was noted as below average at stanine level 3 (on a 9-point scale) for the general Pasifika group. This equates to two years below the norm. The instructional practice showed that significant changes in types of teacher and student exchanges relating to the focus of the intervention were linked to the pattern of the gains over two years in the component tests of Progressive Achievement Test (PAT) and Supplementary Test of Achievement in Reading (STAR) (Elley, 2001). These tests were designed for repeated measurement, and are used by schools to provide a recognised, standardised measure of reading comprehension, which can be reliably compared across schools. In addition to these assessments, the schools used other reading measures for both diagnostic and summative purposes, and the baseline results for these are reported elsewhere (McNaughton et al., 2004).

To enable us to delve deeper into aspects of teaching and learning for Pasifika students, a sub-study of Samoan bilingual contexts within the McNaughton and colleagues' study mentioned above was conducted for a doctoral thesis (Amituanai-Toloa, 2005). The specific aims of the sub-study were:

- To test the more general assumption that a major reason for lower than expected achievement for Samoan students on comprehension tests in schools was less than effective teaching.
- To test the effects of incorporating students' out-of-school activities as part of a research-based intervention in bilingual classrooms.
- To examine the relationship between students' oral language and reading comprehension in Samoan (L1) and reading comprehension in English (L2).
- To examine the cultural constitution of Samoan concepts *iloa* (know or knowing) and *malamalama* (enlightened or understanding) in the enhancement of reading comprehension of texts in English.

The hypothetical basis for these questions was not far removed from that of the overall project; however, the sub-study had two subsequent hypotheses. First, that more effective teaching could occur in bilingual contexts and that student scores in these contexts could be higher than student scores in mainstream classes; and second, that any evidence of higher achievement in bilingual classes might not be attributed to the research and development programme alone, but to other factors predicted to play implicit but crucial roles in teacher instruction.

The Samoan bilingual data of baseline achievement and baseline observations for the sub-study were extracted from the main databases of the McNaughton and colleagues' (2006) study. To compare how Samoan students in bilingual classes were achieving alongside other Samoan students, the achievement data for Samoan students in mainstream classes were also extracted. This would enable similarities and differences in baseline scores and baseline achievement to be compared with the general Pasifika achievement from the McNaughton and colleagues' study. This baseline data indicated that, on average, bilingual students were at stanine 2.7, which is approximately two and a half years below expected levels. In comparison, mainstream students were on average at stanine 3.0 (as is the general Pasifika group in the McNaughton and colleagues' study), which is approximately two years below expected levels. The instructional observations were similar to the overall project outcomes except instruction in bilingual classes focused more on the teaching of vocabulary and less on incorporation.

From the baseline outcomes, three approaches were developed and used to answer the first research question in the sub-study. To demonstrate effects of the teaching compared with baseline forecasts, the first approach used a quasi-experimental design to evaluate teacher effectiveness. To analyse teacher effectiveness for the new combinations of students to examine whether achievement had improved and sustained, a second approach used total groups of students in the classrooms over two years. The third approach examined outcomes of teaching in bilingual classrooms compared with teaching in mainstream classrooms as all teachers in the McNaughton and colleagues' study went through the same professional development.

Analysis for Samoan bilingual longitudinal cohorts in the sub-study showed that by the end of the two phases, the average student scored in the average band of achievement of above stanine 3 (e.g. stanine 3.8, which equates to almost one year of progress in addition to normal progress) and an effect size of $d=1.25$ (this means that the impact of the professional development on bilingual teachers was greater than that known by Cohen (1988) as having a greater impact when $d=0.40$), compared with average stanine score at baseline of 2.7 stanine (i.e. a gain of 1.1 stanine). While gains were lower for bilingual students, their rate of gain was higher than for mainstream students. This pattern indicated that bilingual students started

with lower achievement from years 4 and 5 but caught up to their mainstream peers at year 6 and progressed beyond their peers at year 8 (Amituanai-Tolosa & McNaughton, 2008).

The analysis of reading comprehension in Samoan (L1), using the specially designed texts to examine relationships between L1 oral and reading comprehension and English (L2), showed that on the general level, there were no relationships. However, there was a specific relationship between L1 and L2 on vocabulary at the year 6 level. This might suggest a reason for the slower achievement in English from year 4 and year 5 and catching up at year 6—a pattern also evidenced in the L1 analysis. When classroom observations were analysed, teachers were found to place more emphasis on vocabulary instruction utilising more of the incorporation strategy than on comprehension. This suggests that vocabulary work is an urgent priority for teachers and students in bilingual classrooms.

The profile of effective teachers in the sub-study revealed that the presence of variability between teachers was complex and could not have been attributed to the professional development alone. Rather, other factors, one of which was teacher ideas and beliefs about the constitution of comprehension from the cultural perspective of *malamalama* and *iloa* might have played influential roles in pedagogical practices. In teaching and learning, comprehension relates firstly to the Samoan concepts of *malamalama* (understand) and *iloa* (know), and these concepts are related to reading comprehension. How can these Samoan concepts in the contexts of schools as institutions of learning (Tanielu, 2004) be developed in order to raise teacher awareness and students' reading comprehension of written texts?

Some indication of what the Samoan concepts of *malamalama* and *iloa* mean had been attempted and partly clarified by Thaman (1995) in relation to the Tongan worldview of education process. The Tongan concept of *ako* denoted teaching and learning; *ilo* denoted knowledge and understanding; and, *poto* related to having a good mind or intelligence. The three are interrelated tautology, although there has been some reinterpretation or 'misunderstanding' of the older sense of the concept like *poto* to the meaning associated with *poto* in contemporary education circles. In contemporary education circles, *poto* means a person's ability to read and write and do arithmetic while the older meaning related to a person maintaining good relations, having wisdom and, having the ability and capacity to do something and to do it well under difficult and trying circumstances.

In the Samoan worldview of education processes, *A'o* denotes learning. *A'o* means to learn, to copy or imitate, to memorise, to observe and learn. *A'oa'o* on the other hand denotes teaching. *A'oa'o* means to teach someone how to do/learn something. *A'oa'i* is to admonish and to discipline. But when you add the suffix *ga* to all these Samoan words, they become nouns and the meanings change. *A'o(ga)* is school. *A'oa'o(ga)* is a moral lesson or merely a lesson. *A'oa'i(ga)* is an admonishment or disciplinary measure. The raw product of all these is *iloa* meaning 'know' or 'see' (as in 'I see') so that one *iloa(s)* after one *a'o(s)*; one *iloa(s)* after one *is a'oa'o(ed)* and one *iloa(s)* after a *a'oa'oga* and *a'oa'iga*.

The concept of *malamalama* literally means 'enlightened'. It is a refined product of being *a'o(ed)* and *iloa(ed)* in all its forms. This means that one is enlightened when one is taught. Applying this newly acquired *malamalama* to problem-solving situations successfully then becomes *poto*. Therefore it is one thing to *iloa* (know) and quite another to *malamalama* (understand) in order to be *poto* (application) just as it is one thing to be *poto* and quite another to be *atamai* (wisdom to use *poto* to differentiate between what is wrong and what is right). Nevertheless, although these concepts in Samoan take a great amount of practice and repetition, it is paramount that they are explored and explicitly explained to teachers in order to gain understanding of what Samoan students see in texts and how students interpret texts for knowing and understanding.

The other factor which might have attributed to the variability between teachers apart from the professional development was the use of Samoan language in the instructional practice. For example, the high-gain effective teacher was the one who had managed to find a balance between the professional template and her ideas and beliefs about how Samoan children should be taught reading comprehension and, more specifically, vocabulary (Amituanai-Toloa, McNaughton & MacDonald, under review). At the end of this study the students of the high gain teacher who were tested on STAR showed that their mean scores on subtest 3 (paragraph comprehension: a subtest that was known to reflect achievement downfall for Pasifika students in the STAR test), in comparison to students in other classrooms, was higher with $m = 10.70$ and exceeded the 'critical score' ($m = 10.10$). This result suggested that a focus on vocabulary work should be developed more in order to build on existing high levels of decoding.

The sub-study showed that whilst it is possible to develop more effective teaching that impacts directly on the reading comprehension achievement for bilingual students, there is a need for more intense exploration and examination of how bilingual students develop in their two languages and how that development influences their meta-cognitive pathways and development. It is, however, important to note too that some bilingual students speak and understand more than two Pasifika languages. When the general gains and the high rates of gains for bilingual students outlined here are considered in terms of the historical schooling context in South Auckland, and also in the context of our overall work to enhance Pasifika achievement, we can begin to theorise about what we can do to substantiate and sustain the positive development.

The findings from these two studies were important for the QTRD project. As learning enquirers, QTRD teachers were required to conduct a research project, similar to the previous two studies already mentioned, within their classrooms and to identify evidential aspects of their practice that worked for their students. It was possible to predict similarities between the first two studies and the QTRD as some of the teachers who underwent professional development in McNaughton and colleagues' study were also involved in the QTRD project. However, it was also predicted that while the McNaughton and colleagues' study and the sub-study were uniformly designed so that all teachers do the same tasks, there was deviation from the norm for the Samoan bilingual teachers in the QTRD. They were given the freedom to choose their action research topics. This decision was made for two reasons. The first reason was that the understanding of the seven QTRD project principles outlined in the Ministry requirements all applied to bilingual teachers given they were all Samoan. The second reason was that the expected work from bilingual teachers could add much needed value to what was already known about teaching and learning for Pasifika students in general. In the context of bilingual classrooms, the work could add much needed specific information on Samoan teaching and learning, and identified components of achievement might be useful to build up teaching of Pasifika students and within mainstream classrooms in general. Consequently, all of the bilingual teachers wanted to purposefully examine the role and use of Samoan language instruction in relation to student achievement. Of note here is that whilst the focus for bilingual teachers' action research work was generally similar, the aims of individual teachers differed in terms of literacy aspects and pedagogical characteristics. For example, some teachers chose to examine the effectiveness of using Samoan language instruction in reading, while others looked at writing. Such purposeful examination of the role and use of Samoan language, therefore, was an acknowledgement that culture does count. The mainstream teachers, on the other hand, had a specific focus on links between reading and writing.

The findings from the QTRD project showed variability between teachers and across teachers and schools. For example, on one hand, the majority of teachers in mainstream classrooms were able to provide indications of achievement in their practice and others were not able to. On the other hand, most teachers in bilingual classrooms were not able to identify aspects of

their instructional practice predicted to make a difference in student achievement. One of the reasons was that teachers in mainstream classrooms used standardised tests (e.g. STAR; Elley, 2001) and Assessment Tools for Teaching learning (asTTle; Hattie, et al., 2004) and teachers in bilingual classrooms used teacher-made assessments in Samoan. An examination of the benefits of bilingualism in the absence of standardised assessments in first language is an issue that has been previously and is continually being addressed (Amituanai-Tolosa, 2005; Tagoilelagi-Leota, McNaughton, MacDonald & Farry, 2004). In language development, particularly, we cannot begin to look at student achievement in English for Pasifika without valid examination of achievement in their first language. The absence of Samoan assessments has been the main issue with Samoan bilingual education in New Zealand. From the evidence, the bilingual teachers' work might be just what is needed to refocus our thinking about bilingualism and its benefits. In essence, teachers' beliefs about the benefits of L1 instruction to enhance student achievement in the classroom might be a much stronger indicator for teacher motivation than we have been led to believe. The assessment of reading comprehension in Samoan in the sub-study was to begin to address this issue. In addition, it is a worldwide issue.

The global trend, for example, in examining bilingual education with seriousness and rigour comes at a pivotal time, particularly in relation to future projections of ethnic population growth. In the United States, for example, the National Assessment of Educational Progress (NAEP) results showed that there has been increasing numbers of English language learners in classrooms, especially within African American (63%) and Hispanic (58%) student groups (Foorman & Schatschneider, 2003). There is a similar trend in New Zealand for the Pasifika group and, given the rapid growth rate of its young and adolescent population (Statistics New Zealand, 2006), this trend is set to continue and become increasingly noticeable in school settings. In both countries, these students, compared to majority students, are below their peers in academic achievement scoring well below those of national norms (Foorman & Schatschneider, 2003; McNaughton et al., 2006).

It is important to note that bilingual students who have and speak a language in addition to English are not just those in bilingual classrooms in schools. Rather, it includes also those students in mainstream schools who speak a language other than English. Bilingual students are taught through using two languages for instruction separated by time and by day. For example, in our work in Samoan bilingual classes in South Auckland, half the day is in the Samoan language and the other is conducted in English (Amituanai-Tolosa, 2005; McNaughton et al., 2006). Despite provisions for bilingual classes being made in some schools, in general, there appears to be a lack of clear rationale for such arrangements. The evidence from schools is that parents demand the set up of bilingual classrooms (Kolhase & Tuioti, 2002).

The continued advocacy from global and local research for the benefits of bilingual education is not new (May & Hill, 2003; Perez, 2004; Tabors & Snow, 2001). However, despite the beneficial indications there are still those who, understandably, contest the benefits given the absence of solid evidence on the pragmatics of bilingual education when related to English achievement, and especially on how it may be applied. We know that for students who have a language apart from English, good grounding in that first language (L1) allows skills to be transferred from that language to the second (L2) (Tabors & Snow, 2001). However, there is a rarity of research in New Zealand into L1 and L2 language development and a shortage of evidence to indicate what skills are transferred or how transferral might have occurred. Garcia (2003) noted that there are differences between younger and older students, as well as different degrees of variability in oral proficiency in both languages, that impact on students' reading proficiency. Moreover, perhaps the most important aspect of what we know about bilingual education and bilingual achievement, albeit small, is not what we think we know but rather in what we ought to know, especially when posited within the practice of teachers and their pedagogical styles. Its vitality is premised on findings from others (e.g.

Alton-Lee, 2003, 2004) that it is teaching practice and quality of teaching that accounts for 59 percent of student achievement variance

While examining past developmental progress is useful, we also need to take an innovative first step in faith, believing that catering for the bilingual needs of teaching and learning in the present education environment through collaboration is responsive and necessary. For if we wait any longer we might never be able to repair and close the gaps in bilingual education and catch up with bilingual provisions given the current trends in Pasifika population growth and migration. Convincing the advocates of monolingualism is important and necessary but be warned that these same advocates despite good intentions might be the only hindrance to realising the many benefits of bilingual education. For example, the literature is rife with benefits of bilingual education especially from international studies (e.g. Baker & Prys-Jones, 1998; Garcia, 2003; Lee, 2003; Tabors & Snow, 2001), and particularly when English is implicated in teaching and learning. The same benefits are also echoed in New Zealand (e.g. May & Hill, 2004). But there are differences between the overseas studies and those carried out in New Zealand. Much of the local research on bilingualism concerns Māori education. The majority of local research on Pasifika education or, more importantly, ethnic-specific research that links the benefits of students' first language to student achievement is rare; and any linkages are often implicit rather than explicit. There needs to be a new and higher level of reassessment and recommitment from all stakeholders defining what a bilingual student is in a diverse society. For example, a reassessment and recommitment in relation to resources is a good beginning. In schools in New Zealand, the Samoan readers currently used in schools are not levelled and any suggestion to apply the English text levelling guidelines for Samoan readers might be seen by some as problematic, if not downright offensive. Criteria for levelling texts for English readers might not be congruent to levelling in Samoan readers for several reasons. First, there is no clear purpose of the readers except for interest only. Second, the language used in some readers does not appear to be compatible with students' experiences and language in terms of relevance, age level and hierarchy.

Towards a reformation

The QTRD project was long overdue for purposes of reforms and policy. It was a project predicted to provide some confirmation of findings from previous studies. The evidence, however, did not provide strong enough evidence on teacher practice, student achievement and language development—all of which could have contributed enormously to supporting the Ministry of Education in a full formulation of policy for bilingual education. Albeit considered weak on the evidential front, the QTRD did provide evidence of teaching and learning complexities where bilingual education is concerned thus suggesting that the Ministry of Education can do more to bring the bilingual education benefits to the fore for the sake of Pasifika students who are underachieving in schools. While there is paucity of information on bilingual education in New Zealand that focuses on student achievement in relation to teacher practice, the QTRD project indirectly addresses these two areas as vital for future research that incorporates research, policy and development. I would like to argue for building a stronger three-way relationship between research, development and policy when issues in bilingual contexts are involved.

Discussion and conclusion

This paper advocates that Pasifika education and bilingual education are beneficial for New Zealand education going into the future. However, particularly for bilingual education, there must be further studies to add to the current limited knowledge which exists already. The McNaughton and colleagues' study and the sub-study have clearly illustrated increased gains in student achievement when research is designed on a collaborative basis; has research

capacity with insight of policy as product. However, as illustrated by the QTRD project, the teachers in almost all of the bilingual classes who participated in the study had not been through the professional development in the McNaughton and colleagues' study and rather new to inquiry learning. In addition, all bilingual teachers preferred to assess their students in Samoan to check students' understanding of texts compared to their understanding of English texts. Given the absence of assessments in L1, teachers prepared their own assessments which were not able to be compared to a standardised test. This is not, however, to say that QTRD teachers in bilingual classrooms had not learned from the experience. Rather, their participation had given them an opportunity to critically examine their practice and how their instruction and the way they do things could be modified to make a positive impact on their students' achievement.

The best help we can give to bilingual teachers, to their students and their parents, and ultimately to the community is to recognise that in the current bilingual environment there is a need for more specific alignment between national policy, schools' understanding of bilingual education and a more inclusive collaboration. At present, in addition to there being no language policy for Pasifika, it appears that the barrier to implementation of responsive and compassionate reforms is the continued debate about whether bilingualism and biliteracy offer prospects of achievement for bilingual students. It is rather ironic that bilingualism is valued when people are formally well-educated and hold status and power in society (Nieto, 2002) but when, in the case of those who are poor and powerless in society, like some Pasifika students and their families, bilingualism becomes a sign of low status (Fairclough, 1989). Bilingualism and biliteracy need to be seen as priorities for a strong collaborative approach for research, development and for the implementation of now policy. Currently, bilingual education specifically and Pasifika education generally are like litmus paper used in science experiments to see if the colour changes.

Hence I am reminded about a story of two men who were out fishing. One man could not catch any fish while the other kept catching fish. The first man noticed that every time the second man caught a little fish he kept it, but when he caught a big fish he threw it back into the sea. The first man couldn't understand why the other man did this so he asked him, "Why do you keep throwing the big fish back into the sea?" The second man replied, "That's easy—I only have a 10-inch frying pan."

This goes to show that too often a problem does not lie with what comes to us, but rather in our prior preparation for what's to come. Pasifika education and bilingual education together is a big fish and we seem to throw it back into the depths of the ocean too often. I suggest we instead get ourselves a 20-inch frying pan or else we may never taste and see its impact on our future generations.

The three studies described here have provided identification of critical components of a research and development model and programme that can be arguably deemed successful. These are: a development history; a policy context; research capacity; and a collaborative process (Airini, McNaughton, Langley, & Sauni, 2007). Together these components create greater alignment between national policy, the schools' focus and research imperatives on the one hand; and the nature and the course of collaborations on the other. These components are all also applicable to all contexts but particularly to bilingual contexts. However, if policy is to eventuate, any reforms regarding bilingual education for bilingual students will need to reflect three main humane indicators:

1. Courage: to systematically and strategically examine all there is to know about bilingual education and how it can positively impact on the education system in the future
2. Honesty and integrity: to admit that we can no longer brush aside Pasifika bilingual students, their families and their education. For too long they have been

recognised solely for economic reasons. Now it is time for them to be recognised for who they are and what they can bring to enrich the education system in New Zealand.

3. Faith and hope: to believe that faith will ground us and hope will carry us to do what we must do; and whatever we decide to do for Pasfika education we must believe that we also do it for all New Zealanders.

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Meaola Amituanai-Toloa is Associate Dean Pasifika, Associate Director of the Woolf Fisher Research Centre and a lecturer in the School of Arts, Languages and Literacies at the Faculty of Education, the University of Auckland.

E-mail: m.toloa@auckland.ac.nz