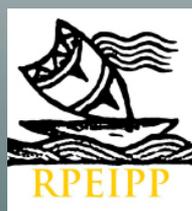


# Proceedings of the Vaka Pasifiki Education Conference 2014

*24 & 25 September 2014, Nuku'alofa, Kingdom of Tonga*

## Weaving Theory and Practice in Teacher Education for Oceania

PERF



IOE



PATE



Editor | Ruth Toumu'a, Institute of Education, USP  
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# Proceedings of the Vaka Pasifiki Education Conference 2014

## Weaving Theory and Practice in Teacher Education in Oceania

24 & 25 September 2014, Nuku'alofa, Kingdom of Tonga

Editor

Ruth Toumu'a, PhD, Institute of Education  
The University of the South Pacific, Tonga Campus



**RPEIPP**  
Re-thinking Pacific Education Initiative for and by Pacific Peoples



**USP**  
THE UNIVERSITY OF THE  
SOUTH PACIFIC

**P A T E** Pacific Association of Teacher Educators

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IOE wishes to thank the international Review Panel comprising leading Pacific academics across Oceania. Our thanks also to Penelope Serow and team for assistance with review of papers for this publication. Our sincere thanks to Laura van Peer, for her significant editing and proofreading support. Laura's generosity with her time and expertise in supporting the editor, has enabled this publication to be released within 2014.

The Conveners and Working Committee also wish to sincerely thank the Director, staff and volunteer students of USP Tonga Campus for their invaluable logistical support throughout the Conference. Likewise, our grateful appreciation goes also to the enthusiastic logistical support provided by the Victoria University of Wellington team of staff and students, and the Tonga Institute of Education teacher trainees.

On behalf of the Conference delegates we thank the Conveners for their outstanding leadership, and warmly thank the Conference Working Committee, led by Dr Mo'ale 'Otunuku of IOE.

To all who made the Vaka Pasifiki Education Conference 2014 a success - *Malo 'aupito*.

## Foreword by the Conference Conveners

It is our pleasure to write this foreword for the Conference Proceedings of the 2014 VAKA PASIFIKI EDUCATION CONFERENCE held at Fa'ònelua Convention Centre in the capital city Nuku'alofa, in the Kingdom of Tonga on the 24th and 25th of September 2014. The conference theme of 'Weaving theory and practice in education/teacher education in Oceania' recognizes the ever-increasing need to integrate and align intellectual energy in our combined approach to dealing with the educational challenges facing Oceania.

The Conference had four streams: (1) Weaving theory and practice in language and literacy in teacher education; (2) Weaving theory and practice in numeracy, assessment, ICT and teacher education; (3) Weaving theory and practice in Numeracy, Assessment, ICT, and Teacher Education; (4) Re-thinking and Transforming Pacific Learning, Teaching, and Teacher Education. The Conference theme and streams reflect the growing concern for emerging and established pools of good research on Pacific teacher education, teaching and learning to be meaningfully and practically translated into actions which transform educational practice and teacher education in Oceania.

With more than sixty papers, the conference provided a feast of nuanced weaving of theory and practice from multiple situated learning communities within the region of Oceania. Together with four exciting keynote addresses and their accompanying responses, and the participation of a large contingent of graduate students, the conference provided an intellectually stimulating, conducive, and democratic learning environment.

Now an international conference, the VAKA PASIFIKI Education Conference was first held in December 2011 at The University of the South Pacific's Laucala Campus, Suva, Fiji. That first conference was organized as a celebration, marking a decade of re-thinking Pacific education through the Re-thinking Pacific Education Initiative for and by Pacific Peoples (RPEIPP). A milestone output of that first conference is the edited book, "Of Waves, Winds & Wonderful Things" (2014, edited by 'Otunuku, Nabobo-Baba & Johansson-Fua) which was launched at this Conference.

VAKA PASIFIKI itself is an educational movement. As a title, VAKA PASIFIKI is the initial name for the emerging indigenous Pacific Research School of Thought. VAKA PASIFIKI has both literal and richly metaphorical meanings. In a number of Pacific languages 'vaka' or 'waka' is literally understood as a means of transport, and most commonly refers to ocean-going sail boats and canoes. PASIFIKI is a transliteration of the English word Pacific in a distinctly Pacific form, and refers collectively to the island dwelling Oceanic peoples. Metaphorically, VAKA PASIFIKI captures the essence of a vessel for, and of, our Pacific peoples. VAKA PASIFIKI is inclusive of the many and diverse cultures of those who carry an educational vision forward; the means by which they carry it and are carried by it; and the reason it is done.

Within the umbrella movement of VAKA PASIFIKI are two professional communities: the Pacific Association of Teacher Educators (PATE) and the Pacific Education Research Foundation (PERF). Briefly, PATE was established in the early 1990s as an association comprising the Principals of national and regional teacher training colleges/schools of education. In its early years, The University of the South Pacific's Institute of Education (USP-IOE) was the secretariat of PATE; and the association depended considerably on donor funding for its activities. In more recent times, the PATE has had a more revolving secretariat; though it is still not well-resourced by its member entities. The PERF, however, grew out of the RPEIPP; a NZAID-supported initiative, though not directed from Wellington. PERF was established by Pacific educators who were leaders of the RPEIPP movement and now exists as an independent professional community. Presently, USP-IOE is the secretariat of both PATE and PERF, and draws them together in the hosting of this Conference.

The 2014 Conference was hosted by the University of the South Pacific's Institute of Education. The USP-IOE is one of several institutes which were established by The University of the South Pacific in 1976. The mission

of IOE is to assist Pacific Island countries in achieving quality education by providing them with high quality, relevant research and evidence-based, innovative advice. Externally, the IOE has close links to Pacific Islands' Ministries of Education, teacher training colleges/schools of education, universities, donor agencies, the Pacific Islands Forum Secretariat, and other regional and national educational organisations. Internally, IOE is part of the Faculty of Arts, Law and Education of USP. In 2010, IOE was relocated from Suva to Tonga, at the USP Tonga Campus in 'Atele, Tongatapu.

The Vaka Pasifiki Education Conference has provided a valuable opportunity for the sharing of ideas, presentation of research and best practice, and discussion of issues relevant to teacher education, educational policy and practice, and teaching and learning in Oceania.

We wish you happy reading of the papers presented in this Proceedings as a record of the insights and learnings shared at the Conference. We invite you to maximize every opportunity to dialogue and make connections with the authors as your colleagues from around Oceania and to begin preparation for VAKA PASIFIKI 2016 in the Solomon Islands!

Your 2014 Conference convenors,



Ms Liuaki Fusitu'a  
Associate Professor Kabini Sanga  
Dr Seu'ula Johansson-Fua

## Editor's Introduction

The 2014 Vaka Pasifiki Education Conference provided the opportunity for the sharing of research, Pacific reflection and cultural insights, and good practice relating to the weaving of theory and practice in four key areas: (1) language and literacy; (2) numeracy, assessment & ICT; (3) educational administration; and (4) the transformative re-thinking of teaching, learning and teacher education in Oceania.

With an array of 64 papers to choose from over the two day Conference, it may not have been possible for delegates to attend all the presentations they wished to. Hence, IOE is pleased to present this publication, the **Proceedings of the 2014 Vaka Pasifiki Education Conference**, as an opportunity not only for Conference delegates, but all of Oceania and further afield, to sample the presentations on offer that this landmark event.

In these Proceedings you will find 45 of the 64 papers presented for you to read and draw inspiration from at your leisure. These proceedings are made available free of charge to all, and are offered in the true sense of Pacific goodwill. Please feel free to circulate these Proceedings to colleagues and students. We ask though that the wisdom shared by all authors be treated with respect and academic integrity when citing from their works.

These Proceedings begin with the opening speech notes from the Hon Minister for Education and Training, Dr 'Ana Maui Taufé'ulungaki, followed by the notes of the four Keynote Speakers: Prof Konai Helu Thaman, Assoc Prof Gavin Brown, Dr Kapa Kelep-Malpo, and Dr Frances Koya-Vaka'uta. The Conference papers are then arranged by stream. The topics covered by the papers reflect the nature and purpose of the key organisations behind the Conference: teacher education - PATE, educational policy, planning, research and publications - IOE; and the re-thinking of Pacific education by and for Pacific peoples - PERF (RPEIPP). Although the Conference theme relates to Teacher Education, not all papers directly address this, but contain thoughts which can be applied by the reader to the context of teacher education and thus provide useful insights.

**Stream 1** papers cover important issues in language and literacy in Oceania, including: the development of an effective literacy programme; the agency and professional development of language teaching staff; resource development for literacy and language curriculum support; reflections on supporting Pacific scholars as writers; and the benefits and possibilities afforded by reintegrating storytelling into the Pacific classroom.

**Stream 2** addresses numeracy, assessment, and ICT in Oceania, and includes papers on: regional assessment practices; new approaches to making outcomes based assessment work in the Pacific; the role of language in effective mathematics instruction; strategies for supporting equal mathematic learning opportunities in our diverse Oceanic classrooms; re-engaging students with the history of human mathematical endeavour; and preparing the Pacific to safely and productively harness the flood of new Information and Communications Technology in education.

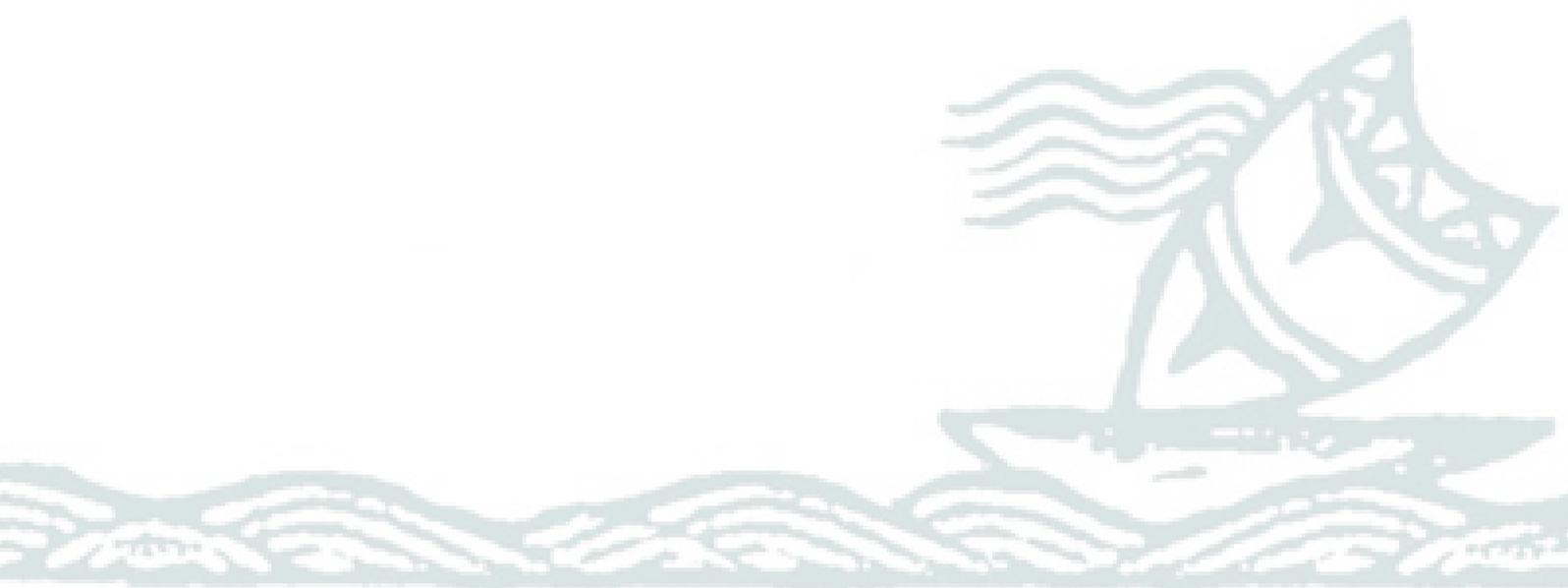
**Stream 3** papers focus on educational administration, and include papers on topics such as: teacher and principal change, growth and professional development in several Pacific nations; the efficacy of support mechanisms - particularly family based ones - for Pacific students in tertiary education; the profiling of Pacific leadership, and the application of lessons from this in a new form of leadership structure in a Pacific school; and addressing pressing modern issues such as climate change by mapping a Pacific nation's curriculum for opportunities to educate the next generation on these issues.

**Stream 4** was by far the largest, and papers were as diverse as Oceania itself. Papers covered the following areas: exploring the nature and processes of education through unique Pacific cultural lenses and icons, including the *manulua* motif, voyaging canoe, wick lamp, and *inati* process; indigenous frameworks and values in Teacher Education in Aotearoa; Pacific cultural interpretations of play and playfulness in early childhood education; the facilitation of improved Pacific student and non-Pacific teacher relationships for learning; the role and engagement of the Pacific family in education; discussing research methods effective in Pacific contexts; prin-

ciples to guide the transfer of international policy and curriculum into Pacific contexts; Strategies to increase educational access in a case study Pacific nation; understanding the role of first and second languages in mathematics learning; insights into the successful incorporation of citizenship education, peace studies and physical education in various Pacific nations' education systems; seeking sustainability in teacher education through partnership between a Pacific nation and an Australian university; and dance and creative arts as educational and expressive opportunities for Pacific learners.

May these papers serve to nourish, sustain, and inspire those who choose to voyage together with us on this vaka - our *Vaka Pasifiki!*

**Opening Speech & Keynote Addresses**  
**for the Vaka Pasifiki Education Conference 2014**



**Opening Speech: Vaka Pasifiki Education Conference**  
**24-25 September 2014: Fa'onelua Convention Centre, Nuku'alofa, Tonga**

*Hon Minister for Education and Training, Dr 'Ana Maui Taufē'ulungaki*

I acknowledge God's presence in our midst.

Our Distinguished Keynote Speakers: Professor Konai Helu Thaman; Associate Professor Gavin Brown; Dr. Kapa Kelep-Malpo; Dr. Frances Koya-Vaka'uta. Patricia Nally of NZAid. Rev. Dr. Tu'ipulotu Katoanga, President of the Free Church of Tonga and members of the clergy. Professors Cedric Hall, Associate Professors Kabini Sanga, Unaisi Nabobo-Baba, Timote Vaioleti, Govinda Lingam, and all our other Distinguished Presenters and Speakers. Dr. 'Ana Koloto, Director of the USP Tonga Campus. Dr Seu'ula Johanson-Fua, Director of the Institute of Education. Staff of the USP Tonga Campus and Institute of Education. Honoured Guests. Fellow Participants, Ladies and Gentlemen.

I give thanks to the Almighty for bringing us from the far flung islands of the Pacific and beyond to celebrate the successful voyage of the Vaka Pasifiki Education and its safe landing here in Tonga in 2014.

It is, indeed, a great pleasure to see so many friends and colleagues here in this room and in Tonga (which, I must say, should help boost our little economy!), but it is my particular honour and privilege to warmly welcome those of you who are in Tonga for the first time. I hope your short time here will be joyful and memorable.

I would like to extend a special heartfelt welcome to all our graduate students, the future of the Vaka Pasifiki Education movement. It is my firm belief that as long as we have bright young people like yourselves, who are dedicated, eager, able, and willing to serve the cause, the future of education and, indeed, of the Pacific is in safe hands.

I would like to thank Dr Seu'ula Johansson-Fua, Director of the Institute of Education of the University of the South Pacific, and members of the Conference Conveners and Working Committee, for inviting me to join you this morning in the opening of the second Vaka Pasifiki Education Conference. The last time we met was in Laucala Campus of the University of the South Pacific in Suva, Fiji. It was, then, to celebrate and to review ten years of successful implementation of the Re-Thinking Pacific Education by Pacific Peoples for Pacific Peoples Initiative. It is indeed quite an achievement to see all four of the founding members of that initiative in this room once again and we thank you Patricia Nally for your continuing contributions to the journey of the Vaka Pasifiki Education.

In this Conference of 2014, I am very happy to see the combination of the two professional communities: the Pacific Association of Teacher Educators (PATE) and the Pacific Education Research Foundation (PERF) and having their mandates woven into the Conference theme of 'Weaving theory and practice in education/teacher education in Oceania.'

I am sure we are all agreed on the critical importance of this theme in Education and teacher education today, as witnessed by the huge numbers that have come to attend this conference, bringing together the best of our Pacific educators and researchers, to share, to celebrate, to dream, to re-charge their energies, and to prepare for the next stage of the journey of the Vaka Pasifiki Education. We, in this room, collectively, and individually can inspire and determine the direction and the destination of that journey.

These days, across the Pacific, we are witnessing the increasing frequency and ferocity of the impacts of climate change and global warming. In January of this year, Category 5 Tropical Cyclone Ian destroyed nearly 80% of the Ha'apai Group, and those small communities are still struggling to restore some normality to their shat-

tered lives. Compounding the challenges they face is the drought, which is impacting most of the Tonga Group from Niuafó'u to Tongatapu.

Down the line, there are bound to be food shortages, issues with food security, and the nutritional health of communities will be compromised. Water is already a scarce resource and ships have been dispatched to distribute water to the outer islands. Lack of water will affect the well-being and good health of communities. The economy will be impacted as the agricultural industry and crops for exports, such as squash, vegetables, root crops, and watermelons, will be seriously affected, which in turn will have a roll-on effect on tourism and other related industries.

More than ever we need to educate our people and our communities to be visionary, creative, innovative, enterprising, adaptable, resilient, and sustainable. Our very survival will depend on how well we do this and this is where we need research to be effectively married to educational practices to ensure that our people can create knowledge, share knowledge, possess the knowledge, and the skills, the values, and the spiritual strength to determine their own destinies and their survival.

How do we grow food in increasingly saline soil and environments and how can we transform brackish water for drinking purposes? How do we develop cost-effective de-salination plants that operate on solar energy? What kinds of houses do we build in the future to withstand Category 5 cyclones, and earthquakes? Would boat houses be the better option? Will we have to rely on hydroponic farming in the future? How do we wean our people away from a diet based largely on carbohydrates and imported chicken to a protein and nutrients diet harvested from the sea? How do we prepare our young people for mobility in communities where a sense of place is so critical to our identity and survival?

These are just some of the questions that we must now grapple with and ask our young researchers and scholars to take on board and undertake to answer, for the sake of all our futures. Sustainable development is a must and it is essential that we prepare ourselves for how best to address this issue and the most effective strategies for ensuring that our teachers and our schools can meet these challenges.

As far as Tonga is concerned the best example of where theory and practice have successfully woven a mat of many splendours is the seminal study on education for sustainable development that was undertaken by Dr. Seu'ula Johansson-Fua and Dr. Stan Manu of the Institute of Education, University of the South Pacific in 2005-2007, which was funded by New Zealand. It was a study to investigate the relationship between poverty and education. They found that the Tongans define 'education' as *mo'ui fakapotopoto* or sustainable livelihood, which is the outcome of educational development. They define 'poverty' as *faingataà'ia* or hardship, which, in their view, is only a temporary situation. *Masiva*, which is the word they use for poverty, is only used to refer to the loss or erosion of the core values fundamental to Tongan culture and society. The Tongans also define what constitutes wealth or *koloa* in the Tongan context. It is not money or material possessions but the acquisition of the Tongan values of *'ofa, faka'apa'apa, mamahi'i me'a, lototō, feveitokai'aki*, and the ability to fulfil one's familial, social, religious, and cultural obligations.

The Tongans had very clear ideas of what constitutes sustainable livelihood. They readily identified the values, skills, and knowledge, which are required to achieve sustainable livelihoods in the Tongan context. Interestingly, they also found very obvious correlations between the possession of strong values and sustainable livelihoods. The erosion of those values, which underpin the life and behaviours of Tongans and communities, also result in material poverty. In other words intangible poverty, which is the loss of our Tongan values, correlates highly with the inability of individuals and communities to materially sustain themselves within their particular circumstances.

In Education, we have embedded these values, skills, and knowledge in the curricula of basic education, forming the foundation of the new programme for primary education, and they will continue to be integrated into the secondary and post-secondary curricula, and Teacher Education Programme. These values, skills, and knowledge, identified by the Tongans are central to the outcomes of education, have been integrated into the

attributes of the *Faiako Ma'a Tonga*, the teacher for Tonga and the Tongan school leaver. It is now the Ministry's responsibility to monitor and evaluate progress to ensure that these attributes are achieved by all teachers and school leavers in the next five years.

It is my hope that this Conference will raise awareness and understanding of such studies and adapt and adopt them for the long-term sustainability of Pacific societies within their own contexts. Their acquisition will ensure sustainable communities, and people who are strong in themselves, and from that base of strength, they can move on to interact more meaningfully with others at the regional and international levels. The key to our sustainability as societies and nations lies within ourselves and our ability and willingness to determine and control our own development and destiny.

It is also my hope that similar weavings of research and educational practice will occur more frequently in our Pacific communities, and will lead to survival for us all. With all the presentations that we will hear and talanoa on in the next two days, we have a cornucopia of intellectual stimulation that will enthuse and inspire the next journey of the Vaka Pasifiki Education. I wish you all a most fruitful two days and may God always guide our journey.

*Malo 'aupito. Tu'a 'ofa atu.*

## ***Koe kato 'i he loto kato: Whose theory & practice in teacher education in Pacific Island Countries?***

**Prof Konai Helu Thaman, *The University of the South Pacific***

There continues to be widespread global as well as regional criticism of teachers for many things that go wrong in schools, from decreasing student capacity in literacy and numeracy to inappropriate student behaviour, and even schools' poor performances in landmark sporting events. While much has been written about teachers and their work by those who participate in their education, recruitment, reward/punishment, or remuneration, little is known about what teachers think and/or feel about what they do (or do not do) in schools as they interact with other peoples' children using other people's theories and practices, many of which are used as bases for the judgement of their 'success' or 'failure' as teachers. This paper makes a case for valuing Pacific teachers' perceptions of themselves and their work and seeing teachers as people who happen to be professionals, responsible for shaping Pacific futures, and the implications of this (view) for re-thinking teacher education.

The saying '*ko e kato 'i he loto kato*' is presumed to have originated from one of Tonga's master thinkers and teachers – King George Tupou III – who (*tapuange mo ia*) established Tonga's first Teacher Training College in 1947. It was taken from an excerpt from an article he penned in the Wesleyan Newsletter when he was at Sydney University, in response to the question 'What is education.' That education was like a basket within a basket, implies an agenda with many parts; a container with several compartments; and the need for balance.

From a Pacific epistemological perspective, the notions of teaching and learning are one and the same thing – in Tongan, it is *ako*. Through learning, one gains knowledge and understanding, *'ilo*, that when used in a positive way, reflect *poto*, knowing what to do and doing it well, and the basic concept of Tongan education. Two assumptions underlie this presentation: the first is linked to the *kato* metaphor- that it is not possible to talk about Teacher Education (TE) without talking about education itself, and a suggestion that the quality of an education system cannot surpass the quality of its teachers. Secondly I make the assumption that TE is a life- long process that occurs in different places and different times involving different people and groups, and is not confined to formal institutions such as colleges or universities. As such an important outcome of Pacific teacher education is the ability to distinguish the results of learning in the contexts of our home cultures and countries, and that of our received wisdom - the outcomes of learning in formal educational institutions.

Today I share with you my own learning to become a teacher as well as some trends and challenges relating to the formal education of teachers sourced from my work as a member of CEART – the joint UNESCO/ILO Committee on the 1966 UN Recommendations regarding teachers and the 1997 Recommendations on teachers of higher education institutions. I hope that some of my remarks can provide a useful backdrop against which we can continue the conversation about quality teacher education – what it is, should, and can be, in order to ensure better and more effective teaching in Pacific schools and universities.

Pacific schools and universities need teachers who are *poto* or *yalomatua*, *wanawana*, in the contexts of Pacific cultures as well as in the contexts of the global community – people who are *fakatoukatea* – who understand where the students come from and where they are going, and how to use the best of their cultures to improve the quality of their learning whether this be in a school or a university... a teacher whose interactions with learners can be described as *malie* and *mafana*.

I began learning to be a teacher from my elders who were teachers but had not been to a teachers' college. I learned to read and write in Tongan before I officially went to school. One of my grandaunts taught me using the letters in the bible. Then at 5 yrs of age, my aunt, a primary school teacher took me with her to school although I was not formally enrolled. She did not actually kidnap me in the sense that the Samoan poet Petaia would describe it, since the medium of instruction was Tongan and the curriculum, except for English, was predominantly about Tonga. She was the best teacher I had ever had - soft spoken, kind, patient and knew a lot. Later when I officially became a primary school student, she would be the one against which I would compare

my other teachers. She never got angry with us although she was firm and expected all of her students to successfully complete set tasks. She was a teacher for all the subjects, including physical education, art, music and dance. Boy, she could dance! For me she was an awesome teacher and I wanted to be like her when I grew up. My desire to be a teacher was reinforced by the fact that many of my extended family members were teachers. My great grandfather was a teacher in Samoa in the 1890s and early 1900s; my maternal grandparents were missionary/ teachers in Solomon Islands in the 1920s; two of my grandaunts were school teachers in the 1930s & 40s; and several aunts and uncles were teachers in various primary and high schools when I was a student here. It was difficult for me to aspire to anything else... that was until I went to high school.

Tonga High was a New Zealand school in the middle of Nuku'alofa, complete with *palangi* teachers; *palangi* curriculum; and *palangi* speak. Speaking in Tongan was forbidden so I learned not to speak at all since speaking in Tongan was punishable; pulling sensitive grass; clearing the class room windows and the toilets. All of my teachers except one were palangi who did not speak Tongan. So I learned to silently enter the school gates and sit quietly in class, hoping that the teacher would not speak to me for fear that he would ask a question and then I would have had to speak. For this I earned the prize for the best behaved pupil in my class two years in a row. I managed to pass the exams and moved up the high school ladder, as I found school strange and the teachers difficult to understand. Lessons were based on information about other places and other people so I got to be a good rote learner and developed the ability to guess exam topics. But the most interesting thing about my high school teachers was the fact about my high school teachers was that they did not show any interest in learning about my culture and my language. One of them in my first year in high school thought that my name was too long and shortened it to Konai, changing my identity forever.

Although I respected my high school teachers I did not want to be like them. Most of them had very strange ways and some seemed quite rude. I attribute my success at high school to my fear of teachers and embarrassing my family if I failed to do well. The exception was my P.E. teacher who also coached the school athletics team of which I was a member for many years. He seemed kind and patient. Unlike primary school, high school was a chore and I would look forward to the end of school so I could go home or just play with my friends.

I'm thinking of children  
Sitting on broken chairs  
Scribbling on desk-tops  
Contemplating what they would do  
After school  
The score by the goalposts  
Smoking in the toilet  
Reading a friend's love letter  
Teasing the prefect on punishment duty  
Meeting the boyfriend  
At the corner store  
Or just being thankful  
It's home time  
I wished my teachers  
Were a little aware  
Of how the children's bodies  
Ached for the happiness and sunshine  
They were denied

There was another thing that was strange for me at high school and would have an impact on me when I became a teacher myself. In primary school, most of my teachers were women; at high school all but one were men. They seemed strange and scary especially when they spoke. They also seemed to favour the boys with whom they would joke and laugh often at the expense of some of us girls. The boys seemed to win most of the class prizes as well, and they were always praised by the teachers even when they teased or sometimes bullied us girls. Like some of my friends, I thought most boys were stupid and I just could not understand why they

got preferential treatment from our teachers.

I can play your silly games  
As well as you can  
I can run as fast as you  
Even in the dark  
I can make you laugh  
I can make you cry  
I can even fix your shadow  
If I really care to try  
I know I'm just as smart as you  
Even smarter I'm willing to bet  
Judging from your maths marks  
The last time we sat  
So why all the grin and laughter  
When I'm answering teachers' questions  
At times I really wonder  
If you're worth his expectations

If school life was difficult at Tonga High School it was worse in New Zealand. The best teacher I had was my geography teacher, the only one who knew where Tonga was on the map and actually visited here on a cruise ship. I liked the way she explained things and I did well in her subject. My difficulty in learning English continued and I worked extra hard to improve my marks. I was fortunate to have a strict but patient teacher who gave me enough time to translate my thoughts into English and expressed these in a way that she could understand. At times I almost gave up especially when she insisted that I was not critical enough in my writing. Gradually I learned that asking questions was the key to understanding most things. I was also fortunate to have a couple of good Tongan friends who were in the same boat and we helped one another by discussing our problems and supporting one another, speaking our own language.

Thinking is tiring  
Like paddling against the waves  
Until feeling comes lightly  
Late into the pacific night  
When the islands calm me  
Stroking my sorrows  
I ask for understanding  
And they give it  
I ask for forgiveness  
And the raise my face

At university, I was determined to finish my studies in the shortest possible time, so I could return home. You are on your own at university with no extra help except for the books in the library and even they were strange. The C grade in my first assignment said it all; the tutor wrote, "too much feeling & not enough thinking and by the way, do not use personal pronouns when writing academic essays". He had asked about a critical analysis of living in towns as opposed to living in rural areas. I tried to compare life in Kolomotu'a (where I grew up) and life in Nukuleka, my maternal grandaunt's village where I used to spend the school holidays but I could not find many differences between the two places, and concluded that I could live in either one of these places. He wrote – forget where you want to live. You were asked to compare a city and a town, to show push and pull factors in the process of urbanisation; You could have chosen Auckland and a rural area like Fielding or Warkworth. While I knew a bit about Auckland I had not heard of the other towns. I was confused and sad.

A weekend in Auckland

Is good

For discovering again

Old meeting places

In the park

Hoping they have stories

To tell about the adventures

Of a once youthful time

Down under the magnolia trees

The bench that took the weight

Of our first kiss

Is still there

The fountain continues to beat

Like an artificial heart

The flowers continue to die

With each passing day

And there hovering high above

Is the tower clock

Now dwarfed by the reality

Of its own time

Its striking shadow a reminder

That the heart's best defence

At this time

Is forgetting

I did not get to know my teachers at university. Most gave lectures and disappeared leaving the real teaching to tutors. It was sink or swim for us Pasifiki students. Similarly I did not get to know the lecturers at Teachers' College. However I remember my Geography tutor with whom I had a conversation when he visited me during one of my teaching practices. He was a quiet man who encouraged us to spend time at college making teaching resource materials. He would encourage us think of the learning problems we faced as students, reflect upon these and consider how we could do better than our teachers. Instead of requiring me to forget my own knowledge and experiences he wanted me to remember them, a lesson that would stay with me for a long time.

My university teachers were not good role models but their uncaring attitudes motivated me to work on my own and for that I think I became a stronger person. Unfortunately only a few of us succeeded at university and I'm sure that more would have succeeded if the teachers were more sympathetic to our needs.

From my experiences at home, school and university, I would develop a philosophy of teaching, based on my belief that the teacher should be a good role-model of appropriate behaviour and that teaching was largely autobiographic – a philosophy of teaching that I would further develop as a lecturer at the USP. Based on the Tongan metaphor of *Kakala*, teaching for me continues to be a sharing or gifting of oneself with learners for which one needs to be well prepared not only professionally but also culturally and spiritually. Two main underpinning values are important for quality teacher-pupil interaction and communication - in Pacific classrooms: *'ofa* and *faka'apa'apa*, values that teachers do not learn at teachers' college but in the communities in which they were raised and may continue to live. Both contexts are necessary and both must be valued. Now let me share with you what our Committee identified as major global trends and challenges in teacher education so that you may be able to locate what you are doing or what you would like done in the area of formal teacher education.

## Global trends and challenges for teacher education

I am one of six representatives of UNESCO in the CEART Committee of 12; six members represent the ILO. The joint Committee is responsible for monitoring the 1966 UN Recommendation concerning Teachers, updated in 1997 to include teaching staff of higher education institutions.

Our work focuses on ensuring that member governments of UNESCO and ILO comply with the Recommendation. However, teacher education is now an integral part of our brief. In relation to TE, CEART makes the following working assumptions: i) that the quality of an education system cannot exceed the quality of its teachers (Mackinsey & co, 2010); ii) that teachers need to undergo training in order to be 'qualified' to teach at various levels of formal education; iii) that effective teacher preparation is a continuous process which includes, formal training; induction; and professional development; and iv) that most countries in the world usually emphasise formal training rather than induction or professional development.

At our last meeting two years ago the following criticisms were noted. The first related to pre-service training; that it was not rigorous enough and courses were often disconnected and irrelevant to school expectations. Furthermore there was too much emphasis on lectures and discussions and not on practical activities; that most teacher educators do not practice what they preach, and the level of entrants to TE programs was steadily falling.

After much discussion CEART responded by making some suggestions to member states, which include: i) that pre-service training must have high standards of entry (preferable top third of school graduates); ii) there should be stronger content preparation; iii) there should be substantial pedagogical training; and iv) that supervision must be improved during the practicum.

In relation to Induction CEART noted that only a few developed countries have regular induction programs. There was also a lack of mentoring structures and no follow-up by the training institutions responsible. In relation to Professional Development (PD) activities were often one-off in some countries and often the responsibility of individual teachers as is the case in Japan and China and increasingly in PICs.

CEART also focussed on two main questions: The first relates to the question of: Is TE really necessary? In the UK and USA there were moves to abolish or reduce TE suggesting that current models are inadequate and not up to standard (interestingly enough the current Pacific teacher standards are adaptations of the UK model). There is also a debate relating to what the traits are of the ideal teacher with CEART suggesting a good first degree; good knowledge of subjects; good knowledge of students; and a good disposition.

The second issue relates to the fit between pre-service TE and employment. There are usually two types of employment for teacher graduates: the first is a career-based one such as that practiced in France, Japan, and Korea where TE is not linked to school needs and expectations, and the entry criteria emphasise teacher regulations and not teacher competencies. The second type of employment is position-based such as that in the UK, Canada and Sweden where there is high turnover of teachers and lots of difficulties in recruiting new ones.

A third issue is related to recruitment and the question of whether teaching is attracting the people that it needs. It was found that in most countries, teachers have a low status, poor working conditions; low salaries; and face increasing public criticism. In some countries, there is usually a small pool of qualified teachers to choose from and many teacher organisations are often fractured and/or marginalised.

A fourth issue is the long standing question of whether there is a link between TE and pupil outcomes. Here the evidence is inconclusive with some studies showing little impact except in secondary mathematics. Furthermore according to Cochran-Smith and Zeichner (2005) research on different modes of TE are often contradictory and research methods used problematic and decontextualised.

The school practicum is another important area of TE that continues to be problematic in most countries. The

sink or swim model is common in developing countries where the total in-school experience ranges from 10-30 wks and where there is increasing dependence on volunteer teachers to visit students and existing logistical problems often leading to a lack of diversity in students' experience.

We also found similarities and differences among TE programs around the world. Similarities include the strong emphasis on subject matter knowledge; preponderance of courses on educational foundations & pedagogies; an over-dependence on learning theories developed in unfamiliar contexts; and the importance of a well organised school practicum. The main differences found usually arise as a function of the mix of general courses, professional development courses and practicum. For example some TE programs consisting of general education courses + professional courses + practicum while other consist of general education courses + professional courses and no practicum.

At the conclusion of our last meeting, the CEART agreed that TE institutions in many developing countries were dysfunctional while some rich countries were anticipating a shift to school-based TE. SBTE was seen as problematic in most developing countries where schools are usually not well-staffed or well-resourced. Unresolved issues include the question of: what is good teaching? A few countries, including Tonga, have developed teaching policies which largely address this issue. The *Faiako Ma'a Tonga* is a good example of a context-specific policy compared to a generalised one such as that developed by SPBEA.

Some lessons from high performing education systems such as Singapore, Korea and Finland may be useful for us. In these countries, admission to TE is highly selective with only the top third of high school graduates admitted. They also have a system of payment of fees and stipend by the government (rather similar to what we had here in Tonga up until the 1990s); careful monitoring of teacher supply and demand in order to guarantee jobs for TE graduates; competitive salaries to attract and retain top third of students and teachers; many opportunities for advancement and growth; high prestige bestowed on teachers; and trainee calibre high on the national educational agenda.

When I reflect upon TE I find a lot of unanswered questions. The following may be useful if our staff and students are looking for research topics that will be useful for our various education systems.

What is your country's vision of good teaching?

What do teachers think of their work and how can teacher education institutions help?

Who should be involved in TE & what is the role of the community in the conversation about the ideal teacher?

What should be the content of the TE curriculum and whose knowledge and values should be emphasised in TE courses?

What is the role of Values Education in a generally discipline-based program?

How much and what type of pedagogical preparation should we offer student teachers?

How can we better organise and integrate the Practicum?

What is the role of ICTs in the delivery of TE in your country/region?

Who should set regulations for teaching standards and qualifications?

How can we translate the results of educational research to useful resources that classroom teachers can use?

Those of us who are teacher educators need to help find the answers to these and other questions. Unfortunately the contexts in which we work often discourage us from asking such questions in the first place or suggesting answers. This may be due to our over-dependence on foreign financial and intellectual resources which often result in changes made without due consultations with stakeholders including teachers and teacher educators. This trend cannot be allowed to continue and I hope that all stakeholders including MOEs, PATE, higher education institutions together with other groups such as the RPEIPP can work together, revive and re-group and use the outcomes of this conference, to ensure better, more effective, inclusive, and sustainable ways of preparing Pacific teachers of the future. Our individual baskets of knowledge, understandings, and experiences, underpinned by the values of respect and compassion are important and can be used to balance that bigger and all embracing basket of wisdom that will be our gift to Pacific teachers of tomorrow.

for there is no time for anger  
or savage screams  
for the world to stop  
while we try out  
different styles of teaching  
to see if they are suitable  
for our purposes

.....

come let us not get mad  
at each other  
fools following our fellows' footsteps  
let us work, live and laugh together  
and love

*Tu`a `ofa atu*



## Rethinking educational assessment: Tools, attitudes, purposes, and conditions that serve improvement

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Assessment is one of the most commonplace events in education. Teachers assess students and report those results to families; students report assessment results to employers and universities in hope of improving their life chances; the qualities of schools are determined, in part, through the assessment of students; students assess teachers and share their insights with peers; principals and administrators report, sometimes with undeserved glee, the results of assessments to politicians and parents. Assessment is any act of interpreting and acting on information about student performance, collected through any of a multitude of means or practices (Messick, 1989). Thus, assessment is

a general term encompassing all methods customarily used to appraise performance of an individual or a group. It may refer to a broad appraisal including many sources of evidence and many aspects of a pupil's knowledge, understanding, skills and attitudes; or to a particular occasion or instrument. An assessment instrument may be any method or procedure, formal or informal, for producing information about pupils: e.g., [sic] a written test paper, an interview schedule, a measurement task using equipment, a class quiz. (Gipps, Brown, McCallum and McAlister, 1995, p. 10-11)

### Pasifika Performance in New Zealand

The desires and wishes of Pasifika families choosing to migrate to New Zealand include hopes of getting better schooling for their children and subsequent academic and career success (Utumapu, 1992). However, these hopes have not been fulfilled. Students of Pasifika ethnicity perform much lower than other ethnic groups (MOE 2008) on New Zealand's secondary school qualification assessments (i.e., National Certificate of Educational Achievement—NCEA) (e.g., in 2008, 9 % fewer Pasifika students left school with at least NCEA Level 1 than European/Pākeha students; 13 % fewer left with at least NCEA Level 2; and 25 % fewer achieved University Entrance). This pattern has been observed from Grade 4 (age 10) onwards in reading, writing, and mathematics evaluated with international (i.e., TIMSS, PIRLS, PISA) and New Zealand core assessment tools and qualifications (i.e., asTTle, National Education Monitoring Project [NEMP], and NCEA) measures of learning (Satherley 2006). While relatively low socio-economic resources and linguistic differences of Pasifika families explain some of this low achievement, the situation is not desirable. While teachers and schools cannot redress the socio-economic determinants of achievement (i.e., poverty), perhaps there are things within the control of school that might reduce the gap.

Jones (1991) documented, in the context of a New Zealand secondary school, the activities and beliefs of Pasifika students and their families that contributed to the girls' lack of academic success and contrasted them with those of successful Pakeha girls. What she described were two very different classroom practices. In the high-band, Palagi dominated classes, the girls would question, debate, and discuss their opinions about poems, plays, short stories, and novels. The girls realised that learning required engaged thought and discussion as powerful tools to develop deep understanding, which they would use as the basis for their own constructed responses in subsequent tests or examinations. In contrast, in the low-band, Pasifika dominated classes, girls would typically assign note-taking to one of their peer group and then proceed to ignore the teacher to focus on their personal and social lives. What this resulted in was poor quality notes (the note-taker was distracted by her interest in the group conversation) that the Pasifika girls proceeded to copy and then memorise to provide answers for subsequent evaluation. These different conceptions of what learning and teaching led to practices which contributed to differential outcomes.

Our own research with Pasifika students in New Zealand (Otunuku & Brown, 2007) has shown that Pasifika students were relatively positive about their ability to read, write, and do mathematics, but the relationship of those beliefs (i.e., self-efficacy and interest) to achievement was mostly zero. In other words, some were positive, despite low achievement, and some were negative, despite higher achievement. This lack of systematic relationship suggested perhaps that Pasifika students had been much given praise and acknowledgement from

their teachers and schools, independent of the quality of their performance; in other words, teachers may be attempting to encourage these students to feel more positive about their work, while disguising or ignoring the fact that the students were not achieving at the same level or standard as expected. This 'feel-good' approach may improve students' sense of ability while blinding them to their actual levels of achievement as well as misinforming the caregivers about their true levels of achievement. They also raised the possibility that the tasks assigned to Pasifika students may be relatively easy (perhaps based on the notion of giving students work they can achieve) and of a lower standard relative to the expected curriculum or what is undertaken by students in higher socio-economic schools. Nakhid (2003) has argued that teachers perceive negatively their Pasifika students' abilities and behaviours and assign easier tasks. When these tasks are successfully completed, students may have developed greater sense of self-efficacy, ignorant of the low standard actually achieved and set. Thus, schools may be contributing to the low academic performance of Pasifika and Tongan students through obscuring the truth about their progress.

More recently, a study of Tongan high school students (Otunuku, Brown, & Airini, 2013) found that the majority of avoided doing the external examinations options at NCEA Level 1 (54% in English and 64% in Mathematics). This tendency is at odds with the expectation of parents who presume students will attempt and succeed on examinations, rather than coursework (Otunuku, 2010). Interestingly, the personal beliefs of the students who took the external examinations about assessment and learning contributed meaningfully to their performance on those examinations (20% and 17% variance explained for Reading and Mathematics respectively), while the variance explained for performance on internal, school based standards was just 3% and 6% respectively. The belief that assessment was enjoyable and helped with classroom climate contributed to performance on the Mathematics external examination standards, while endorsement of the ideas that learning required control, memorization, and elaboration contributed to success on the English external examination standards. It may be that the external examinations context (i.e., no group work, no help from teacher) triggers an adaptive and more individualistic response that has a more visible influence on performance.

There may be a socio-cultural effect at work here, in which Tongan students respond to the challenge of external examinations by collaboratively studying for a challenging task (Thaman, 1995). It seems likely that Tongan students, when preparing for examinations, would work together to achieve better results. Several studies in New Zealand about the social contexts for learning found students' learning is advanced through learning with others and in a responsive environment with others—like peers and family (Wearmouth, et al. 2006; Bishop and Berryman 2009; Madjar, et al. 2009; Curtis et al. 2012). It is plausible that awareness of group cohesion and collaborative study action in the face of assessment may lead to greater performance for Tongan students, and other Pasifika groups. If this hypothesis is borne out, it would give a clear mechanism by which to take advantage of strong group orientations where they exist—use the groups to prepare for examinations, rather than just as a classroom pedagogical activity. It is worth noting that a vast majority of NCEA achievement standards, whether internal or external, require students to provide individual work. Perhaps prioritising group work in classroom settings may undermine the beneficial effects of beliefs around taking responsibility for one's own learning. It may well be that less group work and more individual work are needed to help students adopt an adaptive belief about individual responsibility. Hence, it may be that so-called culturally responsive teaching practices (e.g., reliance on group work) and student tendencies to avoid taking external examinations conspire to hinder higher academic outcomes.

### **Assessment Policy**

While this definition is a relatively broad-church approach towards assessment techniques, the current New Zealand policy about assessment in education is less interested in technique and more interested in purposes for assessment. The stance explicitly taken in the current curriculum is that assessment is for learning rather than necessarily an evaluation of student performance. Specifically, the priority is much narrower in its priorities:

Assessment for the purpose of improving student learning is best understood as an ongoing process that arises out of the interaction between teaching and learning. It involves the focused and timely gathering, analysis, interpretation, and use of information that can provide evidence of student pro-

gress. Much of this evidence is 'of the moment'. Analysis and interpretation often take place in the mind of the teacher, who then uses the insights gained to shape their actions as they continue to work with their students. (Ministry of Education, 2007, p. 39)

This approach prioritises assessment as a pedagogical process that takes place ephemerally and intuitively in the interaction of teachers with students. Notice that formal mechanisms such as tests, checklists, or paper-based assessments, while not precluded, are certainly not foregrounded. The policy wants to remind teachers that their intuitive processes are assessment and that they should be aware that in responding to learners, they are gathering, analysing, interpreting, and responding to 'evidence'. Needless to say, the Ministry's position is not alone in its prioritisation of an approach to assessment that focuses primarily on interaction between teachers and students and a reduced reliance on formal assessment methods. For example, an American science education researcher defined assessment for learning as:

Teachers ... use their knowledge of 'the gap' to provide timely feedback to students as to how they might close that gap. ... By embedding assessments that elicit students' explanations—formally within a unit, as part of a lesson plan, or as 'on-the-fly' teachable moments occur—teachers would take this opportunity to close the gap in student understanding. As a consequence students' learning would be expected to improve. (Shavelson, 2008, p. 293)

Even further, Harlen (2007, p. 121), a respected member of the English Assessment Reform Group claimed that assessment for learning "is not a measurement; it does not lead to grades or levels'. Any assessment system that involves tests or regular activities that are interpreted in relation to performance criteria and which are reported are deemed summative assessment of learning". The interactionist approach to assessment goes even further in the recommendations given to American school leaders, which suggest that assessment for learning involves:

five broad strategies to be equally powerful for teachers of all content areas and at all grade levels: clarifying and sharing learning intentions and criteria for success; engineering effective classroom discussions, questions, and learning tasks; providing feedback that moves learners forward; activating students as the owners of their own learning; and activating students as instructional resources for one another. (Leahy, Lyon, Thompson, & Wiliam, 2005)

This brief overview of assessment for learning definitions makes clear that assessment takes place in the continuous interaction of teachers with students and students with students, without any need for formalisation in terms of instrumentation or reporting of scores or grades. Further, assessment for learning moves the center of assessment from the teacher to the learner who is expected to self-interrogate, provide feedback, and learn with little input from instructors. However, this prioritisation of non-formal methods and student-centred action, creates difficulties both conceptually and empirically. It is this approach to assessment that I wish to address in this essay.

### **Assessment for Learning**

Most basically assessment for learning involves, in accordance with Scriven's (1967) definition of formative evaluation, collecting evidence about learning early enough so that teacher instruction (teaching) and student activity (learning) changes in a way that causes greater progress towards intended goals and targets. Progress involves being able to do more things faster, more accurately, and more easily or know more things to a deeper and better quality. The key ingredient of formative assessment is that it takes place before the end (when it is too late to do make any further improvements) and that it leads to changes in teaching & learning practices such that progress is achieved. However, not all information is equally good; using an essay test to judge the quality of hair-cutting probably will not lead to appropriate decisions about the educational needs of an apprentice hair dresser.

Information that leads to appropriate interpretations and actions (Messick, 1989) must be robust; in other words, it needs to be open to scrutiny such that other competent judges can consider whether they would make

similar interpretations or decisions given the same information. Assessment processes that take place solely in the head of the learner or teacher are difficult to scrutinise and validate and perhaps we should treat such use of assessment as a child-centred (Stobart, 2006) pedagogy (Black & Wiliam, 2006). A pedagogical version of assessment may be appropriate if the consequences of interpretative errors are very low. If teachers have much time and many opportunities to adjust their teaching (as might be the case in the 1st term of a primary school year), then perhaps there is no need to check that any one teacher's assessment for learning pedagogical interactions in the flow of classroom life are comparable to another teacher's. However, if important decisions with consequences for students (e.g., assign harder or easier curriculum material to a student, put a student in a different learning context, motivate a student to greater effort, diagnose a learning difficulty, etc.) are going to be made, then a more formal approach to assessment that insists on checking the validity of the data collection, interpretation, and responses is probably warranted. Simply, putting assessment in the head of the teacher prevents scrutiny, debate, or discussion as to its meaning and this may be acceptable if assessment for learning is a pedagogical process. However, if consequences are attached to assessment processes, it seems important to make space for a more formal process that can be validated.

This means that there are two aspects of the assessment for learning approach to assessment that raise concerns for me. Is it impossible for formal assessment methods (e.g., tests, examinations, checklists) to contribute to the identification of learning needs or must assessment only use interactive processes (e.g., self-assessment, peer assessment, teacher intuitions)? Secondly, who is responsible for assessment? Is there space for the teacher, as the most expert person in the room, to actively analyse learning and guide students (Bloom, Madaus, & Hastings, 1981) or must assessment be solely in the hands of the learners?

To address this situation, I will review and synthesise research concerning teachers' and students' beliefs about assessment processes, classroom assessment practices including some consideration of cultural factors, and technical considerations concerning accuracy in human judgements and the effects of testing. I will conclude with some advice I'd like to give for the development of an assessment for learning 2.0 policy.

### **The purposes of assessment**

Assessment for learning requires the active contribution of teachers and students. What they think assessment is and what it is for become important questions since attitudes, beliefs, and values are known to be strong predictors of intentions and actions (Ajzen, 2005). An important factor in considering beliefs about the educational activity of assessment, to use Green's (1971) language, is the degree to which beliefs are ecologically rational (Rieskamp & Reimer, 2007). It seems highly likely that the most dominant and powerful of teachers' beliefs were acquired in their socialisation into schooling (Pajares, 1992); in other words, teachers learned to think about assessment mostly from their own experience of it. Furthermore, since teachers are normally employed to implement government policy as understood within a school community, it is highly likely that their espoused beliefs will be consistent with the policies and priorities that constrain work in that context (Brown & Harris, 2009). In other words, how teachers think about assessment will tend to conform to the official policy and actual uses of assessment within a society. This presumption also suggests that if policy or practices around assessment were to change drastically (e.g., introduction of national testing) then teacher beliefs would be likely to change.

Not surprisingly, there are multiple purposes for assessment within all societies; researchers (Heaton, 1975; Torrance & Pryor, 1998; Warren & Nisbet, 1999; Webb, 1992) have identified three major purposes (i.e., improvement, student certification, and school evaluation). Further, there is evidence that teachers reject assessment (Shohamy, 2001). While many specific uses of assessment have been identified (e.g., Newton (2007) describes 17 different functions), Brown (2008) has argued that these multiple functions constitute four major purposes of assessment.

Improvement, the strictly educational use of assessment, uses assessment to diagnose learning needs and guide appropriate instruction so that desired outcomes are achieved by students (Popham, 2000). Improvement relates to how both teachers and students change their practices as a consequence of assessment, leading to improved performance.

The student certification assessment serves the purpose of selecting and rewarding students on the basis of their performance on formal examinations, which may include school-based evaluations as well as external public examinations. In New Zealand, as in many western nations, this function takes place in secondary schooling; though assessing students on formal and/or common tasks takes place in primary schooling to facilitate reporting to administrators and parents. Such assessments hold students accountable for learning and may serve to motivate students to pay attention to important material (Kahn, 2000).

Using student testing to evaluate schools, a practice generally eschewed in New Zealand, is commonplace in the United Kingdom and United States. The notion behind national testing of schools is that good schools have students who learn material and skills deemed essential by policy makers and, to ensure all schools achieve what society wants, students should be tested regularly (Butterfield, Williams, & Marr, 1999; Firestone, Mayrowetz, & Fairman, 1998; Hershberg, 2002; Smith & Fey, 2000). Such testing will help teachers know what students need to know and help improve the quality of teaching (Linn, 2000; Resnick & Resnick, 1992). Interestingly, advocates of this accountability agenda argue that it is being implemented in the interests of improvement.

Unfortunately, the presence of high-stakes consequences (e.g., retaining students in grade, tracking students into different educational experiences, public listing of school results, requiring students and teachers to attend summer school, firing school leaders and teachers, etc.) have generated a strong anti-assessment response, certainly a contributing factor in the existence of the idea that assessment is irrelevant. In addition, many teachers, based on their extensive interaction with students (e.g., 25 hours per week, 40 weeks per year in a New Zealand primary school setting), do not consider they need formal assessments to know where their students are and what they need to learn next (Gipps, Brown, McCallum, & McAlister, 1995; Hill, 2001).

Nonetheless, every teacher is aware that, notwithstanding negative consequences that may arise from inappropriate use of assessments, there is some legitimacy to all three major purposes of assessment. It has been well established (Lerner & Tetlock, 1999) that being made accountable has predictable effects on subordinates; first and foremost, subordinates will tend to conform to the views of the people to whom they are accountable. Since teachers are accountable, in the first instance, to their own managers and the parents of their students, and since both school leaders and parents are inclined to believe that teaching will lead to learning and that such learning will be reflected in assessment scores, it would be expected that teachers will likewise endorse improvement as the primary purpose of assessment. Furthermore, it seems that teaching requires believing that assessment, whether it be formal or interactionist, can guide and inform instruction and that teaching does contribute to better learning outcomes. Teachers are also aware that parents and media evaluate school quality on the simplistic notion that high test or examination scores are an indication of school quality. While their own personal beliefs may not align with these ideas, they are bound to be aware of them. Thus, assessment serves two distinct masters: accountability of students, teachers, & schools and improvement of teaching & learning. Thus, evaluation or accountability functions interact with the improvement function and have an impact on teacher beliefs.

### **Teachers' conceptions of assessment purposes**

A series of survey studies of New Zealand teachers beliefs about assessment (using the Teachers' Conceptions of Assessment inventory—Brown, 2001-2003) have shown that both primary and secondary teachers are strongly committed to the notion that assessment serves the goal of improved teaching and learning (Brown, 2004; 2011). Interestingly, comparison survey studies in Queensland (Brown, Lake, & Matters, 2011), Cyprus (Brown & Michaelides, 2011), Hong Kong (Brown, Kennedy, Fok, Chan, & Yu, 2009), and the People's Republic of China (Brown, Hui, Yu, & Kennedy, 2011) showed that teachers agreed most with the conception that assessment serves improved teaching and learning. Additionally, in an interview study of 26 Auckland-region teachers (Harris & Brown, 2009), the teachers gave the strongest agreement to assessment practices that were considered to be good for both students and schools (i.e., teachers and students jointly using assessment results to direct teaching and learning activities). Furthermore, when surveyed as to their understanding of feedback (Brown, Harris, & Harnett, 2012), New Zealand teachers were strongly committed to the idea that feedback serves improved learning.

In New Zealand and Queensland there is very little school or student accountability assessment other than high school qualifications. High school teachers in both Queensland and New Zealand agreed more with the student certification purpose of assessment than primary school teachers, suggesting that, in order to function as a secondary teacher who also acts as a qualifications assessor as is the case in both jurisdictions, teachers have to endorse the student accountability purpose. In a survey of NZ primary teachers' beliefs about assessment, teaching, learning, and curriculum (Brown, 2008), the accountability functions of assessment were grouped with surface learning, transmission teaching, and a technological approach to curriculum; whereas, deep learning was strongly part of an improvement-oriented approach to education. The correlation between improvement and student accountability conceptions for both primary and secondary teachers in both jurisdictions fell in the range .20 to .30. This suggests that improving student learning is only very weakly associated with assessment; teachers might use assessment to monitor change, but it isn't used as a means of causing learning. In contrast, Hong Kong and China have frequent use of extremely high-stakes public examinations; among teachers surveyed the correlation of improvement to student accountability was very high (ranging from .80 to .92) suggesting that teachers in those societies viewed assessment as a way to help students improve as learners. Indeed, teachers in China consider that assessment actually helps students develop moral character and desirable personal attributes, a view consistent with Confucian philosophy (Gao & Brown, 2012).

In contrast, teacher endorsement of the school accountability purpose was generally low in New Zealand and Queensland surveys but positively correlated with improvement (in the order of .40 to .50). This suggests that while teachers don't believe that assessment should be used to evaluate schools, the more they agreed with improvement the more they endorsed school accountability, suggesting that good schools are associated with improved learning. In a survey of New Zealand primary school teachers' self-reported assessment uses (Brown, 2009), endorsement of the student accountability conception predicted use of formal assessments that focused on surface learning; whereas, endorsement of the school accountability purpose predicted use of assessments that evaluated deep learning. In other words, the teachers seemed to be saying 'to judge schools, you must look at deep aspects of learning and formal tests of student learning don't do this'. Thus, while not accepting school accountability as a legitimate purpose of assessment, teachers have a tendency to believe that good schools do cause better quality learning.

More recently, Auckland-region schools have been adopting a school-wide use of assessment data as part of school leaders' efforts to improve and demonstrate school effectiveness. A survey of 161 teachers in Auckland (Brown & Harris, 2009) showed that teachers no longer valued improvement as the primary purpose of assessment; instead, school accountability was the most strongly endorsed purpose. At the same time the correlation between school accountability and improvement reduced to only  $r=.16$  (not significant), which suggests that, notwithstanding the priority put on using school-wide assessment data for improvement, teachers perceived assessment as having much to do with school accountability and little to do with improved teaching and learning. Thus, this study showed that changing the policy context of assessment usage had a substantial change on teachers' conceptions of the various purposes of assessment.

Nonetheless, the overwhelming conclusion is that teachers believe in using assessment for the purpose of improved teaching and learning; the very point of assessment for learning. However, when working in high-stakes qualifications contexts or examination systems, it would appear that making students accountable is more strongly endorsed and is more strongly associated with improvement. Furthermore, judging school quality on the basis of assessments seems to be contingent upon the assessments evaluating students' deeper thinking. Additionally, it would seem that teachers' conception of assessment is contingent upon the focus given to assessment. Thus, the introduction of league tables based on high-stakes consequences (e.g., National Standards in NZ or Australia's NAPLAN) is likely to cause teachers to deviate from a strong commitment to assessment for learning. Unfortunately, the higher the stakes (real or perceived) for an assessment, the more emphasis is given to maximising results regardless of effect on learning (Hamilton, 2003; Phelps, 2009); scores might go up but learning probably will not. Hence, relying on teacher beliefs to resist context is probably naïve if contexts are inimical to the improvement belief.

## **Student perspectives on assessment**

As noted earlier, assessment for learning expects students to take a large active part in assessment. Thus, understanding what assessment means, what they want from it, and how those beliefs relate to achievement becomes important. The first premise is that, on the whole, students want honest, comprehensible, and constructive feedback as to how to improve (Pajares & Graham, 1998). However, there is evidence that teachers, notwithstanding their espoused belief in giving feedback to learn, tend to emphasise praise and positive affect in their reporting (Hattie & Peddie, 2003; Pajares & Graham, 1998). Nonetheless, students consistently report that tests, exams, and teacher-marked work constitute real assessment and feedback; whereas, self- and peer-assessment are discounted (Brown, Irving, Peterson, & Hirschfeld, 2009; Brown, Peterson, & Irving, 2009; Peterson & Irving, 2008). Indeed, confidence that teachers use assessment to guide their teaching of students has been shown (Brown, Peterson, & Irving, 2009) in two different samples of NZ high school students to predict higher achievement. This confidence in teachers was complemented with a strong association between students using assessments formatively to guide their learning and achievement. Further, the survey studies showed that students did not expect to enjoy being tested, but willingness to be evaluated positively predicts enhanced achievement (Brown & Hirschfeld, 2007, 2008). This adaptive effect was greater for students with low interest or self-confidence in the subjects being tested than those with higher motivation (Walton, 2009). This suggests that instead of making students feel good about their achievement, teachers ought to be encouraging students to accept the legitimacy of being assessed and develop an internal locus of control in response to assessment—‘assessment is about me and I’m going to try’. Simply, students depend on teachers (the expert in the room) to give them guiding feedback about where they are and what is next. Ability to meaningfully self-evaluate seems to depend on developing high levels of proficiency in a domain (Brown & Harris, 2012); thus, we should expect novices in our classrooms to seek out feedback from teachers and their assessments.

## **Psychological safety in implementing assessment for learning**

Assessment for learning requires that there be a high level of psychological safety within the classroom context. Evaluating the work of one’s peers and disclosing one’s self-assessment requires confidence in the motivations, behaviour, and integrity of one’s classmates and teachers (Cowie, 2009; Gao, 2009; Harris & Brown, 2010; Raider-Roth, 2005; Ross, Rolheiser, et al., 1998b, 2002). Students are not automatically friends in classroom settings and this can threaten the accuracy of student self- or peer-assessments. To exemplify this, in detailed observations of classroom practices, Harris and Brown (2010) showed that students would give false self-reports of understanding to avoid being shamed by an unfriendly classmate or being punished by a teacher. They also found evidence that adolescents would give false evaluations to peers because of attraction or fear. Students may provide depressed self-evaluations for fear of being seen as egotistical (Brooks, 2002) or for cultural practices such as self-effacement (Kwok & Lai, 1993). Effective assessment for learning requires the students to be able to trust their teacher’s goals, intentions, and practices and trust their classmates’ capacity to meaningfully evaluate each other. Assuming these psychological factors automatically exist because student-centred assessment practices are being implemented is unrealistic and naïve. The heart of powerful self- and peer assessment is the ability of students to meaningfully evaluate work; if social and psychological factors impinge on willingness to be honest, then assessment for learning practices may be well-intentioned but invalid and ineffective.

## **Technical Considerations**

To err is human; hence, there is a component of error in every teacher-student assessment for learning interaction. The difference between the interactionist and formalist views of assessment seems to be that the latter group seek to establish the degree of error and inconsistency in scoring, marking, grading, or evaluation, while the former group proceed as if it is irrelevant. As we have argued elsewhere:

Humans can introduce error into scores of performances (e.g. essays, portfolios, and dramatic or spoken performance) through a number of biases, including a tendency to inflate scores for a number of reasons, such as believing moderate grades do not reflect the quality of the instruction or students, a tendency to be a harsh or tough marker (or conversely to be a lenient or soft marker), a tendency to be inconsistent, perhaps through inattention or fatigue, and a tendency to judge the learner rather than the performance itself. (Brown & Hattie, 2012, p. 288-289)

Indeed, inspection of essay marking at university level education shows that it is notoriously unreliable (Brown, 2009b). Furthermore, research studies of student self-assessment show that it is quite unreliable for novice and low-performing students (Brown & Harris, 2012). Hence, the judgements teachers make on-the-fly contain error and any decisions based on such judgements may be dangerous for learning. High quality decisions depend on data obtained through multiple methods, multiple opportunities to perform, and multiple judges (Brennan, 1996).

Even though well-designed tests provide estimates of error, this good work can be undone by inadequate reporting of information to teachers and students. Too often tests only provide total or rank order scores, which as useful as they are, do not give teachers, let alone students, the information they need to identify who needs to be taught what next (Hattie & Brown, 2010). Considerable effort went into the design of reports in the Assessment Tools for Teaching and Learning (asTTle) system (Brown, 2005; Hattie & Brown, 2008; Hattie, Brown, & Keegan, 2003) and it was found that teachers who endorsed the improvement purpose of assessment had better understanding of the assessment reports (Hattie, Brown, Ward, Irving, & Keegan, 2006). Field studies have found that teachers who use the asTTle test system gained in their professional understanding of content being assessed and their students gained in proficiency in the same domains (McDowall, Cameron, Dingle, Gilmore, & MacGibbon, 2007; Parr, Timperley, Reddish, Jesson, & Adams, 2007).

Lest I be accused of advocating testing and more testing, it is worth remembering that the effect sizes for various testing practices are not large (Hattie, 2009); frequent testing has  $d=.34$ , while coaching for test-taking had  $d=.22$ . It is also worth noting that effect sizes to do with assessment for learning are generally overstated; maximum effects are in the order of  $d=.30-.40$  (Brown & Harris, 2012; Bennett, 2011; Dunn & Mulvenon, 2009). What this tells us is that any kind of assessment (be it formal or interaction) will not have a large effect on learning outcomes. However, certain kinds of pedagogical practices, that align with assessment for learning, but which are not assessments per se, do have large effects (Hattie, 2009). These include feedback  $d=.73$ ; spaced practice  $d=.71$ ; meta-cognitive strategies  $d=.69$ ; self-questioning  $d=.64$ ; mastery learning  $d=.58$ ; goals  $d=.56$ ; and peer tutoring  $d=.55$ . However, even more powerful effects arise ( $d=.90$ ) when teachers formatively evaluate data and evidence based models (rather than teacher judgements) with data graphing.

## Discussion

Where does this tour of factors impinging on assessment for learning leave us? Clearly, Assessment for Learning is desirable to all participants and conceptually, any monitoring and evaluative work done before teaching is concluded is a good thing. However, there are problems in assessment for learning when a range of factors are ignored. Tests and examinations do have a legitimate role in improving educational outcomes (under the conditions outlined in Brown & Hattie, 2012). Psychological and social processes in the classroom may invalidate the good intentions of assessment for learning, just as the power of high-stakes accountability mechanisms can have on schools and teachers. All assessments, and perhaps most especially the highly judgement based methods privileged in assessment for learning, abound with error, imprecision, and inappropriate interpretations. As pedagogical processes, the assessment for learning policy seems appropriate but as an assessment policy it seems alarmingly inadequate.

An alternative assessment for learning 2.0 policy would place emphasis on the importance of the teacher as the expert in content, pedagogy, and pedagogical content knowledge in the classroom. It is the teacher's job to enable progress among novices. This will require teachers to use Hattie's (2009) activator strategies mentioned above since these are known to effect learning. Further, it will require inclusion of systematic high-quality, highly-informative tests (e.g., asTTle) in the arsenal of formative and diagnostic tools (provided they are not used too frequently). It will require taking seriously the error in teacher's professional judgements by incorporating systematic, formal use of moderation procedures to assure quality in teacher judgements; and most especially if the judgements are to be used for reporting or National Standards purposes. This means that professional development of teachers would need to focus on developing a community of understanding about progress, teaching, and curriculum. Perhaps most importantly, policy needs to continue to make it safe for teachers and schools to discover bad news about their own work. This means avoiding high-stakes public consequences for assessments; unless teachers are allowed to identify who is not learning and respond to that

information early enough without risk of undue shame or blame then assessment for learning will be a highly desirable soft policy ignored in favour of the hard policy of accountability (Kennedy, Chan, & Fok, 2011). Assessment policy needs to ensure assessment is about improving learning for each and every student, even while it is also used to help make schools more effective. Losing sight of improving individual students by their own teachers would be retrograde. There is much that is good in the current assessment policy in New Zealand, but current directions and pressures are likely to fail students, families, and educators. An updated assessment policy along the lines suggested here is certainly needed.

Of course, this emphasis on doing well on tests and examinations should not be seen as another means of motivating or oppressing students and families. Instead, as I have already mentioned, tests and examinations need to provide information beyond total score and rank order. When tests are diagnostic and informative to both teachers and students (let alone families), then assessment can be educational, rather than just evaluative. We do need to increase the breadth of assessment techniques used, but not by throwing out powerful tools such as tests and examinations. And we do need to press, challenge, and inspire students to work hard, while giving them the tools to succeed. Self-worth and self-efficacy ought to grow out of completing and succeeding at hard things.

So what might all this look like in Pasifika contexts. First, tests and examinations ought not to be banned. Instead, much better information from tests needs to be provided; and this can come from teachers carrying out formative analysis of summative testing practices to identify student successes and needs (Carless, 2011) or by computer assisted analysis of curriculum testing (e.g., e-asTTle in New Zealand). Second, teachers need to stop blaming students for low success and instead reflect on what might need to be changed in their classroom teaching or curriculum practices to enable success. Third, the temptation to simplistically evaluate teachers by their students' performance must be resisted. We need better ways to look at how much students gained from being with a teacher relative to where they started and whether over a 5-year period, students keep making gains with that teacher. Where persistent positive increases in performance are not observed, extra assistance is warranted. Fourth, policies need to be put in place that prioritise improvement or value-added, rather than focus only on high scores. In conjunction, the assessment policy needs to focus on quality of performance rather than simplistically ranking students with scores. Percentages are easy to understand, but the differences between numbers matters much less than whether student work reflects excellence, merit, satisfactory, or unsatisfactory qualities. Statistically manipulating scores to assure the normal distribution in which scores or ranks are used to determine quality needs to stop. Trusting the judgement of teachers, as we do in higher education, complimented with monitoring will go well forward to improving life chances of learners. The focus must always be on how does this assessment contribute to knowing "what needs to be taught next to which students?"

**Note:**

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For the Reference list from this Keynote Address please contact the author.

## **Straight Talk & Crooked Thinking**

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This paper is a call for a rethinking of the way we currently think about transforming Pacific learning, teaching and teacher education. It is premised on the ideal of educational reform that is focused on achieving sustainable Pacific societies and offers a futures-thinking approach to the rethinking of quality Pacific education centralizing the role of the teacher and teacher education. Central to the discussion are local approaches to teaching and learning and the significance of research to understand and improve teacher performance. It is clear that a review of teacher standards and attributes is necessary covering issues such as aptitude, literacies and competencies required for unknown contexts of unknown futures. It is argued that education for sustainable Pacific societies must begin with an education system that brings together the best of both worlds; mainstream western knowledge systems and philosophies and Pacific indigenous education ideologies and approaches. The onus will be on Teacher Education providers to ensure that the Pacific teacher is one who is confident in his or her identity, armed with the necessary set of values, attitudes and skills to be agents of change. A Pacific transformative learning theory is presented as an example of ways by which we may begin to rethink teacher preparedness as well as reconstruct what we assume to know about the way we teach and learn.

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### **Introduction: A Personal Journey of transformation**

Eighteen years ago I stepped into my first classroom a 22-years old graduate armed only with my Bachelor of Education degree. I was excited and nervous at the prospect of teaching but in my mind, as a trained English teacher, I was ready for the challenges of teaching in Fiji. How wrong I was. My first posting was to a Peri-urban secondary school where I was given five English classes, ranging from form one (year 7) to form six (year 12). There was no orientation package, no induction period, no associate teacher to ease my transition into the school, no mention of the national teacher code of ethics, no prescription, nothing but textbooks. One week and two staff meetings later, I found myself in classrooms with children who barely spoke English.

With 90% of the class being indigenous (iTaukei) and 10% of Indian descent, I found that my own lack of proficiency in these two languages hindered my teaching. I began to wonder why I had learned to teach English in the same way that teachers of English as a first language had been taught. Initially, I had no clue of my students' home backgrounds and it was only after a whole term had passed with the increasing absenteeism that I leaned three things which changed my approach to teaching forever.

- i. My students came from farming communities and because they paid their fees in instalments many were often sent home until their fees were paid in full;
- ii. As a government school, text books were provided but there were never enough books to cater for all streams of classes and as a result, students could not do homework. Their commitment to homework was further affected by the fact that after school hours were often dedicated to working either in the gardens or selling produce; and,
- iii. English proficiency was so low that many had no idea what I was saying. When I reported my disappointment that only 20% had passed the first term exam, I was laughingly told by the Principal that this was in fact a very good result for the school.

Disappointed and frustrated, I began my own unlearning journey to rethink not only what I had learned at University but my own teaching practice and I began to look for ways to create a learning system that worked for these students. During class time we used text books and collected them at the end of the class, but instead of using up all my time in getting students to copy homework exercises as some other teachers did, I began to develop activities that did not require the text book. I had learned the importance of curriculum development and thematic teaching. I was extremely grateful that I had chosen the curriculum stream in my Bachelor of Education degree as this helped me to frame my teaching practice. As a result of shift in my thinking and practice, I began to rely less and less on the text book. Student's results improved as did their English proficiency. However, another turning point came when I transferred to my second posting, an urban school. I was frowned at and scolded for not following the text religiously by unit. Decision makers were not interested in coherent development of ideas or concepts, I was told to simply teach from the text book.

Over the years I have become my awareness of the gaps in my own Teacher Education programme has grown and continual Talanoa with teachers and education students at USP convince me that my story is not an isolated one. Many Pacific teachers believe that they are not well prepared for the realities and challenges of the school in their respective communities. It is this realization that brings me to the place that I am now with great sadness, and scepticism based on a growing awareness of the politics of Pacific education systems. For this reason, I bring to this Vaka Pasifiki Conference a humble offering, honouring the straight talk that the founders of RPEI began 14 years ago. I also offer a warning about the crooked thinking that we continue to battle and sometimes unknowingly perpetuate.

This paper focuses on the essentiality of a deliberate paradigm shift from simply rethinking education systems to transformative thinking. It is a call to rethink the way that we currently think about transforming Pacific learning, teaching and teacher education and essentially de-program our current systems and the assumptions that are made in regard to what we think we know about the world we live in; 21st century Pacific island students; and, about the teachers who prepare these students for life beyond the school. It is an attempt to refine our lenses for the deep reflective unlearning of what has been ingrained in our minds about education as we think we know it.

### **Decolonizing Pacific Education**

The violence of colonialism is alive and well in the Pacific islands. It may no longer exist in the form of occupied colonies but is evident in the onslaught of Western ideologies and irrelevant models of development and education that continue to bombard our 'sinking' islands. That we are sinking is as metaphorically significant as it is a very real Climate Change concern for 'smaller' island nations in the region. We are sinking – as a region and as a peoples - into the abyss of the 'one-worldview' of one-size-fits all ideology of progress in all facets of our daily lives – education and teacher education included. Consequently, there is a very real need for active theorizing, by Pacific islanders ourselves, of both quality education and teacher education interrogating the drivers, agendas, needs and gaps in current mainstream thinking.

I am informed by Pacific and non-Pacific anticolonial thinkers and owe much to their reflections on the need to rethink, reflect, research and redefine our ways of thinking, doing and being. It is not my purpose to reconstruct the deliberations of these scholars but rather to emphasize the required shift in thinking and action. We need to move from straight talk to non-linear thinking and practice but in order to do this, we must first frame things as they really are, glossy overcoats removed and down to the bare basics of the root of our concerns.

Jean Baudrillard (2002) is on the mark when he refers to the 'violence of the global' in a discussion on the homogenising power of a global system which he rightly terms terrorism in its worst form. This violence, if not directly stated by others, is clear in the education systems and discourses in the Pacific, which, as they are elsewhere, are intrinsically linked to Development agendas and discourses. Much of these are directly informed by philosophies and ideologies birthed in the developed nations of the global north with little room for alternative, contextual thinking. Langdon (2009) provides some food for thought:

Disciplines such as education and development studies have an important role to play in decentering

the universal pretensions of Western thought through the introduction of other epistemic systems, such as those derived from Indigenous knowledges. This role is important not only because of the chequered legacy of both fields of thought, but also because each discipline represents an important site of implementation, where theory meets practice. The implications for both of these disciplines should they fail to become more responsive and open to other ways of knowing and being is the potential further alienation of the populations that developed these knowledges (Battiste 2008), but also the very real risk that failure to act will facilitate the continuation of the colonial legacy (p.10).

There is a plethora of writing on the decontextualized, irrelevant, culture-deficit models of education ascribed to in the Pacific, as well as, the politics of aid and the agendas of the dreaded 'foreign' consultant. Rather than revisit these works I will attempt to weave the words of the elders so that collectively, our song will sing of our reality in the 'shrinking', 'sinking' Pacific Ocean that is our sea of islands (Hau'ofa, 1994).

The current line of thinking in education that prioritizes the 'voice' and 'worldview' of the outside is a violent hegemonic view that debases our humanity and amputates our capacity for human agency. It is a perversion that is so ingrained that many of our own people have come to believe in its imported relative truth and in the bounded rationality that we are only as good as the outside world says we are. Rethinking Pacific Teacher Education, means revisiting the purpose of the school and schooling and its place in the 21st century. "Pacific Education for what and whom? Whose values and what responsibility?" (Thaman, 2004). Similarly, we ought to ask "Teacher Education for what and whom"?

In February 2013, Professor Sugata Mitra, the founder of the School in the Cloud, presented an inspiring TED Talk that won the TED Talk prize of that year. Mitra provides a succinct reminder of the history of formal education and schooling which he refers to as the Bureaucratic machine of the British Empire. This by no means is new knowledge for those of us schooled in the foundations of education. It is however, a reminder of the easily forgotten history and inherent philosophies and practices that we continue to unknowingly perpetuate in our own systems. Mitra reminds us we are clinging to a system that is out-dated and irrelevant in the context of the present and future learning needs of our changing societies.

Although Mitra's emphasis is on the use of technology to enhance learning, his insight into 'unknown' future challenges in society and the ever changing job market stimulates a tangent of thinking for Pacific scholars interested in educational transformation. If we seek to transform our education systems, what might this transformation look like? I argue that what we need are new models or theories for Transformative Pacific Education. This transformation begins with decolonizing the way we think about education, its purpose and function in the 21st century Pacific. In order to decolonize our education systems and the curriculum, we must first decolonize our minds (Thank you Ngugi wa Thiong'o). This begins by revisiting the mechanisms that we employ to assess credibility, validity, quality, legitimacy, relevancy and sustainability in all forms and aspects of education.

Current mainstream educational paradigms are based on what the global north or the developed world considers worthwhile learning and teaching approaches and our models of Teacher Education are much the same. This means that the bulk of what we teach and learn in our schools and at our Universities and colleges in the Pacific, is what has been conceptualized and developed in and for the western world.

To begin let us reflect on what we learned at University and in our Teacher Education programmes and attempt to answer the following questions. How much of those courses and programmes on offer allowed us to think about:

- Our contexts of teaching and learning?
- Indigenous education and indigenous epistemologies and pedagogies?
- Preferred Pacific teaching styles and learning styles?

More often than not, there was and is little critique of the foundations of education from a Pacific island perspective. In fact, I would be so bold as to wager that the predominant method of learning was and is passive

rote learning, that is western mainstream knowledge driven and assessment focused. Much has been written about 21st Century education and skills, against the backdrop of Post-2015 Sustainable Development Goals and the end of the Decade of Education for Sustainable Development this year. Have Pacific island educators and decision makers engaged in this discourse? Or, are we so fixated on ongoing discussions about 'quality education' for the past that we have not stopped to think about the implications of adopting a futures-thinking lens in our ongoing dialogue? Have we, as region, taken the time to contemplate what we think we know about the world we live in and what we mean when we refer to 'quality' education? Have we invested and engaged in educational research to map out our answers to two complex questions which lie at the heart of educational transformation developed for the current and future realities of the region.

- What do we think we know about the world we live in?
- What do we think we know about 21st century Pacific island students and the context and shifting eduscapes of a new technological world?

In other words, do we have a shared stipulative definition for this elusive notion of 'quality' Pacific education? And, are our conversations premised on this shared understanding?

### **What do we mean by 'Quality' Pacific Education?**

There have been ongoing discussions about the need for quality Pacific education. The Forum Basic Education Plan (2001) is an important reference point as the first regional educational policy framework. FBEAP mentions quality three times in its goal statement alone where it refers to "compulsory education of good quality", "basic education of good quality" and "improving all aspects of the quality of education" (p.2). That initial document presents a desire for comprehensive educational reform and it identifies systemic weaknesses in the broad areas of policy, planning and resources across the board. Specific areas of concern identified are:

- i. Access & Equity: To address disparities and ensure equal participation of disadvantaged groups across the rural – urban divide including gender issues and other disadvantaged groups.
- ii. Teacher supply: The number of trained and competent teachers and their teaching methods
- iii. Teacher Education: The need to improve pre-service and in-service teacher education
- iv. Curriculum: The quality and relevance of curriculum materials
- v. Pacific Foundations: The need for contextualized and relevant Pacific curricula
- vi. School infrastructure & administration: To improve School buildings, school management, leadership and school culture
- vii. Assessment: The validity and reliability of assessment
- viii. Financing of Education: The need to reprioritize education in national budgets
- ix. Stakeholder participation: To develop partnerships with CSO, NGOs and the private sector.

A close analysis of the Pacific Education Development Framework (PEDF) which replaced FBEAP in 2009, shows that these areas of concern remain the regional priority. While FBEAP (2001) presented a brief summation of regional priority areas, PEDF attempts to flesh these same issues out in a more coherent way, taking care to ensure alignment with global educational instruments in particular Education for All (EFA) and the Millennium Development Goals (MDGs). The three strategic goals identified in PEDF are: 'Access and Equity'; 'Quality'; and 'Efficiency and Effectiveness' (p.5). Six priority areas identified in PEDF include Early Childhood Education (ECE), Formal Education (Primary & Secondary Education); Technical and Vocational Education (TVET), Teacher Education (Pre-service & In-service); and Systems Governance and Administration. Each section is aligned to EFA and the MDGs with focused goals and indicators and includes some detail under the subheadings of Challenges, Priorities & Strategies.

While countries have committed to the PEDF, the reality of in-country educational reform and curriculum development and review is that it takes place against a backdrop of the sometimes invisible political agendas of Pacific education. Not least of which is the colonial legacy (Puamau, 2004; Thaman 2009, 2012) and neo-colonial tensions of the 21st century Pacific (Taufe'ulungaki, 2002; Puamau, 2004). Add to these, educational aid power relations (Baba 1987, 1989; Hindson, 1989, Thaman, 2001; Nabobo, 2002, Sanga, 2003; Puamau, 2004) and what we have is pocket fixes rather than an overall review of education systems. In fact, Fiji is one of

the only Forum member state to have conducted an education commission in the last decade (2000) and the Ministry of Education has recently expressed its desire to hold consultations in 2015 leading up to the establishment of a follow up commission.

While numerous scholars refer to sustainable quality education in/for the Pacific islands, again there is no attempt to define what this means. Some have identified various causal factors which prevent the achievement of high level transformation from within many of which resonate with the concerns raised in FBEAP (2001). Sanga (2003):

Three or more decades of sustained educational aid to Pacific Island countries (PICs) have not resulted in sustainable quality education in these communities. According to Pene, Taufé'ulungaki and Benson (2002:2), this is “because [Pacific Islanders] do not own the process, educational visions and goals of education”. Instead, these are defined by donors and other external players. Aid to education will continue to be an integral component of educational development for some of these countries, but ownership of the process, the visions and the goals is a matter of concern (p.28).

The issue of not owning the “process, educational visions and goals of education” as highlighted above is the fundamental root cause of our inability to bring about the kind of transformation that we desire in the Pacific. Authentic and sustainable transformation can and will only eventuate when the issue of ownership and self-determination are addressed. It is beyond the scope of this paper to interrogate the idea of sustainable quality education as it has not been established whether this is a general reference to sustaining education systems themselves; education systems geared towards sustainability goals; or both. Regardless, if we assume the latter i.e. that sustaining quality education is desirable and that such a system would include an end goal of sustainability, we may begin to frame our lenses for the rethinking transformation dialogue.

When we begin from the entry point understanding that education is worthwhile learning (Thaman, 2013), quality education may be elicited as contextualized, relevant learning where learning outcomes are of immediate and long-term benefit to the learners and their communities. This brings to the fore the issue of sustainability, and sustainable education. The question then, that emerges is what quality education for Pacific islanders in the islands? The next sections attempt to flesh out two main issues within the broader quality education discussion: the context of the 21st century Pacific learner, implications for the 21st century Pacific teacher.

### **The context of the 21st Century Pacific Learner**

A review of Pacific discourse on context and relevance of current Pacific education systems to meet the needs of Pacific island students locates much of the discussion as outlined in FBEAP and PEDF, in terms of relevance, access and equity issues. These writings emphasize the need to contextualize education, and to address issues related to equal participation. These discourses are both significant and relevant but there is a growing contextual gap –that of technologies. While the PEDF does introduce ICT as a cross-cutting issue, it is clear that the intention is to “harness the benefits of new technologies and ICT” (p.19). Scholarly discourse emerging from the Pacific and in particular from USP on ICT and Education has followed this same line of thinking. See for example the 2005 USP report on ICT in Secondary Education in the Pacific Region which included a situational analysis of the status of ICT use in eleven USP member countries. Given that the University has made its intentions about shifting to online learning, it is not surprising that conversations centre around elearning and the use of ICT in the development and delivery of university courses and programmes. See for instance Singh, Pathak & Naz, (2007); Raturi, Hogan & Thaman, (2011); Bakalevu & Tuitonga, (2003); Hazelman (2002). In fact, Nabobo (2002) stands out in her attempt to discuss the changing technologies in the region and their implications for educational decision making.

In my view, the discourse on Pacific learning contexts needs to shift from this narrow compartmentalized perspective to a more holistic one. To demonstrate the complexity of the fluid and ever changing 21st century eduscape, I refer to a video that has gone viral since its inception as a power point presentation at a school gathering in 2007, in the United States. “Shift Happens” has since been modified with yearly updates available on the youtube channel online. It is estimated that over 20 million people have viewed this video. The original

presentation is credited to Karl Fisch (2007) and later modifications to Scott Mcleod. I use this video to demonstrate just how quickly the world in which we live is transforming and thereby also changing the learning needs and expected educational outcomes of the schooling experience. I do this to emphasize the fact that our education systems in the Pacific islands have not and are not keeping up with some of these immensely critical discourses.

Two particularly poignant items may be extracted from the long list of issues in the 2014 version of Shift Happens. The first is recognition that the internet is a source of knowledge with implications for both curriculum content and impacting on student learning styles and cognitive processes. And, secondly, changing literacy needs with implications for teacher literacies. The video ends with the question: “so, what does this all mean?” My take away lesson that we may draw from is that education and schooling must change to accommodate our shifting society and more importantly students’ learning needs. This takes us back Dewey’s assertion that the School is a microcosm of society, and what we want in society we must put in the school. If we ascribe to the line of rethinking that prioritizes context and relevance it is essential that we take stock of what it is that we want in our society in both the immediate future and in the long term.

Against a backdrop of tremendous global and technological transition, the Pacific islands are riddled with challenges of our own. In the interest of brevity; I list some of the challenges which have been identified at national and regional levels. These include the youth boom or ballooning of youth populations, the increasing incidences of non-communicable diseases and obesity, sexually transmitted infections, teenage pregnancy rates, HIV and AIDS, Poverty, Culture and language loss, literacy and numeracy rates, Cultural appropriation, Climate change, Urbanization, Migration, Ethics/Values, High school drop outs, unemployment, the lack of Media literacy, the impact of Social media, the need for Financial literacy, Food Security, Mental health issues and suicide, and of course, Crime. While many of these are ongoing concerns, they remain for the most part on the periphery of educational discourse with educational outcomes and curriculum content and processes still largely academic-discipline based with an assessment outcome priority.

To engage in a discussion about transforming education and using quality Pacific education as our entry point, more questions emerge:

- How much of our current education system prepares students for emerging challenges such as these?
  - How much of mainstream curriculum content and assessment engages students in the critical interrogation of such important regional and global concerns?
  - How much opportunity do students have to learn problem solving skills which they may use in real-life situations to handle these and other new challenges which they will face in the world beyond the school?
- And, significantly,
- How much of our teacher education, prepares teachers to teach these knowledge and skills that will enable students to deal with such real-life issues?

### **Preparing 21st Century Pacific Teachers**

Before we begin to assess Pacific Teachers and their ability to effectively teach 21st century Pacific students, we need to assess our teacher education programmes against a set of prescribed criteria for ‘quality’ or ‘good’ teachers. In the absence of a concrete, measurable definition that attempts to quantify these very subjective and description terms, we may in all good faith – continue to run circles around ourselves. Again a series of questions must be considered beginning with what Pacific teacher education for the kinds of teaching and learning that we would like to occur. We also need to consider the core requirements and indicators of a ‘good’ Pacific Teacher Education Programme and seriously contemplate how Pacific teacher education should be differentiated from teacher education programmes elsewhere in the world such as New Zealand, Australia, the United States or the United Kingdom.

That there is a need to invest in educational research, as a theoretical as well as, an applied science is clear. Thaman (2000) provides the premise that “... indigenous knowledge and values provide a useful alternative to the total framework of Western, scientific, and reductionist thinking, which continues to dominate education in Oceania, and which I believe contributes to many learning difficulties faced by students as well as teachers

today”(p.55). In order to do this, we must learn to value and encourage Pacific theoretical and methodological frameworks in our research undertakings. Policy analysis and discourse analysis is also necessary and must be undertaken as valid and useful research inquiries. To bring about this kind of transformative paradigm shift in our research ideologies will not be easy. The continued ‘importing of educational models of so called ‘good’ practice begs the question how can a practice be universally good practice particularly if island contexts realities differ in all aspects of the ‘foundations’ of education?

Recent developments show that there is a desire for better education systems and processes – as evidenced by the critical commentary that is directed towards education, curriculum and teachers in the region. Much of this critique unfortunately appears to indicate dissatisfaction at teacher performance. This deficiency model of thinking situates – even in regional documents – both the learning and teaching styles as deficient or lacking (PEDE, 2009). If evidence-based educational research shows that students’ learning styles are as distinct to an individual as is their cognitive and physical states and socio-cultural, economic background – how can Pacific students learning styles be lacking? What are the measures by which this conclusion has been made?

Of equal concern is the level of complacency in education discourse. For example, institutional plagiarism has gone unchecked to the point that teacher standards are ‘borrowed’ from Europe and curriculum is lifted from Australia. So, Who is a Pacific teacher? What are the criteria on which we might begin to assess this ideal? Who has the agency to speak of and for Pacific peoples in this regard? Pointed research would allow for wide reaching stakeholder consultation to help answer this question.

In interrogating this idea of the ideal teacher, there is also a need to dialogue the role and function of the teacher educator. Just as teachers matter in their roles of enacting the curriculum and in shaping the teaching and learning that takes place in their classrooms, teacher educators also matter. It follows therefore, that the quality of teacher education is also dependent on the quality and calibre of our teacher educator(s). What are the attributes of the ideal teacher educator? How much teaching experience is required and expected and what of lived teaching experience in the Pacific islands themselves?

In addition to reviewing the qualifications and competencies of teacher educators, mentoring is a largely ignored dimension of teacher education. My personal experience of mentoring has been through my engagement with the RPEIPP having studied and worked with each of the three founding members in various capacities as student, as colleague and as mentee for over a decade. While this sheds some light on the mentoring power of the Vaka Pasifiki movement itself, it also has shaped my thinking about my personal identity as a Pacific teacher educator and helped frame my own rethinking journey. This kind of learning through practice has informed and enriched my personal and professional life in so many ways. I have learned that *mafana* and *malie* are important indicators of authentic learning spaces and I have tried to mirror the lessons learned from my own mentorship experiences. I am so pleased to have at this event, numerous students whom I have taught here in Tonga at the UG and PG level, and a number of research students at the MA and PhD level from Laucala here to present and participate in this conference.

As a Pacific teacher educator, the mentoring experience has legitimized the unlearning and relearning that I have had to do. Through a guided learning praxis approach, I learned to unlearn the pedagogies that were ingrained in my mind at the Undergrad level and I have learned that in the Pacific classroom – positive relationships are at the core of effective learning. In my own teacher education courses, begin from the central belief that when students no longer feel the pressure of having to impress me, the real learning journey begins. I work with students to help them find their passion which is at the heart of their teacher identity. This helps them to fine tune their (re)searching for new knowledge, higher levels of understanding and skills. I have drawn the conclusion that when you are mentored, you aspire to mentor others. What better way to begin the teacher education mentoring then beginning with the teacher educators themselves?

What kinds of Pacific teachers do we need and want? What skills, values and knowledge do we assume they ought to possess? The transformative rethinking process will include examining the very foundations of teacher education and therefore, Curriculum review of teacher education is both necessary as it is critical. It must

begin from a place of open inquiry where it is differentiated from teacher training. The distinction may be found in the very concepts of 'education' and 'training' where education emphasizes the link between epistemology, methodology and pedagogy while, training is primarily focused on imparting practical 'teaching strategies' and content. On the one hand, we are interested in holistic education of the teacher as a 'professional' (FBEAP, 2011) who understands the bigger picture of education and is able to engage as a reflective curriculum practitioner and leader, and on the other, we are focused on a technocratic approach which denigrates the teacher to a technician who has mastered the art of 'doing' whether it be in correlation to the wider disciplines of education or not.

The technocratic approach advocated by some maligns the student-teacher to a learning process that is governed by 'content subject knowledge' and 'teaching strategies'. Unfortunately, far too many educational leaders are ill-informed of the distinction between the two and this may be referred to as the blind spot in teacher preparation which allows for the perpetuation of the view that anyone can develop curriculum. When teacher education programmes fail to recognize the place of curriculum development and of learning educational theories (both classical western and Pacific cultural theories of education) we find ourselves in a dangerous spiral where teachers are relegated to the periphery as non-thinking baristas who serve up the menu of the prescription in predetermined ritualistic performance or delivery.

Contrastingly, when we view teachers as professionals, teacher education becomes the prerequisite for the professionalization of the teaching workforce. In this way, teachers – like lawyers, accountants and doctors are held accountable to a set of locally designed and internationally informed assessment that enables entry into the profession (i.e. criteria for registration) and, validation/proof of worthiness to remain within that profession (performance reviews). As someone dear to me once said, you would not send a soldier to war without teaching him to use a gun, nor would you employ the services of a mechanic to perform surgery on your child. Why then would we assume that anyone can teach knowing full well that the ability to make or break a child's critical and creative thinking lies in the hands of that person. What power teachers' possess. The thrust of teacher education is the underlying understanding that good teachers' matter.

A rigorous teacher education programme is one that is conceptualized on critical pedagogy (thank you Paulo Freire) that distances itself from uncritical thinking and mere follower-status. It is the collective responsibility of teacher educators to devise a well-grounded thesis, a set of theories of Pacific Teacher Education premised on who we are, where we are and what we stand for. If current thinking is correct that learning acquisition is directly correlational to teacher quality then it seems that we may be doomed to a future of sub-standard, mediocre teachers for the simple reason that we have not taken the time to consider what 'our' standards might be – not UK standards or Australian standards –but our very own benchmarking of quality teachers and teaching practice.

It is true that just as no man is an island, no island can exist freed of the shackled of globalization, so it would be suicidal to consider developing curriculum and standards in isolation but the point is clear – we must devise our standards and programmes in consultation, in collaboration and in consideration of global trends, evidence –based and Pacific contextual epistemologies that are grounded in our own ontologies.

### **From Theory to Praxis**

This final section offers *Tuli* – a Transformative theory for learning and teaching in the Pacific (Koya, 2013). *Tuli* was developed as a result of my own research in which I attempted to address the core issues of relevance, context and quality. It draws from the notion of the relevance movement (Thank you Una Nabobo) and Vaka Pasifiki which brings brought to my attention the two-pronged inquiry into quality education and quality teacher education. *Tuli* evolved from a focused inquiry into education for sustainable Pacific futures which I examined through a study of *Tapa* and Tattoo practice in Samoa and Tonga. In this transformative theory for teaching and learning in the Pacific, Education for Sustainable Pacific Societies OR: Education for the present and future – is essentially about finding the balance – the synergy or the space between global education agendas and Pacific agendas. The argument is that in finding the balance, we will reconceptualise quality Pacific education with the main educational outcome of resilience. That is, resilient individuals equipped to engage in

critical thinking and problem solving and who will ultimately become active agents in shaping and maintaining resilient sustainable societies.

While the majority of sustainability discourse focuses on environment, economy and society as if these are separate and distinct from people, my study found that from a Pacific perspective, when we talk about sustainability we are talking about people. More specifically, the Pacific understanding and use of the word sustainability comes back to the human capacity to survive and thrive – to do well, adapt and maintain continuity amidst great turmoil or challenges of life. Tuli as theory presents a resilience literacies model (Koya, 2013) which comprises a set of attributes and competencies that enable the individual and the communal to achieve sustainable livelihoods and sustainable lifestyles. Resilience Literacies are defined as that set of attributes and competencies which enable individuals/community to:

1. Believe in the personal ability to effect positive life changes;
2. Respond to unpredictable life challenges (i.e. adversity and stress)
3. Resist change that may bring about instability;
4. Appreciate change as inevitable but manageable; and,
5. Thrive (do well).

*Tuli* includes four Attributes (quality or characteristic) of a resilient individual (applicable to both teacher and student). These attributes are referred to as Resilience Attributes and comprise:

- i. Self-esteem – sense of self-worth and pride in self and abilities
- ii. Self-efficacy – belief that you are the master of your own destiny
- iii. Self-determination – ability to make decisions for yourself, to reason these choices without feeling pressured to think, be, do a certain way
- iv. Agency – to make choices and to enact these choices

It also includes five competencies referred to as Resilience Competencies applicable to teachable and learnable competencies for students and teachers. They include:

- i. Beliefs, Attitudes, Values (affective domain)
- ii. Knowledge (cognitive domain)
- iii. Logical Reasoning (cognitive domain)
- iv. Skills (psychomotor domain)
- v. Contextual Application/Synthesis (combination of all 4)

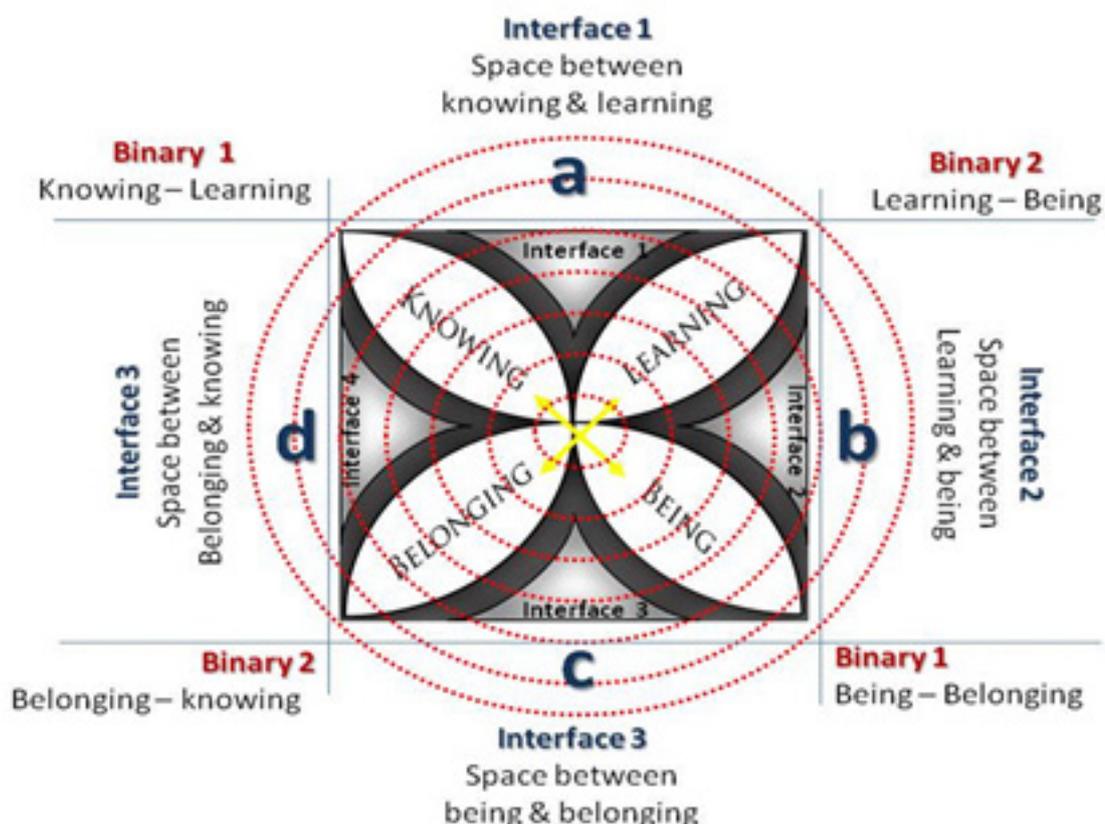
These attributes and competencies culminate in a framework that is presented cyclically to demonstrate the holistic nature of human development for futures-thinking of sustainability. The argument is that with a strong foundation, we can and will grow resilient Pacific societies.

Figure 1. *Resilience Literacies Model*



A critical turning point in the development of this transformative theory of learning and teaching is the reaffirmation of the centrality of positive relationships. There has been quite a bit of academic discourse on *Va* (relational space) and *Va Tapuia / Veitapui-* (sacred spaces). In my study, I found that *Va* is central to understanding sustainability. It is not a metaphor for sustainability. It is the lived praxis of sustainability – we nurture the spaces between people, between humans and nature, and between communities and the cosmos. As a philosophy, a worldview, a pedagogical practice – a praxis - *Va* is the embodiment of sustainability and resilience and therefore critical to the learning and teaching and teacher education dialogue. It was this understanding that brought the various components of the *Tuli* framework together into a cohesive holistic model.

Figure 2. *A transformative theory of learning and teaching*



think the theoretical and conceptual framing as well as the visual layout of the theoretical map is was drawn from a shared design element of Tongan Ngatu and Samoan Siapo (Koya 2013, p224). *Tuli* as theory, the final map includes 4 binaries or 'pairs' and 4 interfaces – or spaces between where the *Va* – or relational spaces i.e. inherent connections between the binaries - become operational.

The first binary (or pair) is knowing and learning in line with Delors' Learning to know and do (*ako/ a'ò*). This is a curriculum strand that brings together the foundations of education (philosophy, sociology and psychology) in particular ontology, epistemology and pedagogy.

The second binary (or pair) is being and belonging – in line with Learning to be. This strand comprises the process of positioning of the self within the broader socio-cultural context of the family unit (extended) and the wider community. It represents the negotiation of the individual sense of purpose and connectedness within society imbued with a sense of connectedness – as being part of an active, evolving whole system.

The third binary – learning and being – in line with learning to learn and brings with it the idea of learning to unlearn and relearn. This strand is about the process of self-realization/ actualization where the learner becomes (through the teaching – learning process) aware of his/her sense of self, strengths, weaknesses, abilities and is able to articulate a person sense of self-worth through active participation in the teaching and learning process.

And, the fourth binary – belonging and knowing – is in line with learning to live together. This strand follows from the community standpoint, in which collective knowledge becomes accessible to the individual (insider knowledge) and through practice and experience, s/he is able to access a deeper level of knowledge as a privileged insider of the wider community.

In this conceptualization of transforming Pacific teaching and learning, the interfaces or spaces between the binaries are of particular significance, drawing on the concept of relational spaces (*Va*). It suggests that by transitioning from the binaries to the spaces between that we may be able to design education systems in a more holistic way, ensuring contextualization, relevance and quality. The space between Knowing and Learning brings attention to Cosmology, Cosmogony, Ontology, Epistemology, Pedagogy, while the space between Learning and Being interrogates issues related to Internalization, self-realization, self-actualization, personhood, sense of self-worth, purpose. The space between Being and Belonging emphasizes the process of Conscientization (Friere, 1970), and the influence of family and community with a focus on conceptions of group affiliation, civics, citizenship. And, the final space between Belonging and Knowing hones in on our understandings of

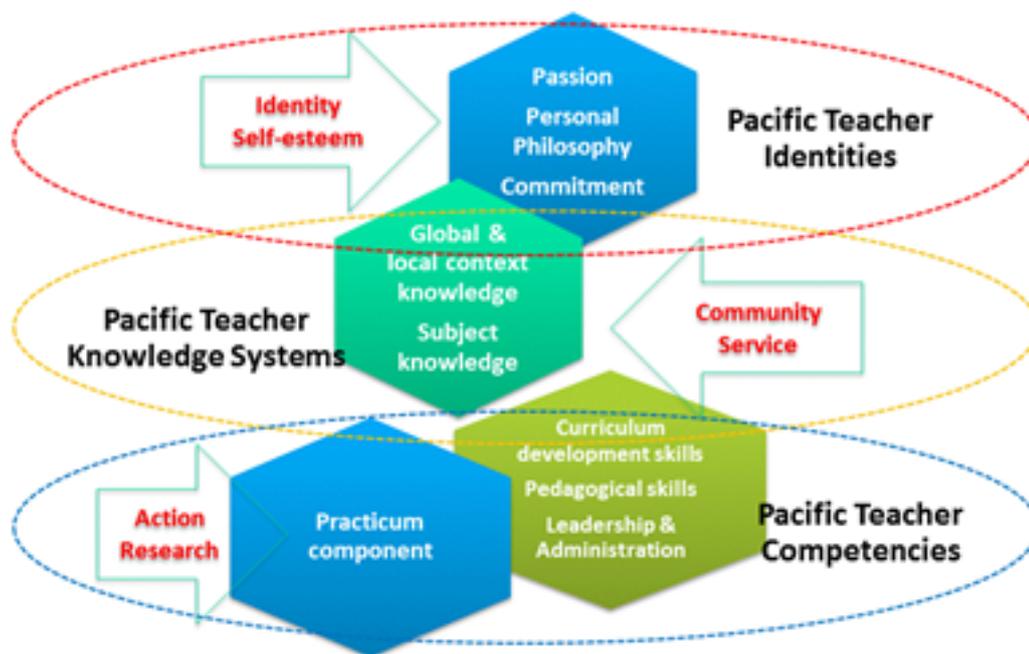
Life-long learning, contextualized praxis as 'learning' and 'relearning' over changing times and spaces. This takes into account new knowledge, experiential knowledge, knowledge acquired through relationships and active participation in the socio-cultural dynamic of the wider social network.

Drawing from *Tuli*, I present a framework for reconceptualising teacher education for the future with three main priority areas:

1. Pacific Teacher Identities;
2. Pacific Teacher Knowledge Systems; and,
3. Pacific Teacher Competencies.

Reflecting on the learning contexts of the 21st century Pacific learner and the challenges facing Pacific island nations, the implications become clear. 21st Century Pacific island teachers must be equipped with the personal attributes, knowledge and skill-base and a dual-sense of the purpose of education and the teachers' role in ensuring authentic teaching and learning spaces. There is a real need to engage in conceptual framing and theorizing Pacific Teacher Education models for the future and the framework below is presented as a starting point for this dialogue and to stimulate our collective thinking for the ongoing discourse.

Figure 3. A model for the discussion on Pacific Teacher Education



### Conclusion: Transforming Pacific Teaching & Learning and Teacher Education

Transforming Pacific teaching & learning and Teacher Education will require rethinking the roles of the teacher, the student, and the teacher educator. It means going back to the beginning, and re-examining the gaps in teacher preparedness. Teacher education and training institutions will need to interrogate teacher education programmes and the critical roles of teacher educators. What resilience literacies should teacher educators possess? What transformation do our teacher education programmes and our educators need to undergo in order to effectively bring about the transformation we so desperately seek?

In the final analysis I offer three tenets for transformation of our education systems.

1. Quality Pacific education recognizes that the one-size-fits-all, one-worldview, the grand white-washing theory of colonialism (and neo-colonialism) cannot and will not EVER work!
2. Quality Teacher education must de- and re-construct human capital theories and theories of adult learning in the Pacific from a Pacific standpoint that consciously and selectively draws from evidence-based practice in the Global north but ONLY if, when and where appropriate.
3. Quality teaching and learning is not about 'programmed learning to produce teaching or learning machines' (apologies to B.F. Skinner). It must always remain a creative human endeavour towards a meaningful social learning experiences developed on a curriculum framework firmly embedded in our contextual realities and places the Pacific 'learner' at the centre of Pacific education.

An important imperative is the reflective evidence based approach to thinking and rethinking for transformation. As a collective of Pacific education scholars representing various higher education institutions and Ministries of Education, we must all agree to begin from the same starting point – that of utmost honesty in acknowledging what is and what should be; what works, and what does not work in our education systems. Quality education in and for the Pacific islands will not come from seeking the most expeditious means by which to adopt each new educational innovation that emerges from abroad. Ultimately, we must come to the realization that transformation will only come about if we are able to engage in straight talk and honest thinking and rethinking. Post- Colonial Thinker Césaire is succinct:

A civilization that proves incapable of solving the problems it creates is a decadent civilization. A civilization that chooses to close its eyes to its most crucial problems is a stricken civilization. A civilization that uses its principles for trickery and deceit is a dying civilization. (Césaire, 2000, p.31)

If, as a collective, we are genuinely interested in conscientization and agency towards resilience in Pacific education and Pacific teacher education one thing is clear. "We must not allow anyone to belittle us again, and take

away our freedom...” (Hau’ofa 1993, p16) - to actively participate in our own liberation.

I believe that by the sheer agency of Vaka Pasifiki – and the tremendous dialogue, and research that has taken place since its inception in 2000 - the revolution has already begun.

*Note:* For the Reference list to this Keynote Address, please contact the author.



## **Weaving theory and practice in Educational Administration and Teacher Education**

*Dr Kapa Kelep-Malpo, University of Goroka, Papua New Guinea*

Weaving theory and practice in Educational Administration and Teacher Education Literature informs us that theory and practice were perceived to be practised by distinct groups of different status in society. Such a perception has been challenged by other scholars (Korthagen, 2011), who believe that separating these concepts presents an “incomplete” image of teacher education or educational administration as phenomena.

The Oceania analogy of “weaving” is best applied to the blending of theory and practice of both teacher education and educational administration. Earlier studies of Teacher Education indicate its emergence from practice alone. However, through assertions from academics for theory to be incorporated to Teaching, it is now categorized as a profession. Likewise, merging theory and practice in educational administration has also sprung up from constant education reforms.

Some suggestions are proposed for quality “weaving” or blending of theory and practice in educational administration. Action research is also recommended as the appropriate means by which to weave theory and practice in the field because of several benefits, including practitioners constructing theories from on-going reviews of their practice in Oceania which have ecological validity (Mills, 2000). Practitioners are also empowered because they participate in the reviews; hence, there are also immediate improvements to their practice.

### **Introduction**

Honorable Minister for Education and Training, the political head of the Tonga Ministry of Education, Dr. ‘Ana Taufē’ulungaki, a renowned and staunch Pacific education promoter and a powerful role model for us all in the region; the Reverend Dr. Tui’pulu’oto Katoanga, Associate Professor Kabini Sanga from Victoria University of Wellington, Professor Konai Helu haman from the School of Education, USP; Associate Professor Unaisi Nabobo-Baba; Dr. Priscilla Puamau-AQEP; Dr. Seula Johansson Fua, Director-IOE, USP Tonga Campus; Dr. Lake Ah Chong, Dean, Faculty of Education; Associate Professor Govinda Lingam, School of Education, USP; Dr. Frances Koya Vaka’uta also from USP – all other academics, practitioners of education, the classroom teachers who man the “ machine room” or “laboratories” where future engineers, pilots, politicians, farmers, office workers, etc., are nurtured and developed every day; school principals who are the gatekeepers to, and agents of change for, the school system; and all who are present today, including the presence of our Almighty God, it does give me great pleasure to give the keynote address for sub-stream 3 of “ Weaving Theory and Practice in Educational Administration in Teacher Education”.

It is a very real pleasure to be speaking to you all today here at Nukualofa, the capital city of the Friendly Islands of Tonga. May I, therefore, thank the organising committee for helping to arrange my travel, especially Dr. Seu’ ula Johansson-Fua, Director, Institute of Education; Dr. Mo’ale ‘Otunuku, and Ms Afua’u Lupemu’a Kautoke, Programme Assistant; Ms Maria Mafi; and Dr Ruth Toumu’a, all from the USP Tonga Campus for considering all segments of Oceania when planning for this conference. Thank you for inviting me to be the key-note speaker of sub-theme three.

### **Weaving combines different approaches for improved schools/societies**

Our conference theme, “Weaving theory and practice in teacher education”, is much appreciated and I salute the organizers of this conference for their wisdom and vision in putting together such a theme. Weaving in everyday language is about merging, uniting, intertwining, the zigzag and criss-cross of two or more ideas or things. The blending of such activities will be best understood when we in this region relate it to our basket and mat weaving in our communities. One could apply the weaving process to the blending of theory and practice as illustrated in Figure 1 or to the combination of local and “adopted knowledge and skills” of teacher educators or school administrators as shown in Figure 2 below.

Figure 1. *Weaving Pacific and adopted knowledge and skills*

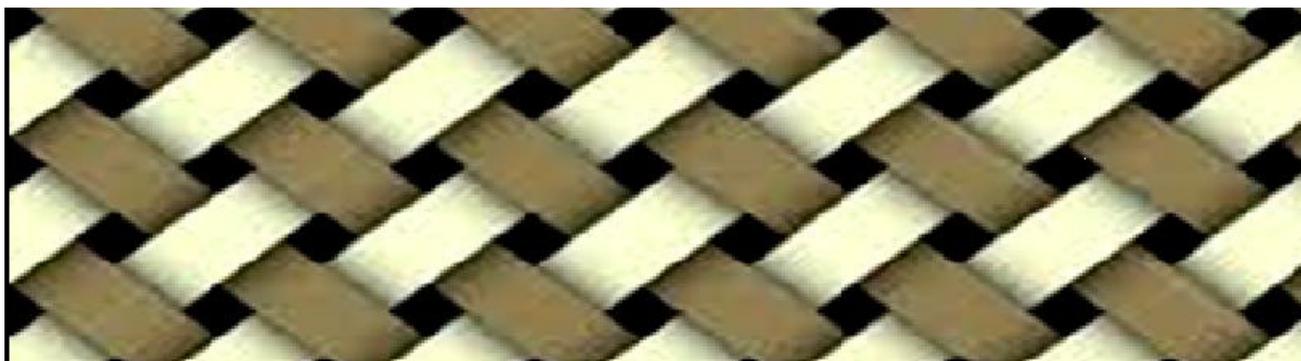


Figure 2. *Weaving of local and adopted knowledge and skills*

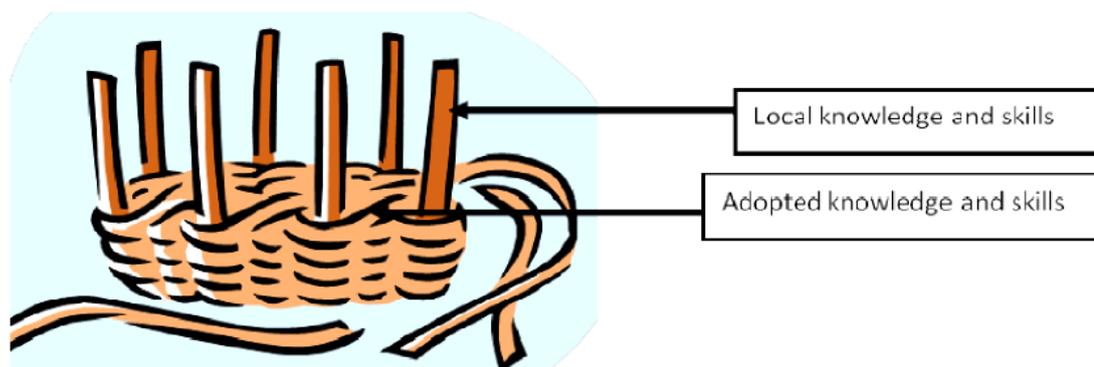
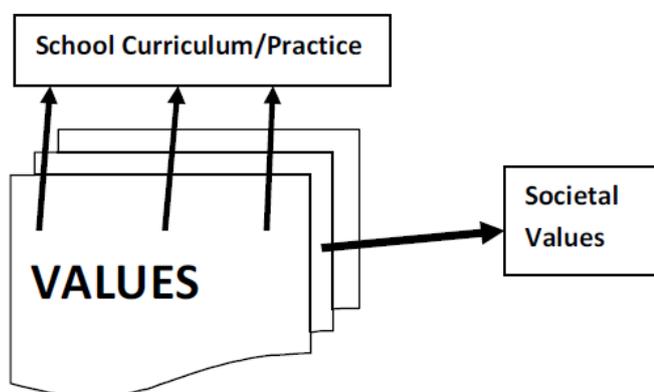


Figure 2 illustrates the blending of local knowledge and skills with those that are “adopted or borrowed” from other societies, a practice closely aligned to this conference theme. The patterns on woven mats or baskets illustrate the intertwining of the different ideas or substances which contribute to a whole item or phenomenon. All different components which are woven are equally important to how the finished product will be and how it will be utilized.

As we focus on the conference theme, our antennas must be up to tap into what is happening abroad and around us in Teacher Education and Educational Administration, so we can adopt and adapt knowledge and skills from abroad to tailor these to our unique contexts. Skilfully “adopting and adapting” knowledge and skills from outside of the region enables us to still be on par with everyone else, however, conducting teacher education and managing our education systems in our unique Oceania ways. In other words, I am urging us to be smart utilizers of “borrowed knowledge and practice” at the same time, developing new school of thoughts on the bedrock values and practices of our region, as indicated visually below.



Kelep-Malpo (2004)

These values continue to help distinguish us from other societies; they are respect for oneself and for others, especially those who are senior in age, etcetera, being considerate of others, caring for and sharing with others. These are some of the many values which illustrate the Oceania communal societies (Hofstede, 1983). Chris-

tian values and beliefs are also considered to be part and parcel of Pacific cultures as these were introduced in earlier centuries. Thaman (2009), when discussing the Pacific curriculum, asserts that Pacific core values must be reflected in the school curriculum. In other words, regardless of the fast changes that island states are faced with, the Pacific islands identity must still be maintained.

### **Theory and practice – had distinct spheres of operation**

Let us briefly focus on what these terms “theory” and “practice” are, and how they are inter-twined. Literature informs us that they are generally understood by scholars to be used by distinct groups in society which are at opposite poles. Apparently, there is an assumed gap between theory and practice which was quite pronounced in the earlier centuries. Furthermore, reports from earlier educational research showed that individuals associated with “theory” could not blend with the “practitioners”. Theories were associated with academics and scholars who were “experts” in their disciplines, while practice was to do with teachers or implementers of these theories whose status were assumed to be at a lower level than the former group.

**Theory**       $\longrightarrow$       **Academic/Scholars**

**Practice**       $\longrightarrow$       **Practitioners/Teachers**

Korthhagen (2011), a Dutch educator who opposes the idea of separating theory and practice, when trying to substantiate the potent relationship between these concepts, argued that, “practice on its own and theory alone are incomplete...one can only really understand the former if one knows about the latter, and vice versa” (p.X1). This author stressed that such a statement can also be said about teacher education, and can also be applied to educational administration.

- 1. **Theory Alone**       $\longrightarrow$       **Incomplete**
- 2. **Practice Alone**       $\longrightarrow$       **Incomplete**
- 3. **Theory + Practice**       $\longrightarrow$       **Complete**

The author continued on to accentuate that theory should not be omitted from teacher education, as practiced by some. In addition, that focusing on theory before taking care of the practice would again not be a smart way of improving teacher education. In other words, merging or weaving theory and practice together while generating knowledge and improving the practice of that body of knowledge is vital.

### **Questions to consider**

The issue of blending or separating theory and practice must be discussed by us in the region as our “vaka” sails through the Pacific. We can ask ourselves, do we have the finance to separate these or should we blend the two? Should we allow academics and teachers to work in isolation from each other or should we encourage the parties to work collaboratively? I offer some suggestions as possible answers for the questions in the next section of this paper. These questions could be raised in relation to Educational Administration as well.

The sub-theme of “Weaving theory and practice in Educational administration in teacher education” stemming from the conference theme echoes the significance of merging these two in a systematic manner, as displayed in our Oceania mats, baskets, bags, and other artefacts. As earlier stated, “Weaving” in a way brings out the Oceania language and mindset as illustrated in Figure 1 and Figure 2.

Knowing the strong views held by past scholars on theory and practice as being distinct from each other, let us, like others abroad, explore some ways in which the theories and practice of educational administration can be woven together.

### **Suggestions for how to weave theory and practice in Educational Administration in Teacher Education**

#### ***Teacher Education began through Practice***

Before I venture into the discussion on weaving theory and practice of educational administration in teacher education, I want to reflect on the evolution of teacher education from formal teacher education to bring out

practice alone - where, as Korthagen (2011) describes, “teaching skills were mastered mainly through practical experience without any specific training”(p.1) - to today’s understanding of the need to weave practice with theory in order to improve both.

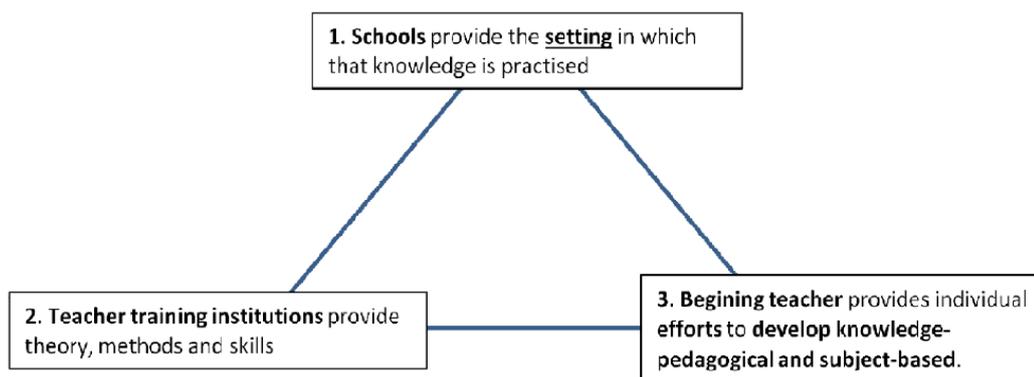
Teachers learnt to teach as “apprentice teachers and gained experience on the job”. Therefore it is important to note that teacher education, although it now involves theory and practice, began simply through practice. We understand that during the earliest centuries, as pedagogical and psychological knowledge developed, academics proposed for teachers to acquire such knowledge and for teaching to be categorised as a ‘Profession’. Since then, teacher education has gone through a series of reforms in different countries and globally to be what it is today. Hence, there are a variety of models of teacher education (e.g. in England, Teacher as Craft Worker, Teacher as Executive technician, Oxford Internship scheme, and the list goes on).

Scholars in teacher education are constantly vigorously experimenting to identify improved ways of teacher training, pivoting on theory and practice; and debating whether to provide theory before practice or practice before theory, or both at the same time. Carlson (1999), when referring to theory-to-practice approach and how theory and practice can be merged, recommended that Teacher education should involve the following;

- Schools to provide the setting in which that knowledge is practised.
- University provides the theory, methods and skills.
- The beginning teacher provides the individual effort.

This is illustrated in the diagram below:

Figure 3. Roles of Schools, Teacher training Institutions and the Beginning Teacher



Carlson (1999)

The above deliberations by Carlson specify clear demarcations between the roles of each stakeholder in teacher education, which is necessary for the process of weaving theory and practice together. It is evident from the diagram above that teacher training institutions are traditionally responsible for the provision of theories, methods and skills while the school setting is also vital to this equation. The beginning teacher has an important role in providing the efforts to further develop pedagogical and subject-based knowledge. When focussing on the school setting, the school principal is the gatekeeper of any change that can take place in schools. As Sergiovanni (2001) claims, educational administrators are managers of the schools; hence, one cannot bypass them when discussing theory and practice in school management.

### *Merging Theory and Practice in Educational Administration*

I suggest a couple of essential points to be considered by school principals as instructional leaders to combine theory and practice in educational administration:

(a) Firstly, there must be clear division of labour among the stakeholders.

In other words, all staff including the school boards must know who is doing what in relation to what others are doing in the whole program. One may ask why it is necessary to have a clear division of labour. I believe that for all parties to perform smartly, they must understand their roles and the importance of these. Human beings are motivated and they feel valued when they know their efforts are worthwhile. Furthermore, they will understand what part they will play in working towards achieving the organization’s goals and vision. This is

like when we weave a basket or mat - we already have an idea of what the finished product would look like, likewise, how each square of the mat or basket is patterned is already determined. In running a school, cooks, drivers, teaching staff, school administrators, school boards as policy makers, parents as partners, are all essential actors to move the school forward (Kelep-Malpo, 2011).

(b) Secondly, there must be joint meetings of all stakeholders to decide together on a yearly plan of activities for the following year. The joint planning will help all stakeholders to all know what their distinct roles are and what the others are doing in relation to the whole organization's mission and vision statement. From personal experience, joint meetings of all at the beginning of the year allow important activities to be planned together. At such meetings, implementations and evaluations of these can also be made known to all so that the whole institution is collectively responsible for meeting the target dates. In our Oceania culture, the team approach to what we do illustrates our communal mind set and identity. To improve practice and theory in our region, there must be constant meetings of staff in a school, instructional leaders in a province, academics and teachers in a province or region. Planning together further allows other stakeholders to help you, the leader, identify necessary resources, especially when resources are scarce in our island nations.

(c) Thirdly, there must be ongoing research to review the work performance of all stakeholders with the aim of improving both practice and theory. The value of on-going research is for improved practice and opportunities for generating knowledge. It has been proven that those involved in the research studies are also energised by the new findings of their on-going studies (Mills; 2000). As determined and focused educators as scholars and practitioners of Oceania, we must not only depend on the knowledge of yesterday alone, but be initiators of new ideas and knowledge which are Oceania-grown. Our schools must be "learning organizations", as Senge (1990) puts it, where all members of the school community are enriched with new knowledge daily. We have rich body of knowledge which can be unearthed through research.

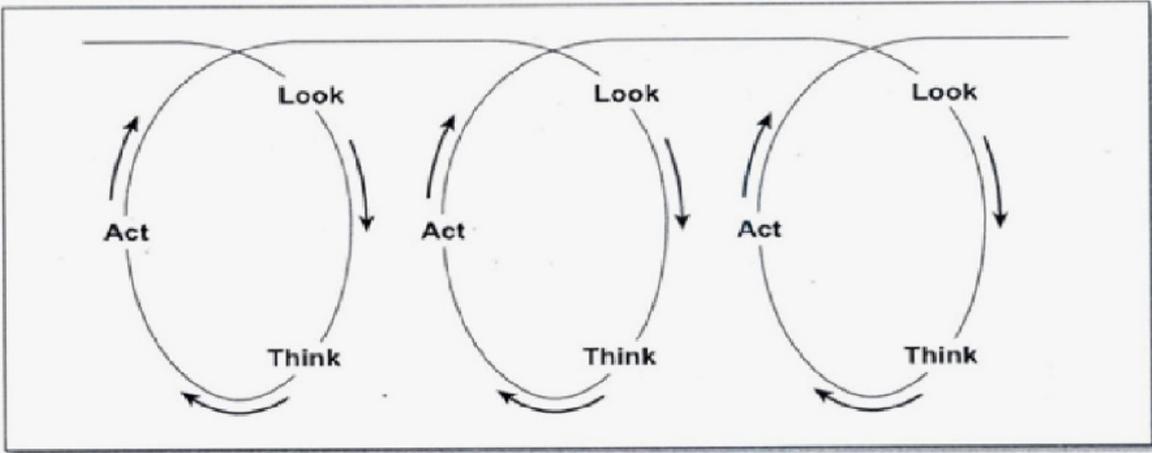
As pointed out earlier, we have distinct cultures which influence how we approach our daily chores like teaching and school administration for us in the education circle. Our classrooms, where the brains of future Pacific leaders and citizens are being moulded and challenged, must be vigorous environments of learning. Teachers are to be facilitators of that learning, applying appropriate theories to different student types if and when they are involved in constant research of their practice. This leads me to briefly touch on another strategy to consider when weaving theory and practice in our Educational administration.

#### **Action research – a distinctive way of blending theory and practice of Education administration.**

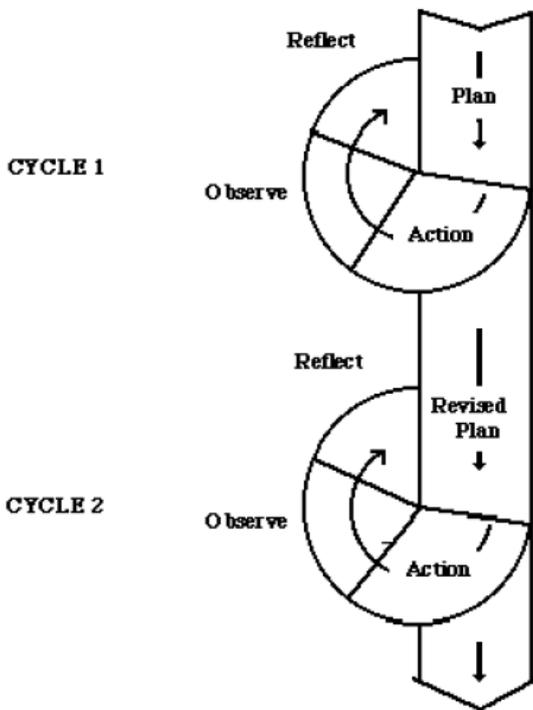
(d) Conduct Action Research as a means of weaving the theory and practice of Educational Administration. Action research is a research approach which is cyclic, collaborative and participatory in nature and aimed at improving practice (Mills; 2007). Johnson (2008) describes it as a systematic inquiry into one's practice with the hope to increase quality output. It is further defined by Fisher (2004: 2) as

A process in which a group of people with a shared issue of concern collaboratively, systematically and deliberately plan, implement and evaluate actions. Action Research combines action and investigation. The investigation informs action and the researchers learn from critical reflection on the action.

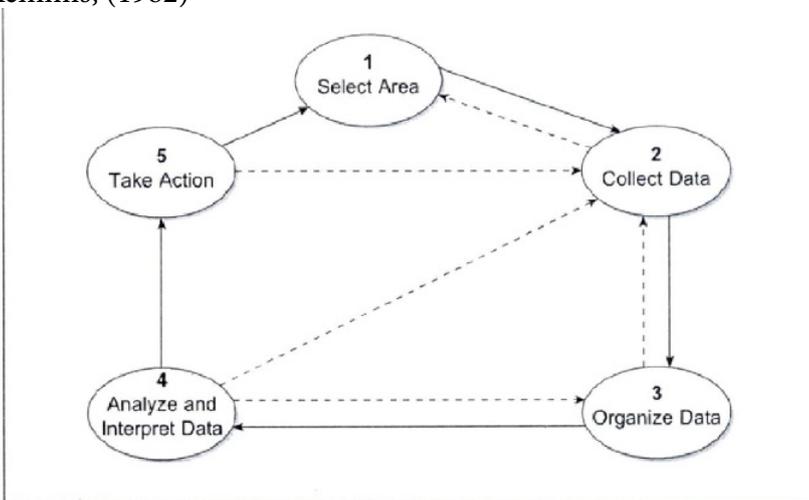
The above quotation and following models illustrate "action research" as a relevant strategy for weave theory and practice in educational administration as instructional leaders of schools.



Source: Adapted from *Action Research* (p. 9), by Ernest T. Stringer, 2007, Thousand Oaks, CA: Sage. Copyright 2007 by Sage. Reprinted with permission of the publisher. All rights reserved.



Kemmis, (1982)



Source: Adapted from *How to Use Action Research in the Self-Renewing School* (p. 2), by Emily F. Calhoun, 1994, Alexandria, VA: Association for Supervision and Curriculum Development. Copyright 1994 by ASCD. Reprinted with permission of the publisher. All rights reserved.

### **Benefits for Schools/School Administrators from participating in Action research.**

Again I offer some food for thought on Action Research for us all to consider when discussing sub-theme 3 of our conference. Through Action Research:

(i) Practitioners construct theories from on-going reviews of their practice. I have witnessed the value of Action Research as an appropriate means of weaving theory and practice in Educational Administration. The fact that it is cyclic allows participants involved to improve their practice simultaneously to acquire and generate new knowledge in the field as practitioners. School administrators and their staff as practitioners can develop theories from the constant reviews of their action, as well as improving their practice. This we know is in line with the Grounded Theory concept by Strauss and Corbin (1990). Lomax (1999) says this,

If you are researching your action in endeavouring to bring out quality management to education you have started the disciplined process towards generating knowledge about your practice... in action research, the means and ends are merged so that methodology and theory intertwined in the service of practical. (p.14)

Accurate data is often a big hurdle for Pacific islands countries to produce, simply because of the absence of constant research studies. Action research by school principals and teachers can bring about immediate and relevant findings for policy makers at all levels and theories on Oceania schools and educational administration. School administrators have the power and authority to influence their schools to collaboratively investigate the different roles that they hold, with the purpose of achieving quality performance. If teachers of the different subject areas, administrative and support staff all partake in Action Research activities, a cascading series of positive outcomes can be experienced.

#### **Application of the model- Principal**

Using the models by the different scholars displayed above, a principal may, for instance, have a problem developing and implementing his or her yearly budget. This individual has identified his or her problem (problem statement). He or she then draws up plans to improve that area that is problematic, then implements the action plan. During the implementation, he or she observes and notes what is being done to address the identified problem. He or she then reviews the second action plan which by this time means delving further into the root of the problem. The cycle continues until the identified problem is addressed. It is important to note that Action Research allows you to begin on one problem but during the research process other problems of your practice are also addressed.

#### **Application of the model – Teacher**

A teacher may, for instance, face problems motivating students from a certain part of the community to learn. The teacher then draws up his/her action plan, looking at all angles of the problem. This plan is implemented and is also observed and notes are made on the outcome of the implementation. The teacher further reviews these outcomes and comes up with action plan (2) which will explore further the root cause of the problem. This is implemented and the research cycle continues until the initial problem is addressed. As stated in the case of school principals, during the process of implementing the first action plan, one may also be addressing other problems associating with this case, e.g. motivating all children to learn instead of the initial group you started with.

Let us continue with the benefits of Action Research.

(ii) Action research is participatory – it empowers those involved. Because Action Research is participatory, it involves all in the practice, whether it is to do with senior teachers, school counsellors, teachers or support staff, all go through the research process through the various cycles. Mills (2007) claims that Action Research provides educators with opportunities to better understand and improve their educational practices and at the same time empowers them. In my own work (2013) on Action Research for school administrators in PNG, I state that when Administrators practice Action research in their role, they will be involved in generating education theories at the same time as connecting the established theories in educational administration to their practice. The same could be said of teachers as well.

(iii) Action research connects theory to practice - Earlier we touched on the gap that existed in the past between theory and practice, and that these used to be performed by separate groups; academics with theories and practitioners with practice. Action Research therefore, allows practitioners to be involved in developing education theories, at the same time connecting these theories to their practice. Therefore, when school administrators conduct Action Research studies, they not only are engaged in developing educational theories but are connecting their practice to known theories in their disciplines. Furthermore, they will understand their research findings even better than those outside, and will implement fresh theories without many problems because they helped to develop these. This is powerful, and schools in the Oceania region should be excited about the impacts of Action Research such as these.

(iv) Research subjects participate in the study - Action Research is contrary to many research approaches which exclude the researched (subjects) from participating in the study to avoid bias outcomes of the study. Traditional research approaches have strict guidelines about separating researchers from the subjects and the research report is written in the second or third person. However, you, as the school principal, can take the lead in conducting Action Research so that those that are being researched can have their views and opinions considered. Koshy (2005) writes about a practising teacher who felt that research was only for a few until she carried out an action research project and found out that she and her colleagues benefitted from the experience.

Mills (2007) writes about another benefit gained by members of the research team; that while participating they are also “learners” and there was excitement experienced as new ideas and skills were applied in the classrooms. A concern of the past was that educational research reports never reached the field officers who often were the subjects of the study. Action research therefore opens up opportunities for field officers to be engaged in research which has immediate relevance to them. It is also emphasized that Action Research allows participants of a research study to actively be involved and be active learners instead of being passive recipients of knowledge.

In conclusion, I wish to reiterate these points; that merging theory and practice in educational administration will enhance school principals as instructional leaders, enabling them to promote and support effective teaching by their staff, and facilitating robust learning by students in our region. Such school administrators know that classrooms are the machine or engine rooms, where minds should be challenged, moulded, and encouraged to be critical thinkers and not be mere recipients of knowledge. School authorities and their staff must be engaged in constant reviewing of their practice to construct theories from these, as such practice will empower schools and the staff who work in our region. Furthermore, it is economical and smarter for a country to have its school principals and teachers participating in generating contextually sound theories from their practice.

Thank you.

Note: For the reference list to this Keynote Address please contact the author



Weaving Theory & Practice  
in Language, Literacy, and Teacher Education

*Stream 1*

# **Overcoming Obstacles to effective literacy programmes in Vanuatu: An exploratory examination of instruction and practice.**

Gladys Patrick, *Vanuatu Institute of Teacher Education*

## **Abstract**

In Vanuatu, literacy levels of children in the early years of education (four to eight year olds) do not meet national standards. For example, national results show that eight out of ten children cannot read by grade three; and a large proportion of students are failing to achieve expected outcomes in reading comprehension and writing in standardised tests. There are also serious concerns regarding adult literacy, out of school youth, and the quality of existing school education.

The paper asserts that effective implementation of a balanced literacy programme in primary schools will certainly improve students' lifelong literacy skills and improve students' literacy rate. A balanced literacy programme is one where the strongest elements of whole language and phonics instruction are incorporated to develop students' literacy skills. It is believed that such a balanced programme will also help increase literacy achievements in early years of education. Yet many obstacles stand in the way of achieving this.

The paper considers three key obstacles which might be confronted more overtly in potential activities: ineffective literacy programmes, instruction and practices; lack of teacher training in literacy skills development; and inadequate instructional materials to support reading and writing. These obstacles were highlighted by a qualitative study using thirty interviews, questionnaires, and observations. A review of literature allowed the establishment of a theoretical framework and practical focus by developing a balanced literacy programme to improve literacy instruction and practices in Vanuatu. The author's interest in this study has emerged over the years as a language teacher, pre-and in-service teacher trainer, and from a key role in Vanuatu Literacy Empowerment projects.

The paper concludes with a discussion of the importance of the study and the success that was experienced in reforming literacy programmes in Teacher Education and primary schools in Vanuatu.

## **Introduction**

The growing concern relating to under-achievement in literacy assessments for early grades and adults in Vanuatu often raises questions about teachers' skills and knowledge in developing students' reading and writing skills in primary schools. In addition, instructional programs and teaching approaches for literacy development are also questioned. However, the assumption in this study is that literacy programmes are effective and teachers know how to develop students' literacy skills, and that under-achievement in literacy assessments may have been caused by other factors. Nonetheless, teachers and literacy programmes are at the frontline in this situation and require attention. If teacher effectiveness and instructional programmes are reliable, then why are literacy results and school leavers not reflecting the effectiveness of these practices? It is therefore important to re-think our literacy practices and make improvements where necessary.

Thus, without question, this study is significant for Vanuatu. Furthermore, there has never been any research done in this field in Anglophone primary schools in the country. Research-based practices in literacy development can inform innovative practices which will help improve the situation. Regardless of the type of training teachers have experienced, it is important for them to be familiar with current instructional methods, and their underlying principles, as well as with effective classroom techniques, materials, and assessment strategies appropriate to the type of course and the type of students they are teaching. Research evidence shows that a bal-

anced literacy approach will promote a balance in the listening, speaking, reading, writing, and language skills required to become literate. It is believed that the implementation of such a programme will not only improve literacy performance in assessments but will also prepare students for entry into their literate communities and societies later in life.

Currently there is an imbalance in focus across all literacy skills and this is reflected in national assessment results which show students performing better in some literacy skills than others. For example, in the Vanuatu standardised test of achievement (VANSTA) taken in 2007, the results show students performing better in writing and spelling but being very much at risk in reading comprehension. In addition, there is a variety of literacy programmes operating in isolation and this is reflected in the classroom time-tables observed in different schools. There are eleven hours per week allocated to language and literacy – more hours than are allocated to other subjects. However, literacy results do not reflect this. It is strongly recommended that further research is done to provide relevant and accurate data which will inform forward planning for improvement of practice. It is also suggested that the involvement, support, and participation of all stakeholders is required if changes are to be achieved.

This paper presents an exploratory examination of literacy programmes, instruction, and practices. The problem-solving approach was used to carry out the study because it is non-threatening and friendly whereby data was collected through informal discussions, interviews, survey questions, and observations. Also, under full employment, and for cost effectiveness, the study was done while in the field doing other teacher-in-service training and during trainees' teaching practice in schools. The paper concludes with a discussion of the importance of the study and the success that was experienced in reforming literacy programmes in Teacher Education and primary schools in Vanuatu.

### **How the situation was manifested**

Results from the National Standardised Tests of Achievement (2007 & 2009) in years 4 and 6 show a large number of students failing to achieve reading comprehension and writing outcomes expected at their grade level. The Annual Report of the Vanuatu Government (2010) highlighted the alarming findings that fifty percent and above classify as critically underachieving. In addition, the literacy rates in the rural Shepherd Islands and Efate (SHEFA) Province were found to be only 27.6 percent according to the findings of a recent literacy assessment by Vanuatu Education Policy Advocacy Coalition (ASPBAE Australia and VEPAC, 2011). Although 85 percent claimed to be literate, only 2 percent were actually categorised as being literate when they were given a very basic literacy test. The report shows that there are also serious concerns regarding literacy for adults and out of school youth and further concerns about the quality of existing school education.

### **Causes of low literacy achievement in national assessments**

Obstacles to effective literacy practices contribute greatly to under-achievement in literacy assessments in Vanuatu. What obstacles are preventing effective practices in literacy development in our primary schools? An exploratory examination of instruction and practice was carried out through interviews, questionnaires, and observations. As a result, three major obstacles were exposed, which could be included in the list of factors that prevent effective literacy development in primary schools. These obstacles are: 1) ineffective literacy programmes, instruction, and practices; 2) lack of teachers trained in literacy practices; and 3) lack of literacy resources.

#### ***Ineffective Literacy Programmes, Instruction, and Practices***

Data from interviews shows the lack of an effective literacy programme, and effective instruction and practices. Due to the lack of effective literacy programmes, many teachers lack the knowledge and skills needed to develop students' literacy skills. Other contributing factors include teachers' mindset and attitudes, absenteeism, and lateness. Results from the interview also confirm the variety of ways teachers are teaching language and literacy. Also, there are not enough innovations in place to address better ways of teaching literacy. There is a variety of literacy programmes operating in isolation and this is shown through the different timetables

that teachers are using. In addition, there is an imbalance in focus across all literacy skills. For example, in the literacy report of 2010, there is sixty percent critical underachievement in all areas, but more seriously in spelling and comprehension. This suggests that teachers are over-emphasising some skills at the expense of others, when there needs to be a balance of focus on all of them.

### *Lack of Teachers Trained in Literacy Practices*

More than fifty percent of teachers who participated in the questionnaire indicated that they had never attended any literacy workshops. On the other hand, teachers who were fortunate to have attended some literacy workshops were doing quite well, as seen by the results of their students. The 2002 statistics showed that 33 percent of primary school teachers had not undergone any teacher training. Furthermore, Primary school teachers in Vanuatu were mostly only trained to certificate level until 2012 when the first cohort graduated from the Institute of Teacher Education with a diploma in Primary Teaching (EFA national Plan of Action 2001-2015). Trained or not trained, only a small number of teachers have good strategies for working with children, especially those who are at risk of failing to achieve literacy success. Wells (1986) indicates that children and young adults develop literacy (reading, writing and thinking) by having real literacy experiences and getting support from more experienced individuals (adults as well as peers) but in many circumstances, this is not possible.

The Vanuatu Education Support Programme (VESP) design document (2012), also confirms that many teachers are under-equipped, unsupported and sometimes not even in attendance. Also, although the primary school teacher to student ratio is a low at 25:2, teachers are not equipped – through training or resources – to teach effectively. Therefore, few have good strategies for working with children, especially in the area of literacy. Teachers have been inadequately trained in literacy teaching techniques. This is partly due to the poor quality of pre-service teacher training and partly due to a lack of a specific focus on this area to date. Also, many lecturers have little or no experience of primary teaching and have few opportunities for professional development to keep up with advances in teaching content and methodology (p.35).

### *Lack of Resources*

Many schools lack reading resources including school libraries. The Vanua Readers are not graded according to class levels, therefore students are forced to read books beyond their reading level. According to the VESP design document (p.14):

there are inadequate instructional materials to support reading and writing. Few schools have libraries or class sets of books, meaning that children often read from the board. There are few examples of pocket charts or flashcards in support of the teaching of reading.

The centralised and currently low capacity printing services of the Ministry of Education are one major contributing factor to the above problem. Shipment of books to schools in the provinces is the second complicated issue, because the government does not own nor operate the domestic fleets. Since the languages of instruction continue to be English and French, there is heavy reliance on texts donated by overseas institutions. Unfortunately many of these texts are ill-suited to education in Vanuatu, especially as these texts do not consider the ESL/EFL language barriers (EFA national Plan of Action 2001-2015, p.37). For many schools in Vanuatu, there are very few books and little printed material for children to immerse themselves in, and few literacy experiences available in the home, pre-school, and school. Yet, in the whole language programme used, children are expected to be immersed in literacy experiences (Lumelume, 2008).

### **Overcoming obstacles to effective literacy programme – weaving theory into practice**

Research clearly shows that literature-based instruction in school helps all students become better readers, writers, and thinkers (Tunnell & Jacobs, 1989). In this work, researched-based practices from literature provided the theory on which an innovation was established – the balanced literacy programme. In 2008, I developed the first module of the balanced literacy programme, which was trialed in one of the provinces through the Pacific Regional Initiatives for the Delivery of basic Education (PRIDE) sub-project in Vanuatu. Two years

later, when the Early Grade Reading Assessment (VANEGRA) was implemented in the country, schools from that province scored higher than schools from other provinces (see Table 1). When I was asked to develop the training package for another literacy workshop for in-service teachers in 2011, I revised the module and went out once more to deliver it in all the six provinces throughout the country. This was called Vanuatu Literacy Empowerment Training (VANLET). The activity consisted of a book-flood and teacher training on how to use the book-based approach in a balanced literacy program.

Table 1. *Vanuatu EGRA Results: Fluency and Reading Comprehension – Schools’ Percentile of Reading Performance*

10th	10th -25th	25 <sup>th</sup> - 50th	50th -75th	75th - 90th	90th
Ekonak	Bernier Bay	<b>Atavtabanga</b>	Brenwei	<b>Ranmawot</b>	<b>Heren Hala</b>
Petros	Eton	<b>Bwatnapni</b>	Hog harbour	Eles	<b>Labultamata</b>
Sanesup	Iquaramanu	Divine	Kawenu	Fresh Wota	<b>Lolkasai SoriMauri</b>
Tuhu	Naslanvumol	Ekipe	Lakatoro	Isangel	Ifira
	Tautu	<b>Gamalmaua</b>	Manua	Banban	Sarakata
	Tisman	Lenakel	Natawa	Namaru	
		Losolava	Neramb		
		Loukatai	Vales		
		Seaside			
		Tiasia			
		Vaget			

Schools in bold type were on the balanced literacy programme for two years before sitting the Early Grade Reading Assessment. Better described, the next table shows the number of teachers trained in balanced literacy programme at the time when Early Grade Reading Assessment was taken in Vanuatu.

Table 2. *Numbers of teachers trained in the Balanced Literacy Programme*

Name of School	No. of Teachers trained in Balanced Literacy Programme	No. of Teachers not trained in Balanced Literacy Programme
Heren Hala	Classes 1-3 teachers trained in balanced literacy programme	0
Labultamata	1 Multiclass VANLET teaching 2 classes	1
Lolkasai Sori Mauri	2 VANLET teachers	1
Ranmawot	2 VANLET teachers	1
Atavtabanga	1 VANLET teacher	2
Bwatnapni	1 VANLET teacher	2
Gamalmaua	1VANLET teacher	2

Unfortunately, I was never given a chance to monitor this next cohort of teachers due to lack of finance and support from the Ministry of Education. There is an urgent need to administer another VANSTA to confirm or refute the effectiveness of the 2011 project. Despite the lack of support from the Ministry, it is encouraging to find that some faithful teachers and zone curriculum advisors have not given up. They are successfully implementing the programme and speak very highly of the improvement in students’ results. At the institute of Teacher Education, a particular module was developed on a balanced literacy programme and our trainee teachers are taught the same things that the particular in-service teachers are trained in.

### **The balanced literacy programme in the Vanuatu context**

The balanced literacy programme involves the integration of a thematic approach from our curriculum, ele-56

ments from the whole language, and phonics instruction. The thematic approach considers language themes or topics which are carefully chosen from our cultural and contextual background to use as the starting point for language and literacy lessons. The whole language approach and phonics instruction are incorporated to provide the balanced literacy programme. In this way, theory and practice are embedded in the literacy programme taught to pre-service and in-service teachers. Accordingly, we have four main essential components:

*Balanced Reading Instruction*

- Read Aloud
- Shared Reading
- Guided Reading
- Independent Reading

*Balanced writing instruction (Genre-Process Approach)*

- Text types
- Methods – Emersion, Shared, Guided & Independent writing
- Writing Process – Pre-writing, First draft, Revision, Final Draft

*Phonics instruction – Word-Study*

- Phonemic Awareness
- Phonics
- Word-Recognition
- Spelling
- Vocabulary

*Language study – Grammar*

- Verbs & Tenses
- Word-Classes
- Sentence structuring
- Punctuation
- Etc.

(See the programme in its table form in Tables 3 & 4)

Table 3. *The Balanced Literacy Programme in Vanuatu Context*

Time	LITERACY AND LANGUAGE SKILLS DEVELOPMENT										
	LITERACY SKILLS DEVELOPMENT								LANGUAGE SKILLS DEVELOPMENT		FURTHER LEARNING
		Mon.	Tue.	Wed.	Thurs	Fri.	Mon.	Tue.	Wed.	Thurs.	Fri.
30 mins	1. EXPERIENCE WITH AND LANGUAGE OF THE TOPIC 2. WORD STUDY - Phonemic Awareness, Phonics, Word-Recognition, Spelling & Vocabulary										Assessment
67 mins	Literacy Experience	Poems, Songs	Reading Aloud	Poems, songs	R. Aloud	P, S	R. Aloud	P, S	R. Aloud	P, S	Further Learning -Indep. Reading
		Shared Reading	Shared Reading	Shared writing Guided Writing Publishing [The Writing Process in Use]			Guided/Group Reading Activities		Language Study [Grammar]		-Indep. writing & Assess.
		Follow-up Reading Activities									
20 mins	Particular Skills										Assessment
15 mins	Development Activities										Assessment

Table 4. *Programme schedule*

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
5-10 mins	Poems songs	Reading Aloud	Poems songs	Reading Aloud	Poems songs	Reading Aloud	Poems songs	Reading Aloud	Poems Songs	Reading Aloud
60-75 mins	Shared Reading 1	Shared Reading 2	Process-Genre Approach (Teaching of writing and the writing process) Immersion Shared writing			Guided/Group-Reading Activities (Associated word study & Language exercises) - Independent Reading		Language Study Grammar		Further Learning Opportunities (Independent/group/ individual learning experiences - Assessments - Revisions etc.
	Follow-up Related Activities		Guided/Group writing Independent writing							

## Conclusion

The paper concludes that low literacy rates can be improved if we study the contributing factors carefully and address each one accordingly. The paper specifically highlights the fact that obstacles to effective literacy programmes can be overcome and one of the ways in which this can be done is through the use of a balanced literacy programme. Research-based evidence and the trial of a balanced literacy programme in some schools has shown initial signs of success. It is therefore suggested that there is commitment to further research in this field. VANSTA is expected to be undertaken every two years, but this is not happening. In fact, the last time the test was administered was in 2007. In 2011, more than two hundred teachers throughout the country were trained to implement the balanced literacy programme. However, since VANSTA has been suspended, it is not clear where our literacy levels are to date.

Nonetheless, it is strongly recommended that a balanced literacy programme is implemented by every class-

room teacher and that the Ministry of Education is responsible for ensuring that this works. It is equally important that the Teachers' College, the In-service Unit, and the Curriculum Unit all work together in addressing areas that need strengthening to improve the national literacy rate and develop life-long literacy skills for the students. The Ministry of Education is, on the whole, responsible for strengthening innovations in the system, and ensuring that there are on-going literacy training courses for in-service teachers. Furthermore, teaching and learning resources must be improved and increased in all schools. It would be even better to establish Teachers' Resource Centers in each province which would in turn supply resources to its schools. There remains, however, the need for more research to build a better and more consistent body of knowledge on literacy development, in order to continue this initial study.

Prior attempts at study in the area discussed have not been properly addressed. An expansion of these attempts would be to investigate thoroughly the teaching approaches, literacy programmes and practices; and their influence on literacy achievement levels for primary students. Prior studies had predominately consisted of a general collection and analysis of information gathered through unplanned field visitations, and their results may not have been persuasive and appreciative. Further studies that cover a longer period would be more useful than previous attempts. Given these factors, it is possible that this study may provide genuine and more persuasive results concerning the matters addressed. It would also be interesting to compare the results of previous studies to the results of future studies and, equally, to see all stakeholders collaborating in future attempts and practices to increase literacy levels and to develop life-long literacy skills.

Another area related to this study would be to review literature for best practices in developing literacy. Finally, the study would provide recommendations for improvements and adoption of the specific best practices that could be most usefully woven into classrooms and literacy programmes. In sum, much more research needs to be undertaken in this area to build a better and more consistent body of knowledge on literacy development in Vanuatu.

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# EAL teachers' identity and agency: The impact of participant positioning through in-service professional development

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## Abstract

It is commonly believed that opportunities for in-service professional development (PD) contribute to teachers' professional growth and identities, which in turn result in improved practice and longevity in the profession. Despite this potential, in-service professional development also has the propensity to limit and disempower teachers' identity, actions, and agency in the classroom through different re-articulations of these within institutional values and through participant positioning (Anderson, 2009). Using post-participation reflections of in-service PD activities by two practicing teachers of English as an Additional Language (EAL) in tertiary settings in Queensland, Australia, we explored the potential that in-service PD opportunities had towards re-articulation of teacher identity, actions, and agency within tertiary settings. All in-service PD sessions reflected upon by the two participants had been delivered in a traditional format with a specified curricular focus and were run at participants' institutions of employment. In the case of the two participants in this study, the findings indicated that the institutionally endorsed in-service PD activities that they had undertaken had undesired consequences. We discuss these findings with implications for EAL teachers' identity and agency with a particular emphasis on the design and delivery of institutional offerings of professional development activities specific to the growing and dynamic field of EAL teaching and teacher development.

## Introduction

Despite prevalent applications as a top-down, regulatory mechanism connected to large-scale implementation of policy and adherence to industry standards (Ball, 2003; Boud & Hager, 2012; Webster-Wright, 2009), professional development (PD) is endorsed in the literature as a valuable tool which offers various professional and personal benefits to practitioners. For example, PD provides individuals with the opportunity to interact with colleagues (Snow-Geron, 2005), and to work towards a more desirable career trajectory (Lawton & Wimpenny, 2003) or job security (Bland & Roberts-Pittman, 2013). It is also endorsed for its capacity to assist teachers with the development of their classroom practice and their ability to reflect critically upon professional experiences (Alfaro & Quezada, 2010; Yang, 2009). In addition, PD provides pathways for practitioners at different stages in their careers (Eros, 2011; Lynn, 2002) to build stronger professional identities (Beijaard, Meijer, & Verloop, 2004) critical for resilience and longevity in the profession (Moore & Hofman, 1988). Overall, PD is argued to strengthen teachers' identity and practice through developing their agency as critical, autonomous, and reflective practitioners.

Despite association with various personal and professional benefits for practitioners, under certain circumstances in-service PD opportunities can also create undesired implications for practitioners' professional identity and agency through participant positioning. Whilst cultural repertoires position professionals in certain ways at societal or industry levels, positioning of professionals can also occur at the institutional level (Søreide, 2006) through transmission of rhetorical discourses (Pearce & Morrison, 2011). In-service PD can further facilitate positioning of teachers through prescriptive, sometimes delimiting, articulations of teachers' actions and practices. Such positioning through in-service PD becomes a serious concern when the subject positions assigned to teachers are neither congruent with the identities they possess or aspire to possess, nor conducive to their professional growth and learning. Re-articulation of professional identities or teacher positioning, we argue, can have long-term consequences for teachers' identity and continuous growth in the profession.

Using post-participation reflections of in-service PD activities by two EAL teachers in tertiary settings in Queensland, Australia, we explored the potential that in-service PD opportunities had towards re-articulation of teacher identity, actions, and agency within the non-compulsory tertiary sector. The interview data used in this paper were collected as part of a larger study which examines language teachers' perceptions and understandings of PD. Each participant held more than ten years' teaching experience and relevant postgraduate qualifications at the time of data collection. We use excerpts from their interview transcripts to foreground and comment on the issues raised earlier.

### **Identity, practice, and agency**

Agency and identity are non-static notions negotiated by practitioners within institutional and industry discourses, and the values and expectations communicated to them by their respective communities of practice (Beijaard et al., 2004; Lave, 1996; Lave & Wenger, 1991; Søreide, 2006). Agency and identity have a mutual interdependence for teachers, as one without the other can be less-developed and non-viable (Polkinghorne, 1996; Ruohotie-Lyhty, 2013). Continuous teacher learning, critical self-reflection, and collegial support are deemed invaluable for maintaining and developing these throughout a teacher's career (Cárdenas, González, & Álvarez, 2010; de Ruyter & Kole, 2010).

In-service PD opportunities provide an essential and accessible platform for facilitating this. However, as signalled earlier, limited recognition during PD sessions of agency and identity as phenomena that need to evolve in response to practitioner and contextual needs can be problematic. As such, under ideal circumstances, PD should confer opportunities for critical negotiation of identity and agency characteristic of the individual. These opportunities may entail provisions to improve pedagogic knowledge and contextual orientations to teaching (Liyanage & Bartlett, 2008; Servage, 2008), to transfer previous learning into teachers' current context (Trent, 2011), and to sharpen instructional decision-making for better outcomes (Liyanage & Bartlett, 2010) – skills that teachers require in order to make subsequent changes to their identity and exercise of agency (Flessner & Stuckey, 2014; Van Driel, Beijaard, & Verloop, 2001).

However, the experiences of the teacher participants of this study suggest that a problematic relationship sometimes characterises the intersection between practitioners' experiences, current skills and knowledge in practice, and idealised and rather restrictive notions of good practice disseminated through PD. Language teaching institutions commonly ensure that their teaching staff participate in in-service PD activities to comply with industry regulatory standards (see NEAS, 2008), and provide opportunities to novice and experienced teachers for capacity building (Yurtsever, 2013). Couched within industry and institutional values regarding effective practice, these can impede or overtake teachers' agency-driven pursuit of learning and effective practice. In this way, PD may become a platform for facilitating prescriptive positioning of teachers within institutional discourses over which they have little control and which allow little accommodation of the individual. Critically, extensive experiences with this type of positioning may foster passivity on behalf of teachers as they perceive their practice to be largely out of their own control (Polkinghorne, 1996).

These notions are contextualised into examples by the participants of this study. The first participant, who recently attended institutionally-run PD sessions about assessment, discussed her experiences of idealised practices regarding assessment and assessment instruments disseminated through PD activities. She perceived a misalignment between her views of assessment practice and the ideal outcomes thereof and those of the institution. She explained:

For me the biggest thing that is not congruent [with my own practices] is that I feel that the [institution] expects this, sort of unwritten rule, I feel, regarding bell curves which, people say they don't exist anymore but the [institution] considers that if a course is taught adequately, there will be people that...will do really well, most of the people will be average and then some people that will do really badly. And how this is not congruent with my teaching is that I think that if I do a good job...a lot of people will do well. I find that it does [affect my practice] because then...I feel that I can't reward

students as much as I would like to. [Participant One, Lines 43-49]

She explained that her ideas of effective teaching revolved around actively assisting students in their learning and carefully scaffolding tasks, which she felt was conducive to greater learning and higher achievements. Despite this conviction and her experience, she still felt restricted in her practices by institutional ideas of how assessment of students' work should be conducted post-PD. She reflected, "unfortunately, sometimes institutional PD does not, is not congruent...or the ideas presented are not congruent, with...my practices" [Participant One, Lines 157-158].

The second participant echoed similar sentiments, discussing the inflexible stance that PD activities sometimes take in relation to notions of good practice, "I think a lot of PD is like a lot of lectures...A lot of it will be like, 'I'm telling you to do things'" [Participant Two, Lines 199-200]. Instead, he described that ideal PD activities should be non-restrictive and promote, "other ways to do things, exploring ideas, exploring discussion" [Participant Two, Lines 195-196].

Rather than allowing teachers to create "images of themselves" (Trent, 2011, p. 627) which enhanced their professional identities, the instances of PD described by the participants above were annoying impediments to teacher growth, which in this case resulted through alterations to practice contrary to practitioner beliefs and experiences. Despite both participants' context-responsive and experiential knowledge regarding how best to teach (Shulman, 1986) through processes of "planning, teaching and reflection" (Hashweh, 2013, p. 120) and leading to the development of their beliefs regarding effective practice, lack of accommodation of this knowledge served to enforce the authoritative position of their institutions of employment in defining how teacher practice was to occur. Subsequently, the teachers were positioned as implementers of institutional expectations in a delimiting way, whose knowledge and beliefs were minimised and overridden by institutional discourses for compliance.

Not only does this fail to take into account teachers' experiential knowledge regarding effective teaching but also contributes to the development of passive identities, wherein individuals have little control over circumstances and the exercise of agency (Goldstein, Kielhofner, & Paul-Ward, 2004; Ruohotie-Lyhty, 2013). Teacher identity formation is responsive to teachers' individual understandings of themselves as well as reinforcement or recognition by outside actors (Clarke, 2009). All teachers have contextually responsive work experience which can provide the basis for inquiry-based, exploratory learning (Golombek & Johnson, 2004). However, when this experience is not acknowledged and accommodated during professional development, it can have negative consequences.

In connection with the formation of passive identities, it may compromise teachers' self-directed pursuit of learning and development. Careful and critical consideration of one's own practices and the beliefs underlying them is considered to be essential for good decision-making in the classroom (Baum & King, 2006) and for professional development and growth (Underhill, 1992). Such compromises are therefore detrimental for teacher learning and construction of effective identities which in turn allow them to abrogate agency, fostering dependence upon institutionally-run PD to determine practice, rather than engaging in pedagogically-oriented, careful, and critical consideration. This is a particularly detrimental outcome for institutions seeking active teacher involvement in the pursuit of improved practice (Liyanage, 2008), wherein abrogation of the agency to determine learning and development is likely to result in low levels of reflection and criticality on behalf of teachers and, in turn, low levels of growth and engagement. This is an undesirable outcome from PD initiatives which, as the second participant argued, should rather result in: "growth as a teacher, growth as an individual, growth as a professional" [Participant Two, Lines 257-258].

Whilst we have only examined data from two participants here, we recommend examination of these issues on a larger scale to further explicate the ways in which teachers' agency may be compromised by institutionally-run PD and the effects that this has on their identities, practice, and development.

## **Towards a more empowering model for institutionally-run professional development**

Articulating subject positions for teachers through PD activities is not inherently negative; however, problems arise for teachers when PD becomes overtly associated with venues for dissemination of institutional aims, rather than creating “spaces for agency” (Aitken, 2009) in which teachers’ identities as critical and reflective practitioners are supported. Institutional support and acknowledgement of teachers in ways which enhance, rather than delimit, their capacity to construct effective identities as critical and reflective practitioners, is essential. Finding an ontological basis in notions of transformation and critical pedagogy, spaces for agency refer to rhetorical and/or physical spaces wherein the locus of control is shifted to the participants in question (See Aitken, 2009; hooks, 2003). Freire’s (2005) contributions regarding a transformative approach to teaching find useful application here, where the position of the “student” is relegated to teachers undergoing PD. Freire (2005) advocates moving away from the banking model of education, wherein an instructor deposits pre-formulated information to the students, towards a more dialogical model, where learners gain a right to participate and determine their learning.

For facilitators of PD and institutions, this model could easily find application when enacting PD activities, and would entail focusing on fostering dialogue regarding teachers’ experiences and needs and encouraging them to take up identities as active, critical, and reflective learners. Critically, commitment to teachers’ own agentic participation in professional development and learning must be authentic and incorporated into the design of the activity, rather than added superficially in the form of hands-on elements which seek to contrive participative teacher learning within carefully defined boundaries without allowing teachers any actual freedom. As Hargreaves and Dawe (1990) argue, superficial acknowledgment of agentic orientations to teacher learning in the design and implementation of PD does more to benefit those implementing the PD than the teachers themselves. One possible solution to this is to supplement PD activities specifically oriented to institutional values with opportunities for teachers to engage with professional learning communities (PLCs), which aim to develop collaborative work cultures to allow teachers to engage collegially in inquiry and analysis of their own contexts (Stoll, Bolam, et al., 2006; Vescio, Ross, & Adams, 2008). This notion is supported by the first participant, who reflected, “I wish we had more [PD opportunities] within the school, so to share with each other what we’re doing... ‘cause then we may get help from cognate courses, with what we’re doing” [Participant One, Lines 15-18].

Participation in PLCs is argued to produce more genuine and beneficial change in teacher practice than other pathways to professional development (Montecinos, 2003) responsive to teachers’ needs and to the features of their work context (Diaz-Maggioli, 2003). However, whilst general interest and involvement in PLCs has greatly increased in recent times (Nelson, 2009), and commentators have discussed the potentials of their application in ELT (Lee, 2011) there is still little evidence that this type of professional development is being widely utilised in the industry.

Furthermore, the negotiation of effective professional identities is not solely the responsibility of teachers themselves. Rather, professional identities require nurturing and development within conditions defined by respect and communication (Sachs, 2001) between practitioners and employers. This includes acknowledgement of teachers’ own goals for identity and practice and the facilitation of PD which systematically accommodates teachers’ experiences and local knowledge (González Moncada, 2007). Persistent provision of inadequate professional development on behalf of institutions simply transfers the responsibility for learning onto the teachers themselves, an action which is neither practicable nor desirable.

## **Conclusion**

The ideal result from participating in professional development is that teachers are able to formulate an identity which is not predetermined nor limited, but able to be renegotiated within different contexts, paving the way for transformative change through open communication with others (Clarke, 2009) and the exercise of their agency to critically reflect upon and implement effective practices. However, institutionally-run in-service PD activities have the potential to disrupt teachers’ identity negotiation and learning via the conferral of mar-

ginalising subject positions. Using the reflections of two practicing EAL teachers, we explored some possible outcomes of this for teachers. We propose that, in order for teachers to engage in plenary participation in their community of practice as learners and practitioners, it is critical that they are provided with PD opportunities which confer suitable resources to them to allow them to construct and strive towards such an agentive identity. Whilst institutionally designed in-service professional development activities may serve a useful purpose, particularly for novice teachers, over-reliance on this model can be detrimental. Rather, activities which are institutionally-focused should be supplemented by opportunities for collaborative and reflective teacher learning, responsive to teachers' needs and beliefs, as well as to the features of their community of practice.

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## Empathy and skill: What international post-graduate students want from cross-culture support with academic writing

Laura van Peer

### Abstract

Accompanying the Re-thinking Pacific Education Initiative by and for Pacific People (RPEIPP) is the emergence of a fresh new body of Pacific academic literature. Much of this has been contributed by a new generation of Pacific academics, many of whom have encountered RPEIPP while completing post-graduate studies abroad. These students acknowledge that they have been encouraged and mentored by those engaged in RPEIPP to attend conferences, make presentations, and contribute papers to the RPEIPP literature as well as to other academic publications. Many students, however, both international and New Zealand Pasifika, reveal that this often contrasts with experiences of formal supervision and academic support for thesis preparation. This paper shares understandings and reflections gathered from the privileged (trusted) position of proof-reader/editor – and sometimes “counsellor” – for authors of theses, reports, journal articles, and textbook chapters. Gleaned from strategic conversations with colleagues, and from student feedback, it is clear that what our students want from us as teachers, supervisors, academic support staff, proof-readers, and editors is both empathy and skill – credibility, credentials, *and* compassion.

The paper is, therefore, largely a personal perspective supported by relevant literature and by the students’ voices. It is intended to both identify and validate students’ experiences in terms of the *additional* challenges encountered by those writing at a high academic level in a foreign language and context. It is also intended to prompt some insights for those in the academy who are in a position to influence and support the development of their writing – lecturers, supervisors, academic support staff – and it thus advocates for a more level playing field. As such, the paper contributes to the conference theme, “Re-thinking and transforming Pacific learning, teaching practice, and teacher education”.

### Introduction

Recently I arranged to meet with an international student whose thesis I have been proof-reading. She kindly introduced me to some of her colleagues and, during the conversation, one Pacific woman made the point that there are special challenges for those writing in English because it is their second language. The young man from Asia then said that English is actually his third language after the national language and French; and my client, from Africa, told us that English is her fourth language after the languages of her mother’s people, her father’s people, and the national lingua franca. And, of course, there are others whose mother tongue is tonal or in an entirely different script. I wish to begin by acknowledging these individuals’ courage in even attempting to climb this particular mountain.

While we were speaking I was reminded of another conversation in a different context within the same institution, where it was made clear that some people in powerful positions do not approve of thesis candidates - from anywhere - getting support with editing and/or proof-reading: that this somehow proved that they were not up to scratch academically and was akin to cheating. Ironically, other academic staff who have used proof-reading/editing services have acknowledged its benefits – both to their papers and to their own learning.

As I was reflecting on the “shape” of this paper, I remembered other things have been shared with me in my somewhat privileged (trusted) role as proof-reader. These have become my motivation for putting this paper together. I have heard of difficult relationships with supervisors. I have seen students required to explain or

justify indigenous approaches in terms of Western approaches. I have seen theses submitted that were clearly in need of redrafting and, following marking, have required students to return for prolonged periods to the hosting institution for this purpose. I have seen students distressed to learn that, at the final hour, they needed the services of a professional proof-reader (and/or editor) but no one had warned them of this, they had not budgeted for it, their funds were limited or gone, and their time was up. For these thesis candidates the playing field was never level. This paper advocates for them in two ways: first, by making the case for institutional provision for both proof-reading and editing as an equity issue, and, second, by making the case for supervisor training in cultural competency.

### **The case for proof-reading AND editing as an equity issue**

This section highlights two dilemmas in relation to proof-reading; the first faced by the person providing the service, and the second faced by the student.

When I was requested to proof-read a thesis by a student who wanted “someone who could read my work with compassion”, I was reminded of what an act of trust this is; to put this work that has consumed you for years into the hands of another for “feedback”.

I have discovered that the issue about whether students should be allowed to have their theses edited or even proof-read is actively debated – see, for example, the range of comments posted on the Thesis Whisperer Website (<http://thesiswhisperer.com/category/on-writing/>) in response to the article “Should I get an editor for my thesis?” (The Expert Editor, 2014).

The University’s stance on proof-reading versus editing support is clear(ish):

The general principle for other advisors is that they may proof-read and provide generic advice, but may not edit the thesis.

(Research Policy Group, VUW, research Theses proof-reading and editorial advice policy 2011, p. 2)

Included in the appendix:

#### 3. Proof-reading does not include

- a. Suggesting extra works to be added to the reference list.
- b. Undertaking literature searches for relevant literature.
- c. Correcting the use of technical terms.
- d. Attempting to make the text more logical. Proof-readers may, however, point out sections where the candidate needs to address such a shortcoming in their argument.
- e. Adding to or correcting the argument in the text.

### **Editing**

Editing is understood to include any help with the presentation of material in the thesis which exceeds proof-reading, as set out above. In particular, it includes anything which enhances the academic content of the work, by improving the logic, the presentation of facts and arguments or the academic conclusions of the thesis. Supervisors, by virtue of their role, do undertake some editing, in particular by giving advice on areas in which the thesis does not meet international academic standards. Other advisors and contracted proof-readers should not edit, however, and should take particular care not to become de facto joint authors of the thesis (VUW Appendix A, Guidelines to Accompany the Proof-Reading and Editorial Advice Policy, 2011).

The dilemma arises when you actually try to walk the line between editing and proof-reading with integrity – and by that I mean doing the very best for your client. The Expert Editor (2014) describes the editing versus proof-reading debate as “the greatest debate in the world (for writers anyway)” and attempts its own distinc-

tion between the two thus: editing (conducted at an earlier phase than proof-reading) improves the quality of writing; enhances the use of language; makes expression clear/er; removes repetition, inconsistencies, and errors – while proof-reading involves correcting spelling, grammar, and typos; ensures language and formatting are consistent; and polishes already good writing to ensure a document is ready for publication (The Expert Editor, 2014).

To return to the example given above, my dilemma is how to “read with compassion” when I am not permitted to edit. How do I ignore repetition, irrelevant or wrongly positioned material, inconsistencies in the text, or incorrect use of “technical” terms or work that is clearly not going to meet international academic standards, and maintain the trust of my client?

I have had occasion to point out the following to EFL theses candidates: the correct (technical) term is “pain reliever” not “paint reliever”; “maxim”, not “maximum”; “four petal flower” not “four pedal flower”, “parameter” not “perimeter” – the first of these is probably simply a typo, the second understandable confusion, the third may be attributed to first language interference, but even consulting the dictionary would not necessarily help with the fourth example. While a speaker of English as their first language would be unlikely to make these “errors”, to a non-native speaker the subtleties of difference are no clearer than the difference between *uma* and *uma* would be to a non-speaker of Tongan. To borrow from the words of another courageous effort at getting it (almost) right, to not be able to “correct” these leaves “amiable room for frustration”.

Giving feedback as a proof-reader can be an exercise in tact because the proof-reader assumes that work containing these errors has been cleared by supervisors for proof-reading and therefore – given the University’s guidelines, above – these matters of “editing” have been missed by the supervisors who are permitted to “undertake some editing”. The literature emphasises the importance of the quality of the supervisor/supervisee relationship (see Cowley-Malcolm, 2014; Edwards, 2012). Given the trust put in the proof-reader, the proof-reader/client relationship is important too (The Expert Editor). By not allowing the proof-reader to also “edit”, the university policy disempowers the student/proof-reader relationship.

The Expert Editor (2014) makes the point that, for speakers of English as a foreign language (EFL), English, with its nuances, contradictions, and complexities is their biggest hurdle. It might be added that these nuances, contradictions, and complexities also stump many for whom English is not a foreign language, who are writing at a high academic level! Recently, a scholarship student from the Pacific mentioned how difficult it is for EFL students to write what they know how to say. I made a comment about complexities associated with translating from the first language, but the student said, “No. We know how to *say* it in English, but we struggle to *write* it”. I immediately realised that, as with others, this person’s spoken English is much more fluent than their written English. Of course, this can be true for many for whom English is their first language too, but how much more of a challenge it presents to EFL students.

Where, then, do these students go for coaching in academic writing? International/EFL students face additional challenges to their local peers, and it is fair to argue that extra support is simply a matter of equity. However, students report that academic support services are difficult to access and offer very limited time, and that supervisors’ feedback often tends to be “negative”, lacking in detail, and not instructive. Given both resourcing constraints and the pressures on supervisors’ time, this may be understandable.

While institutions may provide workshops in academic writing, it appears that these are often not well attended because students are often not aware of the need for such coaching until they are at the writing stage and receiving feedback. At this point, a good proof-reader/editor can assist by providing feedback that coaches the willing student, and it is extremely gratifying to the proof-reader to see feedback from early chapters applied to subsequent ones. Clearly, these students are willing to learn from coaching in academic writing (which necessarily contains elements of both proof-reading and editing) when it is available in a timely manner.

In terms of the “to allow or not to allow” debate, none of what either the University or The Expert Editor define as proof-reading or editing (above) suggests the person providing this service is contributing to the *thinking*,

to the research processes of selection of methodology, critiquing of literature, data gathering and analysis, etcetera. On the other hand, the close attention the editor/proof-reader pays to the document is a great test run for its cohesion and clarity. If the person providing this service can make good sense of a topic with which they are unfamiliar, surely they should simply be regarded as another member of the team that, within ethical boundaries, does what is needed to support the student to successful completion.

EFL scholarship students often encounter a dilemma of an entirely different nature in relation to proof-reading – financial considerations. “Most supervisors ask their students to proof-read [have their work proof-read] before sending to them, especially at the stage of preparing the first draft” (International PhD candidate, personal communication, 2014. *Emphasis added*). This, then, suggests the work is proof-read before the supervisor edits, and the student makes revisions based on this, thus indicating that such work will require at least two proof-readings. At the very least, any modification, revision, or redrafting based on the supervisor’s feedback will need attention before final submission. The danger for the student is that if this final proofing does not occur, due to either time or financial constraints, the work submitted will contain English of a varying style and quality which will be evident to the markers. The danger for the proof-reader, often identified in the acknowledgements, is that they will be held responsible for the varying quality of English. In fact, it often happens that this process of revising following supervisors’ input occurs several times, and thus needs to be carefully budgeted for. However, my contact, a scholarship recipient, went on to say:

There was no such information about saving money for proof-reading, and it is a big problem to many international students... I wish the University could consider the issue of proof-reading, especially for international students who came here with scholarships. (*ibid*)

Ensuring students are made aware of this in a timely way could be regarded as a responsibility to be shared among scholarship donor organisations, hosting institutions, and supervisors.

### **The case for supervisor training in cultural competency**

We all know that supervisors are very busy, often under great pressure, coping with complex workloads and changing workplace environments and requirements, and do not have the luxury of focussing solely and deeply on a single document. Despite this, many – probably most – do a wonderful job of looking after their thesis students. Testament to this is the fact that, despite the rather inevitable ups and downs, by the end of the academic journey most students’ acknowledgements show they genuinely appreciate their supervisors’ input.

While some institutions provide some training for supervisors, it cannot be assumed that this focuses on the needs of students, let alone the particular needs of EFL or international students. Indeed, there are those who argue that even the supervisors’ needs are side-lined in favour of institutional concerns – increasing efficiency, completion times, accountability, etcetera (Edwards, 2012). The title alone of Edwards’ (2012) paper “Post-graduate supervision: Is having a Ph.D. enough?” is telling; as well as critiquing the nature of the supervision training, the author calls for supervisors themselves to be the focus and agents of their training, to define their training needs (specifying, as an example, concerns about international students’ English language proficiency). Edwards cites a body of research that shows that the nature of student-supervisor relationship is a key factor in student success. Cowley-Malcolm’s (2014, forthcoming) paper points out the potential advantages of having same-culture supervisors: clearly, however, this is not an option for most international students, or even yet for many of New Zealand’s Pasifika students.

This paper advocates that supervisor training is firmly focused on adequately supporting students, and – in the spirit of participation, protection, and partnership, widely accepted as the principles of the Treaty of Waitangi which all our tertiary institutions claim to honour or acknowledge – includes training in cultural competency.

While in this day and age it hardly seems that a case would need to be made for such training, let us consider it in terms of just two ‘bumps’ on the playing field that international students are more likely to encounter and that need attention.

The first issue is how international students perceive their relationship with their supervisors in terms of power, and therefore how they respond to supervision. (It must be emphasised here that, because this paper is not based on a formal study, these are presented as *perceptions*). I have heard about supervisors who are perceived as having discouraged students from conducting research in their homeland and having instead encouraged them to move it to the supervisor's own research area in New Zealand; who dissuade students from their preferred methodology and steer them towards one that the supervisor prefers; who insist their own writings are highlighted in the thesis; who require major revisions of material that was there in a number of prior drafts for many months previously; who instruct students to remove great chunks of text, then later to reinstate it, and still later remove it again (or vice versa); who want the findings that are significant to indigenous research/ers modified or removed for reasons that are difficult to fathom; who provide feedback that is, at best, not instructional and who perhaps do not realise how paralysing any or all of this is for the supervisee.

Students confide that they know these things “aren't right”, but that they feel powerless to challenge their supervisors for fear of being penalised, either because this has been their experience “at home” or because challenging those in authority is not acceptable in their culture. Particularly vulnerable to these perceived power relations are young females from certain parts of the world, who, unlike their Western peers, are least likely to challenge those perceived to be in “authority”. Further to this, students are very good at hiding their upset at feedback – and this is not confined to international students (see comments on Thesis Whisperer). Clearly our supervisors need to be aware of situations such as this.

The second compelling argument for training in cultural competency arises from an awareness that students are still required to explain, compare, and justify indigenous approaches in terms of conventional Western methodologies. In particular, and of relevance to this Pacific educational context, I have seen several theses where students have wrestled to explain their use of *talanoa*, and to justify it in terms of conventional Western approaches. I have witnessed a post-graduate student at a seminar presentation being challenged by rather sceptical-sounding academic staff to explain “how does *talanoa* differ from focus groups?” In another situation, a researcher was asked to explain the “science behind *talanoa*”. Given that by now there are numerous studies both within and beyond the academy that have used *talanoa* (see for example, Johansson Fua, 2014; 'Otunuku, 2014; Taufé'ulungaki, et al., 2007), and that even a quick google search will show that literature to “explain” it has existed for over a decade (Halapua, 2002; Vaioleti, 2003), it must be asked for whose benefit are these requirements to (re)explain and justify? I am reminded of the time a Pacific colleague said in exasperation, “We don't have to explain us to ourselves” (pers comm).

I was recently both delighted and bemused to learn that a PhD candidate had been instructed to make amendments to remove comparisons and reference (actually, detailed explanations) to “conventional” approaches in order to let *talanoa* stand more strongly on its own. While this is a victory, it begs the question of why they were ever there in the first place, and how much of the candidate's time was taken (ultimately wasted) to include them and then to remove them? Surely there is a message in all of this? Those who supervise students who use indigenous approaches must accept that many concepts are not easily translatable: when indigenous research is at issue, despite their academic credentials, there are likely to be aspects they cannot hope to easily understand.

## **Conclusion and recommendations**

I really can see the observation of another reader who does not know anything of what I wrote initially. It is a great feeling because I am more confident now when my thesis makes its way to the markers...my thesis [is now] a wonderful piece of report which I am going to be real proud of.

Thanks heaps for all your really helpful feedback. I have found your comments and suggestions much more helpful than my supervisors'.

Thank you so much for reading my work. I really appreciate your comments. Every time, I learn new things from these comments.

These are not the comments of “cheats” or those who lack academic rigour; rather they show the extent to which these emerging academics want to do the very best they can with the task they have undertaken. There is a great deal at stake for these individuals – more perhaps than for their Western counterparts. International and Pasifika students have extra accountability to their research participants, their families, and the communities whom they serve by embarking on this academic journey – often requiring them to be far from home and family for an extended period – and to the hosting institutions Governments, organisations, and agencies who allocate these scholarships. The costs, financial and otherwise, of these students either failing or needing to return to the host country for a thesis redraft are extensive and, ultimately, it is in everyone’s interest to go the extra mile to support their success.

Based on the discussion, above, this paper concludes by making some recommendations to hosting institutions and to scholarship donor organisations.

#### *Scholarship donors*

- work with hosting institutions, supervisors, and scholarship recipients to make explicit the necessity for editing/proof-reading and the need to budget for this.

#### *Hosting institutions*

- provide adequate support for coaching in academic writing
- review policy on “editing” for international/EFL students
- review/implement supervisor training in cultural competency and in providing feedback.

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## Supporting Tonga's primary literacy/languages curricula through research-based resource development at the Institute of Education, USP

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### Abstract

Established in 1976, the University of the South Pacific's Institute of Education (IOE) is based at the Tonga Campus. Mandated to assist Pacific countries in achieving quality education, the IOE has also produced a range of educational literature and a children's book series called the *Waka Story Books*.

As part of the revitalisation of its publications programme, from 2014 the IOE will expand its development of literacy/language curricula support resources, first for Tonga and then the wider Pacific as requested. This is in response to two clear issues: indicators of continued poor performance by primary school children in reading and writing according to standardised tests; and a documented and widely observed paucity of customised, culturally and linguistically relevant, and curricula-aligned support resources available to teachers and students for use in classrooms. This paper reports on IOE's approach to literacy/languages curriculum support resource development in Tonga; which includes a commitment to not only evidence-based resource development, but also to the professional development and capacity building required to (i) sustainably produce these resources in-country, and (ii) enable resources to be maximally utilised in the languages/literacy lesson. The paper also briefly reports on the needs analysis research with primary school teachers and principals undertaken to guide resource development, and on the range of resources planned.

In order to ensure the usefulness of resources produced, the author, in her role at IOE, has developed a series of yardsticks for "quality" in its resource development and these are shared. The author reports on prototype resources developed thus far, for trial with local Tongan primary schools, en-route to a wider realisation of IOE's vision for curriculum support resource development for the Pacific.

### Introduction

The University of the South Pacific's Institute of Education (IOE) was established in 1976, and is now based at the University's Tonga Campus. Mandated to assist Pacific countries in achieving quality education by providing them with high quality, relevant research and innovative, evidence-based advice, the IOE has also produced a range of educational literature and a children's book series, the *Waka Story Book Series*. Over the decades a succession of dedicated academics oversaw the collation, illustration, editing, and publishing of the *Waka Story Book Series* in a range of Pacific languages, including Fijian, Samoan, Niuean, Bislama, Kiribati, Solomon Islands Pijin, Tuvaluan, Nauruan, English, Hindi, and Urdu. Not yet included in this list was the Tongan language; however this is set to change shortly with the publication of the first prototype curriculum supplementary resources by the IOE in Tongan.

While the IOE has continued to publish education-related material for adult and tertiary students, the publications programme for children had been relatively dormant since the mid-2000s. The author of this paper joined IOE as Fellow in Curriculum and Literacy in October 2013, and was tasked with the revitalisation of the *Waka Story Book Series* and educational publications for children. As part of the revitalisation of its publications programme, from 2014 the IOE plans to expand its publication of resources to supplement and support the implementation of the local literacy/languages curricula, first for Tonga and then the wider Pacific as the demand arises.

This move is in response to two clear issues: the first being indicators of continued poor performance by primary school children in reading and writing according to standardised tests, and the second being a documented and widely observed paucity of customised, culturally and linguistically relevant, and curricula-aligned support resources available to teachers for use in classrooms. With regard to the first, this paper will not dwell on it; suffice to cite the Tonga Early Grade Reading Assessment (TEGRA) Baseline Survey 2009 results report:

While most students develop some fundamental skills in grades Classes 1, 2 and 3, only 3 in 10 students at the end of Class 3 are able to develop fluency in reading, ability strongly related to reading comprehension. (MEEWAC, 2009, p. 5)

The TEGRA report continues:

Based on the analysis presented in this report, it is recommended that Tongan educators address reading deficits through interventions that provide additional support to teachers to improve their practice, increase the exposure of children to books and other reading materials beyond the classroom, and promote greater parental involvement in the reading development of their children. (MEWAC, 2009, p. 5)

This paper reports on IOE's approach to literacy/languages curriculum support resource development in Tonga; which includes a commitment to not only evidence-based resource development, but also to the professional development and capacity building required to (i) sustainably produce these resources in-country, and (ii) enable resources to be maximally utilised in the languages/literacy lesson or home. Why the joint focus on Professional Development (PD) as well as resource development? Kennedy (2010) notes that over the past decade there had been a clear focus on interventions to improve literacy outcomes at the compulsory school levels (primary and secondary school) worldwide, but warns that such interventions to improve literacy can at times prove to be "prescriptive" and "disempowering" for classroom teachers. Kennedy (2010) argues that the teacher is key to literacy development in high poverty schools, and that classroom teachers in such contexts are empowered through literacy-related PD. Similarly IOE perceives the need to invest strongly stakeholder knowledge and skills building in relation to fostering literacy in the home and at school.

## **The importance of good resources for literacy development and languages curriculum delivery**

### *Internationally*

The UNESCO Guide to Teaching Reading at the Primary School Level (N'Namdi, 2005, p. 32) states that:

One of the main problems in many rural areas is the lack of reading materials. When this is so, it is difficult to create an effective learning environment. All pupils should be provided with all the books and materials they need to create interest and stimulate the desire to read.

Internationally, commentators point to the importance of:

- extensive reading of texts matched to the age, reading level, vocabulary size, and interests of the readers (Lenters, 2004, p. 331; Lesaux, 2012, p. 78)
- exposure to texts which contain cultural relevance in content and illustrations; have been adapted to fit the context of the learners; and are congruent with the lived world of the children, and shaped by their societal values, culture/s, language/s, and identities (Lenters, 2004, p. 331; Paris, Wixson, and Palincsar, 1986, pp. 113-114)
- the provision of comprehensible input for language learning through reading material that is at an appropriate level of difficulty (Morano, 2004, p. 225)
- "reading for meaning" as the source of "much of our competence in literacy, our reading ability, writing style, much of our vocabulary and spelling competence, and our ability to use and understand complex grammatical constructions" (Krashen, 2002, p. 5).

In discussing Navajo and other Native American populations in “mainstream” schooling in the United States, Hartle-Schutte notes that indigenous peoples have “not fared well” in an educational system which is “dominated by standardized curriculum materials and standardized assessments of narrowly defined concepts of literacy” (1993, p. 643). It is largely agreed that the use of literacy learning approaches and resources which are not well suited to the cultural and linguistic backgrounds of such learners usually “fail to build upon the great variety of prior literacy experiences that these children bring to school” (1993, p. 643). Whereas the use of “culturally relevant and meaningful” resources (Ball, 2010, p. 21) and “alternative instructional materials and approaches, as well as different means of assessment” enable indigenous students to draw on and demonstrate the literacy strengths that they do possess (Hartle-Schutte, 1993, p. 644). Ball documents that there is an “out-standing need” for such resources for indigenous communities around the world (2010, p.21).

### *For the Pacific*

While the importance of extensive reading of context-suited materials is well supported, it is also clear that extensive reading requires an extensive library – the cost of which “can be daunting for many schools, especially those in the developing world” (Schackne, 2002, p. 7, cited in Morano, 2004, p. 234). In the Pacific context, Elley (1996, p. 14) pointed out that for the developing world child, “There are typically few books or reading materials in their homes or their schools”. Mangubhai (1995, p. 14) also confirmed the scarcity of reading material in the rural Pacific home, but contended that “if there is encouragement to read and suitable books are provided, children readily take to reading for pleasure or information” (p. 16). He notes however that many Pacific schools “fail to provide these for a variety of reasons, including a purported lack of money.”

More recently, a compilation of works by Pacific scholars (Puamau & Pene, 2007) on literacy and numeracy in the Pacific confirmed the desire for the re-connection of Pacific learners to their language, cultures, and identities within the literacy learning environment. An important means of facilitating this is resource production directed specifically towards this aim. Low (2007, p. 12) stressed the importance of Pacific learners being exposed to a “futures-oriented literacy programme” which utilises “Resources to match culture, context, and content”.

In reflecting on globalisation, Taufaga (2007, p. 19) expressed the need for Pacific children to become “completely operational in two worlds”:

the high-tech cultures of the western world and the culture and tradition of their Pacific world that distinguishes them from the rest of the world. Culture in this context embraces everything that distinguishes us as a people: our languages, histories, epistemologies, myths, legends, dances, art forms, artifacts, world views, histories, values and skills. (p. 20)

According to Taufaga, “We need to create in our people a sense of ownership of literacy learning which entails researching, documenting and using their Pacific epistemologies, knowledge production, cultural practices and languages in the formal education system (2007, p. 29). This paper argues that an important step in achieving this is to ensure that the *texts* learners engage with – print and non-print, paper and electronic – reflect these vital principles.

Hermann (2007) highlighted the implications of the commonly-held aspiration for Pacific children to be confident and literate in multiple languages, stating that this requires “the reconstruction of training models that resonate with both the local and global environments.” Hermann (p. 40) notes however, that “Parallel to curricula is the challenge of resources, both physical and human”, and that:

Pacific people and their communities are core for indigenous resources. The technology of the global world can be a tool to reconstruct the array of resources to enhance literacy(ies). Schools and communities need to work together to produce the resources.

The implications for resource development for a vision such as that expressed by Pacific educationalists, is to first acknowledge that curriculum support resources require reconstruction to fit this new era, to utilise emerging technologies in ways that make sense for our environments, and to do so collaboratively and creatively.

### **The importance of resource development for the Tonga context**

Tonga's language policy for education sets out that schooling will be conducted in Tongan language only for Classes 1 and 2, with the introduction of oral English in Class 3, English literacy (in the sense of reading and writing) in Class 4, and bilingual teaching and learning from there onwards. Evidence of the need for resource development responsive to this language policy at all levels in Tonga can be found in many classrooms, particularly rural and outer-island ones, and also in official documents influencing Tonga's educational directions. The Final Report of the Tonga Education Sector Study (Catherwood et al., 2003, p. 12) states:

...high priority is given to developing, producing and distributing quality learning resources to support the development of literacy and numeracy ... in both Tongan and English; ...

and advocates that "an adequate supply of books, both in Tongan and in English, is made available for use across the curriculum" (p. 12).

Similarly, the Tonga Education Policy Framework 2004-2019 (MEWAC, 2004, p. 37) states that "Good quality reading materials are also needed to assist classroom teachers in developing literacy", and that "Given the problems identified with student literacy, assistance for a supply of primary readers in the Tongan language is therefore a very high priority."

In addition, in a summary of the language contexts of Pacific countries in 2005, the following three recommendations for Tonga's educational context were made:

- specific training of teachers in the area of language learning and literacy
  - production of quality reading materials in both Tongan and English
  - a group of specialist advisors in the area of literacy
- (Pene & Mugler, 2005, p. 141).

### **IOE's preliminary Tonga literacy support resource needs analysis**

However, as with any new resource development, carefully produced resources are often doomed to gather dust on school shelves unless their development has deliberately and respectfully involved the inclusion of key stakeholders – most especially principals, teachers, and students. Hence the importance of IOE's commitment to being guided in the development of its resources by the voices of the schools and families it seeks to serve.

Knowing that it was not sufficient to simply respond uninformed to the need for resources, IOE, in collaboration with the local teacher education institution the Tonga Institute of Education (TIOE) and the Schools Division of the Ministry of Education and Training (MET), conducted a needs analysis survey with about 55% of Tongatapu's Government Primary School Year 1 teachers and principals. This survey was designed to find out a) what resources exist in schools and b) what resources are desired by staff; and with this information, to guide IOE's resource-development plans.

The results indicated that:

- teachers were highly resourceful and creative in hand-making resources for learning from available materials such as cardboard boxes
- Government-administered development partner funding *is* being used to buy certain resources from bookstores and to assist in teacher-made resource development
- the Curriculum Development Unit's (CDU) resources for curriculum delivery are present in schools and are

being utilised.

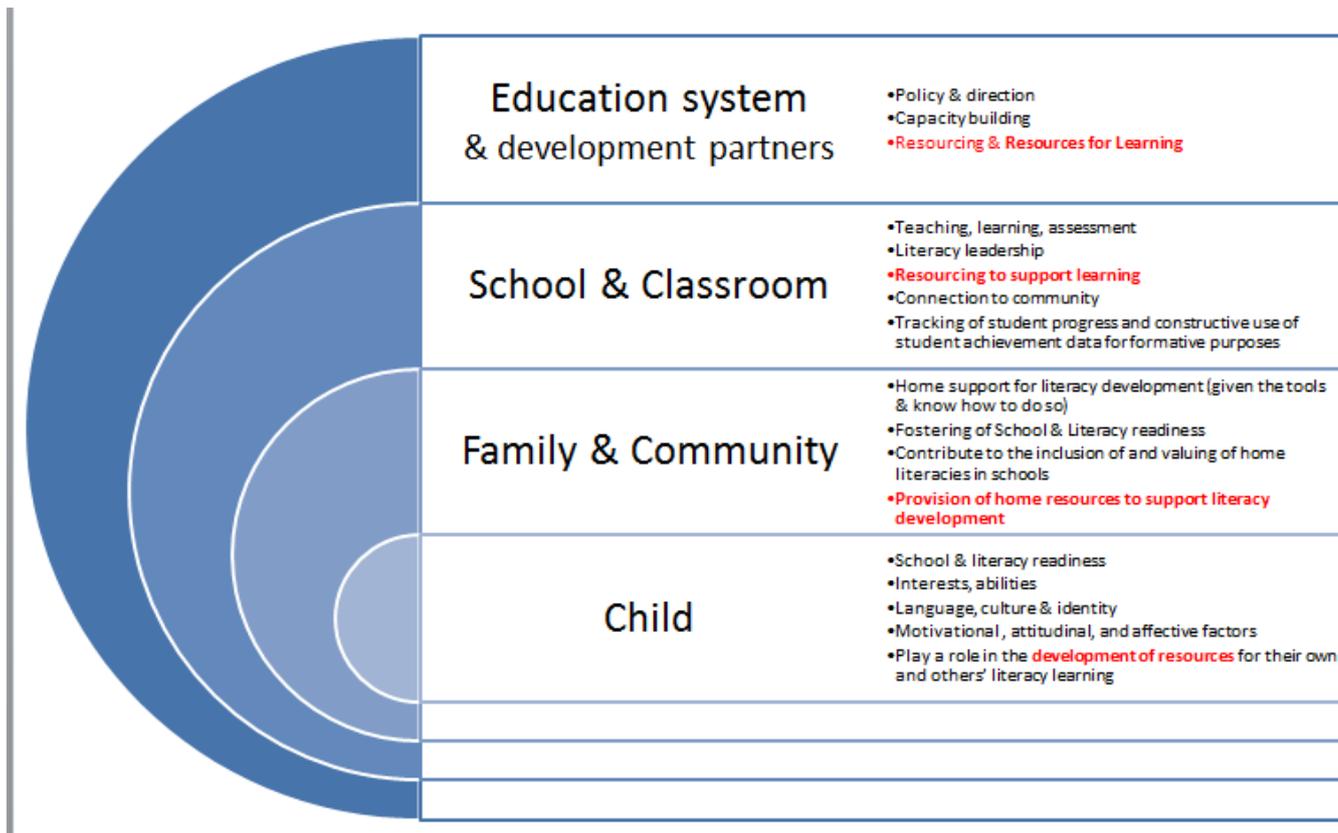
Results also indicated, however, that there are still clear gaps in resourcing for optimum delivery of the languages and literacy curricula in Tongan GPSs. For instance, only three quarters of the GPS staff surveyed reported that they had sufficient and suitable resources for supporting the development of core literacy aspects, such as Alphabet Knowledge & Letter Recognition.

IOE's aim therefore, is to support the good work currently done, through *supplementing* existing CDU developed materials and those that teachers make. Our understanding of supplement is to *add something* to an existing thing in order to enhance it.

### Underlying understandings about literacy improvement through weaving theory and real world practice in resource design

In any context, however, the aim of supplementing curriculum delivery still requires some underlying understandings upon which such supplementary resources are developed. The following figures briefly indicate my position on literacy (and languages) development and resource development. Figure 1 shows how raising literacy achievement is a collective endeavour, requiring collaborative and joined-up thinking and efforts; with each stakeholder playing a role.

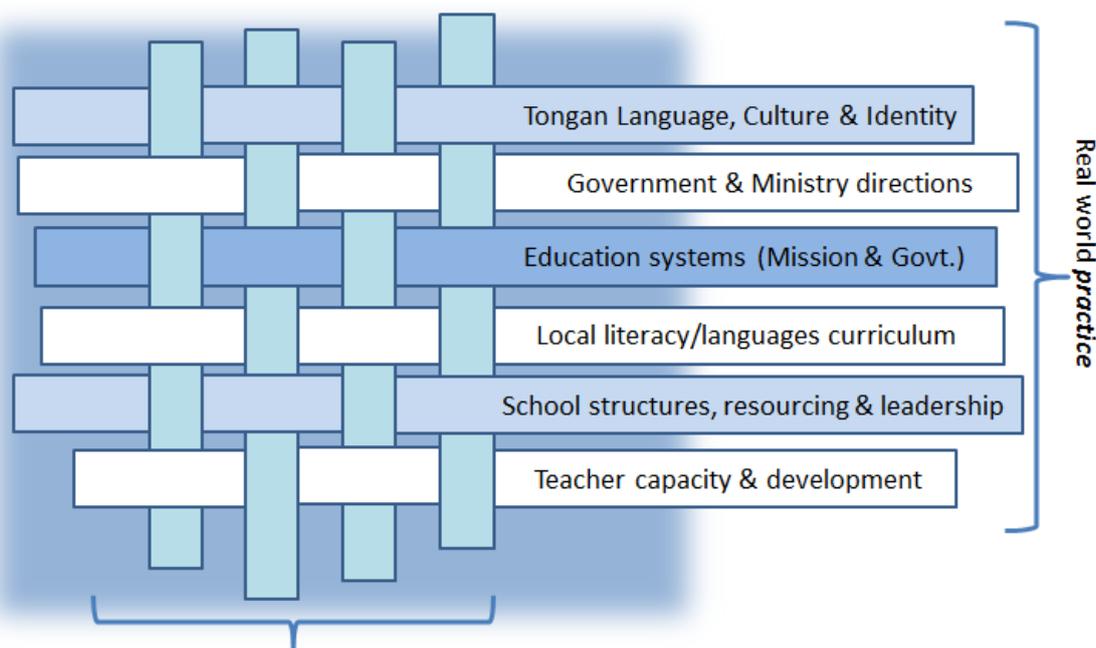
Figure 1. *The raising of literacy outcomes requires a collective commitment*



The red text indicates the role of *resources* in language and literacy development, and highlights the area in which IOE's publications programme hopes to make a significant contribution over time.

Figure 2 represents the way in which I envisage the weaving of real world "practice" and its realities and constraints, with the "theories" and bodies of research and thought on reading, language learning, literacy development, and the Pacific learner and teacher.

Figure 2. *Weaving theory and practice in resource development for Tonga*



Reading Research, Educational & Applied Linguistics **theory**, Best Practice in primary literacy development & Needs Analysis of local context

### **Yardsticks for quality resources to supplement the Tongan and English languages/literacy curricula**

In order to ensure the usefulness of resources produced, I have compiled a series of yardsticks for “quality” in resource development at IOE.

Resources should be:

- Culturally relevant and meaningful
- Linguistically relevant
- Aligned with local curriculum and language policies (connected to and supportive of the curriculum, language policies, and national language/literacy aspirations – strongly supportive of vernacular languages and additive bilingualism)
- Informed by reading research, educational and applied linguistics theory, and Pacific pedagogy
- Designed with in-built capacity building mechanisms ((i) of teachers, parents, and children and in the effective use of the resources, and (ii) of local stakeholders in the sustainable resource production process – e.g. authors, illustrator, printers)
- Attractive and creative (harnessing and building upon local Pacific creativity and artistic abilities, utilising cultural aesthetics and available technology to create visual appeal)
- Affordable and Accessible
- Durable and Tropic-friendly (able to withstand local Pacific climates and child/family handling).

The range of resources currently planned and underway in development includes: *Waka Story Books* (“Read to me” for pre-readers, “Read with me” for emergent and developing readers, and “I read” for proficient readers (or pre-readers – such as alphabet books)); Literacy/Language Teacher professional development materials; E-books/mobile books, and e-learning resources; Classroom support resources (wall charts, videos, flashcards); Academic and educational material (for teacher education/tertiary student readership).

As listed amongst the quality yardsticks, IOE is committed to capacity building – building and supporting pools of Pacific nations writers and illustrators to write and create artwork for Pacific children. The idea being to establish the infrastructure and communities to sustain the production of resources to supplement curriculum delivery in schools of the Pacific; with these being produced in the Pacific, by the Pacific, and for the Pacific.

## Striking the balance

While IOE draws inspiration from successful publications and series in Oceania, we are mindful of the potential pitfalls of duplicating or perpetuating the “general image of the Pacific and Pacific peoples” which Siteine and Samu (2011) contend emerges from resources for schools in the New Zealand context. This image is, according to Siteine and Samu, “often superficial and limited to cultural components of ritual and artefacts such as food, dance, music, and dress” (p. 139). IOE is also aware of criticism of past *Waka Story Books* as presenting “Reductive and essentialised views of culture and identity” (Burnett, 2009, p. 24), biased towards rural and traditional Pacific culture, and ignoring the contemporary realities of Pacific peoples.

However, as noted by eminent Tongan scholar Dr ‘Ana Maui Taufē’ulungaki, Pacific countries often have a dual concern with language and cultural “purity” “in order to preserve the authenticity of the national identity and its uniqueness”, whilst at the same time seeking to ensure that their language/s and curriculum (and the resources to deliver it) can function as the “means of modernising a nation” (Taufē’ulungaki, 2005, p. 15). IOE is well aware of the burden of responsibility to contribute to supplementing and supporting what Taufē’ulungaki refers to as the dual “‘communicative’ and ‘symbolic’ functions” of the languages of Tonga (Tongan, Niuafō’ou, and English), and believes the balance is fully achievable with effort and commitment. Accordingly, IOE plans to both continue with the publication of works relating to traditional/historical, “rural”, Tongan culture and its “ritual and artefacts”, *as well as* those which resonate with the identities and daily realities and rituals of modern, urban, semi-rural, and 21<sup>st</sup> Century child readers in Tonga.

## Conclusion

Attendees of the author’s presentation at the Vaka Pasifiki Education Conference, 2014, saw early printed prototypes of four types of Tongan language resource developed for trial within local Tongan primary schools and families, en-route to a wider realisation of IOE’s vision for curriculum support resource development for the Pacific. These included: a “Read to me” book entitled *Silikana mo ‘ene ngoue kakalá* (written by Dr Seu’ula Johansson-Fua), and a “Read with me” book entitled *Ko ‘emau tēniti puluú* (Written by Sereima Lumelume, translated and edited by ‘Ana Heti Veikune and the author of this paper). Both have been beautifully illustrated by local Tongan artists (both established and aspiring). The latter resource is accompanied by a Teachers’ Guide, and the fourth resource is a marine-themed Tongan alphabet chart for classrooms/pre-schools/homes, soon to be converted to an e-book.

Through the production of resources based on needs analysis, measured against quality yardsticks, and trialed and improved by local school teachers and students, IOE hopes to contribute in this way towards the vision stated within the Tonga language policy, *Fokotu’utu’u ki he Lea ‘o e Akó ‘i Tongá ni* (MEWAC 2008, p. 2):

*Ko e vīsone leva ki he Lea ke ngāue’aki ‘i he Akó:*

*Ke hoko ‘a e Lea Faka-Tongá ko e kupu mo’ui ia ‘o e Tonga kotoa pē ‘o ne lava ‘o ngāue lelei’aki, laukau’aki, mo ne tauhi ke tu’uloa; peá ne toe lava foki ‘o ngāue’aki lelei mo e Lea Faka-Pilitāniá; peá ne toe ma’u faingamālie foki ke toe ako mo ha Lea kehe.*

This vision for the use of languages within the Tongan school expresses the desire for each Tongan person to have language as a vital and central part of their lives, to be able to use it suitably, feel its honour, and treasure it for life; but also to be able to use the English language suitably, and to have the opportunity to learn a different language.

The practical importance of these resources to the theme of “Weaving theory and practice for teacher education in Oceania” stems from the potential usefulness of the resources; the process and principles in their development; their yardsticks for quality; and the frameworks associated with their production, to teacher education both at the Tonga Institute of Education and further afield in the Pacific.

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# Fananga for Literacy Development in the Early Years of General Education

‘Emanuele Paku Tausinga

## Abstract

This paper hopes to re-ignite interest in story-telling as a basis for learning, much like Po Fananga where the narrator tells a story (*fananga*) while the audience (usually children) listens and digests the events leading up to an explosive climax. The same audience gets to know the fananga and re-tells it with new twists and turns, adding a little more suspense and intrigue to the story itself.

The presenter recalls their own childhood spent role-playing the major events heard in *fananga*, and reflects on the idea that the presence of acting and imitating was indicative of learning as a result of *fananga* (story-telling). This paper therefore, based on these reflections, addresses the issue of the influence of narrative on knowledge acquisition in general education, especially at the primary level.

As a motivational agent, *fananga* can tap into students' innate facilities for crafting and understanding stories, drawing relationships between events in the story and real life situations, and acquiring new knowledge through conceptual analysis of themes, plots, characters and other narrative elements. As such, *fananga* becomes an important starting point for generating interest in learning.

Furthermore, Tonga continues to adopt a western form of timetabling where a bell (or some other similar device) announces the end of one lesson (subject) and the beginning of another, and thus dictates how the brain should function, i.e. to switch from thinking mathematically after a certain period into thinking about language, history, and so on. However there is much evidence to suggest that human brain is not programmed to behave in such a manner. This paper therefore, presents an alternative structure for classroom (and school) lesson timetabling, with leniency toward an interest-based rather than a bell-based and subject discipline-based approach.

## Introduction

*Fananga* (storytelling) is arguably the oldest teaching and learning methodology in any culture, including our own cultures in the Pacific. As such, I am conscious of the possible questions arising out of this paper; questions such as: “Why talk about such an ancient teaching method, while technological knowledge and modern teaching strategies are readily available to our teachers and for teacher education programmes?” A humble answer to begin with is my reflection on the role *fananga* played in my own primary school days, which exposed me to all sorts of literacy and numeracy skills, and which I have fallen back on during my teaching career.

An additional answer is drawn from the cognitive style of non-English speaking cultures, which was the main focus of my doctorate study. From a cognitive perspective, indigenous children of our Pacific Island Nations (PINs) engage enthusiastically in the learning process when the subject matter is embedded in a *fananga*, which, because of its visual nature, helps imprint information on memory. This was essential in handing down information from one generation to another in our traditional oral cultural methods, and I strongly believe it is still essential in the teaching/learning of today.

Various definitions of culture and how it influences educational planning and decision-making abound in educational literature today. The importance of aligning education with culture cannot be overemphasised, nor is it worth debating, as education without cultural connection is like sailing in uncharted waters without a compass, a map, or an identified destination. There are reefs and sandbars beneath the traversed course which will become perils to the journey if unmarked; much like the perils of cultural erosion caused by what the late

Professor Futa Helu (1995) referred to as “the lack of ‘fit’ between education and the needs of society”.

When planning educational directions, decision makers must incorporate important aspects of culture. There is a clear attempt in Tonga’s education system today to incorporate traditional knowledge in the curriculum, which is an acknowledgement of the need to re-vitalise awareness of traditional values and their contributions toward our Tongan-ness. Included in this approach is the conscious decision to use Tongan as the main language of instruction in the early years of primary education.

This paper is not only an acknowledgement of the important role culture plays in education; it also brings forth one aspect of our culture which is used from time to time in our classrooms, but still needs a specific niche in curriculum planning and teacher education programmes. This is the use of *fananga* (story-telling) as a motivational agent in the learning process, as well as a teaching tool from which various conventional subject areas could be designed (Fananga is used here as a generic term for all sorts of stories, fiction and non-fiction.)

### **History and Original Purpose of Fananga in Pacific Island Cultures**

All cultures of PINs have a strong base in oral tradition. Traditional knowledge, values, and virtues have been passed down from generation to generation by word of mouth. Often, these were “hidden” in *fananga*, which included myths, legends, epic journeys, lyrics, poetry, historical events, and later on Christianity and Western education introduced Biblical narratives and Western bedtime stories. The late Professor ‘Epeli Hau’ofa (in Waddell, Naidu & Hau’ofa, 1993) pointed out that many of our myths, legends, and oral traditions spoke of the

underworld with its fire-controlling and earth-shaking denizens, and the heavens above with their hierarchies of powerful gods and named stars and constellations that people could count on to guide their ways across the seas. (p. 7)

Hau’ofa alluded to the *Mauis* and the various feats they performed in the underworld, in the heavens above, and indeed in our earthly environment. Recounts of epic journeys across the seas, in search of new lands or to test and taste the might of neighbouring warriors, have helped to resurrect a sense of nationalism and patriotism among the locals. As told in *fananga*, our ancestors traversed the oceans in their quest to meet specific needs, and to fulfil specific purposes. These epic journeys have continued to be marvelled at with awe and admiration.

The world of our ancestors was defined by what was told, not by anything that was written or read. Our ancestors thought big about themselves and their existence, often with pride and an urge for quest and new wonders. In their journeys across the ocean they came into contact with others, and stories were shared and later re-told by others in revised versions, often with new twists and turns.

‘Epeli Hau’ofa also wrote of a legendary Oceanic athlete who was so powerful that during a competition he threw his javelin with such force that,

it pierced the horizon and disappeared until that night, when it was seen streaking across the skyline like a meteor. Every now and then it reappears to remind people of the mighty deed. (p. 7)

Clearly, strength of will and character emanate from this *fananga*, and our PINs share similar stories of such heroic feats. Throughout Oceania there are myths and legends which speak of gods and demi-gods, and the origins of humans, plants, and other earthly creatures. Tonga would not have had *kava* and *to* (sugar cane) today had it not been for the generous offering by *Fevanga* and *Fefafa* of their daughter on the island of *‘Eueiki*. This epitomised the virtues of sacrifice and generosity unmarred by any form of reciprocal expectation. Some of our PIN neighbours have similar versions of the origin of *kava*.

Tonga and Samoa would not have had *niu* (coconut) and *lulu* (owl) respectively had it not been for the healthy rivalry between their patriotic devils (It would be inappropriate to refer to these devils as “spirits” or “ghosts”,

as “devil” is an endearing term for those involved in this malice-free rivalry who were ‘dare-devils’, engaged in attempts to outsmart and outwit one another). In the era of the barter system, a festival of exchange was organised, in which *niu* (coconut) from Samoa would be swapped with *moa* (chicken) from Tonga. Of course, none of the dare-devils from either country had any intentions of keeping their word and as a result, the Samoans, who brought coconut husks only, returned home with owls (which they mistook for fowls) offered by their Tongan counterparts. The parting words by both contingents said it all: the Tongan devils called, “Good-bye with *moa-moa lulu* (fowl-fowl owl)!” and the Samoans returned the farewell with, “Good-bye with *niu-niu pulu* (nut-nut husk)”.

The Tongan version of this *fananga* conveniently had the Tongan devils win the exchange, by finding an actual coconut among the husks, which they planted, while the Samoans found not a single fowl among the owls, and I sometimes wonder how the Samoan version of the same story goes. There is a necessity for mythical heroes in our cultures, as they represent someone larger than life, who lends a greater significance to their existence. And, for many cultures, storytelling preserves the explanations for natural phenomena in a more spiritual way. One might argue that storytelling restores some degree of emotional equilibrium among the participants. The list of *fananga* in our PINs goes on, each one with embedded traditional values and virtues, and each creating, reviving, or nurturing some sense of pride, patriotism, and nationalism.

### ***Fananga* and Literacy Development**

*Fananga* is no doubt a social activity where oral narrative incorporates many linguistic features not found in normal conversations. For this reason, storytelling acts as a strong transitional stepping stone from oracy to literacy. In other words, oral competency is a prerequisite for literacy development, and the art form of storytelling offers significant input toward oral competency, along with significant connections to reading and writing.

Storytelling is a form of communication between two parties; it is a form of social interaction. It has many functions and serves many purposes. It is also an art form: storytelling employs literary conventions, such as plot, theme, style, setting, characterisation, and point of view. In addition, many different genres can be explored through storytelling, in the same way that different genres are exposed in written form. Through regular storytelling sessions of different genres, children will soon learn certain features of a particular genre, such as “Once upon a time...” and ending with “...lived happily ever after”. Furthermore, storytelling will enable children to develop a framework for understanding story texts and making sound predictions when reading or listening to narratives.

### ***Fananga* and Cognitive Skills**

Both storytelling and story-listening involve imagination. The images in the story are presented by the narrator and the listener imagines them. Children “draw” pictures in their minds as they hear stories being told, and once they are in the imagining process, they continue to make pictures as they listen or read silently to themselves. Stories give listeners practice in perceiving and producing symbols. Stories organise data into sequences, into events, into experiences, that progress from a beginning, to a middle, to an end, and hold together cohesively as a story. Exposure to stories helps children to form some coherence in their world.

Storytelling, accompanied by judicious questioning and retelling styles, can develop comprehension skills at various levels: literal, inferential, and critical. These skills are useful for reading comprehension. Those same cognitive skills help create mental imagery, inferences, and links between events in the plot of a story and symbolism. Children draw from their symbolic repertoire in order to interpret the symbols of text. In other words, our way of organising and responding to experiences is often represented by symbol systems. Storytelling presents opportunities for this to occur. It acts as a reference point, as children decipher their world and what living in it is all about. It has been argued that children turn to fairy tales because they provide ordering devices which can be applied to ease the chaos of their everyday life. The story of Cinderella for example, can give a child hope while facing all sorts of unfavourable life conditions.

Recurring motifs demonstrate the use of symbols in fananga; for example the legendary *Maui* motif symbolises strength of character, power over evil, strong leadership, and so on. Regardless of their social background, children who are familiar with the legends of *Maui*, begin to construct or re-construct their world around the attributes of *Maui* in the same way they would imitate and even conceptualise the characters of heroes and warriors involved in epic journeys across the seas.

Storytelling, as a tool for literacy development, must consider the significance of literacy in the broader society. “How important is literacy to educational development?” is a question our educators and decision makers must ask. The preferred answer is clear, and advocates of good literacy skills must look at the early years of education as a time in which to form a firm foundation in word recognition, spelling, grammar, literary conventions, and comprehension, using storytelling as a motivational agent.

These elements of storytelling and story-listening can assist a child to develop cognitively in literacy skills including:

- Listening
- Sequencing (progression of events in the story)
- Visualising images (symbolism, figures of speech)
- Character development (characters’ personalities and actions)
- Motives (why an action occurred)
- Thinking about values/virtues/ethics/morality
- Retelling (even paraphrasing).

Communicating and experiencing stories is a fundamental way of sharing knowledge among people. Doing so allows participants to be transported to other times and places, imaginatively. Moreover, having a repertoire of stories is critical for students to make sense of text and derive meaning from a narrative.

### ***Fananga* as a Learning Tool**

Research has shown that there are various categories of intelligence, and that some students depend on certain intelligences more than others. Storytelling helps bring to the fore this dependency, as it nurtures and fosters specific areas of cognitive development quietly anticipated in any curriculum design. Here are some arguments and justifications for incorporating storytelling in the curriculum and class activities:

Storytelling is

- the oldest and most powerful teaching and learning method known
- the way humans have communicated since they first made sound
- an important tool for family social unity
- an important element in the development of inventive thinking and problem solving skill.
- crucial for developing language skills, such as listening, speaking, response, pronunciation, vocabulary enrichment, writing, imagination, performing (acting), evaluation of self and others, and drawing relationships between events and characters.

In addition, storytelling

- is inexpensive
- increases self-esteem and self-confidence
- develops oral and written expression
- enhances self-expression
- uncovers hidden talents
- can be used across the curriculum (maths, science, social science, etcetera)
- generates interactive and cooperative learning
- motivates students to find out more
- increases concentration
- introduces students to literature and folklore of different cultures
- modifies negative behaviour patterns

- promotes reading for fun, not just for another assignment
- provides environments for different learning styles
- promotes writing skills
- can provide an opportunity for the community to be involved in education – by enlisting “master story-tellers” from the community as teaching specialists.

### **Fananga in the Curriculum**

Storytelling further assists the development of Multiple Intelligences. Howard Gardner (1983), in his book “Frames of Mind”, identified eight categories of intelligence and how they are supported by storytelling, as shown below:

Figure . Storytelling and the eight intelligences

<b>The Eight Intelligences</b>	<b>General Description</b>	<b>Relating to Storytelling</b>
Linguistic	Speaking, writing, using words well	Re-tell & rewrite the story using own words. Think of words that best describe character and setting
Logical-Mathematical	Using or working with numbers & patterns, calculating, computing, & classifying	Look at rhythmic pattern, repeated words, sequences, recurring themes
Musical	Ability to know and understand the world through sound and being sensitive to rhythm, melody, pitch	Find sound patterns in the story. Add rhythms to enhance the action and words. Do sound effects for the story. Tell the story in musical form.
Bodily-Kinesthetic	Ability to understand the world through the body	Use movements and gestures instead of words to tell parts of the story. Act out the story without words.
Spatial	An eye and sensitivity to shapes and colours. Ability to see the world in different dimensions	Draw the sequence of the story from memory.
Interpersonal	Ability to learn with another. Aware of other’s feelings and moods from their actions	Discuss how people in the story feel about the events of the story. Why did the characters act as they did?
Intrapersonal	Knowledge of self. Aware of own strengths and weaknesses	How do the conflicts and events in the story reflect your life? What parts relate to how you feel?
Naturalist	Understanding the physical world and the environment	Tell stories of how things in nature have come to be – the story of creation.

NOTE: There could be more categories of intelligence, depending on the subject in which storytelling is used as a teaching tool.

### **Fananga and the School Timetable**

Our PINs, before the arrival of Western influence, had their own traditional “instruments” for mustering people at certain times, or for announcing special occasions. These varied from wooden gongs (lali), to conch

shells (kele'a), to the human voice. All of these are still used today in some PIN cultures. Christianity and Western education introduced the bell (and other forms of technology) for the same purpose, and in some cases to replace those traditional instruments.

At the school level nowadays, we hear different sound systems marking the beginning and end of each school day. Furthermore, the same sound systems mark the beginning and end of each teaching session (what we know as periods/classes). Every school has a pre-determined timetable for various subjects, which lists certain periods in which to teach a particular lesson. On a Monday, for example, English is taught from 9 o'clock to 10 o'clock, followed by Geography from 10 o'clock to 11 o'clock, and so on. A sound system (whatever it may be) announces the beginning and end of each of these periods. This is regarded as an orderly way of running a school, and willingly supported by all involved in that school.

The switch from one period (subject) to another is an orderly way of "ordering" the students' brains to stop operating in an English-centred course and to start thinking in a Geography context (as in the above timetable). This is telling the child's brain to keep switching from one line of thought to another, on cue. However, research has shown that the brain does not function in a timetabled manner. In fact, the human brain is capable of operating at different levels at any given time, thinking about different things almost simultaneously, starting with that which is most compelling at the time.

In a classroom situation, when a story is used as a focal point, not only will children have an interesting start to their day, they will continue performing ensuing activities without their brain being told to switch codes. In other words, children will continue to be engaged in activities designed from the story, which are related to different subject areas, but with no labels (such as Maths, Science) attached (refer to the eight Intelligences). They do not have to discriminate between one subject and another, as this is not necessary for cognitive development.

The sound system, therefore, should only be used to signal the beginning and end of the school day while the children immerse themselves in activities drawn from the fananga – uninterrupted by subject labels.

### ***Fananga* and Children's Literature**

It is a truism that children love stories. Story books for children have been written and printed as a result of this realisation. Added to this is the large amount of money that has gone into purchasing story books for our schools. Many of these books, however, contain stories from cultures outside ours, while we have a rich repertoire of our own fananga still remaining unwritten and unpublished.

Storytelling also gives children an opportunity to write and illustrate their stories using computers. Furthermore, children will begin to compose their own stories using the literacy skills they would have learnt from storytelling. We must, therefore, make an honest attempt to preserve all our fananga in print form.

### **Summary and Conclusion**

Storytelling (*fananga*) is the oldest form of communication. Traditional knowledge, values, and beliefs have been passed down from one generation to another through stories. As a teaching/learning tool, storytelling can spark interest in the learning process. All conventional subject areas can be drawn from any given story. Moreover, any narrative incorporates and identifies important approaches crucial for developing language skills, such as listening, speaking, responding, pronunciation, vocabulary enrichment, writing, imagination, performing (acting), evaluation of self and others, and drawing relationships between events and characters.

Research has shown that the brain does not function in a timetabled manner. In fact, as we all know, the human brain is capable of operating at different levels at any given time, thinking about different things almost simultaneously. As such, storytelling can take the child's thoughts into different, but coherent, categories of conceptual analysis and interpretation. Due to its visual nature, storytelling enhances memorisation and recall,

thereby allowing the child to revisit different situations and experiences.

*Fananga*-based education as a teaching/learning model, is not intended to be a panacea for education in our Pacific Island Nations. Rather, it is an attempt to return *fananga* to the classroom as a valuable and culturally meaningful teaching/learning tool for literacy development.

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## **Theory and practice in literacy: Examples of what works through the lens of facilitation**

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### **Abstract**

This paper addresses how theory and practice are being woven together to accelerate language and literacy development in New Zealand schools. The findings of international surveys in reading and writing performance for New Zealand children show that New Zealand has one of the widest gaps in educational performance. We consider the practicality of an inequitable allocation of resources to assist those students who really need help.

As literacy facilitators working in a number of schools across the South Island of New Zealand we share strategies and practices modelled and used in our work which have impacted positively on equitable teaching to improve student outcomes for diverse learners. These practices allow for adaption for diversity and ensure equity.

This paper describes the approaches used in our facilitation, with a clear link established to the theory and research that sits behind and supports our practice. This should be of interest to wider Pacific audiences for whom the development of good practice and the equitable distribution of resources for language and literacy development is an issue of concern.

### **Introduction**

The New Zealand Curriculum (2007) sets out a vision for all young people living in New Zealand to become confident, connected, actively involved lifelong learners. As literacy facilitators on contract to the Ministry of Education in Aotearoa New Zealand, our team is charged with providing services for teachers and school leaders that specifically focus on a system shift, and accelerating literacy achievement for those student groups who have been traditionally underserved by our education system. This effectiveness is measured by reviewing the National Standards data on a yearly basis for priority groups of students. This group have been identified as historically not experiencing the same success in the New Zealand schooling system as their counterparts. Included groups are Māori and Pacific learners, those from low socio-economic backgrounds, and students with special education needs ERO (2012).

This paper discusses some of the strategies and practices used by teachers we have worked alongside as Professional Learning and Development facilitators. These teachers achieved accelerated progress with students with low literacy achievement, and in particular Pasifika students. Pasifika is a collective term and will be used for the purpose of this paper to refer to men, women and children who identify themselves with the islands and / or cultures of Samoa, Cook Islands, Tonga, Nuie, Tokelau, Fiji, Solomon Islands, Tuvalu and other Pasifika or mixed heritages.

The issue of raising the achievement of priority learners through professional learning and development focusses on lifting teacher capability to influence these changes in student learning. As McNaughton, Amituanai-Toloa, and Lai (2007) state, this requires school-based professional learning communities that work together to develop effective literacy instruction. Through teaching as inquiry, literacy facilitators challenge, guide, and support teachers in cycles of their learning to develop the type of classroom programme that will better meet the needs of underachieving Pasifika students. These groups are monitored closely for acceleration. Through this process, practice is refined, literacy content knowledge and practices extended, and skills and confidence developed in a culturally responsive way, so that collaborative teaching teams successfully work together to raise literacy levels.

Throughout this process clear links are made to known theory and research about what works for whom. Celebrating and valuing diversity and promoting the strategic distribution of resources are central to bringing about changes in classroom programmes for Pasifika students. Professional learning and development includes a focus on Pasifika education initiatives, which require enhanced literacy learning for Pasifika students. The vision of the “Pasifika Education Plan 2013-2017” (Ministry of Education, 2012) is to see:

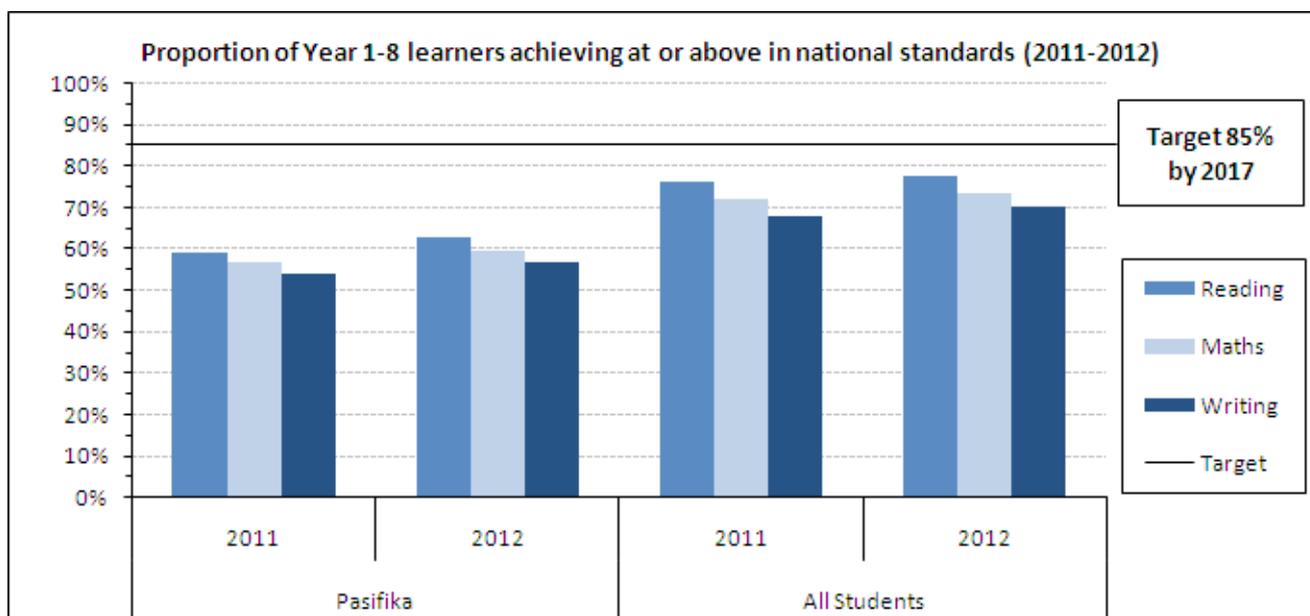
Five out of five Pasifika learners participating, engaging and achieving in education, secure in their identities, languages and cultures and contributing fully to Aotearoa New Zealand’s social, cultural and economic wellbeing. (p. 3)

The Pasifika population (Pasifika people in New Zealand derive from a range of unique cultural and language identities) is one of the fastest naturally growing populations in Aotearoa; by 2026 one in ten people in Aotearoa will be of Pacific descent (Ministry of Pacific Island Affairs, 2012). Their achievement is critical to the future economic and social success of New Zealand. Professional learning and development in education is important to realise this vision.

The Ministry of Education (2013) highlights the issue of Pasifika students’ underachievement as currently:

- One in six Pasifika students will not have achieved basic literacy and numeracy skills by the age of ten.
- Almost one in five Pasifika students will leave school without any qualification; another one in five will leave with NCEA Level 1 only; and around one in five with NCEA Level 2.
- One in ten Pasifika students will become disengaged from education, employment, or training by the age of seventeen.

Figure 1. *Proportion of Year 1-8 learners achieving at or above National Standards in New Zealand (2011-2012)* (Education Counts, n.d.)



As a Professional Learning and Development provider, and through our contract with the Ministry of Education, there are high expectations that we will accelerate the achievement of Pasifika students through a Professional Learning and Development intervention in primary schools.

### New Zealand’s Education System

New Zealand’s education system is viewed as world class against a number of international benchmarks such as OECD’s Programme for International Student Assessment (PISA). However New Zealand has wide variation between the top and bottom students; and Pasifika students are over-represented in the latter group. Disparities in student achievement within New Zealand schools are far greater than those of many other countries. Harker

(2007) and Robinson, Hohepa, and Lloyd (2009) state that low expectations based on ethnicity or socioeconomic status are reasons that contributes to these disparities. The research of Alton-Lee (2003) and Bishop and Berryman (2006) into low expectations, theorise that most teachers subscribe either consciously or sub-consciously to a deficit-theory explanation for low Māori achievement. It would also seem that this applies to Pasifika students. In other words, low expectations of Māori and Pasifika students can become a self-fulfilling prophecy (Hattie, 2003).

Despite this, there is strong evidence that when teachers believe they can make a difference, they do actually make this difference to students' achievement. Within schools, teaching is the most important factor in student achievement and therefore must be viewed as the greatest resource. Ethnicity and socioeconomic factors have less impact. In fact, New Zealand researcher Alton-Lee (2003) found that "up to 59% of variance in student performance is attributable to difference between teachers and classes" (p. v). A report by the Economist Intelligence Unit agrees: "the single most important input variable [in education] is the quality of teaching" (Schwartz, cited in Kielstra, 2012, p. 22). "It is what teachers know, do and care about which is very powerful in this learning equation" (Hattie, 2003, p. 9).

### How Does the Use of the Teacher Inquiry Process Support Pasifika Learners and their Teachers?

The Progress in International Reading Literacy Study (PIRLS) also highlights an achievement disparity for Pasifika students in many schools across New Zealand. This disparity would seem to indicate that there are teachers with effective and ineffective teaching practices that impact on the literacy progress and achievement of their Pasifika students, working in New Zealand schools. The Education Review Office (2012) supports this notion.

Our Professional Learning and Development team also observe this variation in practice across and within the schools that we work in. Through both formal and informal observations, effective and ineffective practices are noted. A team practice is to highlight, celebrate and transfer across schools the effective practices observed that make a difference for Pasifika learners. Our effectiveness is measured in relation to students' outcomes, and in particular increased percentages of students reaching National standards for their year level.

The teaching as inquiry process is effective in sharing expertise, and collecting evidence that supports practices which increase Pasifika literacy achievement. As can be seen in Figure 2, it is an iterative cycle where teachers are continually reflecting on their practice and building new knowledge to improve both their practice and the outcomes for their students.

Figure 2. *Teaching as inquiry process* (Ministry of Education, 2007, p. 35)



## **Implications for our Practice**

Practices shared are from reflective practitioners who constantly look for better ways to improve their students' achievement and understand that when students are not progressing it is their teaching approaches that need to change. These teachers use the teacher inquiry model successfully and make a difference for their Pasifika students. Sharing the impact effective teachers make through critical inquiries, the actions they undertake, and building pedagogical and content knowledge around identity, language, and culture is an ongoing focus of our work.

Able supporting our team's work are the resources available from the New Zealand Ministry of Education. These resources are designed, and used, to inform teacher practice and build content and pedagogical knowledge (please see <http://nzcurriculum.tki.org.nz/Curriculum-resources/NZC-Updates/Issue-27-November-2012/Useful-resources>).

### **A discussion of the observations we have noted in our facilitation work that have made a difference for Pasifika literacy achievement.**

The Ministry of Education handbooks "Effective Literacy Practice in Years 1 to 4" (2003) and "Effective Literacy Practice in Years 5 to 8" (2006) set out six dimensions of effective literacy practice. These six dimensions were identified by the writers as the key areas that determine effective teaching and learning, and we have therefore used these six dimensions to discuss the observations we have made in our work that lead to successful literacy achievement for Pasifika students.

#### ***Knowledge of Literacy Learning***

Knowledge of literacy learning is about understanding how literacy learning occurs at different levels of schooling and the skills and knowledge that students need build to become capable literacy learners. This knowledge is important, as teachers need to identify and teach the literacy skills and knowledge needed by their students so that they are able to access the appropriate level of the New Zealand Curriculum.

Teachers who had a good understanding of literacy learning were generally better able to improve Pasifika students' literacy learning. These teachers used Ministry of Education resources, other useful resources, and research, to increase their knowledge. This was reflected in their planning and teaching. Many also engaged in research groups where recent research was critiqued and disseminated.

These teachers were effective in inquiring into their practice and were focussed on making a difference for their Pasifika students. They checked the impact of their teaching by monitoring their students' learning. There was clear evidence of iterative cycles of inquiry and differentiation of learning as a result. They reflected on what worked and what was worth trying if what they were currently doing was not making a difference.

#### ***Knowledge of the Learner***

Knowledge of the learner encompasses knowing about the pathway of progress for each child and about the patterns of progress for literacy learners in general at different points in their development. It also means knowing the learning preferences, interests, and readiness of individual learners. A tool developed by our team is a "student voice interview". Asking questions about the students' learning and what helps them to best achieve to their potential was critical, and gave great insight into the effectiveness of teacher practice for those students.

This knowledge about the learner is also important as it ensures the learning is relevant, and located in the context of Pasifika students' lives and experiences. This knowledge meant that teachers provided multiple opportunities for clarification and discussion in their teaching, ensured activities and context were known and familiar to their students, and provided an environment where students felt safe. As a result, there was evidence of students taking more risks when attempting new tasks.

Taking time to talk with and learn about their students was a valued activity. There was an ethos of caring in these classrooms. “When teachers create an environment which is based on caring and concern, and in which each student is valued, the result is that students become more motivated and learn more” (Stipek, 2002). Teachers took time in these rooms to ensure they pronounced each student’s names correctly and knew who their family members were.

These teachers also had a detailed knowledge of their students based on quality assessment data. Data was collected using normed data such as Marie Clay’s Observation Survey, asTTle, and Progressive Achievement Tests (PATs). In addition, careful attention to conversations and observations with, and of, students was used to identify gaps in students’ literacy knowledge and form next learning steps.

The analysis of this achievement information was seen as important. Regular syndicate and staff meetings focussed on analysing this data. This information involved more than knowing how many Pasifika students were achieving below the standard. It involved knowing what the reoccurring achievement challenges were for these students and developing an education plan based on identified needs. These were also aligned to the strategic plan, professional learning and development, and performance management systems of the school. Achievement data was then used to set specific targets for individuals and groups.

Pasifika knowledge and practices were viewed as valid and valued, and resulted in schools providing Pasifika activities (customs, practices, and language). Not only did the teachers encourage students to share aspects of their culture with others, they used this to build the students’ confidence to succeed across the curriculum. This did not mean they focussed on the iconic aspects of culture, but they demonstrated an understanding of students’ personal culture and learning experiences.

### *Instructional Strategies*

There are a variety of evidence-based instructional strategies and approaches that we noted our effective teachers using in their teaching practice that made a difference to the outcomes of their Pasifika students. These teachers ensured they positioned their students as competent rather than deficient; supported them in completing cognitively challenging tasks and projects; and encouraged them to invest their identities in learning as a means of developing academic expertise.

The effective teachers we observed differentiated their students’ instruction and learning experiences to meet the varied needs of their students and therefore planned instruction accordingly. Examples of this included collaborative work. There were examples of reluctant writers working with a writing buddy, which resulted in writing in a communal setting. Explicit teaching of language and vocabulary were common strategies observed in these classrooms, such as using word clines and integration techniques, where new words are linked to known words. Teachers also provided models of what successful learning looked like. The use of writing exemplars was common practice. Teachers in these rooms talked about the student’s learning journey and got excited. They also provided opportunities to learn through team work. Competition was often used to engage their Pasifika students.

Gibbons (2009), supports the usefulness of the instructional strategies we observed in our effective teachers of Pasifika. She advocates for high-level support to ensure students are able to participate in learning across the curriculum. Both long-term, high-quality instruction and explicit scaffolding were used so that learners were able to engage deeply with intellectual contexts and develop academic literacy. A good understanding of instructional strategies also ensured teachers provided students with skills that enabled them to employ reading strategies which improved their comprehension and developed both writing independence and learning content-area genres. They recognised the need for explicit teaching and there were many examples in our observations where teachers articulated the learning process clearly, to make it transparent and understandable for students. As a result, students could clearly share what it was that they were learning. This included teachers stating learning goals, success criteria, explicitly teaching how to learn, using the teachable moment, and providing regular prompt feedback.

These teachers also acknowledged their students' varied backgrounds, differences in their knowledge and readiness to learn, life experiences, cultural orientations, languages, interests, ways of learning, and how they feel about themselves as learners and about school. They understood and acknowledged that amongst Pasifika there exist distinct differences between language, cultural traditions and histories. There was evidence that these teachers correctly identified and valued these differences through the activities and choices they provided.

They showed empathy for their students through an understanding of what it is like to be the "other" and used that knowledge to reflect on and change their practice when necessary. So although many of these teachers were goal driven and planned comprehensively, they were willing to adapt what they were doing when it was necessary and if there was a lack of "buy in" from their students. This led to teaching and learning being a more collaborative process and there were many examples of teachers listening to and learning from their students.

These teachers expected all students to experience success as learners. They ensured their students experienced academic success with the activities they provided. We observed students realising they could achieve academic success, and therefore taking more risks with challenging tasks than they had in the past.

Many students that made significant gains in literacy were encouraged to communicate in their home language while they acquired the secondary discourse of 'standard' English. Ladson-Billings (1995) supports this practice, stating;

Teaching students how to switch back and forth between their home dialect and the 'standard' form of English, teachers can provide them with an invaluable skill that will help them become more successful in school and the world beyond.

### *Engaging Learners with Texts*

New Zealand teachers have a large range of high quality books available to them to use when teaching reading. In addition there are an increasing number of books that contain Pasifika content and contexts.

When teachers involved their Pasifika students in choosing tasks and texts that they could relate to or were interested in, then these students were much more engaged in literacy learning. These teachers also took time to research and find relevant resources and activities that were of interest to, or familiar to, their Pasifika learners; this resulted in comments regarding the students being more motivated in their learning.

These teachers also read and shared books with their students. They demonstrated an understanding of their students' capacity to understand and learn from texts that were more difficult than that which they could read themselves. This enabled their students to access the curriculum at an appropriate level, and therefore not be disadvantaged because of gaps in their literacy. As Gibbons (2009) states, "students from all backgrounds are more engaged when classroom work is cognitively challenging than when it consists solely of conventional low-level work" (p. 1).

### *Expectations*

Timperley, Wilson, Barrar, and Fung (2007) tell us that higher expectations cannot be taught or imposed independently of context. Rather, they develop as new teaching approaches are mastered and student learning is seen to improve. As teachers experienced success with their Pasifika students, or listened to other teachers sharing the success they had, expectations for all students improved. These conversations were supported through team and school inquiry meetings around priority learners.

The professional development included support for these inquiry meetings based on an appreciative model. Cooperrider and Whitney (2005) describe appreciative inquiry as a strengths-based participatory approach to organisational development. It is based on an inquiry process that:

- Identifies and explores instances of good practice
- Seeks information about what makes the examples of good practice effective and successful

Protocols and resources were provided to support constructive and professional dialogue during this inquiry. The teachers we observed employed many examples of high level support through a number of rich activities and tasks and had high expectations for their students to achieve. The signposts remained the same, but the pathways varied depending on the learner.

### ***Partnerships***

Schools can create connections and partnerships with home and school that make a real difference to students' achievement by reporting to parents, families, and whānau in plain language and building shared expectations with them. One of the most powerful ways to promote learning is to help students connect their school work with their experiences in their own families, whānau, cultures, and communities (Robinson, Hohepa, & Lloyd, 2009). When there are effective links between school and the various other contexts in which students are socialised, then student outcomes are enhanced (Alton-Lee, 2003).

The “Pasifika Education Plan 2013 – 2017” (Ministry of Education, 2012) has a focus on “more informed and demanding parents, families and communities supporting and championing their children’s learning and achievements” (p. 5). The schools that worked with their communities to share information about achievement, and also valued the expertise and contribution that parents and fanau brought with their child, had greater engagement from their families. These schools believed it was important for parents to understand how to help children learn, and worked hard to develop a shared understanding about the most important things that should be done at home or at school to improve their child’s success.

To support schools in valuing the important contributions parents, families, and communities make in their children’s education, our team developed a whānau questionnaire that was used in the work we did in schools. This involved teachers being proactive in communicating and sharing with parents, families, and communities so that they felt valued as partners in their child’s education. The teachers who took the time to make personal contact with family through calling, emailing and texting had more success in establishing links with the family. Positive phone calls home, celebrating great things that were happening at school, developed worthwhile relationships too.

Ladson-Billings (1995) points to the deliberate decisions of teachers utilizing parents and family members as resources in the classroom. “(The students) also learned that what they had and where they came from was of value” (p. 161). Teachers we observed also involved parents in the classroom by using their talents and gifts as experts in areas in which the teacher was not skilled or knowledgeable. By using the skills provided by the parent or community members who volunteered in the classroom, teachers created research opportunities for students to learn more about the topics that were familiar and important to their culture. Examples we observed included Pasifika art, dance and food demonstrations.

### **Conclusion**

In our work we have observed practices that are making a difference for Pasifika students and teachers of Pasifika students. In 2014 however, practice and achievement has still some way to go to achieve better outcomes for an increased number of Pasifika students. We acknowledge gaps in our own knowledge and practice and stress the need for an ongoing focus by all professionals to ensure improved outcomes for Pasifika learners through more informed policy and practice.

It is through the iterative nature of this teaching as inquiry cycle that teachers learn from their practice, build greater knowledge and work towards the vision of success for all.

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Weaving Theory & Practice  
in Numeracy, Assessment, ICT and Teacher Education

*Stream 2*

## The value of equal mathematical opportunities for all students

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### Abstract

Recent research on mathematics teaching has indicated that improving the equity of learning outcomes for all students in mathematics classrooms impacts the opportunity of all students to learn effectively. This review paper argues that in Pacific Island Countries (PICs) not all secondary aged students have equal opportunities to learn mathematics. In addition, it summarises some approaches that can be taken to ensure equal mathematical opportunities for all secondary aged students in PICs including teaching, learning, and assessments that address serious deficiencies in student readiness to learn mathematics. This paper is based on a review of research on teaching and learning mathematics in PICs, including some relevant international research and data.

### Introduction

Student achievement diversity is a challenge in secondary mathematics classrooms and is essential for educators to address because it impacts on the opportunity of all class members to learn effectively. Improving the equity of learning outcomes in mathematics classes by enhancing the education of low-achieving students will yield positive effects on mathematics learning for all students. Defined in this paper as student performance that is below the expected level of attainment, low achievement in mathematics is a common concern in many countries including Pacific Islands Countries (PICs) (Puamau, 2006). Studies on the status of student achievement in mathematics classes around the world consistently reported evidence of substantial diversity in student achievement (Swan, 2005). Similarly, the Pacific Islands Literacy and Numeracy Assessment (PILNA) report revealed that mathematics classes in PICs are also confronted with this challenge (2013). Approximately thirty percent of students commencing mathematics at secondary schooling in PICs are critically underperforming in numeracy (PILNA, 2013).

The importance of equal learning opportunities particularly for low-achieving students is well documented (Baker et. al., 2002; Dweck, 2000; Slavin, 1990; Swan, 2005). Effective mathematics classes cater for the diverse mathematical learning needs of students in order to improve learning opportunities for all students. High-achievers and students who are progressing normally in the class are themselves disadvantaged when low-achieving students are substantially behind the rest of the class. Teachers tend to spend more time with low-achieving students either because they need more help than others, or they are disruptive and require more attention from the teacher. Teaching mathematics when students are performing highly is already a challenge and when students are performing poorly the challenges increase significantly and can become daunting.

### Motivation

One of the challenges in improving the achievement of low-achieving students, especially at secondary level, is related to student motivation. Research on motivation in mathematics suggests that when a student fails repeatedly in math, he or she tends to attribute that failure to a stable belief that they cannot learn mathematics. Self-concept is a key determinant of learning outcomes for all students, and negative self-concept hinders learning for low-achieving students (Martin & Marsh, 2006). Low-achieving students' confrontation with failure in the mathematics classroom significantly influences attitude and motivation and they tend to give up easily (Middleton, 1995; Winstead, 2004). Teachers need to ensure that students are engaged, motivated, and encouraged in order to effectively meet learning challenges in mathematics classes.

## **Explicit Instructions**

Direct, explicit instruction and real-world problem solving has demonstrated higher outcome gains for low-achieving students in mathematics, whether in the context of whole class approaches or individual instruction (Edwards-Groves, 2002; Hattie, 2009; Hattie & Timperley, 2007; NMAP, 2008). Direct instruction of problem-solving skills has an effect on students' attitude and self-perception that will significantly improve students' overall mathematical learning. Direct instruction involves teaching rules, concepts, principles, and problem-solving strategies in an explicit fashion. This includes providing a wide range of examples of the principle or concept and providing extensive review (Cardelle-Elawar, 1992, 1995). Explicit instruction also involves the teacher modelling series of questions such as worked examples to help students understand the problem (Sweller, 1994). This leads students to decipher the vocabulary, to determine if the necessary information is available to solve the problem, and to use the correct procedure to solve the problem in a step-by-step manner. Although this instruction in mathematics operations requires extensive and carefully crafted practice lessons, it provides opportunities for students to ask and answer questions, and encourages them to think aloud about the decisions they make while solving problems (NMAP, 2008).

## **Group and Peer-Assisted Tutoring**

Use of small groups and peer-assisted learning have consistently demonstrated positive effects on student achievement including computation abilities of low-achieving students in mathematics classes (Marzano et al., 2001; Slavin, 1990; Stroup et al. 2002). Benefits of cooperative learning include increased knowledge and skills, increased conceptual understanding, improved attitudes or motivation, improved communication skills, and improved social skills (Davidson, 1990). Use of small groups and peer-assisted tutoring can assist students who fall far behind to catch up with important prerequisite knowledge and skills necessary to perform during whole class teaching (Wright et al., 2000).

## **Cultural Sensitivity and Values Development**

Research has indicated that improving mathematics teaching for low-achieving students involves cultural sensitivity and the development of positive values and attitudes towards mathematics. Selecting curriculum and pedagogy that is informed by certain characteristics of the student's culture, traditional ways of knowing, community perspectives, and learners' needs can lead to positive effects on student learning (Morris & Matthews, 2011; Thaman, 2001). Research studies have revealed positive correlation between student attitudes towards mathematics and student academic achievement (Nicolaidou & Philippou, 2003). Encouraging the development of positive attitudes and values for low-achievers in mathematics classrooms can foster improved student academic achievement. Effective integration of faith, values, and learning that will develop "self-reliance and cultivate habits of order and self-discipline" is necessary for low-achieving students to perform in mathematics (Taylor, 2014, p. 17).

## **Effective Teaching Strategies**

Approaches that can be taken to ensure equal mathematical opportunities for all students include teaching, learning, and assessments that address serious deficiencies in student readiness to learning mathematics. Such approaches can include teaching strategies that stem from establishing what students know and need to know, and providing opportunities for students to demonstrate their mathematical learning in different ways including real-life context. In addition, teachers need to plan for and differentiate mathematical instruction to meet students' different learning needs, and to group students responsively to accommodate the diverse range of mathematical needs in order to promote equal mathematical opportunities. Students' readiness to learn mathematics can be enhanced by drawing upon the rich and varied experiences and understandings that each student brings to the classroom and by making connections between students' experiences and the learning of new mathematical knowledge (Frigo et al., 2003).

## Feedback and Parental Support

Performance of low-achieving students can be enhanced by developing positive attitudes towards mathematics through the recognition and engagement of quality parental support along with appropriate and timely feedback on their learning (Hattie & Timperley, 2007). Enhancing the parent's role as supporter and motivator of students' academic effort and success can yield positive learning outcomes for all students (Fantuzzo et al., 1995). Providing clear, specific, and explicit feedback to low-achievers in mathematics classes is supported by research to have the potential to enhance achievement (Black & William, 1998; Hattie & Timperley, 2007). In addition, providing low-achieving students and their parents with specific information on how students are doing and recommending problems for further practice consistently enhances mathematics achievement (Baker et al., 2002).

## Conclusion

The ensuring of equal opportunities for all students in mathematics classes is essential and, as presented in this paper, achievable. Teaching, learning and assessments commonly designed to fit every student needs to be redesigned to accommodate varying student needs and learning styles in the mathematics classrooms and attracts high parental support. The curriculum and pedagogy needs to be designed to be culturally sensitive, integrate faith, values, and learning, and to treat the whole mathematics class as a community where all students are encouraged to participate. This paper encourages educators, practitioners, teachers, and policy makers to improve equity of mathematical opportunities in order to improve mathematics learning in Pacific Islands Countries. Measures to address this challenge need to be embedded in curriculum content, classroom practices, and teacher education and training.

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## The History of Mathematics: An instructional element for enhancing Mathematics instruction at the secondary level

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*I am sure that no subject loses more than Mathematics by any attempt to dissociate it from its history.* (J.W.L Glashier)

### Abstract

The History of Mathematics is a story of human endeavor, and ever since the dawn of civilization, Mathematicians have engaged themselves in a concerted effort to make sense of their physical surroundings, striving for accuracy and perfection in their method. Their successes and failures have been reverberating through the ages.

This paper sets out to demonstrate that the History of Mathematics is an important instructional element in enhancing secondary mathematics instruction. The strategy is to take the current secondary level mathematics curriculum and infuse historical anecdotes where appropriate.

This paper shares the insights of two experienced mathematics teachers and teacher educators, and proposes that teaching students from a historical perspective and acquainting them with the discoveries that have been made can, and will, excite the learning process, benefitting both teachers and students. It also leads to new ways of attacking old problems, thus empowering learners who seek different ways of solving a problem. The paper opens for discussion the value of explicitly reconnecting mathematics with world and Pacific histories, people, places, societies and cultures.

### Introduction

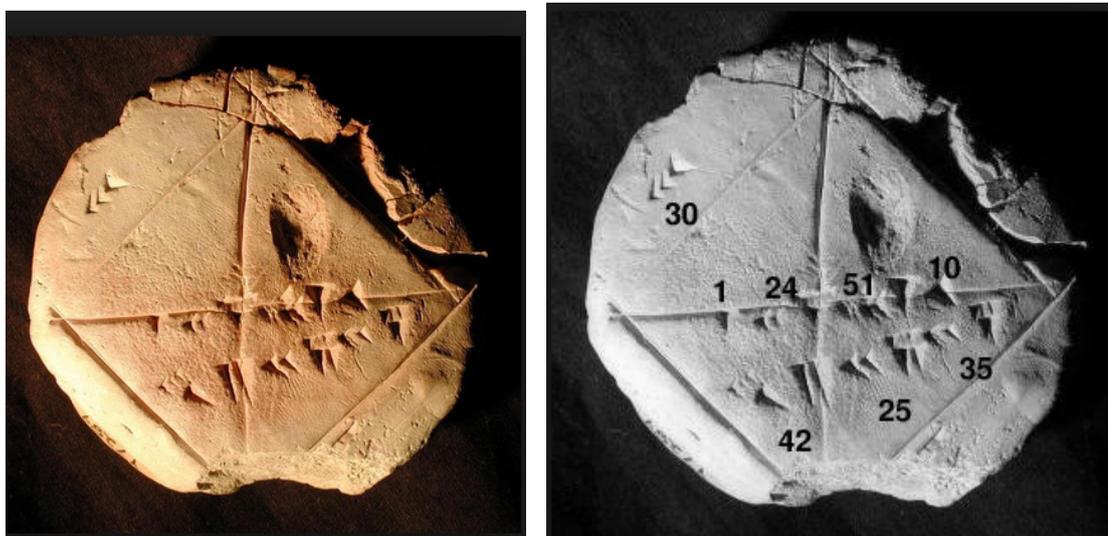
The best of all human thoughts and letters constitute what we call the “culture of the human race”, the major part of world civilisation. Most historians refer to the history of the exact sciences as a valuable contribution to the history of world civilisation and a reliable record of intellectual progress. “The history of mathematics is one of the large windows through which the philosophic eye looks into past ages and traces the line of intellectual development” (Cajori, 2010).

This paper sets out to demonstrate that the History of Mathematics is an important instructional element in enhancing secondary school mathematics instruction. The strategy is to take the current secondary level mathematics curriculum and infuse historical anecdotes or remarks where appropriate. The following examples illustrate the above claim.

#### Example 1: The Babylonian sexagesimal system or base 60 number system

The following figure shows wedge-shaped marks on the clay tablet (left hand side), known as cuneiform script. These are translated as numbers (right hand side) showing measurements related to a square drawn on clay.

Figure 1. *Babylonian Clay tablet no. YBC 7289: [c.1800 – 1600 BC] Yale University Library.*



### *Reading the clock*

When we read the clock, we do so following the Babylonian way of reading numbers in the base 60 number system. If the time taken for a journey is 3 hours 24 minutes and 51 seconds we write it as a sexagesimal number 3; 24, 51. The semicolon is used to separate the whole number part (which is 3) from its fractional part (24, 51) and can be converted to its decimal equivalent by working out

$$3; 24, 51 = 3 \cdot 60^0 + 24 \cdot 60^{-1} + 51 \cdot 60^{-2} = 3 + 24/60 + 51/60^2 = 3 + 0.4 + 0.01417 = 3.41$$

We then say that the journey takes approximately 3.41 hours.

This is the arithmetic that we teach in the classroom today, but the process of discovery of this has been almost forgotten. If the time now is 3; 24, 51, we do not read it using the decimal system saying 0.41 hours after 3; we read it as 24 minutes and 51 seconds after 3. In other words, we are still reading time in the Babylonian way. This Babylonian idea (sexagesimal numbers) has claimed a permanent position in world history, evidenced by the fact that we still read time in the same way that the Babylonian primary school students did about 4,000 years ago.

### *Numbers on the Clay Tablet No. YBC 7289*

The clay tablet above shows numbers in sexagesimal form. The number 30 is the length of the side of the square. The numbers in the middle in sexagesimal form are 1; 24, 10, 51, which, when converted to decimal form, become:

$$\begin{aligned} 1; 24, 10, 51 &= 1 \cdot 60^0 + 24 \cdot 60^{-1} + 10 \cdot 60^{-2} + 51 \cdot 60^{-3} = 1 + 24/60 + 10/60^2 + 51/60^3 \\ &= 1 + 0.4 + 0.01417 + 0.00004630 \\ &= 1.4142163 = \sqrt{2} \quad \text{(Length of the diagonal of a unit square)} \end{aligned}$$

When compared to the value given by the calculator today, it is correct up to 5 decimal places. Similarly, the number sequence at the bottom right corner of the tablet is 42; 25, 35. Converted to decimal form, this becomes:

$$\begin{aligned} 42; 25, 35 &= 42 \cdot 60^0 + 25 \cdot 60^{-1} + 35 \cdot 60^{-2} = 42 + 25/60 + 35/60^2 = 42 + 0.41667 + 0.00972 \\ &= 42.42640 \\ &= 30\sqrt{2} \quad \text{(length of the diagonal of the square)} \end{aligned}$$

The clay tablet YBC 7289 demonstrates how to find the diagonal of a square whose side length is 30. This same topic and procedure is still taught in secondary school mathematics classrooms today. A square whose side

length is  $x$  always has a diagonal whose length is  $x\sqrt{2}$  which our students can verify using Pythagoras' theorem. If this example is presented in the classroom, our students not only learn about history, but are exposed to the idea that quantities can be represented in different number bases. The Babylonians opted for a number base of 60 (sexagesimal) and today we choose a number base of 10 (decimal), while computer programmers prefer a number base of 2 (binary).

### *Possible interpretation of the origin of the sexagesimal system*

It is generally believed that the decimal system originates from using our 10 fingers for counting, but because there are no body parts that could have suggested 60 as a base for counting we need to look elsewhere and formulate hypotheses that can explain the origin of the base 60 number system. The German mathematician Georg Cantor (1845-1918) proposed a theory that 360 was the number of days per year in the Babylonian calendar, giving rise to the 360 degrees per revolution in circular measurements. The Babylonians believed that the ratio of the circumference of a circle to its diameter is 3. This claim is further collaborated by the Bible, giving the ratio as  $\pi=3$  (1 Kings 7:23). In other words, the circumference of the circle has a length equal to 3 diameters (or 6 radii). If 360 days are equally subdivided according to the number of radii in a circle's circumference (6), then we have each part as 60 days. This is considered to be a possible explanation for using 60 as a number base.

### **Example 2: Rhind Papyrus problem no.50 (Egyptian Approximation of $\pi$ )**

The Rhind Mathematical Papyrus is considered the best example of Egyptian mathematics. It is part of a papyrus scroll, dating to around 1650BC, upon which contains arithmetic and algebraic information. Importantly, it contains the Egyptian approximation of  $\pi$ .

Today, one of the basic questions frequently asked in secondary school mathematics is: "Given a circle of diameter  $d$ , how many diameters equal the circumference of the circle?" The Babylonians gave a decisive answer that 3 diameters make up the circumference of the circle i.e.  $C=3d$  and rearranging this simple equation, we get the ratio:

$$C/d=3$$

However this figure is less than the true value. The search for a better approximation for this ratio, popularised by the Greek symbol  $\pi$ , became one of the enduring challenges in the history of mathematics. Even up to the present, modern computers have calculated  $\pi$  up to billions of digits.

Problem 50 of the Rhind Papyrus proposes a method for finding the area of a circle without any explicit explanation as to why such a method is valid. The method of solution gives no connection as to the relationship between the diameter and the circumference. We can use this problem and work backward to find out the value the Egyptians used to approximate  $\pi$  together with the familiar formula for the area of a circle. Problem no.50 of the Rhind papyrus is rephrased below.

Problem: A circular field has diameter 9, what is the area?

Method and solution (as outlined by the Scribe Ahmes):

Remove a ninth of the diameter and construct a square on the remainder. This square will have the same area as the circle whose diameter is 9.

A ninth of the diameter is 1. Removing 1 from 9, we get 8 and squaring 8 we get 64 which is the area of the circle whose diameter is 9.

i.e.  $A=[9 - 1/9(9)]^2 = 8^2 = 64.$

[The correct answer for the above problem is  $A = \pi(4.5)^2 = 63.6173$ ]

Following the above procedure, let  $d$  be the diameter of a circle. Removing a ninth of  $d$  from  $d$  itself and squaring the remainder we get:

$$A = [d - 1/9 d]^2 = (8/9 d)^2 = (8/9 2r)^2 = (16/9)^2 r^2 = 256/81 r^2$$

Replacing  $A$  with the circle formula for the area:  $A = \pi r^2$  we get:

$$\pi r^2 = 256/81 r^2 \text{ implying that } \pi = 256/81 = 3.1605$$

This reveals the value of  $\pi$  used by the Egyptians.

After many centuries, the Greek mathematician, Archimedes of Syracuse, proposes the method known as “the exhaustion method” for determining the true value for  $\pi$ . It involved circumscribing a polygon outside the circle and inscribing a polygon inside the circle. The perimeters of both polygons serve as the upper and lower bound for  $\pi$ . This has been regarded as a milestone in the history of mathematics, and Archimedes’ work on this problem can be regarded as the mathematical equivalent of inventing the wheel.

## Conclusion

The examples presented in this short paper show that to more fully understand a problem, one has to be acquainted with the process of its discovery, which can be achieved by studying the history of mathematical endeavour. Teaching from a historical perspective and involving the learner in the process of discovery can excite the learning process. The history of mathematics offers the following:

- It reminds us of the problems that we have solved pointing to what we have not solved.
- It discourages the researcher from attacking problems using the same technique that was once used and led to failure.
- It excites the student’s interest in mathematics if the solutions of problems are interspersed with historical anecdotes.
- When reading history, we witness true progress in mathematics and a record of continuous advancement of humanity to a higher level.
- A respect for the wisdom of the ancients, when one understands that there has been no significant correction to what was established many centuries ago. The Greeks developed the deductive method and it was so effective that no one has improved on it since.
- When we read the history of Mathematics, we get the picture of a mounting structure, ever taller and broader, more beautiful and magnificent, all based on a firm foundation (Asimov, Foreword in Boyer, 1991).

Mathematics should never be an isolated discipline, as it is an integral part of human civilisation. When teaching from the historical perspective, we come to realise that it is a story of human endeavour. It is a social movement whose primary target, like any other discipline, is understanding nature. The students on the other hand, come to realise how different disciplines (or departments of culture) are related and how they hang together in the same social context.

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## Preparing for the next ‘Tsunami of change’ in Pacific Education

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### Abstract

Globally, there is serious questioning about the ability of the “industrial/colonial age” education system to deliver the skills needed in the new Information Society and Knowledge Economy. Phrases like “Transforming education” (UNESCO – ICT, 2010) and “21<sup>st</sup> Century Outcomes” (Partnership for 21<sup>st</sup> Century Skills, 2010) are becoming drivers in the education sector.

New models of ICT empowered education are changing almost all aspects of education. “Learner centric”, “independent learning” and “anywhere, anytime” approaches are becoming common, focussing on “knowledge creation” rather than “rote learning”. “New” skills such as creativity, collaboration, critical thinking and communication, all underpinned by information, media and technology skills are being promoted.

Relatively late adoption of these changes in the Pacific presents an opportunity to reflect carefully on how we in the Pacific would like the education system to change. USP’s Teacher Educational Resource and e-Learning Centre (TEREC) is actively engaged in assisting educationalists in the Pacific address these challenges.

While acknowledging international research on the pros and cons of ICT in teaching and learning, this paper aims to critically question whether the Pacific is doing enough research/preparation for this ‘tsunami of change’ in education?

Based on various papers on the Pacific’s experience in the introduction of the Colonial education system, this paper aims to stimulate debate and research on how best to adopt and adapt these powerful ICT tools to suit Pacific ways of learning. While raising awareness of the cultural assumptions and ways of thinking behind all technology, and raising the hope that the technology itself will empower its users to adapt it to suit their own ways of learning, this paper will attempt to address the critical question: “Is international (ICT empowered) education best practice, good practice for the Pacific?”

### Introduction

By way of an introduction, I would like to say how honoured I am to be able to present this paper. Although my qualifications may not reflect an educational research background, I hope I can add some value to the development of Pacific education based on my past eight years’ experience as a ICT technologist/engineer in the Pacific region heavily involved in the adoption of technology for social and economic development. Perhaps I am a bit of a rarity in technologists in that I am much more interested in what people do with technology than how it works.

I feel I must also acknowledge my “Pakeha” or “Palangi” background and obvious lack of in depth understanding of the ways of the Pacific.

In the last two years, I have focussed extensively on global and Pacific developments in the use of ICTs in teaching and learning from a strategic, policy and implementation point of view. Many of you will know me from my posts to NOPE on these topics.

At this stage, it should be acknowledged that not all educators see the value of ICTs in education and it is fair to say that often research does not show the gains espoused by the advocates and there are some significant “failures” (many say way too many). But this has not slowed the use of ICTs in schools around the world. In fact, the momentum has, if anything, increased in the last 5 years. This paper will focus on the transformative effect of the knowledge economy on education rather than individual impacts from the use of particular tech-

nologies in schools.

In recent times, we have seen more and more questions raised about the global changes in education systems powered by ICTs and how directly applicable they are to the Pacific.

This paper tries to make connections between these very questions and key thrust of the RPEIPP approach. Through reading some of the excellent publications such as “Of Waves and Winds and Wonderful Things” (Otunuku et al., 2014) and about the “Tree of Opportunity” (Pene et al., 2002) of the RPEIPP movement, and through privileged discussions with some of the leaders present in this conference, there seems to be clear value in connecting the two.

In the past 10-15 years, there has been quite a lot of “rethinking education approaches”: - Both globally, driven by technology and the Knowledge Economy and in the Pacific driven by a need to be relevant and culturally appropriate. Education leaders from around the world have concluded that that the existing education system was failing their needs.

The title of this paper refers to the global responses to this failure, the “transforming education” drivers which seem to be an unstoppable (and potentially an overwhelming) process, promoted by such august bodies as UNESCO, COL, the World Bank and strongly supported by global technology giants such as Microsoft, Google, Apple etc. Academia has largely supported this with many of the leading universities “reinventing” their educational operations. As the World Bank’s ICT in Education advisor Michael Trucano said in his recent blog about the use of ICTs in schools, “we can’t put that genie back in the bottle”.

Evidence clearly tells us that significant change is coming. USP’s Strategic plan with its strong focus on transforming teaching and learning, mainly through the use of ICTs is local proof of this, but we clearly see it in our nearest and most “Pacific” neighbour New Zealand

Common to all these developments are the “new pedagogies” enabled by technology, but the RPEIPP suggests we should critically examine these. A key question for us is - Are these the same Pacific pedagogies referenced in the Tree of Opportunity? This paper suggests we draw on the rich education experiences and traditions in the Pacific and especially RPEIPP thinking to prepare ourselves for this change.

## **Change in Global Education**

The title of this paper refers to a “tsunami of change”. The term was chosen carefully to try and indicate the nature of the change and that it will most likely strike quickly and with much force. For example, in New Zealand, in a few short years radical change has happened in many in schools. This result has been mirrored in almost all developed education systems to differing extents.

## **The Education System**

Firstly, it might help if we start with some reflection about the global education system that has largely remained unchanged since the turn of the 19<sup>th</sup> Century and which was introduced with little change throughout the Pacific islands.

The system was designed during the huge changes caused by the industrial age. It was designed in Europe principally as an industrial system to efficiently transform illiterate agricultural workers into literate factory workers for the then rapidly growing new industrial age.

It was designed for an age when information was scarce and expensive and knowledge was fairly static (Butcher and Associates, 2014).

From this, it is easy to picture education as a production line. All year 10 students get processed into a-b-c,

and then go onto the year 11 stage to be processed into d-e-f etc., etc. The quality control system accepts or rejects after a fairly simplistic test at the end of the process. Ken Robinson puts this very nicely in his YouTube 2006 TED Talk video which has now been downloaded nearly 30 million times (Robinson, K. 2006). His key message is that the school system kills creativity and fails to fully develop our most important asset, our children.

We stand at the beginning of the new Knowledge Economy and Information Society which is rapidly changing the world as we know it. The very terms Knowledge Economy and Information Society are only 10 years old, being formally accepted at the World Summit of the Information Society in 2005. The “old” education system is being critically challenged and found wanting for this new age. We are “inventing” a new system to suit today’s needs. Great changes (transformations) are being proposed (and in fact being implemented) to the education system to transform today’s students into Knowledge Economy workers. It is driven by the “new” Digital Age. Many experts say that the Digital Age will revolutionise education as much as the industrial age did.

It seems impossible for the Pacific to ignore this change. Globalism for one will not allow that. And it is highly likely that the change will happen much faster than we would be comfortable with. This is not to say we should not make change. Changes are desperately needed. We are currently failing our children by not developing the skills they need to exist in today’s world, let alone the world that will exist when they graduate. The challenge for us this time is to do it the “Pacific Way”. We have an exciting opportunity to participate meaningfully in the development of a new Pacific education system. But first some background that may help in our deliberations.

### **1) *The technology***

We can’t comment about the technology without mentioning how pervasive it is becoming and the continuing rapid change in the technology itself. It is enabling massive changes in social and economic development. In some ways, it is surprising that Education seems to be one of the last sectors to embrace the technology to transform itself. To an outsider, it is surprising that the sector that drives so much research has been so resistant in applying ICTs to itself.

Like almost all western technology, ICTs have embedded in them many assumptions and cultural norms, especially on what is desired or acceptable behaviour. One particular feature we should note is that ICTs are principally designed to empower the individual. That is embedded in the core. In education, that feature espoused for children and is encapsulated in phrases like individual or personalised (anytime, anywhere) learning, critical and creative thinking, collaboration with other learners from around the world. One has to ask if these are appropriate for Pacific children, or at least we should consider when they are appropriate and when more Pacific approaches are appropriate. On the positive side, ICT is just a tool which can be adapted. It is especially good at connecting people and sharing knowledge. We can surely adapt it to suite the “Pacific Way”.

### **2) *Digital Resources (in particular OERs)***

A key aspect of the global change is the exponentially growing volume of information available at the click of a mouse (or is that at the press of a finger on a screen?). In Education, this is manifesting itself in the form of Open Education Resources (OERs). These range from simple texts, to 3D multimedia interactive productions and from single pages to full courses – all freely available online. One well known producer, The Khan Academy, has over 6,000 free instructional videos with a fairly sophisticated Learning Analytics system embedded. All free. The videos have now been translated to over 35 languages (but no Pacific Languages so far).

This abundance of information and knowledge can be very seductive to educators. The World’s Best Practice for free. But it comes with learning paradigms, references and pedagogies that may not suit the Pacific. Many OERs are produced in English and are developed for the native speaker with all references being to local customs and historical events.

In a recent pilot of the Flipped Classroom in USP, many Youtube videos were given as references for the students to study prior to the classes. The lecturers reported at the recent VC’s Teaching and Learning Symposium that students rarely viewed the resources and when questioned, said they found them too difficult to under-

stand and preferred to hear the lecturer explaining the concepts.

The British Council and the BBC have an incredible range of free interactive Learn English resources (both for native English speakers and for ESOL). But they use material like Little Red Riding Hood; London Bridge is falling down and Christmas stories with snow and plum pudding. Our young learners not only have to learn the language, but also the culture. No wonder they struggle. But of course, this is not new.

What is new is that OERs have a copyright that allows the resources to be adapted or used as references for development of more appropriate Pacific resources and the technology makes that a relatively cheap and easy process. Better still; ICTs allow the economic development of our own digital resources for learning in both local languages and English, based on our own stories and cultures. At this stage it is appropriate to acknowledge VUW's ground breaking work in this area. They have developed two amazing "apps" for learning Māori which could well be a base for developing similar apps in Pacific Languages.

### **3) *New Skills for learners***

According to UNESCO, the main purpose of introducing ICTs is to transform teaching and learning. In their publication – *ICT Transforming Education; A Regional Guide (2010)* the authors suggest that the transforming power of ICTs will be as significant as the development of written language and the printing press.

It states :-

The use of ICT in instruction brings about changes in teacher roles

A shift from

- knowledge transmitter;
- primary source of information
- teacher controlling and directing all aspects of learning

To

- learning facilitator, collaborator, coach,
- knowledge navigator and co-learner
- teacher giving students more options and responsibilities for their own learning

The changing role of teachers is aptly summed up in the quip that teachers have moved from being "sages on the stage" to becoming "guides on the side". The teacher is no longer the all-knowing authority. The new role can perhaps be likened to that of a team coach or the conductor of an orchestra who tries to bring out the best performance in all players.

The use of ICT brings about changes in student roles

A shift from

- passive recipient of information
- reproducing knowledge
- learning as a solitary activity

To

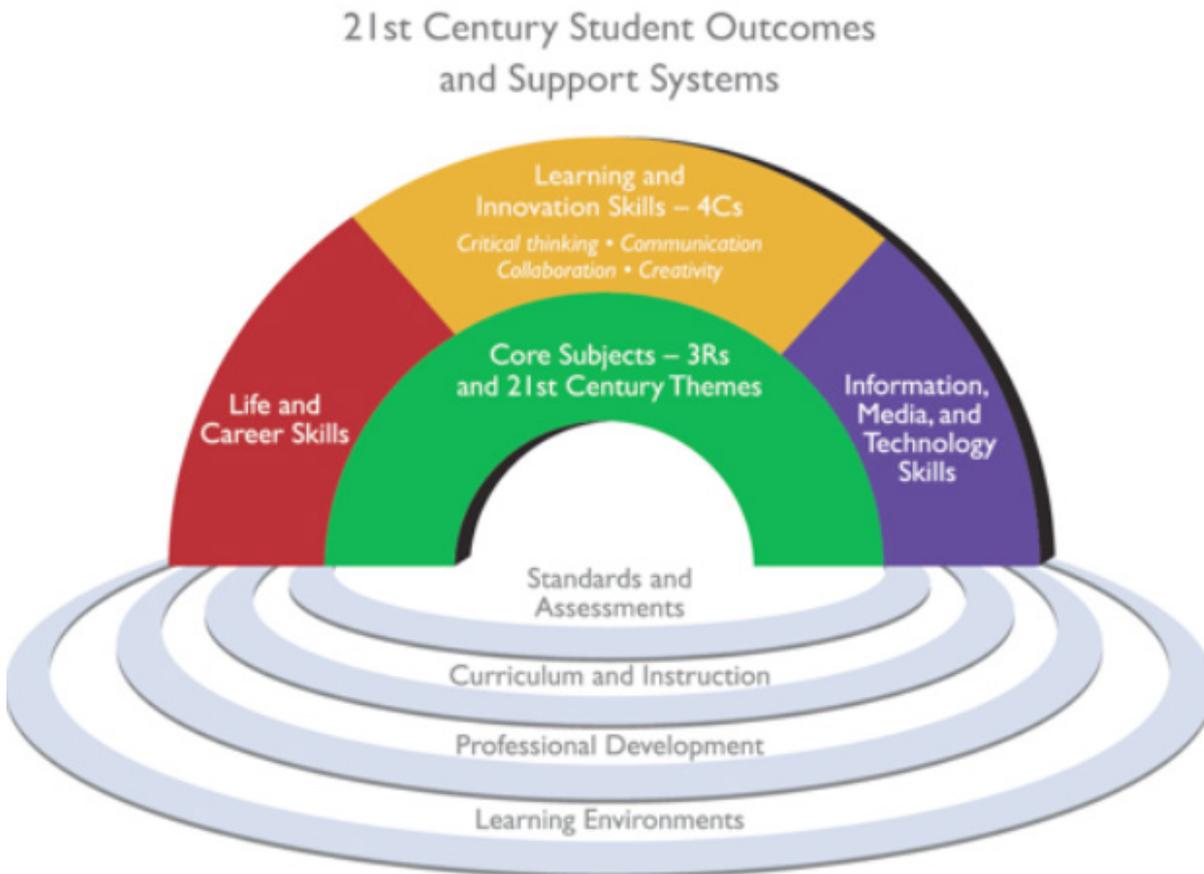
- active participant in the learning process
- producing knowledge
- learning collaboratively with others

Students in classrooms where ICT are regularly found are likely to participate in virtual excursions

and be active researchers, searching the web for information to complete individual or group projects, communicating via email, blogs and social networking with students and teachers in other schools, and reaching conclusions on the basis of evidence gathered.

The drive is to produce new skills in our learners, often referred to as 21<sup>st</sup> Century Learning Outcomes and is embodied by the graphic below, from the Framework for 21<sup>st</sup> Century Learning (2010).

**Figure 1.** 21<sup>st</sup> Century Learning Outcomes



Clearly this typifies a more holistic approach to learning, a call we see coming from the Tree of Opportunity (Pene et al., 2002) as well. It would be very interesting to develop a Pacific interpretation of this linking it to Pacific ways of learning, while still drawing from the global approach. How would this fit under the Tree of Opportunity approach?

#### **4) New Pedagogies enabled by ICTs**

ICTs are able to open up new ways of teaching and learning, not only because of the capabilities in interactive multimedia, but also because the learning resources are available 24 hours a day and can be reviewed many times to gain full understanding. No longer is the primary role of the teacher to deliver the information/content. This is best demonstrated by the Flipped Classroom model, but we should be cautious about automatically applying that in the Pacific. It is pedagogy developed by the “West” and may not be suitable. The challenge is to develop our own approaches.

#### **ICT Developments in Pacific Education**

Many of you are very involved in the introduction of ICTs into education, so this will be brief overview and focussed on the transforming aspects rather than ICTs. But first I should explain some terminology, initially by drawing attention to the difference between “Learning to use ICTs” and “Using ICTs to learn”. The latter is often called e-Learning while the former is more focussed on IT skills. A further differentiation is where the

technology is located. Computer labs are more focussed on IT skills, where e-Learning puts the technology in the classroom and in the hands of the learners.

We can clearly see that many Pacific MOEs are commencing their journey into using ICTs. There has been a significant growth in recent years of Computer Labs and the introduction of IT into senior curriculum, and in recent times, there has been a strong push for improved IT systems to help better manage the education system and to gather better data. Several countries are introducing new Education Management Information Systems (EMIS) with Fiji leading the charge.

Some “leading schools”, especially those with individually motivated teachers or progressive head teachers or principals are beginning to find digital multimedia resources and to use them in the classroom as teaching and learning aids. Gradually, policy documents are being reviewed and many now mention a move towards a more holistic approach to education and Learner Centric approaches. A few countries have developed ICT or e-Learning policies, but it would be fair to say that not many have been systematically implemented, lacking any form of an ICT Master Plan.

At the recent Education Ministers meeting in the Cooks, ICTs featured strongly with the Ministers and international agencies agreeing to explore more opportunities for using ICTs in Pacific education. Perhaps the most advanced secondary school approach is in Samoa with the School Net project. Every school is connected to the government broadband network, has a computer lab with enough computers for each child in a class and the computers have access to a range of digital STEM resources (from Europe) that have been linked to curriculum outcomes. All teachers have received training on use of the system. The other interesting project is in the Cooks where they have established an Online Classroom on Rarotonga that connects to schools on outer islands to deliver lessons when the school does not have a qualified teacher for that subject.

And of course we have the OLPC project in primary schools where it would be fair to say that after the initial surge of interest, schools and teachers have struggled to sustain the initiative and link it to the curriculum and learning outcomes. To put these developments into perspective, we need to review the phases of in the introduction of ICTs in Education. UNESCO, in their paper on ICT Transforming Education – A Regional Guide (2010) identifies four stages of adopting ICTs:

1. Emerging – Using ICTs for administration and professional development, for productivity improvements (e.g. EMIS)
2. Applying-Learning about ICTs, enhancing traditional teaching
3. Infusing –Learning with ICTs, blended Face to Face and Online
4. Transforming- Learning through ICTs, creating innovative and open learning.

It would be fair to say that the region is generally at stages 1 and 2 with a few advanced schools moving into stage 3. Generally, those schools that have computers and the internet use them for teaching computer or IT curriculum subjects. For stages 3 and 4, the ICT devices really need to be in the classroom in the hands of learners.

Generally we have not seen any systematic approach to transforming teaching and learning through the use of ICTs in the region. Of course, there are always exceptions and Samoa’s School Net project and the Cooks Online Schools and other ICT initiatives are showing great promise, even if the “transforming” word is not used. They are prime candidates for research. At this stage, it is important to mention the work being done in NZ in schools, especially those with high Pasifika student roles (usually low decile schools). Here we can see evidence of real transformation of Teaching and Learning with approaches that suit Pasifika learning styles.

The New Zealand’s Ministry of Education “*Te Kete Ipurangi*” web site has information on the Pasifika Education Plan, including good practice on Enhancing Pasifika Achievement through e-Learning. A good com-

munity based example is the work being done by the “Manaiakalani Education Trust” (n.d.) in Auckland, but please note that these examples address different environments to those in the islands, even though they are addressing similar issues. So we can conclude that it is still timely to consider how we could transform Pacific education with ICTs and we have some good models to evaluate.

## **The Challenge**

If we accept that Pacific education will change, this paper suggests a strategic approach to the introduction of ICTs, based on what we have learned from the Rethinking Education work and our cousins in New Zealand. This entails not blindly accepting “international best practice” or letting it be forced on us. The new technologies that are driving this change can be used to make the changes appropriate for the Pacific. They are powerful tools, but we do need to consciously adapt and apply them.

So how can we proceed? Surely, the first step must lie in research.

## **Research**

So what research is being done in the Pacific on the use of ICTs?

A relatively quick scan of the USP post graduate research publications in the last 10 years revealed only one paper looking at the use of ICTs in Teaching and Learning, a recent one by my colleague who unfortunately could not join us. There has been good Pacific research from a technology point of view, e.g. on hardware, software and connectivity and even some publications on how that limits Online Learning in the region. There is good research in New Zealand, backing their Pasifika Education Plan, some produced people at this conference. But although it addresses many of the same issues facing the Pacific, it is set in a different environment.

So it seems there is a gap in our knowledge of e-Learning for the Pacific. Perhaps this is best summed as the knowledge to use the power of ICTs to nurture the Tree of Opportunity.

## **Summary**

It would be very presumptuous of me to form a conclusion, but based on observations and some sound evidence, it may be appropriate to sum up this way:

- We can see that change is coming
- We can be passive participants of that change (Accepting the World’s Best Practice)
- Or we can be actively engaged and directing it. (Making Pacific Good Practice)

The difference will come through research.

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## Weaving theory and practice in assessment and teacher education – insights from a regional assessment organisation.

Mere Vadei, *Secretariat of the Pacific Board for Education Quality*

### Abstract

Education leaders in the Pacific mandated the formulation of the Pacific regional standards for teachers in 2009, to be followed by development of national teacher standards by individual countries. The standards are to be used for identification of teacher strengths and weaknesses for professional development purposes. The overall improvement of teaching effectiveness, hence learning achievement, is the ultimate target. Such development recognises the well-documented research evidence on the singular importance of the teacher's influence on learner achievement (e.g. Hattie, 1992; 1997; 1999; 2003; Wiliam & Black, 2001). Embedded within this research evidence is the power of assessment and quality feedback in the learning equation. Targeted intervention into teaching and learning is the key to learning gains.

This paper describes the insights gained by a regional assessment organisation into the realities of weaving together theory and practice in assessment and teacher education, based on its work experience across various Pacific countries. Furthermore, massive amounts of assessment data are being accumulated but not put to practical use. Included as well are brief overviews of initiatives taken by the assessment organisation to contribute in its own way to the mentioned realities, and the challenges it has faced. Just as Schon (1995) broke up the process of reflection into reflection-on-action and reflection-in-action in his call for a new epistemology of practice, the elucidation of insights gained by the assessment organisation hopes to engender some serious reflection that will throw better light onto the weaving of theory and practice in teacher education in the Pacific region.

“In theory, theory and practice are the same. In practice, they are not.” (Albert Einstein)

### Introduction

The Secretariat of the Pacific Board for Educational Assessment (SPBEA) was a stand-alone regional educational assessment authority from 1980 to 2010. As a result of the 2007 Regional Institutional Framework (RIF) review decision on the reorganisation of the Council of Regional Organisations of the Pacific (CROP) agencies, the SPBEA was merged into the Secretariat of the Pacific Community (SPC) in 2010 and became one of a number of programmes in the Education, Training and Human Development (ETHD) division of SPC.

The review of the roles of SPBEA in its new position within SPC recommended that the SPBEA mandate be expanded from the narrower focus on educational assessment to a broader focus on education quality, in order to serve any given Pacific Island Country (PIC) better. The accompanying structural changes included: the change of name to the Secretariat of the Pacific Board for Education Quality (SPBEQ); the introduction of new work areas that are distinctly separate from assessment, namely teaching, learning and curriculum; policy and leadership; research; accreditation and standards; and the cross-cutting support area of Information-Communication Technology (ICT).

As part of its organisational reflective practice, SPBEQ interrogates itself through questions that Professional Officers ask in meetings and in other professional fora. The questions arise out of practical experiences but the process of finding answers to these questions is a theoretical quest that dwells on ideas, assumptions, and certain theoretical perspectives. A central dilemma in this self-interrogation for SPBEQ is the problem of theory versus practice in teacher quality and learning achievement. It is left in a quandary knowing what it knows

about research evidence that unequivocally points to the teacher as the most critical influence on learning achievement and the serious issues with learning achievement evidenced from national and regional assessments.

Against the backdrop of the bleak picture of learning achievement of pupils when measured against specified learning standards, our Pacific Heads of Education systems had asked for the determination and development of a set of Pacific regional standards for teachers and school leaders. Such standards are to provide understanding for teachers, school leaders, and other stakeholders on the expectations for effective practice, and consequently to provide them with a structure and tool for planning and implementing professional development sessions. The overall improvement of teaching effectiveness, hence learning achievement, is the ultimate target. Such development recognises the well-documented research evidence on the singular importance of the teacher's influence on learner achievement (e.g. Hattie, 1992; 1997; 1999; 2003; Wiliam and Black, 2001). Embedded within the research evidence is the power of assessment and quality feedback in the learning equation. Slater, Davies, and Burgess' (2009) UK research showed that teachers matter a great deal and that there is strong potential for improving educational standards by improving average teacher quality.

The conference theme of "weaving together theory and practice" is an acknowledgement of current thinking that "the gap between theory and practice should not have to exist". The declaration in the opening caption of this paper, "theory and practice are the same in theory; in practice they are different" points to how this paper treats the relationship. Research shows that student teachers often indicated that knowledge acquired in teacher training did not enable them to handle the uncertainty, the complexity and instability of actual practice situations (Zeichner & Gore, 1990; Oosterheert, 2001). The training philosophy slogan "learn theory at academy and apply theory in practice" is out-dated. The importance of teacher education facilitating the process of linking theory and practice cannot be overemphasised. Future and current practitioners should be given the opportunity to construct their own theories from their own practice, and to thoughtfully generate authentic episodes of practice from their own theories.

There are serious practice-based reflection questions that SPBEQ tries to find theoretical explanations for. Conversely, there are many well-understood theoretical explanations but minimal good "on-the-ground" practices, as relevant experiences or practices do not "hit the ground running" as easily as the rhetoric does. This paper identifies insights gained from SPBEQ experiences, and poses corresponding reflection questions, and attempts to link the insights to relevant theoretical perspectives. It is hoped that these insights will serve to throw light onto the weaving of theory and practice in assessment and teacher education in the Pacific region.

### **Theoretical perspectives**

Schon (1992) coined the term reflection-in-action to describe the way various professionals deal with situations of uncertainty, instability, uniqueness, and value conflict faced in most workplaces today. Professionals respond to the problem situation by turning their thoughts back to the process of knowing implicit in their action. Schon argues that in real world practice, problems do not present themselves to the practitioner as given. They must be constructed from the materials of the problematic situation. The professionals convert the problematic situation in an active way to a defined problem.

Raelin (2002) takes up the argument that the core processes in reflection – critical opinion sharing, asking for feedback, challenging groupthink, learning from mistakes, sharing knowledge and experimentation – only can be realised through processes of interaction. Raelin argues that this process of "reflective practice" is collective – professionals reflect together with trusted others in the midst of practices, and that reflective practice opens for public scrutiny collective interpretations and evaluations of plans and actions. "Reflection brings to the surface – in the safe presence of trusting peers – the social, political, and emotional data that arise from direct experience with one another" (Raelin, 2002, p. 66). This approach, people reflecting together in an organisational context, makes the organisation the context of reflective practice.

Vince (2002) extends this – reflection as an organising process creates and sustains opportunities for organisa-

tional learning and change. The first step to learning and change is that of questioning collective assumptions that underpin organising in order to make power relations visible. The questioning of assumptions is a collective practice, not the province of individuals.

## **Background information on SPBEQ experiences**

### *The initial intense focus on senior secondary qualifications*

The SPBEQ is the only Pacific regional authority in educational assessment. Having been set up in the early 1980s to support countries in the establishment of their senior secondary qualifications, the predominant mandate in the first 20 years was senior secondary qualifications. The focus was on the Year 12 Pacific Senior Secondary Certificate (PSSC) qualification, offered in seven countries. A total of 13 subjects were offered for this qualification. In 2005, the Year 13 South Pacific Form Seven Certificate (SPFSC) qualification was offered. Three countries offered the qualification in 11 subjects.

In collaboration with selected country personnel, SPBEQ developed subject prescriptions containing specifications about content areas, skills to be developed, learning outcomes, assessment rationale, assessment tasks, and weightings. SPBEQ also institutionalised the qualification in terms of accrediting schools, verifying content and skills coverage for final examinations, approving internal assessment programmes, training teachers, developing assessment tasks, scoring and standardising/moderating student responses, and reporting and certification of student achievement. Quality assurance was the key consideration in all qualification procedures, including the review of prescriptions after every five years.

### *The diminishing focus on PSSC*

In 2011 SPBEQ began the process of nationalising the Year 12 PSSC qualification; meaning that countries were supported to take over the whole process of the administration of the PSSC qualification, instead of it being offered across several countries by SPBEQ. The original understanding behind the regional implementation of the Year 12 qualification in 1980s was that countries were to build up capacity over 5–10 years to independently administer the qualification at the national level. However, 5–10 years became 30 or so years, with some countries still expressing strong reservations about their readiness for the nationalisation.

From 2011–2013 SPBEQ supported countries in reviewing national assessment policies and procedures to accommodate this national offer of the Year 12 qualification. Curriculum and assessment officers and teachers selected as examiners and scorers were trained in their new roles with respect to this new responsibility. As of 2014, SPBEQ's support for PSSC is minimal.

### *Assessment of literacy and numeracy*

In response to the call from the Pacific Leaders of Education for a determination of the levels of literacy and numeracy of learning of Pacific Island children in 2000, SPBEQ's assessment focus shifted to literacy and numeracy. At the start from 2002, literacy and numeracy assessment was nationally-driven, with assessments after every 3 or 4 years for Years 4 and 6 pupils. Two or three rounds of these assessments have been completed in Tuvalu, Kiribati, Vanuatu, and Solomon Islands. The standards in these assessments are learning outcomes stipulated in national curricula of these countries. Year 2 assessment has been mooted in these countries but national implementations have not begun due to high costs.

In 2012, the first regional assessment of literacy and numeracy, the Pacific Islands Literacy and Numeracy Assessment (PILNA), was implemented by SPBEQ. This involved the participation of over 28,000 Years 4 and 6 pupils across 14 PICs. The standards for this regional assessment are the learning outcomes stipulated in the Regional Benchmarks for Literacy and Numeracy formulated by Pacific Heads of Education Systems in 2007. The next round of PILNA is earmarked for 2015.

### *The “shift” into teacher training and development of teaching and learning resources*

In 2005 SPBEQ adopted an additional focus – (re)training teachers in assessment competencies for overall enhancement of teaching effectiveness. Training modules were developed in collaboration with UNESCO and

UNICEF and co-conducted training sessions for curriculum officers, teacher educators, and selected teachers were implemented over two or three years in a number of member countries. The cascading “training-of-trainers” model was used, as the objective of the training was to build the capacity of the trained to train other teachers and teacher trainees. The targeted training focussed on the development of “assessment-for-learning” skills which teachers need to possess and use in order to effectively monitor what each student is able to do and not do so that specific intervention can be provided.

In 2009 SPBEQ began developing a set of regional assessment resource tools for literacy, numeracy, and life skills, so mirroring the SPBEQ emphasis on teaching and learning being outcome-focussed, evidence-based, and learner-centred. Teachers could use the resources in their classrooms to identify student weaknesses, and they were thus the most appropriate intervention towards achievement of learning outcomes. Training of country officers in adapting and expanding these tools to suit national curricula and training of trainers on how to use the tools followed.

### *Setting professional standards for teachers and school leaders*

The Pacific Teacher Regional Standards is intended to benefit all Forum Island Countries, their teachers and principals, and the children of Pacific Island schools. The standards are in line with the vision of the Pacific Education Development Framework (PEDF) “Quality education for all in Pacific Island countries”. The PEDF was endorsed by the Forum Ministers of Education meeting in March, 2009 and identifies key priorities in each of the sub-sectors of education and training. These priorities came from international commitments such as the MDGs and EFA goals as well as the national education sector strategic frameworks.

SPBEQ and UNESCO were tasked by Pacific Heads of Education Systems to consult with countries on what could comprise Pacific professional standards for teachers. In November 2009, Pacific Heads of Education Systems formulated the Pacific regional standards for teachers under the facilitation of SPBEQ, in collaboration with UNESCO. In 2010 the Pacific regional standards for school leaders was formulated similarly. PICs are adapting these regional standards in the formulation of their own national standards and some countries have begun the implementation of the standards for the self-appraisal processes that will lead to the identification of teacher professional development needs.

### **Insights gained through experience**

Insights garnered through years of practical experience are elaborated and related to some relevant theoretical positions.

#### *Insight 1 – Improved access is related to reduced achievement at the senior secondary level*

Findings that were established in an in-house research into “Grade Inflation in PSSC Mathematics” (SPBEQ, 2013) showed that the raw mean for PSSC Mathematics had fallen significantly over the 23 year period between 1989 and 2011. Between 1989 and 2011 the PSSC cohort grew by more than 400%. Within the same period, the PSSC country populations grew by about 50%. Statistical tests show that there is a definite correlation between cohort growth and raw mean decline. The frequency distribution curves for raw marks became increasingly skewed. The raw mean for a ‘1989 equivalent size cohort’ has maintained its value over the years. (p.29)

While increasing access to higher levels of secondary education is an international and national target, there has been very little thought given to how to mitigate the influence of this increase on dilution of national achievement standards. Another relevant and interesting factor is that the number of qualified and trained teachers (in Mathematics as well as other subjects) in PICs had steadily increased over the 23 year period under study.

#### *Insight 2 – There are serious issues with literacy and numeracy achievement at the primary schooling level*

Literacy and Numeracy assessment results, at both the national and regional levels, show serious levels of critical underachievement by primary age pupils. Country names are withheld in Table 1 below (Source: SPBEQ National reports) and results are for Literacy and Numeracy at the end of six years of primary schooling.

Table 1. *Literacy and Numeracy results for Year 6 pupils*

National result [Assessment based on learning outcomes stipulated in national curricula]	Proportion (%) of satisfactory achievement		Proportion (%) of critical underachievement	
	Lit	Num	Lit	Num
Country A (2013)	30	30	39	46
Country B (2013)	30	29	48	51
Country C (2010)	40	46	41	41
Regional result [Assessment is based on the 'Regional Benchmarks for Literacy']				
14 countries (2012)	29	48	29	30

***Insight 3 – Intentions are good but realities are difficult – standards implementation***

SPBEQ’s experience with teachers and leaders’ standards has been that, while the development of the regional standards by Heads of Education systems in 2009 was relatively straightforward, the “grounding” of these into national standards and their subsequent use for appraisal of teaching and leadership competencies is not. There are complications within some countries that cursorily indicate lack of commitment. Yet, the rhetoric about the importance of quality teachers for quality learning continues.

One country has advanced the implementation of teacher competency standards appraisal to the point of capture of self-appraisal results for about 60% of its teachers so far this year. It is anticipated that all teachers would complete one round of self-appraisal by the end of this month and final results will be used to inform professional development planning for 2015 and 2016. The preliminary results indicating proportions of teachers requiring PD are presented in Table 2 below (Source: SPBEQ Reports). The responses given by these teachers in their self-appraisal responses categorised them as either “basically skilled” or “not yet skilled” based on the stated indicators.

Table 2. *Teacher competency appraisal results*

Dimensions	Number of Elements	Average Proportion (%) of teachers requiring PD
1. Facilitating Student Learning	5	42.4
2. Assessing, Monitoring and Reporting Student Outcomes	3	45.9
3. Engaging in Professional Learning	3	49.8
4. Forming Partnerships Within the School Community	3	31.7

The original intention would be realised for this country. The national standards are developed, appraisal instruments created, national awareness and trainings carried out, self-appraisals completed, and data captured, analysed, and reported. The evidence in the table is that, on average, 42% of teachers (4 teachers in every 10) need to improve their teaching competencies in order to meet national standards for effective practice. What happens now? “Just train them”, would be the common response. Therein lies the insight – a reality check quickly points to the fact that the task is not an easy one at all.

***Insight 4 – Much-needed research into teaching and learning by practitioners themselves is almost non-existent.***

While there has been consistent allusion in various fora to the importance of good classroom research to link theory and practice, the translation of the ideas into reality is not happening. SPBEQ is awash with assessment

data that rightfully belong to countries. Massive amounts of assessment data are being accumulated but not put to practical use. SPBEQ believes that the research agenda should be in-country, not imposed from outside. A large number of reports based on selected data analysis are produced each year by SPBEQ and sent out to countries. Some are physically presented, explained, and elaborated to officers in countries. However, anecdotal evidence indicates that such information is hardly used to inform policy or practice.

### **Three curly questions – self-interrogation and self-reflection**

*Why is the quality of learning, as elucidated by assessment results, not satisfactory? What are the most immediate critical influences that need to be addressed? Who is making the decisions, and what are these decisions based on?*

The SPBEQ mandate did not directly include teacher education per se, up until this year (2014). The organisation was reminded a number of times by certain teacher education institutions that teacher training is not its business. However, SPBEQ's perspective differed. Teacher education in the region should be everyone's business; it should be a collaborative activity between all stakeholders; universities, teacher colleges, partner organisations, Ministries of Education, schools, and teachers themselves. This standpoint is influenced to a great extent by SPBEQ's experience with the quality of learning across PICs as demonstrated by pupil achievement in the array of assessments that SPBEQ facilitates. Against the worrying backdrop of underachievement, stakeholders need to work together and weave theory and practice together through "reflective practice".

Theoretical perspectives must translate into informed practices on the ground where problems need to be addressed. Reflective practice contributes to collective questioning of assumptions and challenging of groupthink in order to make power relations visible, provides a container for the management of anxieties raised by making power relations visible, and contributes towards democracy in organisations (Vince, 2002),

*Why has the understanding of the critical influence of the teacher's skills for learning achievement which has "been around" the Pacific for a fairly long time not translated into meaningful policies and practices? Who are the gatekeepers? What are the constraints?*

The fall of the twin towers on 9/11 coincided with the very first regional workshop coordinated by SPBEQ that focussed the attention of regional participants on research evidence on learning being driven predominantly by what teachers and pupils do in classrooms. The main discussion text for the day was Wiliam and Black's (1998) "Inside the black box: Raising standards through classroom assessment".

Nine PICs were represented. That was more than a decade ago and there have been several other regional and national training workshops on assessment since then. The findings of extensive research (Hattie, 1998; 1999; 2003; Wiliam and Black, 1998) have formed the core of many discussions in these trainings. More teachers are qualified and more still retrained on Assessment for Learning principles and processes. Yet, practices in classrooms have hardly changed. We keep doing the same old things, expecting new results.

Reflective practice asks: why has this improved understanding of theoretical perspectives based on research not translated effectively into policies and practice? Are systemic policies in the Pacific still treating classrooms as black boxes? Is practice very much still business-as-usual despite leaps and bounds of theoretical understanding of the relationship between teacher quality and learning achievement?

*Why do our classrooms continue to remain as black boxes? Where is the research evidence from teachers' classrooms that inform teachers, schools, and the teaching fraternity of the realities of teaching and learning? How do we engender a research culture amongst our school leaders and teachers?*

Issues with pupil achievement are teacher issues. Teachers themselves need to make problematic their common assumptions about teaching and learning and formulate problem statements as they seek ways and means of improving their teaching effectiveness. While the external setting of standards for example, has value, the means to improvement lie within the ambit of the teacher's research decisions; that is, the teacher's desire to ask and attempt to answer questions they want to learn about, not those that others assign or give to them.

## Conclusion

SPBEQ's experiences indicate a number of difficult realities that assessment evidence have shown and which point directly to teacher quality and teacher education – significant proportions of primary school children in PICs are critically underachieving in literacy and numeracy; significant proportions of teachers need regular professional development sessions in order to acquire competencies required for effective learning; an inherent inability in systems to change their practices; and classrooms continue to remain as black boxes.

The large proportions of critical underachievement in literacy and numeracy at the primary school level directly imply a widening zone of “silent exclusion” (Lewin, 2012). While more children are now accessing classrooms, many remain at risk of low achievement and/or exclusion. Those excluded are disproportionately poor, female, and socially, ethnically and linguistically excluded. Those who started in schools and did not finish often outnumber those that never enrolled.

As we seek to weave together theory and practice and make them one with each informing the other, SPBEQ hopes that theorists, practitioners, and theorist-practitioners will take cognisance of its experiences and insights to elucidate the new epistemology of interwoven theory and practice. The utility value of the weaving must lie in its capacity to shine light into the black boxes of our Pacific classrooms, and the currency of accountability of the weaving must lie in the improvement of teaching effectiveness and learning achievement. We owe this to our teachers and children.

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# **An outcomes-based assessment and reporting approach for enhancement of teaching and learning in the Pacific islands**

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## **Abstract**

The importance of assessment and reporting against learning outcomes is central to the concepts of “assessment for teaching and learning”. The marked shift toward outcomes-based assessment and reporting on specific learning outcomes makes little sense without a suitably modelled approach.

Technological advances provide avenues to expedite the capturing of marked exam/ assessment responses for individual students. Mechanisms now allow the storage and processing of a large amount of detailed information relating to a whole range of specific outcomes and achievement levels for individual students. This advancement has made possible the implementation of an evolving model of Outcomes-Based Assessment (OBA) and reporting.

The lack of outcomes-based assessment and reporting at a specific and detailed level (in the Pacific) has been the result of the following:

- a norm-referenced approach of assessments still being prevalent although curriculums are outcomes-based
- assessments being based on very general learning outcomes (achievement standards) with differences in interpretation of skill levels of learning outcomes
- an absence of capacity for capturing, storing and processing detailed assessment data
- the lack of a model that can produce OBA and reporting at specific levels.

The model of OBA and reporting addressed in this paper has emerged through analysis of current assessment and reporting models in the Pacific as well as simulation. The merits of the model include:

- enabling reporting of achievement of specific learning outcomes
- providing a basis for common understanding of subject specific learning outcomes and therefore allowing comparability in assessment results
- serving the assessment concept “Assessment for Teaching and Learning”
- eliminating the need for post-exam scaling in a selection and ranking environment
- removing the need for marks in assessment and reporting.

This model guarantees the provision of more appropriate information to students on their learning; more appropriate feedback to teachers on student learning; and more appropriate intervention for student learning, resulting in a potentially more appropriate learning society.

## **Introduction**

The current and predominant form of reporting student achievement in the South Pacific is norm-referenced and is primarily a mechanism for the ranking of students. This has been an important traditional function of assessments. A regional seventh form qualification – the South Pacific Form Seven Certificate (SPFSC) – administered by the Secretariat of the Pacific Board for Educational Quality prior to 2013, simply establishes a rank order of achievement without any definition of that achievement. Little can be deduced from this reporting system that would effectively provide information on the specific learning achievements of students, as the grading system is based merely on aggregated marks.

The shift of focus from ranking and selection towards monitoring the quality of student learning and reporting on student achievement in subject learning outcomes is of high value to all stakeholders. While continuing to meet the needs for a ranking and selection instrument, the limitations of the instrument for reporting the quality of student learning and achievement of the various learning outcomes is recognised.

Given the need for an assessment and reporting approach and tool that is current and in line with the worldwide trend, the challenge was more than just identifying and securing an approach. An assessment and reporting approach appropriate to the Pacific Island countries' context is of paramount importance. In the development of a suitable assessment and reporting approach for Pacific island countries, "outcomes-based" was the guiding concept. Although the outcomes-based concept is not new, the approach is. The need is to report individual students' achievement of specific learning outcomes to enable teachers to refocus teaching and make specific intervention where appropriate. The aim of this paper is to present a new approach to the assessment process which allows reporting of student achievements that will enable the enhancement of teaching and learning in the Pacific.

### **OBA and barriers to implementation**

Outcomes-based reporting is a product of Outcomes-Based Assessment (OBA) and the success of any attempt to report achievement of learning outcomes depends on accomplished outcomes-based assessment. Outcomes-based assessment has several definitions. Regardless of which definition one is examining, the idea of continuous improvement is often a common element (Bresciani, Gardner & Hickmott, 2010). Using continuous improvement in the definition, there is an assumption of purposeful planning for the delivery and assessment of intended outcomes. In addition, the assessment process is designed so that the information gathered could be used to inform specific decisions about how the intended outcomes can be met at a greater level of quality.

The question which naturally arises is: why is the practice of outcomes-based assessment not pervasive even in countries and schools whose leadership emphasises the importance of such a process to improve student development and learning?

Research has been conducted to illustrate the common barriers to implementing OBA. The reasons that outcomes-based assessment is not pervasively practiced or practiced at all are often classified into three categories: (a) time, (b) resources, and (c) understanding of assessment (Banta, 2002; Bresciani, 2006; Palomba & Banta, 1999; Upcraft & Schuh, 1996).

*Time* - Research posits that the manner in which one allocates time is influenced by how one prioritizes one's values (Argyris & Schon, 1996; Dalton, Healy, & Moore, 1985). As such, human beings' allocation of time in workplaces is based mainly on what they value or what they are told to value (Bass & Avolio, 1994). The outcomes-based approach, with the purpose of monitoring and intervention, is seen by many teachers as an additional load to teaching. The PNG Post Courier reported that outcomes-based assessment has increased the workload on teachers for programming lessons, which in turn produces incomplete teaching and learning (PACNEWS, 2013).

*Resources* - Resources especially the actual costs of implementing outcomes-based assessment, often go uncalculated. Furthermore, the start-up costs of educating personnel to manage this approach are often never allocated (Upcraft & Schuh, 1996). Because the actual cost of engaging in outcomes-based assessment has not been systematically calculated, it is difficult to determine whether the perceived or actual costs of professional development are off-set by improved student learning.

*Understanding of assessment* - Higher education apparently has been nervous about "flavour of the day" processes and reporting initiatives (Banta, 2002). As such, schools and administrators are often wary of anything that comes along in an apparently pre-packaged version or with the threat of an unfunded mandate.

While OBA has been around in one form or another for quite some time (Bresciani, 2006), the assumption that it is really here to stay is understandably questioned, because the manner in which outcomes-based assessment has been labelled has changed over the years. In addition, the increasing emphasis on accountability, using standardized testing and other performance indicators that often cannot be linked to what is actually occurring in the classroom, causes further understandable confusion.

There have been several resources and approaches designed to assist school and administrators with implementation of outcomes-based assessment, yet many schools are still having difficulty engaging meaningfully in the process. Why is that?

### Issues and Challenges

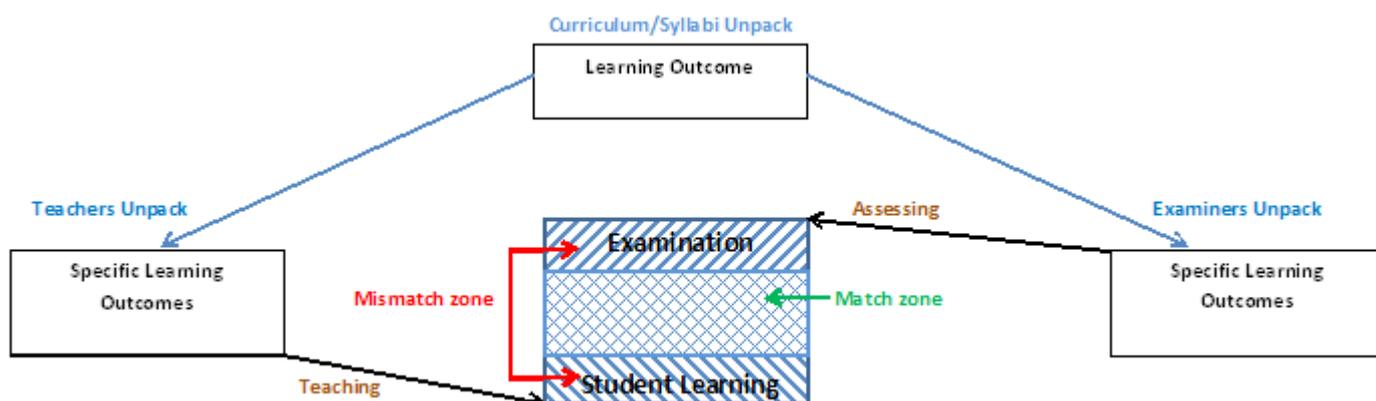
Teaching, learning and assessment at the end of senior secondary education is a challenge in the Pacific islands. Resources are barely minimal and insufficient in most schools and particularly those currently providing the SPFSC qualification, where more than 40% of the teachers have not taken formal teacher training (SPBEA, 2013). Compounding these problems, there is an absence of national sixth and seven form curricula, resulting in SPBEA subject prescriptions being used in schools as teaching documents. With the attempt to adopt an outcomes-based assessment and reporting at a specific and detailed level, several problems in existing systems were identified.

#### *Current curriculum/prescription documents are either content based or present learning outcomes in broad terms*

Most SPFSC subject prescription documents present very broad learning outcomes that need unpacking. Broad learning outcomes are not very helpful for either the teachers or the examiners. In the Pacific the unpacking of a prescription's broad learning outcomes to make them more specific and clear is assumed to be the role of teachers and examiners. These skills are assumed to be taught at teachers' colleges and institutions as well as in professional development workshops. However, even with teachers having completed formal teacher training, their competencies vary. Coupled with a considerable number of untrained teachers and examiners, this results in a mismatch between: curriculum; teaching gap as well as teaching; and assessment. According to findings from schools in PNG by the Japan International Corporate Agency (JICA) Study Team on implementation of outcomes-based assessment, syllabus and teacher guides had unclear content. "Teachers have to guess the meaning and can never know if she or he is right or not," said a representative from the JICA team (PACNEWS 2, 2013).

Figure 1 below depicts the teaching–assessing mismatch. Teachers unpack prescription learning outcomes according to their understanding and plan their teaching around their unpacked learning outcomes. Examiners may possess a different understanding and design assessment tasks and items based on their own unpacked learning outcomes. Because of the differences in unpacking competencies between teachers and examiners, there is bound to be a significant volume of inconsistencies. These usually result in the assessment of a number of learning outcomes that have NOT been taught, or, the teaching of a number of learning outcomes that will never in fact be assessed. However, when student achievement is reported, there is no reference to the mismatch. Students are simply reported as under achieving. This is invalid evidence of student learning, and therefore, this information is not useful for teaching intervention and other decision making.

Figure 1. *Assessing –Teaching mismatch*



### ***Inconsistent item valuing***

Second is the absence of a standard approach to be used by teachers and examiners in assigning marks to assessment items. Existing methods used at sixth and seven form level in the Pacific are based simply on the examiner's personal teaching and assessment experiences. Some teachers and examiners do consult the Bloom's taxonomy (1956) for establishing a mark value to an assessment item, but again there is inconsistency in interpretation.

Lacking standard methods of assigning mark values to assessment questions regionally and internationally results in assessment inconsistencies. A simple example of this inconsistency has been identified in past exam papers. In the 2008 SPFSC economics examination which was out of 100 marks, a question read "Explain the concept of marginal utility" and was assigned "(3 marks)". In 2011 the same question appeared in the examination out of 100 marks, but was assigned "(1 mark)".

In the attempt to maintain standards in examinations across subjects or in a subject over years, a quality assurance process was developed. This process includes approving of schools' internal assessment programmes; continuous training of examiners and moderators; moderation and checking of exam papers; standardising and scaling of marked responses. However, even with this quality assurance process in place, the reporting of students' achievement at a level of detail which can support the monitoring of learning is difficult.

### **Absence in capacity for capturing, storing and processing detailed assessment data**

The third issue is the absence in IT capacity within the SPBEA. The existing software – ATLAS ( ) – was the main tool for administration, data processing and reporting of regional assessments. Although learning outcomes may be clearly presented within the prescription documents for the SPFSC subjects, there was no current link to those learning outcomes when student data was transferred from either examination scripts or internal assessment tasks into ATLAS. The student assessment record was captured as a total mark only.

The complexity and demand of the new approach makes the existing software incompatible. A massive amount of data and information needed to be captured, stored and processed. These include; (i) subject prescription specific learning outcomes to enable linking to student responses and achievements; (ii) assessment items; (iii) students' response level to every assessment item; (iv) achievement level descriptors for all specific learning outcomes as well as major learning outcomes; and all other student assessment and reporting related data. The processing of students' performance and reporting achievement at a very detailed level requires high level programming which was not available within SPBEA.

### ***Lack of a model that can produce outcomes-based reporting at specific levels***

Fourth is the absence of an outcomes-based model that reports student achievement at very detailed and specific levels. SPBEA had taken some measures in reporting student performance against a set of performance standards in the development of Standardised Tests of Achievement (STATs). However, this is in a slightly different dimension as it is more on generic competences in Literacy or Numeracy rather than in the achievement of broader based curriculum learning outcomes (SPBEA Board Meeting paper, 2010).

Most if not all reporting of high stakes examinations in the Pacific are based on aggregate totals. The SPBEA existing student reports are based on total assessment marks which are captured and stored in data processing software. Student achievements are then reported via grade levels ranging from E at the bottom to A+ at the top. Other systems capture and report students' assessment data at aggregated levels such as the NCEA standards in the New Zealand system, which reports each student's achievement of Standards (NZQA, n.d.).

### ***Lack of understanding of, and resistance to, outcomes-based assessment and reporting***

Grading scales and marks reporting has been, and still is, a rooted culture in the Pacific Islands. People grew up with this system and are comfortable with it because they understand it well. The outcomes-based concept was mooted in SPBEA more than 10 years ago, in a paper presented to the SPBEA board in 2002 to introduce the outcomes-based system. It was unsuccessful as countries were not prepared.

Changing a culture is no small task. When you have invested your life's work in a process that is grounded in tradition and past practice, changing requires that we rethink our relationship to our colleagues, to our work, to our students and their parents. It is not an indictment of our past practices, but rather a realisation that the strategies that worked in the past are not effective in the world in which we now live and learn, and that we need to move forward as a system to redefine our roles and the way we facilitate and support learning in a dynamic environment.

### **A new model**

The challenge in developing a new approach or model was to address the barriers to implementation of OBA discussed earlier. To ease the amount of work and time on teachers, especially manual record keeping for reporting and intervention purposes, an IT integrated approach was seen as necessary. For the reporting of SPFSC student achievement at detailed levels of learning outcomes, a massive amount of data capturing, storing and processing is involved. The model was developed in the light of IT capability and an improvement in IT capacity.

The New Zealand NCEA system of reporting student achievement of learning outcomes (Achievement Standards) was seen as appropriate for SPFSC. NCEA reports students' achievement at four levels namely, Achievement with Excellence, Achievement with Merit, Achieved and Not Achieved. However the NCEA system reports achievement only at an aggregate level and where the achievement levels are not described in specific detail.

The first task in developing the new SPFSC approach was to decide on the number of achievement levels appropriate for reporting. The four levels of the New Zealand NCEA system were adopted but the criteria for achievement of these levels, a three band system; Band 1 – Basic skill, Band 2 – proficient skill and Band 3 – advanced skill was developed and clearly defined. Detailed descriptors of achievement levels specific to subject learning outcomes were also developed.

### ***Unpacking of prescription learning outcomes***

The unpacking of learning outcomes is seen as the core and most important building block for the assessment and reporting at detailed levels. To make the approach work, broad syllabus/prescription learning outcomes needed to be unpacked so that the resulting learning outcomes are specific, clear and unique. This is to enable without difficulty the classifying of specific learning outcomes into the three skill bands. These specific learning outcomes must be clearly presented within revised syllabus/prescriptions and all users will see and use the same learning outcomes. Teachers' classroom teaching and monitoring of student learning is aided, not only through the specific and clear presentation of learning outcomes, but also through the maintenance of consistency in understanding and interpretation of learning outcomes amongst teachers and between teachers and examiners. Teachers' teaching and examiners' assessment are aligned to the same specific learning outcomes. Learners too who use the prescriptions as a guide to studies also work on the same specific learning outcomes. Thus, the teaching/learning – assessment mismatch is, to a great extent, alleviated.

It is understood that unpacking learning outcomes will result in a great many more specific learning outcomes. This is when technology is required for capturing, storing and reporting on these large amounts of information.

Figure 2. Prescription Broad Learning outcomes with unpacked specific learning outcomes

<b>1.1</b>	<b>Explain the economic problem of scarcity and allocation using the production possibility model</b>
1.1.1	describe model as it is used in the study of economics
1.1.2	describe the purpose of a model in Economics
1.1.3	define a production possibility curve
1.1.4	explain the shape of production possibility curves
1.1.5	explain shifts in production possibility curves
1.1.6	list basic assumptions of a production possibility model
1.1.7	define the economic term scarcity
1.1.8	illustrate economic scarcity using the production possibility curve
1.1.9	illustrate choice using the production possibility curve
1.1.10	define the economic term opportunity cost
1.1.11	give an example of opportunity cost
1.1.12	illustrate opportunity cost using the production possibility curve
1.1.13	illustrate underutilization of resources using the production possibility curve
1.1.14	explain production efficiency
1.1.15	explain <u>allocative</u> efficiency

#### *Assigning of “Learning Outcomes Skill Score” and classifying learning outcomes*

Assigning skill scores to specific learning outcomes is considered crucial. It is equally important to present these skill scores in the syllabus/prescription document to be available for users. The assigning of skill scores will enforce the identity and uniqueness of specific learning outcomes. This is essential for assessment as well as reporting purposes. This practice will enable teachers and examiners to simply identify the value of specific learning outcomes in terms of skill level embedded in the outcome. The monitoring of student learning through achievement of learning outcomes is valid when the skill score assigned to the learning outcomes is clearly identified and unchanged. Skill scores allows for ease of classifying specific learning outcomes. Refer to Figure 4. In the modelled approach, learning outcomes are classified into three bands using a skill score grid developed from the Bloom and SOLO taxonomies. Figure 3 depicts this.

The assigning of marks to test items is redundant with the introduction of skills bands. Criterion descriptors are used for marking student responses, and instead of marks, the response level is used. There are different levels of criterion descriptors (student response levels) in each of the three bands.

Figure 3. Skill score – Skill band Grid

Bloom's Taxonomy	SOLO Taxonomy	Skill Score	Skill Band	Description
Knowledge	Unilateral	1	1	<b>Basic Skills</b> Mastery of the knowledge and skills that are fundamental for proficient work.
Comprehension	Multilateral	2		
	Application	Relational	3	2
4			3	<b>Advanced Skills</b> Presumes mastery of both the Basic and Proficient levels and represents superior academic performance.

Figure 4. Learning Outcomes skill score and skill band

TOPIC	Major Learning Outcomes	Key Learning Outcomes	Specific Learning Outcomes (SLO)	SLO Skill Score	SLO Skill Band
Resource Allocation via the Market System	EcoA Demonstrate understanding of the key ideas about the operation of the market system, and analyse how decisions are made and their outcome in a modern market economy.	EcoA1.1 Explain the economic problem of scarcity and allocation using the production possibility model.	define model as it is used in study of economics	1	1
			describe the purpose of a model in economics	2	1
			define a production possibility curve	1	1
			explain the shape of production possibility curves	3	2
			explain shifts in production possibility curves	3	2
			list basic assumptions of a production possibility model	1	1
			define the economic term scarcity	1	1

**Design of Assessment item**

Figure 5 portrays an assessment blueprint in which numbers of items/questions are provided instead of marks. In this illustrated blueprint, the examiner will design 22 items from Band 1 (Basic skill level) learning outcomes; 7 items from Band 2 (Proficient skill level) learning outcomes; and 3 items from Band 3 (Advanced skill level) learning outcomes. The items must be designed to reflect the skill level of the learning outcome from which it is designed. By controlling the blueprint based on specific learning outcomes and their respective bands, we are able to set and maintain standards across subjects (scaling is no longer needed), and to accurately

monitor student learning.

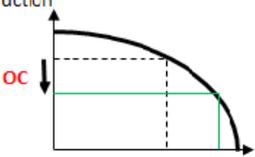
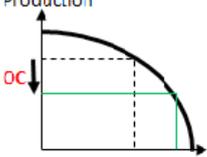
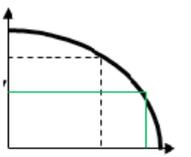
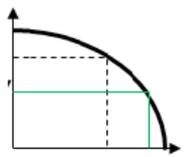
Figure 5. Assessment Blueprint

	Major Learning Outcomes			Time
	Band 1: Basic	Band 2: Proficient	Band 3: Advanced	
EcoA: Demonstrate understanding of key ideas about the operation of the Market system, and analyse how decisions are made and their outcome in a modern market economy	22 items	7 items	3 items	80 min

**Design of Assessment Criteria**

The assessment criteria are more than just a simple rubric. They should provide model student responses at each of the response levels, as demonstrated in Figure 6 below. There must be no uncertainty in distinguishing between the response levels. The number of criteria for assessing responses to an examination item depends on the learning outcome band from which the item is designed. In band 1 there are two possible criteria - excellent response and weak response. In band 2, there are three criteria - excellent response, moderate response, or weak response. In band 3, there are four criteria - excellent response, moderate response, low response, and weak response. Student response to examination items will be assessed against these criteria. Because learning outcomes are defined by a band, consistency in valuing assessment items is guaranteed.

Figure 6. Assessment Criteria

LO	SLO Skill Band	Evidence	Student Response Level			
			Excellent	Moderate	Low	Weak
EcA1.1	1	Scarcity is when resource a limited compared to the needs and wants	Scarcity is when resource a limited compared to human needs and wants  <i>Idea is correct</i>			Increase needs decrease money  <i>Incorrect idea</i>
EcA1.2	2	Agricultural Production    New Tourist Hotels	Agricultural Production    New Tourist Hotels	Agricultural Production    New Tourist Hotels  <i>No label</i>		Agricultural Production    New Tourist Hotels  <i>Incorrect illustration</i>

**Capturing of students' record of performance**

In making judgements on students' response, markers use the standard automated template presented in Figure 7 to record student performance. These records of performance sheets are then scanned by an optical scanner to make the data available for processing and the reporting of achievements. An electronic version is also available for markers who can complete students' record of performance directly into the system electronically.

Figure 7. Student response level capture sheet

Specific learning outcomes	Skill Band	Student response level					
		Excellent response	Moderate response	Low response	Weak response	No response	Exceed
EcA1.1	1	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
EcA1.2	2	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
EcA1.3	1	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
EcA2.1	1	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
EcA2.2	3	<input type="checkbox"/>					

### Reporting of student achievement of learning outcomes

Capturing students' records of performance at item level allows for reporting at the detailed specific learning outcomes level. This provides meaningful information about students' learning as demonstrated by their response to assessed learning outcomes and reported by achievement levels. Teachers can refocus their teaching on weak areas identified in student performance. Figure 8 shows how a student's achievement is reported at the major learning outcomes level. Similar reporting is done at the specific learning outcomes level and overall subject level.

Figure 8. Student Major Learning Outcomes Reports

Subject	Achievement Level Descriptor	Achievement Level	Assessment Type
Economics (7Eco)	<b>EcoA:</b> Show basic understanding by: defining, describing, identifying, distinguishing between terms, deriving/ drawing and writing simple explanations about the basic concepts and applications of market models in Economics; the concepts of demand, supply and market equilibrium; the role of firms in a market economy; and market structures applied to local case studies.	<b>ACHIEVED</b>	<b>External &amp; Internal</b>
	<b>EcoB:</b> Show comprehensive understanding by: fully explaining, analysing, demonstrating relationships, applying, interpreting and /or making predictions about market failure and government intervention in the economy; merit and demerit goods.	<b>EXCELLENCE</b>	<b>External &amp; Internal</b>
	<b>EcoC:</b> Show in-depth understanding by: explaining, applying, demonstrating relationships and analysing domestic and external economic activity; monetary and fiscal policy; aggregate supply and aggregate demand; applications of real world macro-economic data to economic theory and models.	<b>MERIT</b>	<b>External &amp; Internal</b>

### Conclusion

The work on the new outcomes-based assessment and reporting approach was successfully completed and tri-

alled in 2013 with SPFSC. Students with an SPFSC qualification have successfully registered in universities in the Pacific, including New Zealand and Australia.

This approach is very appropriate for the Pacific, as it empowers teachers, especially those who do not have formal teacher training as well as those who do not have access to continuous professional development. It is an approach more appropriate at the classroom level for monitoring of student performance and for facilitating interventions. SPBEA should look into ways to roll this approach out to schools within its member countries.

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## The language used in mathematics learning is not a one-size-fits-all affair

‘Uhila moe Langi Fasi, *Secretariat of the Pacific Board for Education Quality, Fiji*

### Abstract

The educational benefits of bilingualism and the learning of, and through, an international language, are well documented. The relationship between mathematics achievement and bilingualism, and the problems of learning mathematics through English as a second language in Tonga, are the focal points of the study reported in this paper.

In the reported study a two-phased, dual-paradigm design was adopted: an associational survey to investigate the relationship between mathematics achievement and bilingualism, and in-depth interviews of purposively selected bilinguals. Tests in Mathematics (in English), Tongan and English were conducted to determine three categories of bilingual competence: high in both languages (High L1/High L2), low in both languages (Low L1/Low L2), and high in one and low in the other (One-dominants). The mathematics test results were then compared for any significant differences among the three different bilingual groups. The interviews involved think-aloud problem-solving and discussions of students' problem solutions and ideas about language and mathematics.

High L1/High L2 students achieved significantly higher in mathematics than other students, and Low L1/Low L2 students achieved significantly lower than others. English-dominant students achieved lower than High L1/High L2 students but not significantly different from Tongan-dominants, although the latter had a higher mean score.

Findings indicated that Tongan bilinguals think and solve mathematical word problems in the language which they are more comfortable using. English-dominants brought up in English-speaking environments think in English, whereas Tongan L1 speakers brought up in Tongan-speaking environments think either in English and Tongan or in Tongan only depending on the individual's level of competence in English.

High English-competence students employ a variety of English-biased strategies, whereas low competence students rely on word-for-word decoding. The findings highlight the need for teachers to be competent in both languages to effectively teach bilingual students.

### Introduction

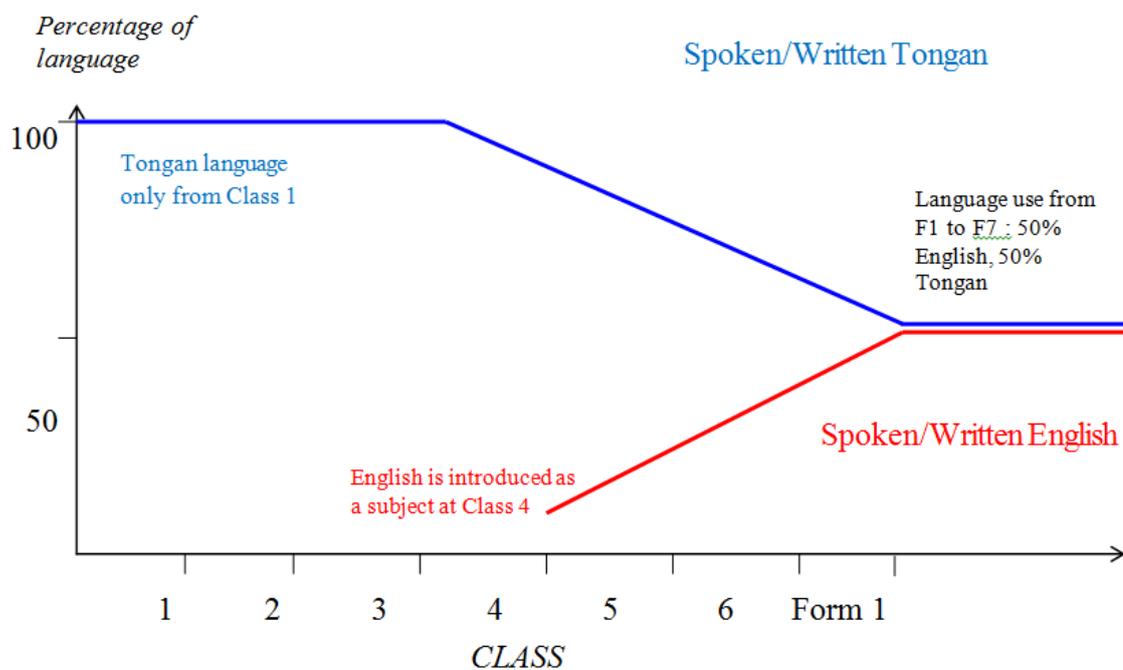
The interrelationships of language and learning have been the central interest of researchers in many disciplines, and the role of language in the teaching and learning of mathematics has been noted in many curricula (Halliday, 1975; Austin & Howson, 1979; Pimm, 1987; Ellerton and Clarkson, 1996). In multicultural countries like the USA, Australia, New Zealand and South Africa, the importance of the language factors in mathematics learning and teaching has been long recognised, and second-language learners have been given support to overcome language barriers and thus facilitate communication in the teaching and learning of mathematics. For mathematics learners language is twofold: the language of instruction (which, for many, is English), and the language of mathematics (the mathematics register).

In many developing countries, due to colonial legacies and the multiplicity of local languages, learners have no choice but to learn mathematics in a language other than their mother tongue. In addition to the mother tongue-English interface, there are different forms of mathematical language within the mathematics register itself - everyday language (measure the distance around the top), mathematics specific language (circumference) and symbolic language ( $C = 2\pi r$ ) (Meaney, 2005). Studies have shown that there is a relationship between the degree of bilingualism and logical reasoning (Secada, 1988; Ellerton & Clarkson, 1996; Brodie, 1989) and that the poor performance in mathematics of many bilinguals results from language problems (Secada, 1992; Barton & Barton, 2003).

It is important that teachers of mathematics are aware of and can incorporate language aspects in to the teaching of the subject. They first need to acknowledge and recognise the vital role language plays in mathematics teaching and learning before they effectively teach students the language of mathematics and model its uses appropriately. Research has shown that when teachers fail to use mathematical language fluently, their students also fail to use appropriate language to describe mathematical ideas and concepts (Riordain, 2009). Teachers are then faced with a dilemma on how to assess the sources of students' difficulties: is it mathematics or language (Secade & Cruz, 1996)?

The L1-L2 language dichotomy is reflected in the Tonga Ministry's new language policy which stipulates that in primary schools, Tongan is the only language to be used from Class 1 to Class 3, and English is to be introduced in Class 4 as a subject. From Class 4 to Class 6 Tongan will remain the dominant language but its use in classes will gradually decrease as the use of the English language increases. The new policy further states that the use of Tongan and English in classes will follow this ratio: Class 4, 80% Tongan, 20% English; Class 5, 70% Tongan, 30% English; Class 6, 60% Tongan, 40% English. At secondary school, the language use will be 50% Tongan and 50% English (see Figure 1 below). Although the new policy suggests that at secondary level a bilingual approach will be used in the classroom, assessment and examinations are still expected to be carried out in English.

Figure 1. Percent of language time used for Tongan and English from Class 1 to Form 7



### Theoretical Background

A significant number of studies have been carried out on the relationship between bilingualism and academic achievement. Early studies (Laurie, 1890; Brown, 1922; Saer, 1922, 1923; Hirsch, 1926; Mead, 1927; Jamieson & Sandiford, 1928; Rigg, 1928; Yoshioka, 1929, Arthur, 1937 and Mitchell, 1937) reported by Skutnabb-Kangas (1984) indicated that bilinguals suffered a language disadvantage and bilingualism has disadvantages in terms of thinking, and concluded that monolinguals were superior to bilinguals. However, later studies (Peal and Lambert, 1962; Cummins and Gulustan, 1974; Torrance et al., 1970; Ianco-Worrall, 1972; Ben-Zeev, 1977) found positive association between bilingualism and cognitive development, creative thinking, semantic development and perceptual structures. Findings from more recent studies also support earlier findings that there are positive cognitive gains associated with bilingualism and the enriched cognitive control that comes with bilingual experience.

### Bilingualism in mathematics

Many recent studies have focussed on the importance of language for mathematical understanding. Jones

(1982) attributed the poor performance of Papua New Guinea pupils in mathematics word problems to the distance of pupils' mother tongues from English and the extremely limited range of mathematical concepts and relationships they can describe easily. In addition, the frequent absence of a written vernacular means that some Papua New Guinea pupils lack the support of a mother tongue to which they can translate readily for meaningful understanding.

In New Zealand, Māori pupils who are taught mathematics in the Māori language perform significantly better than pupils taught in mainstream English language classes (Ohia, Moloney, and Knight 1990). For non-native speakers of English, meaningful understanding of the language, which is a direct result of the level of competence and proficiency of the learner in that language, is as important in learning mathematics as the mathematics content itself. Whang (1996) and Jones (1982) warned that if children are unable to attach any real meaning to the mathematics they are doing then the arithmetic will be a meaningless set of rules associated with an equally meaningless set of words, and little learning of value is likely to take place. In word problems therefore, full understanding of the problem statement requires more than being able to read the individual words and learning their meaning in isolation. The child needs to acquire not only surface fluency in the language of instruction, but also the language skills to be able to extract meaning.

Recent studies (Dawe, 1982; Jones, 1982; Clarkson, 1992; Cuevas, 1984) support the view that mastery of mathematical concepts presupposes some facility with the language used to express, characterise, and apply those concepts, giving further impetus to the belief that there is a positive correlation between mathematics achievement and second-language ability.

For the purposes of this study, Cummins' (1979) theory of developmental interrelations of language and thought in bilinguals was used as one of the guiding underpinnings of the theoretical framework.

### **Cummins' Theory**

Cummins' theory of bilingualism argues that rather than being an educational handicap, as claimed by other writers, bilingualism can result in additional academic benefits to the bilingual child. Cummins' two hypotheses, the "threshold hypothesis" and the "developmental interdependence hypothesis" explain the interaction of language and cognitive development in the bilingual child, and account for both additive bilingualism (high competence in both first and second), and subtractive bilingualism (second language replacing first).

The threshold hypothesis states that there are two thresholds: the lower threshold is for the child to overcome in order to avoid negative effects of bilingualism on cognition; the second higher threshold is a level required to experience the possible positive effects of bilingualism. The latter results in an additive form of bilingualism which positively influences cognitive functioning (Barik and Swain, 1976; Swain, 1978; Cummins and Mulcahy, 1978; Ben-Zeev, 1977b).

Research findings (Swain, 1978; Skutnabb-Kangas and Toukomaa, 1976; Tucker, 1977) have shown that where the first language (L1) is promoted and valued at school and at home, children from minority language groups are able to overcome the upper threshold and are more likely to achieve success at school where L2 is the dominant language. Thus encouragement to develop L1 skills is necessary if the child is to develop competence in L2. It is further suggested that if the child receives instruction in a foreign language without simultaneous support in the mother tongue, both languages, as well as the child's cognitive development and school achievement will suffer. It follows that bilingual students who are not competent in either of the two languages will not be able to overcome the lower threshold and will tend to experience difficulties in mathematics (Ellerton & Clarkson, 1996).

The developmental interdependence hypothesis states that the level of L2 competence which a bilingual child attains is partially a function of the type of competence the child has developed in L1 at the time when intensive exposure to L2 begins. This interdependence or 'Common Underlying Proficiency' (CUP) makes possible the transfer of cognitive/academic or literacy related skills across languages (Cummins, 1984b). It further implies

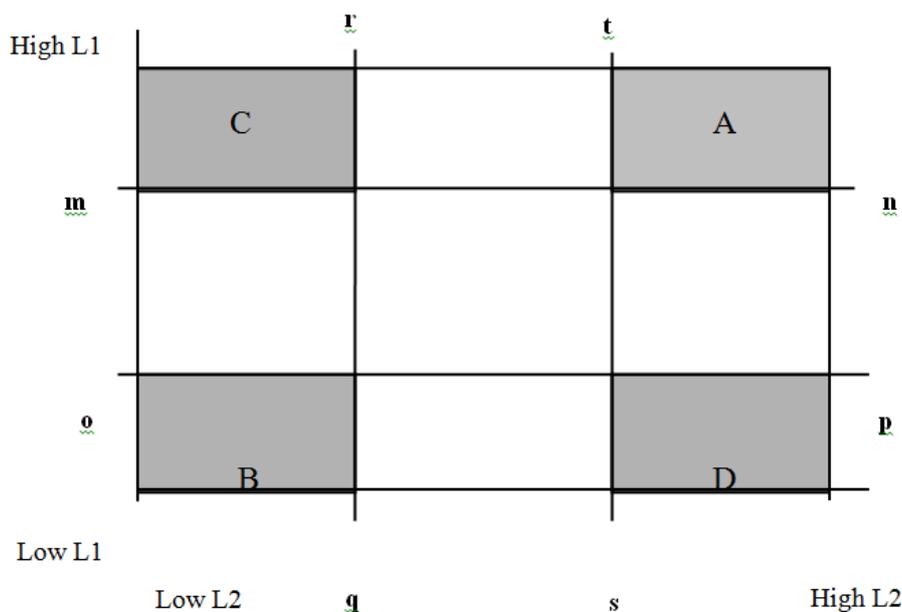
that experience with either language can promote development of the proficiency underlying both languages, given adequate motivation and exposure to both L1 and L2, either in school or in the wider environment. A good example of the CUP concept can be found by looking at bilingual's conceptual knowledge. A bilingual who has already acquired a certain concept in his L1 only had to acquire a new label in L2 for an already existing concept. A child on the other hand, who does not understand the concept in his L1 has a very different and more difficult task to acquire the concept in L2.

When taken together, the two hypotheses imply that:

academic and cognitive outcomes are a function of the type of linguistic knowledge which the child brings to the school and the competence in L1 and L2 developed in interaction with educational treatment variables over the course of the child's school career. (Cummins, 1979:243)

For the purposes of this study, competence in a language refers to an individual's ability to make use of the cognitive functions of language rather than its surface fluency. As Jones (1982) points out, competence requires more than just being able to read individual words and learning their meanings in isolation. The child requires cognitive academic language proficiency (CALP) in order to develop a sound understanding of fundamental concepts. The levels of language competence among bilinguals can be represented by the 3x3 matrix in Figure 2 below.

Figure 2. 3x3 matrix of bilinguals' language competence levels in L1 and L2



Although language competence is a continuum, for clarity of explanation, the grid lines *mn*, *op*, *qr* and *st* are arbitrarily chosen to represent competence level boundaries.

Region A - high L1, high L2. Bilinguals in this region have attained the higher threshold level and are experiencing the positive cognitive effects of bilingualism.

Region B - low L1, low L2. Bilinguals in this region have not attained the lower threshold, and are likely to experience negative cognitive effects.

Region C - high L1, low L2 These are the one-dominants with high

Region D - low L1, high L2 competence in only one language. There is no cognitive retardation but they do not experience any benefits from bilingualism.

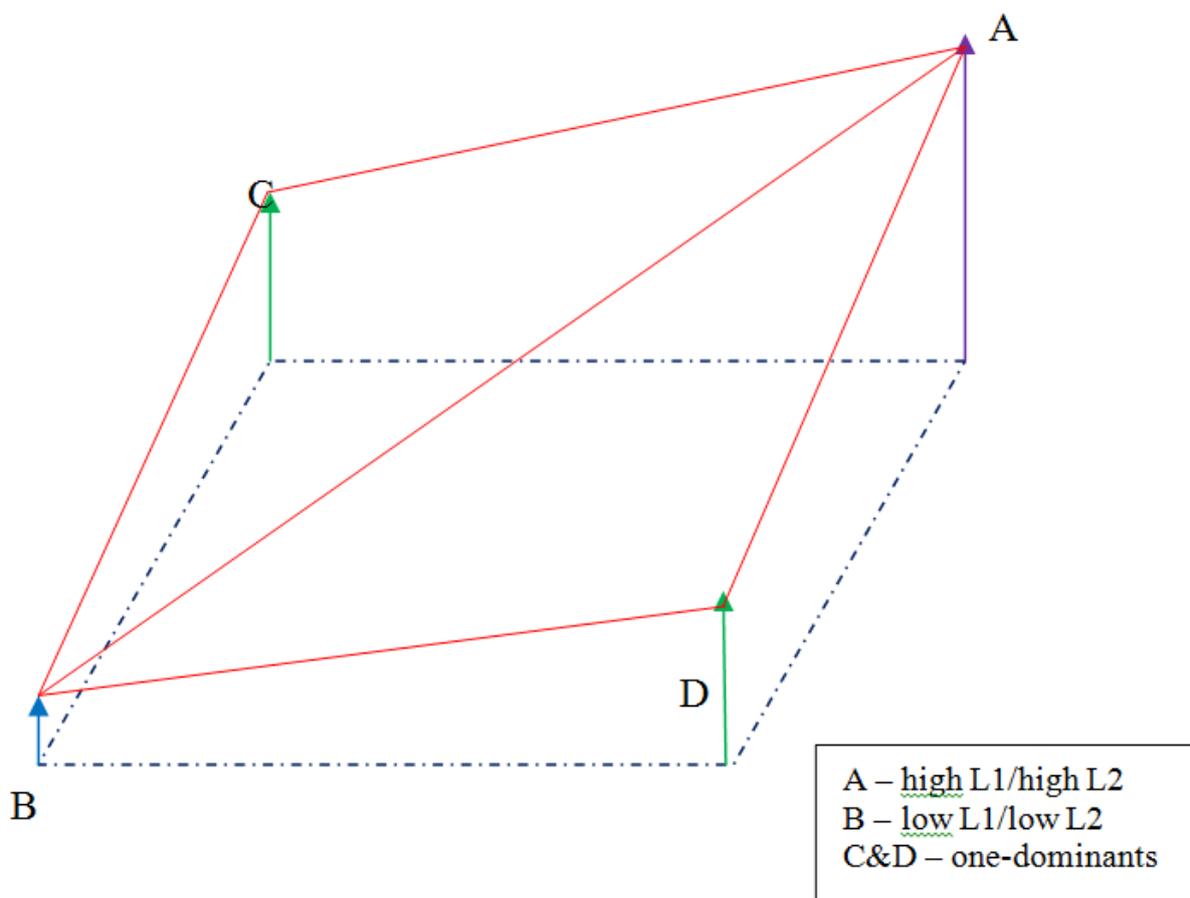
### Application of the model to mathematics

In the Tongan context, Cummins' hypotheses predict bilinguals with high competence in both Tongan and English will have the highest achievement in mathematics, while those with low competence in both languages

are expected to achieve the lowest. The one-dominants are expected to be in the middle, and depending on the language of presentation, one group is expected to perform higher than the other. For example, if the test is presented in English, we would expect the English-dominants to have higher achievement than the Tongan-dominants.

Cummins' hypothesis as it applies to mathematics can be represented by a 3-dimensional model shown in Figure 3, where the vertical height of each vertex represents the relative achievement of each group. According to the threshold hypothesis, the bilinguals who have not attained the lower threshold are at point B. Those who have attained the lower but not the higher threshold move to either point C or D depending on which of the languages they are competent in. Those bilinguals who have attained the higher threshold are at point A, their achievement being attributed to the positive effects of bilingualism.

Figure 3: 3-dimensional representation of mathematics achievement as a function of bilinguals' level of language competence.



Recent research on bilingualism and mathematics education used Cummins' theory of linguistic interdependence between L1 and L2 as a guide in investigating the effects of bilingualism on mathematics learning and achievement. The theory asserts that a cognitively and beneficial form of bilingualism can only be achieved on the basis of adequately developed L1 skills (Cummins, 1979). The theory, as discussed previously, rests on the threshold and developmental interdependent hypotheses.

The work of Zepp (1981) and Souvney (1983), among other researchers, showed that there is wide agreement that achievement in mathematics is related to proficiency in the language in which mathematics is taught. When investigating the relationship of language and achievement in mathematics in Papua New Guinea, Souvney (1983) found that the level of English reading skills correlated highly with mathematics achievement of second language learners.

Clarkson (1992), also when investigating learning in Papua New Guinea, reported that in two different types of mathematical tests, a General Mathematics test and a Mathematical Word Problem test, students who were competent both in their original language (Pidgin) and in English (highL1/highL2) had some advantage over

one-dominant students. Both these groups had a clear advantage over lowL1/lowL2 students. Clarkson's results further show that bilingual students competent in both languages performed better than monolingual (English) students, even though the monolingual students attended schools that had much better teaching/learning facilities and resources. Dawe (1982) and Clarkson (1992) concluded from studies of bilinguals' performance that first language competence is a vital factor in the acquisition of the classroom language, which eventually results in better performance in Mathematics. Whang (1996), in a study of Korean bilinguals, and Skutnabb-Kangas and Toukouma (1976) in a study of Finnish students attending Swedish schools, came up with similar findings.

## **The Study**

The objectives of this study were to:

- investigate the relationship between bilingualism and achievement in mathematics;
- find out how Tongan bilinguals solve mathematical word problems; and
- identify potential sources of difficulties for Tongan bilinguals when solving mathematical word problems.

To achieve these objectives, the following research questions were formulated:

1. Does Tongan-English bilingualism carry some cognitive and academic advantage with regards to mathematics?
  - Do students who show higher competence in both languages have higher levels of achievement in mathematics than others?
  - Do students who show lower competence in both languages have lower achievement in mathematics than others?
  - How different is the performance in mathematics of Tongan-dominant bilinguals from high L1/high L2 bilinguals and English-dominant bilinguals?
2. Do students think in English or in Tongan when solving mathematical problems presented in English (or Tongan)?
  - How much language switching is involved when students solve mathematical word problems?
  - What language does the Tongan bilingual use to actually solve the problem?
3. What are the sources of difficulties in solving mathematical word problems?
  - What language strategies are used by Tongan bilinguals when solving mathematical word problems?
  - How does the language of instruction influence students' performance in mathematics?
  - What other sources of difficulties faced by Tongan bilinguals when solving mathematical word problems?

To answer these questions, the following activities were carried out:

- (a) An analysis of test results in mathematics, Tongan language and English language. The tests were administered to Form 3 students in six secondary schools in Tonga (n=708).
- (b) An analysis of questionnaires addressed to students. The questionnaires were distributed to a sample (n=336) selected from the students who sat the tests in (a), based on bilingual competence – HighL1/High L2 (136), Low L1/Low L2 (147), One-dominants (53) in accordance with Cummins' thresholds hypotheses.
- (c) In-depth interviews with a smaller sample of students (n=17) purposively selected from the sample in (b).

## **Summary of main findings**

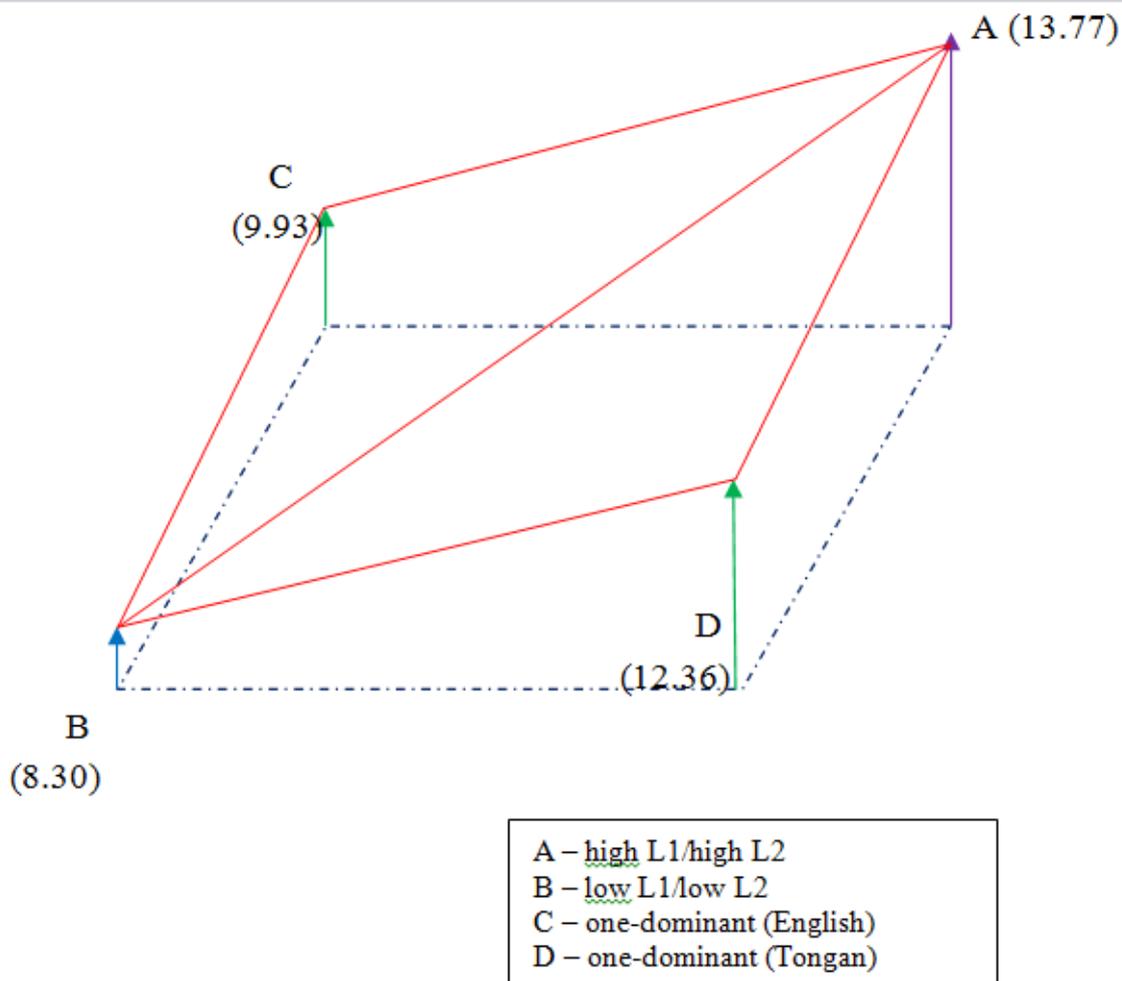
### ***Bilingualism and achievement in mathematics***

Does Tongan-English bilingualism carry some cognitive and academic advantage?

Students with high competence in both English and Tongan (high L1/high L2) achieved the highest mean (15.41) in the mathematics test, followed by those with high competence in only one language (one-domi-

nants) (11.07), and lastly the students with low competence in both languages (low L1/low L2) (5.6). This is shown in Figure 4 below.

Figure 4. 3-dimensional model showing mathematics test means as a function of bilinguals' level of language competence



In addition to students' bilingual levels, other variables were found to have significant correlations with the mathematics test scores. These intervening variables are: (i) the school the students attended; (ii) the type of employment of the parents or guardians; and (iii) the home environment of the students. After removing the effects of the intervening variables and adjusting the means accordingly, the differences in the means were still significant as shown in Table 1.

Table 1. Means in Mathematics test before and after effects of intervening variables have been removed

Bilingual Level	Unadjusted means	Adjusted means
High L1/High L2	15.41	13.77
One Dominants	11.07	11.05
Low L1/Low L2	5.67	8.30
p = .0001		

Thus, in answering the research question, the findings show the following:

- (i) bilinguals with high competence in both English and Tongan (high L1/high L2) achieve significantly higher mathematics scores than other students;
- (ii) bilinguals with low competence in both English and Tongan (low L1/low L2) achieve significantly lower mathematics scores than other students;
- (iii) High L1/High L2 bilinguals achieve significantly higher mathematics scores than English-dominant and

Tongan-dominant bilinguals;

(iv) There is no significant difference between the mathematics achievements of Tongan-dominant ( $m=12.36$ ) and English-dominant ( $m=9.93$ ) bilinguals although the former showed a higher mean score.

The results suggest that Tongan-English bilingualism does carry some cognitive and academic benefits, in accordance with Cummins' theory.

### **Tongan bilinguals' thinking language**

Do students think in English or in Tongan when solving mathematical word problems presented in English (or Tongan)? The findings showed the following:

- (i) Tongan bilinguals tend to think in the language which they are more comfortable using. English-dominant students raised in English-speaking environments tend to think in English compared with Tongan-dominant students raised in Tonga-dominant environments tend to think in Tongan;
- (ii) Code-switching was used by students whose first language was Tongan.
- (iii) English-dominant bilinguals did not code-switch because of their ability to comprehend English and express themselves clearly in English.
- (iv) Most of the Tongan-dominant and low/low students attempted the problem by first trying to translate it into Tongan.
- (v) The Tongan bilinguals solve mathematics problems in either English or Tongan or both depending on which language they found easier to think in mathematically.

### **Sources of difficulties when solving word problems**

The results and findings show that:

- (i) students with high competence in English (high/high and English dominants) used a variety of English-biased strategies, whereas those with low competence in English (low/low and Tongan dominants) rely mainly on word for word decoding. The latter often resulted in misinterpretation and loss of mathematics meaning.
- (ii) language of instruction plays a vital role in students' performance because their understanding of what to do depends on their level of competence in the language of instruction.
- (iii) English is a major obstacle especially to students with low competence.
- (iv) other language-related sources of difficulties include: use of contradictory or nonsense information; use of passive voice; reporting events in reverse order of occurrence; and including unnecessary extra information in the question.

### **Conclusions**

#### ***Bilingualism and bilingual competence groups***

- (i) High competence in both Tongan and English is the most desirable form of bilingualism for both individuals and community, as far as learning mathematics in English as a second language is concerned.
- (ii) Achieving high proficiency in both Tongan and English requires that both Tonga and English are taught and used intensively in the early years.
- (iii) English-dominant students have the language facility to use linguistically effective strategies to comprehend and solve mathematics problems.

#### ***Teacher and Teaching***

The quality of communication between teacher and students is very important in promoting the understanding of mathematics.

#### ***Mathematics language***

(iv) There is a need to clearly and explicitly teach specialised mathematics language to students, with particular attention given to how to use the language in longer mathematics text

(v) With regards to the mathematics register, the confusion does not reside in the words or symbols themselves, but in understanding the particular mathematical meaning specific language are used to signify in particular contexts.

## **Implications from the study findings**

### ***Language use and language policies***

(i) Teaching students to have high proficiency in both Tongan and English has ramifications for teacher education policy and training in Tonga. In order to achieve this, teachers must be highly proficient in both Tongan and English, understand the 'enabling' role that language proficiency plays in learning, and be attune to the language needs of students when teaching (particularly when there is subject specific language, such as in mathematics). Teachers and curriculum designers need to pay more attention to how ideas are communicated to students and how ideas are received from students.

(ii) The structures and processes for decision-making ensure that curriculum development and associated classroom practice reflect language policies.

(iii) Consideration be given to the students' language background since some factors have been shown to be associated significantly with bilingual levels (language at home, age when first learnt second language, where was the second language first learnt, the language used by the parents, and how often and under what circumstances the student uses English in informal settings).

(iv) Certain language issues should be considered in relation to the purposes of the language programmes. Equal and high competence in both Tongan and English in all the four skills of listening, speaking, writing and reading for all students as well as members of the society are required in order to cope successfully with language demands of mathematics.

### ***Learning and teaching mathematics***

Bilinguals learn best in their dominant language and when mathematics is delivered in that language. This requires:

(i) careful guidance from teachers who have been sufficiently prepared to deal with such situations.

(ii) closer collaboration between mathematics and language disciplines.

### ***Resource and curriculum development***

The findings of this study suggest that

(i) a bilingual approach be also applied to written resources. For instance, it would be helpful if actual English terms or concepts are included in brackets alongside the Tongan words or phrases in the primary text books. With lower secondary texts it would be easier for students if the language is simplified and the Tongan translation of the more difficult terms and expressions was bracketted alongside the relevant English versions.

(ii) curriculum writers should be equipped with the appropriate expertise and skills to adapt materials borrowed from foreign textbooks to suit the needs of the Tongan students.

(iii) the teacher simplifies and manipulates the language components to a form that is easily comprehended by students.

(iv) there is a need for appropriately trained curriculum development staff, and an equally trained teaching force to implement the curriculum successfully.

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Weaving Theory & Practice in  
Educational Administration and Teacher Education

*Stream 3*

# Integrating a Family Centred Approach to Tertiary Education: The Quest for Pacific Student Success at the Unitec Institute of Technology

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## Abstract

The level of engagement of parents, families and communities in school activities during the early years at school is largely evident in the impact of such engagement on educational outcomes of children. This is undeniable. Similarly, the over commitment of Pacific families in supporting cultural and social activities at the secondary school level has also become common. However, family members' involvement in their adult children's education at the tertiary level has been revealed as lacking, and it can be argued that this is manifested in the low rate of achievement of Pacific students in tertiary education. This has become a very alarming issue in New Zealand in recent years (Chu et al, 2013). Despite the Government's commitment to funding various initiatives in the attempt to increase the performance of Pacific students, it is suggested that the extent of the usefulness of these various initiatives is very limited. This paper argues that putting in place family-centred initiatives to try and curb the low rate of success of Pacific students in tertiary education may prove more worthwhile.

Three specific family-centred approaches were put in place at the Unitec Institute of Technology in recent years, which have proven to be very helpful in contributing to the success of Pacific students. The 'Pacific Orientation' initiative provides new Pacific students with the opportunity to familiarise themselves with the new environment where they will spend most of their time during the year. The 'Fanau Evening' initiative brings family members of first year students together for an information evening where they can get to know lecturers and the support services available to their adult children. The 'Pacific Mentoring' initiative engages family mentors with Pacific carpentry scholarship holders during the year. The use of a 'traffic light' reporting system has highlighted each student's areas for improvement, including assignment completion, class attendance, use of support services, and grades, since the implementation of these initiatives. As a result, a higher retention rate in most programmes has suggested the importance of the integration of the specifically family-centred initiatives in the quest for success for Pacific students in tertiary education.

## Introduction

There is a general dearth of materials available on family-centred approaches in promoting students' success in tertiary education. Searching through library catalogues and webpages has revealed that there is very little written on this subject. Much of the materials available suggested that family-centred approaches to have concentrated on early years of the children's life-cycle (Cohrsen et al., 2010). Hence, the level of engagement of parents, families and communities in school activities during the early years of schooling is well known and the impacts of such on educational outcomes are undeniable. Similarly at the secondary school level, family engagement seems to be most notable in supporting cultural activities. However, the low rate of achievement of Pacific students in tertiary education has become a very alarming issue in New Zealand. The New Zealand Government committed to fund various initiatives in the attempt to leverage the performance of Pacific students, but the extent of usefulness appears to be marginal. Family members' involvement in tertiary academic activities is arguably very minimal within the Pacific community. However, individual tertiary providers put in place different initiatives to try and curb the lower rates of success of Pacific students. This is an indication of

the important role of families and communities in supporting adult children in their academic pursuits.

Unitec Institute of Technology has been proactive in putting in place a number of family-centred initiatives that have proven to be very beneficial in promoting Pacific students' success. Three specific family-centred approaches implemented by the Pacific Centre for Learning, Teaching and Research, have proven to be very helpful in improving the success and retention rates of Pacific students. The discussion in this paper is based on the concept of *Māfana* and how it connects the three family-centred initiatives, namely the Pacific Orientation, Fanau Evening and the Pacific Mentoring. The population of Pacific students at Unitec is presented to show why Pacific students need special attention. A descriptive account of each of the family-centred initiatives is presented to show why these initiatives are a worthy investment. The use of a traffic light monitoring system to report the performance of Pacific students is also presented to show how this system enables the collaboration of all parties involved in finding ways to improve students' performance. The overall success and retention rates of Pacific students are seen in the light of the number of students graduating between 2012 and 2014, which is also presented at the end of the paper.

### **The Pacific Student Population at Unitec**

Pacific students at Unitec made up 17.9% of the total population of students enrolled in 2014. The enrolments for the past three years were not too far off and were floating between 17% and 20% in 2011, 2012 and 2013. Table 1.0 (attached as Appendix 1) presents the number of Pacific students enrolled in different study programmes for the years 2011, 2012 and 2013. Unitec offers 120 study programmes and Pacific students are well represented in almost all study programmes. A considerable number of Pacific students enrolled in the certificate and diploma levels as well as bridging courses. Pacific students from as young as 16 years old to mature students over the age of 50, are recorded to have studied at Unitec in the past. There are considerable numbers of Pacific students without a National Certificate of Educational Achievement (NCEA) Level 1, which is associated with the issue of poor literacy and numeracy performance within the Pacific population at Unitec.

### **The Family-centred Notion**

The idea of a family-centred approach is proposed here as beginning with the concept of *Māfana*. *Māfana* is a Tongan word that is literally translated as the 'Warmness of the heart and desire to do something without being told to do so'. From a Tongan perspective, *Māfana* is mostly evident in sports, and was manifested during the Rugby World Cup of 2011 in Auckland New Zealand. The *Māfana* that was shown by the Tongan people lifted the spirit of the World Cup even before the opening ceremony. Similarly, the *Māfana* is also seen in the supporting of Auckland high schools' annual cultural event known as the ASB Polyfest. The *Māfana* encourages families to support their children by engaging in many family commitments, including taking their children to afterhours and weekend practice sessions, as well as preparing costumes.

However, the application of *Māfana* in other activities is not as well seen, and this paper suggests that the family and community *Māfana* is only applied on an ad hoc basis. This means that the *Māfana* seems to notably lapse after a sports event, such as the Rugby World Cup 2011, where the *Māfana* completely disappeared almost immediately after the Tongan team was eliminated from the tournament. Similar circumstances occurred at the end of the annual high school ASB Polyfest, where the *Māfana* completely disappeared at the end of the week-long festival.

It is in this respect that the essence of this paper attempts to understand the applicability of *Māfana* to supporting Pacific students in tertiary education. A number of real world experiences suggest that Pacific students with good family support during the time of tertiary education pursuits have had positive outcomes. Hence, using the notion of *Māfana* as a means of integrating a family-centred approach to supporting Pacific students in tertiary education is argued to be the best approach to improving the success and retention rates of Pacific students at Unitec Institute of Technology.

## Pacific Orientation

The notion of collectivism and community inherent to many Pacific communities in Aotearoa necessitates a Pacific Orientation. There are those who would question the need for a separate Pacific orientation given that there is a duplication of some of the information that students receive in their mainstream, faculty based orientation. However there are two main reasons why the Pacific Centre runs its own orientation. The first, it is to build a sense of community with the first year Pacific students, and the second is to 'hook' Pacific students into the Pacific Centre, which helps to build a relationship with them so that they might be better supported academically, physically, mentally and spiritually. Tinto (1993) highlights the importance of community membership in order to increase student persistence. Even though this community would be considered a sub-culture when compared to the dominant culture of an institution, the fact that students make a connection and possibly become a part of it is important. Community membership helps to prevent feelings of isolation that can often be felt by Pacific students in what are often large, impersonal and bureaucratic institutions (Moxley, Najor-Durack & Dumbrigue, 2001).

The Pacific orientation is in fact a lot like the faculty based orientations in many ways, in that students are provided with the basic important pieces of information that they need to survive their first year on campus: the nuts-and-bolts of tertiary student life, focussing on topics such as where to access the various resources, where to find help for assignments and academic support (the Pacific Centre has in-house academic support), where the gym is, and the best places to eat on campus. Tuagalu and Togiama (2004) suggested that providing such information can have an impact on Pacific students' retention. There is, however, more to this orientation than just an information dump. Emphasis is put on giving the students opportunities, through ice-breaker activities and group challenges, to form relationships with other Pacific students from other academic disciplines, to overcome isolation issues where they may be the only Pacific person in their class. These are relationships that might not otherwise be formed. As well as the building of a sense of Pacific student community and collectivism, the orientation serves to build and reinforce the Pacific Centre's role within the wider Unitec community. This is when the concept of *Māfana* starts to weave in to students' life at this level of study.

The role of the Pacific Centre in the life of a first year Pacific student community is a vital one in pushing the *Māfana* to a new level. The Pacific Centre has the capacity to support Pacific students in all aspects of their student life. This includes, but is not limited to, academic support, pastoral care, mentoring, counselling, advocacy and providing a physical space where Pacific students can 'belong'. A Pacific specific support centre is important as, more often than not, Pacific students (and the same can be said for other minority groups) do not access mainstream services (Hawkins & Larabee, 2009). The Pacific Centre also focuses on enhancing a sense of community by helping to facilitate the widening of faculty based initiatives to include this idea of community - which is to include family, aiga (Samoan extended family) and fanau. The Pacific orientation is a crucial first step in this relationship.

## Fanau Evening

A "Fanau Evening" is organised by individual Unitec departments in partnership with the Pacific Centre. The focus of the Fanau Evening is to bring families and their first year students into the students' individual area of study. It provides the opportunity for families and friends to meet the Pacific Lecturers and other staff from their area of study. In addition, the first year students and their family members are able to meet other students from the department and Unitec support services that are available to them whilst studying. They also get to meet other support networks from the community who have an affiliation or are specialised in the student's area of learning. This allows the student's family and friends to observe the environment that their student will be studying in and build relationships with one another within it.

A typical programme for a fanau evening would include a variety of speakers which begins with a welcome from the senior management of the Faculty that the department sits under, and then leads into dinner after speeches. Food plays a big part in Pacific peoples' lives as it is a gesture of hospitality. The dinner is followed by a department specific session, in which the Head of Department and Programme Directors will provide

information on the work involved within their area of learning. The information provided enlightens families and friends as to the commitment and expectations required for study.

Following this session, a Pacific person from that area of study, or someone who is distinguished and inspirational, would be selected as a quest speaker to motivate and encourage students, their families and friends in tertiary study. Also included in the line-up of speakers would be third year students or graduates from the programme who are asked to speak about their own journeys through their studies. The evening then concludes with introductions of other support services available on campus, to reaffirm messages that students have received during orientation.

This event has been developed to provide a holistic approach to not only presenting information and support to students, but also including and affirming the fanau contribution to the students' study life. The Fanau Evening is an opportunity for discussions around the life of a student. Thus, the main objective of the fanau evenings is to make sure that families are fully aware of the commitment, expectations, responsibilities and pressures that their loved ones will face on the academic journey they are embarking on. We feel that this is beneficial for Pacific families in particular, as there is the tendency for Pacific students to be given a number of other commitments and responsibilities outside of their study. This form of evening can enlighten the students' families as to the support that they require. In addition, the Fanau evening provides an opportunity for family members to ask any questions to gain further understanding of the area of study that their loved ones will be undertaking and to share their thoughts on how to create the ideal balance required for tertiary study.

It has been observed that Pacific students who receive great support from their families tend to remain and complete their studies (Tupuola, 2004). Pacific students require not an individual approach but very much a collaborative effort from everyone involved in their lives. Again, such informal gatherings gives families, communities and Pacific staff members a sense of *Māfana* that lifts the level of support for Pacific students at Unitec.

### **Māori and Pacific Trades Scholarship Mentoring**

The scholarship is open for Māori and Pacific students aged 18 to 34 enrolling in a level 4 Certificate in Applied Technology, which is a one year study programme. Scholarship holders are able to choose from a number of technical trades programs, including carpentry, plumbing and gas fitting, electrical engineering, welding and fabrication, or furniture and cabinet making. However, this paper concentrates on Pacific students who were part of this scholarship in 2011 to 2013. The scholarship targets adult students who have the potential to be successful in any trade but do not have the qualifications to directly enrol and study for higher qualifications in the area of applied technology. Given the past experiences of Pacific students dropping out of the course at different points of time prior to completion, all applicants go through a series of interviews and careful consideration. In these interviews, students must demonstrate a desire to succeed in the construction and infrastructure industry, a commitment to complete the programme, and must secure a community mentor, which should be a family member or a respectable person from the community.

Once a Pacific student is accepted into a program and offered a scholarship, there is a final interview with the Programme Leader or a Pacific support person to discuss the way forward. Mentors are also required to come onto campus and meet the program leader as well as lecturers and tutors, to discuss and understand their respective roles during the duration of the course.

Adult students who have been in this programme in the past three years were either early drop outs from school or have been in the construction industry for some years and wish to obtain formal qualifications. Given that most of the theoretical materials are offered online, every student is required to have a laptop computer from which they can access these materials. However, owning a laptop is one challenge, and using the laptop is another. On top of these challenges, are the low levels of literacy and numeracy of most scholarship holders. Hence, the first four weeks is a challenge for most Pacific students in this program, as they have to overcome these challenges in order to successfully complete the weekly allocated tasks on time. This is the time when all parties involved work collaboratively to ensure students' first few weeks on campus are hassle free.

The roles of family or community mentors, lecturers and tutors, and the Pacific support person are indispensable, right from the first week of students' attending classes. Given the fact these students are part of the mainstream class, lecturers and tutors often give special attention to the Pacific scholarship holders, taking into account the challenges discussed earlier. Similarly, mentors also collaborate by making sure that their mentees attend classes according to their timetable, and advise lecturers or tutors about any issue that may affect the student's study. In addition, the Pacific support person from the Pacific Centre steps in and connects lecturers, students and families/mentors in organising extra help for Pacific students in need. Meetings are scheduled for the whole year where all parties involved come together to discuss the progress of students; they celebrate success stories and look at ways to improve areas of weakness. Lecturers and tutors frequently contact the Pacific support person when any student fails to show up in class. This is relayed immediately to the mentor, and in many cases, parents and caregivers are also informed.

This kind of connection is important as students must have a 90% attendance rate in order to pass the programme. At the end of each semester, the Pacific Centre organises a lunch to acknowledge the commitment of students, lectures/tutors and mentors. This kind of collaborative commitment builds the *Māfana* that enhances the success and retention of Pacific students at Unitec. During the year, students are placed in apprenticeships where they are connected to the construction industry. It is here where some of our Pacific students manage to showcase their skills and experiences. The success of this apprenticeship saw many of our students find employment, with a considerable number being deployed in the rebuilding of Christchurch after the 2011 earthquake.

### **The Use of Traffic Light Monitoring System**

The Traffic Light Monitoring system is a tool that is used by Unitec to monitor the progress of every student enrolled. The table in Appendix 2 presents a sample traffic light report on the success and retention of Pacific students in individual programmes for the period of 2009 to 2011. A black light indicates that the success and retention rate of Pacific students in individual programs is below 50%. This means that less than half of the total Pacific students enrolled in a particular program successfully completed the paper. A red light shows that the success and retention rate of Pacific students enrolled in a particular paper is more than 50% but less than 65%. The amber light shows that the success and retention rate of students enrolled in a particular paper is more than 64% but less than 80%. A green light shows that the success and retention rate of Pacific student enrolled in a particular paper is equal to or more than 80%.

As shown in Appendix 2, the results are compiled and used to inform individual program leaders, lecturers, Director of Pacific Centre, Pacific support personnel and other supporting services with specific interest in Pacific students' success. In the past three years, the Director of Pacific Centre for Learning, Teaching and Research has taken a leading role in consulting with individual programme leaders, lecturers and supporting services in the attempt to lift the success and retention rate of Pacific students. Part of the consultation process includes identifying of students who are not doing so well in each paper and finding ways to improve their performance. Pacific staff members are tasked with pulling these students together and providing as much help as they can possibly offer. Similarly, the Pacific community coordinator contacts parents, caregivers and mentors to discuss the progress of students and find ways they can support them during non-school hours. The commitment of the Pacific Centre for Learning, Teaching and Research Centre is largely seen in employing senior students to run extra peer tutorials in papers with low success and retention rates. By the same token, family members and mentors are invited to further discuss the ways to support Pacific students in the quest for improvement of success and retention rates.

### **The Outcome**

The table in Appendix 3 presents comparative data on Pacific graduates against the Māori students and all other graduates for the period of 2012 – 2014. The number of Pacific graduates suggests improvement in success and retention rates during these years. By the same token, it is safe to assert that the outcome can be partly attributed to the implementation of the three family centred initiatives discussed earlier.

## Conclusion

The number of Pacific students enrolled at the Unitec Institute of Technology each year warrants special attention from educators, families and the Pacific community. The concept of *Māfana* was suggested as being central to a family-centred approach. Hence, replicating the sense of warmth of heart (*Māfana*) to support adult students at the tertiary level proved to make a significant difference in the success and retention rates of Pacific students at Unitec. The implementation of three family-centred initiatives that target first year students has proven to be a worthy investment. The 'Pacific Orientation' provides new Pacific students with the opportunity to familiarise themselves with the new environment where they will spend most of their time during studies. Student's feedback suggests that the two day event provided them with the information they needed to know before classes started. The 'Fanau Evening' brings family members of first year students together for a meet and mingle evening where they can get to know different support services available to them. Family members are also encouraged to attend so that they understand the environment that students will be in during the course of their studies. The 'Pacific Trade Scholarship Mentoring' with the involvement of families and communities has proven to be essential to the success of scholarship holders. Graduating may not be the best indicator for the effectiveness of these three family-centred approaches but the higher retention rate in most programmes suggests the importance of integrating family-centred approaches in the quest for success in tertiary education at Unitec Institute of Technology.

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# Appendices

## Appendix 1

### Pacific Population at Unitec for 2011 – 2013

Year	Total	EFTS
2011	2,679	1,391
2012	2,836	1,567
2013	2,489	1,468

Source: Pacific Centre for Learning, Teaching & Research Report 2011 - 2013

## Appendix 2

### An Example of a Traffic Light Monitoring System at Unitec

Course ID	Course Code	Main Programme	Prog Name	Department	Headcounts			Course Success Rate			Course Retention Rate			Difference with SAC Success Rate			Difference with SAC Retention Rate			No Grade			
					2011 SAC Pacific Enrolments	2010 SAC Pacific Enrolments	2009 SAC Pacific Enrolments	2011 SAC Pac Success Rate	2010 SAC Pac Success Rate	2009 SAC Pac Success Rate	2011 SAC Pac Retention Rate	2010 SAC Pac Retention Rate	2009 SAC Pac Retention Rate	2011	2010	2009	2011	2010	2009	2011 SAC Pac No Grade	2010 SAC Pac No Grade	2009 SAC Pac No Grade	
9321	APPT5110	BAT	Bachelor of Applied Technology	30BT	35	43	25	37%	65%	48%	37%	81%	64%	-27%	-10%	0%	-44%	-4%	0%	0	0	0	
9322	APPT5111	BAT	Bachelor of Applied Technology	30BT	25	19	16	80%	68%	44%	80%	95%	63%	4%	-2%	0%	1%	3%	0%	0	0	0	
9324	APPT6112-SB	BAT	Bachelor of Applied Technology	30BT	18	10	7	28%	40%	71%	28%	60%	71%	-32%	-10%	0%	-40%	-23%	0%	0	0	0	
9347	APPT6113	BAT	Bachelor of Applied Technology	30BT	NA	2	4	NA	100%	100%	NA	100%	100%	NA	14%	0%	NA	10%	0%	NA	0	0	0
9348	APPT6114	BAT	Bachelor of Applied Technology	30BT	2	2	NA	100%	100%	NA	100%	100%	NA	13%	0%	NA	0%	0%	0%	0	0	NA	
10061	APPT6116	BAT	Bachelor of Applied Technology	30TT	3	NA	NA	100%	NA	NA	100%	NA	NA	10%	NA	NA	10%	NA	NA	0	NA	NA	
9326	APPT7115-SB	BAT	Bachelor of Applied Technology	30BT	2	4	1	50%	100%	100%	50%	100%	100%	-37%	3%	0%	-44%	3%	0%	0	0	0	
9346	APPT7116-SB	BAT	Bachelor of Applied Technology	30BT	3	4	2	67%	75%	100%	67%	100%	100%	-19%	2%	0%	-25%	16%	0%	0	0	0	
9330	BUNT5110	BAT	Bachelor of Applied Technology	30BT	23	21	13	13%	76%	46%	13%	90%	54%	-38%	6%	0%	-47%	4%	0%	0	0	0	
9331	BUNT5111	BAT	Bachelor of Applied Technology	30BT	16	19	13	6%	79%	46%	6%	95%	92%	-45%	6%	0%	-49%	7%	0%	0	0	0	
9332	BUNT5112	BAT	Bachelor of Applied Technology	30BT	13	7	6	100%	100%	100%	100%	100%	100%	5%	3%	0%	2%	3%	0%	0	0	0	
9372	BUNT6113	BAT	Bachelor of Applied Technology	30BT	15	9	3	53%	44%	33%	53%	78%	100%	-16%	-13%	0%	-30%	-3%	0%	0	0	0	
9373	BUNT6114	BAT	Bachelor of Applied Technology	30BT	9	3	2	22%	33%	100%	22%	67%	100%	-38%	-49%	0%	-68%	-22%	0%	0	0	0	
9374	BUNT6115	BAT	Bachelor of Applied Technology	30BT	5	2	3	60%	0%	100%	60%	50%	100%	-11%	-74%	0%	-16%	-25%	0%	1	0	0	
9375	BUNT6116	BAT	Bachelor of Applied Technology	30BT	14	10	3	57%	60%	33%	57%	80%	100%	-15%	-11%	0%	-26%	-2%	0%	0	0	0	
9333	ETEC5410	BAT	Bachelor of Applied Technology	30EL	1	2	NA	100%	50%	NA	100%	50%	NA	0%	0%	NA	0%	-36%	NA	0	0	NA	
9336	ETEC5411	BAT	Bachelor of Applied Technology	30EL	1	2	NA	100%	50%	NA	100%	50%	NA	0%	-36%	NA	0%	-36%	NA	0	0	NA	
9376	ETEC5413	BAT	Bachelor of Applied Technology	30EL	1	3	NA	100%	33%	NA	100%	33%	NA	0%	-44%	NA	0%	-44%	NA	0	0	NA	
9334	ETEC5414	BAT	Bachelor of Applied Technology	30EL	3	2	NA	0%	100%	NA	0%	100%	NA	-71%	27%	NA	-71%	18%	0%	0	0	NA	
9335	ETEC5416	BAT	Bachelor of Applied Technology	30EL	4	2	NA	25%	100%	NA	25%	100%	NA	-31%	18%	NA	-31%	0%	0%	0	0	NA	
9342	ETEC5417	BAT	Bachelor of Applied Technology	30EL	3	2	NA	0%	100%	NA	0%	100%	NA	-47%	27%	NA	-94%	0%	0%	0	0	NA	
9337	ETEC5414	BAT	Bachelor of Applied Technology	30EL	1	NA	NA	100%	NA	NA	100%	NA	NA	0%	NA	NA	0%	NA	NA	0	NA	NA	
9377	ETEC5415	BAT	Bachelor of Applied Technology	30EL	2	NA	NA	100%	NA	NA	100%	NA	NA	9%	NA	NA	0%	NA	NA	0	NA	NA	
9338	ETEC5416	BAT	Bachelor of Applied Technology	30EL	2	NA	NA	100%	NA	NA	100%	NA	NA	9%	NA	NA	9%	NA	NA	0	NA	NA	
9341	ETEC5417	BAT	Bachelor of Applied Technology	30EL	2	NA	NA	100%	NA	NA	100%	NA	NA	27%	NA	NA	9%	NA	NA	0	NA	NA	
9343	ETEC5421	BAT	Bachelor of Applied Technology	30EL	1	NA	NA	100%	NA	NA	100%	NA	NA	0%	NA	NA	0%	NA	NA	0	NA	NA	
9379	ETEC5422	BAT	Bachelor of Applied Technology	30EL	1	NA	NA	100%	NA	NA	100%	NA	NA	0%	NA	NA	0%	NA	NA	0	NA	NA	
9328	TTECS210	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9361	TTECS211	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9363	TTECS212-SB	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9364	TTECS213	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9329	TTECS214	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9351	TTECS310	BAT	Bachelor of Applied Technology	30TT	12	16	13	50%	58%	62%	50%	56%	69%	-12%	-21%	0%	-29%	-21%	0%	0	0	0	
9352	TTECS311	BAT	Bachelor of Applied Technology	30TT	7	11	7	43%	73%	86%	43%	73%	86%	-18%	-10%	0%	-29%	-10%	0%	0	0	0	
9363	TTECS312	BAT	Bachelor of Applied Technology	30TT	16	16	13	31%	25%	31%	31%	50%	31%	-6%	-20%	0%	-35%	-33%	0%	0	0	0	
9327	TTECS313	BAT	Bachelor of Applied Technology	30TT	11	11	7	36%	55%	57%	36%	91%	100%	-24%	-13%	0%	-34%	0%	0%	0	0	0	
9354	TTECS314	BAT	Bachelor of Applied Technology	30TT	11	5	6	82%	60%	83%	82%	80%	83%	-6%	-25%	0%	-11%	-11%	0%	0	0	0	
10583	TTECS214	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9367	TTECS215	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9368	TTECS216	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9370	TTECS217-SB	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9371	TTECS218	BAT	Bachelor of Applied Technology	30TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9365	TTECS310	BAT	Bachelor of Applied Technology	30TT	9	5	7	78%	100%	57%	78%	100%	71%	-3%	20%	0%	-17%	8%	0%	0	0	0	
9366	TTECS311	BAT	Bachelor of Applied Technology	30TT	3	6	5	33%	33%	100%	33%	67%	100%	-41%	-21%	0%	-67%	-19%	0%	0	0	0	
9367	TTECS312	BAT	Bachelor of Applied Technology	30TT	5	8	4	40%	75%	75%	40%	100%	100%	-36%	-14%	0%	-60%	0%	0%	0	0	0	
9368	TTECS313	BAT	Bachelor of Applied Technology	30TT	1	NA	1	0%	NA	0%	0%	0%	0%	-40%	NA	0%	-80%	NA	0%	0	NA	0	
9369	TTECS314	BAT	Bachelor of Applied Technology	30TT	1	1	NA	0%	0%	NA	0%	0%	NA	-57%	-50%	NA	-71%	-83%	NA	0	0	NA	
9360	TTECS315	BAT	Bachelor of Applied Technology	30TT	7	1	NA	57%	100%	NA	57%	100%	NA	-19%	0%	NA	-28%	0%	0%	0	0	NA	

### Appendix 3

#### Comparative Data of Graduates for the Periods 2012 - 2014

<b>Year</b>	<b>Graduation Period</b>	<b>Count of Pacific Graduates</b>	<b>Count of Maori Graduates</b>	<b>Count of All Graduates</b>
2012	2012 April	207	170	1,993
	2012 September	173	111	1,234
	<b>Total</b>	<b>380</b>	<b>281</b>	<b>3,227</b>
2013	2013 April	301	220	2,336
	2013 September	204	110	1,176
	<b>Total</b>	<b>505</b>	<b>330</b>	<b>3,510</b>
2014	2014 April	300	217	2,228
	2014 September	169	102	1,095
	<b>Total</b>	<b>469</b>	<b>319</b>	<b>3,323</b>

Source: Pacific Centre for Learning, Teaching and Research Report.

## Weaving a Pattern of Life: Envisioning Leadership in a Tongan School Community

Nadia Milani Fifita, *Ocean of Light International Schools, Kingdom of Tonga*

### Abstract

Schools are dynamic, ever-changing environments and critical sub-units of society in which lifelong conceptions are formed and patterns of behaviour are inculcated. As such, schools create ideal environments in which to forge relationships and structures that promote ways of being and doing that have implications not only for the success of individuals within schools but also within society at large.

This presentation serves to share the humble experience of a small, private international school in the Kingdom of Tonga and its on-going efforts to re-envision and re-design structures of school administration and student management to promote the empowerment and ethical behaviour of its community. Four years ago, Ocean of Light International School created a new model of school leadership, which replaced the traditional role of Principal with consultative groups comprised of teaching staff appointed annually through identification of capacity versus qualification and experience alone. Each group's task is to work collaboratively in building the capacity of the community as a whole and to take charge of their own advancement.

The inspiration guiding the development of the school comes from the teachings of the Bahá'í Faith. It evolves through a cyclical process of collective action, reflection and planning. This process, akin to a grounded theory approach, allows for the construction of new paradigms as experience accrues.

The changes brought about, have challenged deeply ingrained patterns of thought and action. They have stimulated the emergence of a culture that values collective action over authoritative control; fosters consultation instead of unilateral decision-making; and acknowledges that a successful community can only be raised on a firm moral foundation.

“Regard man as a mine rich in gems of inestimable value. Education can, alone, cause it to reveal its treasures, and enable mankind to benefit therefrom.”

(Bahá'u'lláh, *Gleanings from the Writings of Bahá'u'lláh*, CXXII, page 259)

### Introduction

This quote, written more than a century and a half ago by a Persian Prophet, asserts that the purpose and nature of education is to develop the inherent capacity of the individual whilst, at the same time, contributing to the advancement of society as a whole. This paper will focus on the efforts of a small school in the Island Kingdom of Tonga to re-envision educational leadership through the establishment of structures inspired by this vision.

Ocean of Light International School is a private school in Nuku'alofa, the capitol city of the Pacific island Kingdom of Tonga. The National Spiritual Assembly of the Bahá'ís of Tonga as a non-profit charitable trust established the school in 1996. The inspiration guiding the development of the school comes from the teachings of the Bahá'í Faith.

### Bahá'í Faith

The Bahá'í Faith is the world's most recent independent religion, founded in Persia in 1844 and now the world's second-most widespread religion, claiming adherents in 221 countries and territories of the world (Britannica Book of the Year 2011, p. 298). It asserts the essential unity of all people as members of one human family, created by one God, Whose spiritual Teachers have progressively revealed His Will to humanity throughout human history, the latest of whom is Bahá'u'lláh.

One of the many social teachings of this new religion is the importance of education. As quoted in the above passage, the purpose of education is to effect a transformation within the life of each individual as well as the life of society by contributing towards the development of structures and institutions which promote the essential spiritual principles common to all religions and cultures, such as truthfulness, justice, unity, etcetera. This two-fold moral purpose pervades the many efforts made by Bahá'í individuals and groups around the world to contribute to the progress of their communities. It was in this spirit that the National Spiritual Assembly of the Bahá'ís of Tonga formulated the vision for Ocean of Light International School in the mid-1990s, and it is this spirit that continues to animate its evolutionary development.

### **Ocean of Light International School Vision**

The school's vision statement, most recently re-drafted in 2005 through the collaboration of parents, students, staff and Board members, reads:

In this school we strive to provide an education of internationally recognized standards in the forms of academic, moral, physical and spiritual development to nurture the love of learning in the school community; to provide a safe, happy and encouraging environment; to teach, practice and role-model the virtues; to acknowledge "Unity in Diversity"; to be confident in sharing our hidden talents and to prepare us for what we may encounter in life; to connect the school community with the wider community; to develop the capacity of the school community to serve humanity; to encourage and develop a sense of curiosity and life skills to empower students to make informed choices. (Ocean of Light International School, 2005)

Since its inception, a cyclical process of action, reflection and planning that has aimed to engage the whole school community has guided the school's development. This process, similar to a grounded theory approach, has allowed insights to be gained from experience and combined to assist in the gradual construction of a new paradigm of education that has come to include revised approaches to school leadership, student management and curriculum design and delivery.

An essential spiritual principle of the Bahá'í Faith is that of unity. It can be stated quite simply that the ultimate aim of the Bahá'í Faith is to establish the oneness of humanity. This aim is pursued through a multitude of both spiritual and social principles, one of which is consultation. In the sacred Writings of the Bahá'í Faith, it states, "the heaven of divine wisdom is illumined with the two luminaries of consultation and compassion. Take ye counsel together in all matters, inasmuch as consultation is the lamp of guidance which leadeth the way, and is the bestower of understanding." (Bahá'u'lláh, p. 168). In practical terms, consultation is described "as a process for producing a change in order to accomplish some definite purpose. This involves a sharing and interaction of thoughts and feelings in a spirit of love and harmony." (Kolstoe, J. E., pg. 9). In the Bahá'í community, consultation is used extensively at all levels of administration and is seen as a valuable tool to allow for the generation of unified thought and action amongst diverse people.

### **Planned Change**

Four years ago, the Ocean of Light Board of Education made the bold move to dismantle its previous administrative structure, which included a Principal for each of the two schools, assisted by Deputy Principals delegated to address specific aspects of the schools' operation such as curriculum, student management. It was observed that although a certain degree of consultation took place between those appointed as leaders of the school in the past, this previous administrative structure inherently lent itself to a leadership approach where decisions could be made unilaterally or in isolation from the thoughts and wishes of the community as a whole.

The new model of school leadership proposed by the Board replaced the role of Principal with consultative groups, referred to as Panels. These Panels would be comprised of teaching staff appointed annually by the Board and their role would be to work collaboratively, employing the tool of consultation amongst themselves

and the staff as a whole to make decisions for the on-going development of the school.

The selection criteria for these Panels were also redefined. Unlike the traditional approach to recruitment in which the Board sought to appoint staff with relevant professional qualifications and extensive experience in similar positions, the Board instead sought to appoint staff who exhibited the qualities, attitudes and habits that would lend themselves to effective leadership within this new paradigm. Such leadership skills included humility, the ability to assume a posture of learning, a willingness to collaborate with others and a desire to be of service to one's community. This unique skill set was essential to compose a group of staff whose task would be to build the capacity of the community as a whole and to guide and monitor its progress.

The idea of 'promotion' was also challenged in this new model. A staff member's *capacity* to develop the required leadership skills and attitudes was to be taken into consideration. In addition an attitude of humble service, rather than power and authority, would be essential. Hence, seniority would not necessarily lead to promotion to leadership positions within the school's management structure. Leadership positions would not be enhanced with additional privileges, such as salary increases, and appointment to a Panel would not give a staff member any significant advantage over their co-workers. Membership on the Panels has thus become a role that staff are called to perform as opposed to a position for which they might compete. In this new model, conflict and competition were replaced with cooperation, unity and mutual helpfulness.

### **Outcomes of Planned Change**

In the short time that these Panels have existed, observable changes in the culture of the school community are apparent in the actions and attitudes of their members. For example, four years ago it was observed that several decisions made by the school's management were not consistently implemented and staff even openly challenged some decisions. A tangible lack of trust was felt and staff comments indicated that they perceived a lack of justice in the application of school policies. Staff meetings were often quiet, with only one or two people offering feedback and suggestions, which created a general feeling of complacency and apathy. Although the introduction of Panels has not completely eliminated these habits and attitudes, it has assisted the school community to understand how some of these sentiments developed in the past.

Whether the past perceptions of the staff in regard to the school's leaders and their decisions were accurate or not is largely irrelevant—the management structure was more responsible for the attitudes than the individuals themselves. As the schools' management became more consultative in nature, it became apparent that as long as one person was responsible for making the bulk of decisions regarding school management, it was hard to trust that decisions were made with impartiality. It is readily recognized that one of the essential aspects of our 'human-ness' is that we are all affected/afflicted in some way by the society around us and by the conceptual frameworks, hegemonies and discourses within it. This influence often impairs our ability to act with absolute impartiality and justice, as it can be so difficult to discern whether we are seeing something as it really is or as we have been conditioned to see it. Because each person has their own experiences in life, both good and bad, each person may have developed certain biases or even prejudices, oftentimes without being fully aware of these attitudes and choices. Therefore it is difficult to fully trust that any person in a leadership position who is required to act on their own could be totally free of any trace of ego or bias.

The Panels have helped to increase trust in the leadership of the schools, since these Panels follow the principles of consultation. Through effective consultation, the various prejudices and biases that each of the members may bring to the decision-making process are moderated. As a result, staff have found it easier to accept the decisions of the Panels because these decisions are not from one person alone, but are the result of a process of consultation in which a range of views were considered.

### **Conclusions**

Effective consultation is the key to insure just decisions and to foster unity. The aim of consultation is to make decisions that benefit all, not decisions that primarily benefit the decision-makers. When contentious negotia-

tions are replaced with prayerful consultation the result is true justice and unity. Decisions made in this way can be trusted. These decisions are not motivated by personal greed or self-serving intentions. These decisions are the outcome of a heart-felt desire by all involved in the decision-making to “do the right things and do things in the right way”. When trust is fully achieved, obedience follows naturally. Justice and unity are insured because everyone is bound together by their whole-hearted acceptance of these decisions.

In mid-2014 the members of the High School and Primary School Panels along with the School Director attended a leadership symposium facilitated by the Tonga Secondary School Leadership Program, which explored the emerging theories of school leadership from around the world as well as those being developed within Tonga. A prominent theory under discussion at the symposium was that of *Faiako Pule Ma'a Tonga*, which is based on the work of the Ministry of Education and Training of the Government of Tonga in collaboration with the Institute of Education of the University of the South Pacific (2012). These theories were summarised in a matrix (see Appendix A) which identified the qualities and attitudes of ethical educational leaders along a spectrum from *Potopoto 'a Niumui* (young leader) to *Faiako pule ma'a Tonga* (Principal for Tonga). Principals, or in our case Panel Members, were asked to identify themselves along this continuum within the sub-dimension of ‘Professional ethics’, ‘Problem- Solving Processes’, ‘Decision-Making Processes’ and ‘Relationship Building’.

In almost all sub-dimensions and most clearly in the areas of ‘Problem-Solving Processes’ and ‘Decision-Making Processes’, the Panel Members found that they rated themselves within the quadrant of *Faiako pule ma'a Tonga*. What became apparent in the reflections of all of the Panel members was that the very structure of the Panels necessitated that the individual members act in an ethical manner. Moreover, the degree to which each individual acted ethically contributed to the successful work of each Panel. The two-fold moral purpose of the school – to transform the life of each individual as well as the life of society – finds expression in the mutually supportive relationships among the individuals in this unique leadership structure and the structure of the Panel itself.

## Recommendation

The changes, which have been implemented in the leadership and administration of the Ocean of Light International Schools, have challenged deeply ingrained patterns of thought and action. These changes have stimulated the emergence of a culture that values collective action over authoritative control, consultation rather than unilateral decision-making, thereby confirming that a successful community can only be raised on a firm moral foundation of justice, unity and collaboration.

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**Ethical leadership:** the school leader comprehends and skilfully demonstrates Tongan core values and professional principles for school leadership when anticipating, interpreting and responding to ethical issues related to the school and its surrounding context

Sub-dimensions	Potopoto `a Niumui	Poto'i Faiako pule	Faiako pule ma`a Tonga	Comment
Professional ethics	<ul style="list-style-type: none"> <li>Honesty – Fairofanu</li> <li>Fairness – fafau ki he fokataha katoa</li> <li>Love - `Ofa</li> <li>Humility – angafakafākilalo</li> <li>Knows individual capacity, values, responsibilities and context</li> <li>Talanoa &amp; Fananga</li> </ul>	<ul style="list-style-type: none"> <li>Recognises others' perspectives &amp; values</li> <li>Patience – fa`a kafaki</li> <li>Speaks well – lea lelei, loto lelei</li> <li>Motivates others</li> <li>Trustworthiness</li> </ul>	<ul style="list-style-type: none"> <li>What is best for everyone – seeing the bigger picture</li> <li>Takes risk and is able to learn from mistakes</li> <li>Team player, working together</li> <li>Talifali kakai lelei</li> </ul>	<ul style="list-style-type: none"> <li>Role models for others – lea moe ngaue; fa sipinga lelei</li> <li>Work ethics support vision and are demonstrated clearly and consistently i.e. lives the vision of the organisation</li> <li>Loyalty – ngaue mateaki, mamahi'i me`a, Orngo i`e fatangia, anga faka`apa`apa</li> <li>Maturity and wisdom – angai poto, poto fakapopototo</li> <li>Holistic lifestyle – healthy body, mind and spirit</li> <li>Demonstrates Christian/spiritual maturity</li> </ul>
Problem solving processes	<ul style="list-style-type: none"> <li>Problems are solved on a case by case basis</li> <li>Problems are referred to higher authority</li> </ul>	<ul style="list-style-type: none"> <li>Has a process for solving problems – assesses the problem and prioritises cases</li> <li>Gathers information that is valid, timely, relevant &amp; can apply it to problem solving</li> <li>Solves problems in a timely manner</li> <li>Considers each case according to each situation</li> </ul>	<ul style="list-style-type: none"> <li>Problem solving process includes consultation with the school leadership team and with people involved in the problem</li> <li>Problem solving process considers consequences of action to various people</li> </ul>	<ul style="list-style-type: none"> <li>Progresses from solving problems by an individual to a shared process</li> <li>Progresses from a linear, single-dimensional process to more dynamic, contextual &amp; multi-dimensional process</li> </ul>
Decision making processes	<ul style="list-style-type: none"> <li>Knows &amp; understands regulations, law &amp; policy</li> <li>Follows regulations, laws &amp; policies</li> <li>Makes decisions based on available resources</li> </ul>	<ul style="list-style-type: none"> <li>Decisions and regulations follow a purpose/vision</li> <li>Has a process for making decisions</li> <li>Decisions are timely &amp; responsive</li> <li>Gathers information that is valid, timely, relevant and applicable</li> </ul>	<ul style="list-style-type: none"> <li>The decision-making process is interpretive &amp; contextual</li> <li>Decisions are decisive –once made they are firm decisions</li> <li>A transparent decision-making process</li> <li>Decisions are based on consequences &amp; clear principles</li> </ul>	<ul style="list-style-type: none"> <li>Progresses from strict adherence to policy regulations to interpretation of policy</li> <li>Progresses from an individual making the decision to a shared decision-making process</li> <li>Progresses from decisions based on individual personal values to consensus values to consequences to philosophical ideals</li> </ul>
Relationship building	<ul style="list-style-type: none"> <li>Establishes relationships with students, teachers, parents</li> </ul>	<ul style="list-style-type: none"> <li>Relationships are maintained, re-enforced and engaged with students, teachers &amp; parents</li> </ul>	<ul style="list-style-type: none"> <li>Relationships with students, teachers &amp; parents are guided by core Tongan values (mamahi'i me`a, loto`a, faka`apa`apa, feveitokai`aki)</li> <li>Establishes relationships with other key stakeholders in the school</li> </ul>	<ul style="list-style-type: none"> <li>Progresses from superficial relationships to authentic relationships- that is, guided by values</li> <li>Progresses from relationships that are centred around the school to those with the wider community</li> </ul>

## Change Teaching – Change Learning

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### Abstract

For decades Pacific countries and development partners have worked together to improve access to and delivery of education in Pacific countries. Major developments have been necessary to build and improve education systems. These developments have not been sufficient to bring about critical mass sea change in teaching that leads to significantly improved learning outcomes for students.

Research shows that the teacher is the most important factor in a school for influencing student outcomes. However, developments in education system processes and initial teacher education have not led to desired improvements in learning outcomes in most Pacific countries. Pacific education environments are complex. There are a large number of interdependent factors that affect how teachers teach and what they teach. There is very little research about how teachers teach in Pacific countries or what teaching strategies are most effective in improving learning outcomes.

The challenge is: how to create effective learning environments and improved learning outcomes. This paper draws on development partner experiences over several decades, research on change at classroom and school level and what is needed to achieve that change.

### The challenge

Evidence of learning in Pacific schools, through assessment of literacy outcomes, highlights the need for focused, urgent change to improve learning outcomes and provide students with critical tools, in particular literacy, to enable them to achieve successfully in school. More of the same will bring more of the same. How can strengths and gains achieved so far be built on to accelerate improvements in learning outcomes?

Pritchett (2013) argues the magnitude of change needed to improve learning outcomes (at a global level) requires something other than more of the same, or replicating best practice from elsewhere. It is more likely to come from “disruptive innovation”, which is “supported by systemic change”, and is effected through “context-driven solutions” that “worry about learning, measure cohort learning and let solutions evolve locally”.

The growing body of literature and research on Pacific education suggests this could be the case in the Pacific.

### The context

The growth of education systems and delivery of education in Pacific countries has been an evolving journey, marked by continuing and major change in some respects and slow or little change in other respects. It is a complex and multifaceted terrain. Some major gains have added complexity and additional challenges. For example: the Education For All (EFA) agenda and the Millennium Development Goals (MDG) have promoted major expansion of education provision in many Pacific countries. This has in turn put pressure on resourcing, particularly on teacher supply. The growing trend to provide education in vernacular languages in early grades has also put pressures on teacher capability and resources. At the same time, many of the constraints and challenges related to provision of quality education remain, such as providing education in remote locations and challenging terrains; linguistic diversity; teacher and student absenteeism; availability of resources and communication links between ministries and schools.

Due to economic constraints a significant amount of education developments are funded through external sources. There has been a multitude of development partners in education in the Pacific over the past three

decades (For example: New Zealand, Australia, World Bank, Asian Development Bank, England, Japan, China, Taiwan, Canada, European Union, UNICEF, UNESCO). Some development partners have moved from operating through projects to strengthen and improve education, to more strategic, sector based support (Sector Wide Approaches – SWAs) for education developments (such as the Education Support Programme in Samoa and the Tonga Education Support Programme). A key advance with SWAs has been support for ministries of education to implement their strategic plans, rather than work through a large number of projects. Both approaches strengthened system level elements of education (e.g. policy development, capability building, curriculum reform, materials development and provision, facilities, institutional strengthening, systems development) and facilitated expanded provision of education.

Multiple project based approaches sometimes resulted in education developments running parallel to each other with little connection (For example: the Primary Curriculum Resource project (AusAID) and the Secondary Curriculum Development project (New Zealand) in Samoa in the 1990s) or being reworked by different development partners over time. Commitment by development partners to the aid effectiveness principles of Paris, Accra and Busan and the move to sector based support brought a more cohesive approach to education developments and strengthened system level infrastructure (i.e. policies, systems, capability, facilities, resources) in a more integrated way. The aid effectiveness principles embraced included:

1. Ownership: Developing countries set their own strategies for poverty reduction, improve their institutions and tackle corruption.
2. Alignment: Donor countries align behind these objectives and use local systems.
3. Harmonisation: Donor countries coordinate, simplify procedures and share information to avoid duplication.
4. Results: Developing countries and donors shift focus to development results and results get measured.
5. Mutual accountability: Donors and partners are accountable for development results.

Infrastructure development is essential for effective and efficient delivery of education. It is not sufficient in itself to ensure change at classroom/school levels or to improve learning outcomes. It provides an enabling and support framework within which this can happen. As education systems have strengthened, the focus on improving the quality of education has focused more strongly on learning. This shift can be seen clearly in issues discussed at the Forum Education Ministers Meetings (FEEdMM) – from the first meeting through to today.

### **Basis for change – incentive for change**

Learning outcomes in Pacific primary schools were assessed mainly through end of primary school exams. These exams were often used for screening for available secondary places. Their reliability in demonstrating learning outcomes was variable. A rough proxy was used to assess literacy levels at a system level – students who completed primary schooling were deemed literate. Anecdotal feedback has highlighted that assessment of literacy learning in classrooms in many Pacific countries has been very variable and teachers often did not analyse findings to inform teaching.

This paper focuses on core literacy skills needed for success in school as a basis for examining effectiveness of teaching practices and establishing the need for change. The ability to read and write is commonly accepted as a critical foundation for students to succeed in school. This merits close attention being paid to literacy achievements. In 1994 “...the first attempt to establish (a) regional baseline for literacy ... was introduced ... the Pacific Islands Literacy Levels (PILLS)” (Forum Education Ministers Meeting 2014: Session Two, Presentation 1 : Literacy and Numeracy in the Pacific : Where are We?). The 2010 FEEdMM paper: “Assessing and Monitoring Literacy, Numeracy and Life Skills - Progress Report” discussed the assessments that had been done, noting that results had gone back to the respective countries. It did not alert Education Ministers to issues in achievement levels. More recently, a number of national and regional assessment tools (such as the

Pacific Islands Literacy and Numeracy Assessment (PILNA) SPC/SPBEA; the Early Grade reading Assessment (EGRA) World Bank; and the Solomon Islands Standardised Tests of Achievement (SISTA) MEHRD, have been developed and used to assess literacy achievements. Equally important, the data from these assessments are increasingly being made public within countries and in the region.

A significant number of children are not competent in literacy at the expected levels for their age or grade. 2012 PILNA results show that "...seven in every ten pupils throughout the Pacific are failing to meet the expected literacy skill levels at the end of six years of schooling... a dire situation... needing ... immediate and urgent intervention" (p. 5). Even taking into account more fine grained analysis – 52% of pupils performing at satisfactory levels for reading comprehension compared to 15% for writing – the picture is still bleak for many pupils. System level developments and all education developments to date have not ensured that all children are developing the basic tools for learning in schools.

National sampling can identify general areas of strengths and weaknesses, and be a point of comparison with classroom assessment results where these exist. Sometimes data from literacy assessments are taken back to schools, for example in the Solomon Islands this year for SISTA, and some classroom assessment results are used by teachers e.g. in the Cook Islands. This provides valuable information for teachers. Both national and school level assessments can be used to examine what is needed to change literacy outcomes.

Building the evidence base at a national level can be a political and system level lever for mobilising change. At the classroom level it is an important step for building change from the ground up. Both are critical motivators for change. While ministries and development partners can lead and support change it will only happen when teachers make stronger evidence based connections between what they do in a classroom and the learning outcomes - a powerful motivator for teachers to change teaching practice to achieve better learning outcomes.

Pritchett (2013) sets out the complexity of the change needed to generate improved learning outcomes. It requires system level change – assessment systems and tools, curriculum, materials, teacher training - and change in the classroom.

### **Teachers and Teacher Training**

International research indicates that "... 'teacher quality' is the single most important school variable influencing student achievement" (Teachers matter: Attracting, Developing and retaining Effective teachers. OECD, Paris 2005). Hattie (2009, 236) states that "It is clear that ... it is the differences in the teacher that make the difference in student learning." His meta-analysis of research demonstrates that the quality of teaching has the largest effect size on outcomes from teaching or working conditions (2009, 244). Teacher quality is about what teachers do. What they do is informed by what they know and what they believe.

There are numerous examples in Pacific countries where teacher quality has been compromised by system level decisions. But this is changing as the importance of having qualified teachers is increasingly recognised and as countries move beyond the EFA drive and focus more on the quality of education, on outcomes and what is happening in the classrooms. There are now a number of programmes in place in some Pacific countries (For example Certificate for Teaching Primary by Distance Education in Solomon Islands and the Graduate Diploma Teaching and Learning in Tonga) to train not just new teachers but also untrained teachers working in schools. There is an increasing commitment to all teachers being qualified.

In the nineties New Zealand (and other development partners) provided support to teacher training institutions in a number of Pacific countries on the basis that if new graduates were better trained the overall quality of teaching in schools would improve. Anecdotal feedback showed that new graduates often reverted to the culture of the school they were sent to teach in. It was rare for them to effect change in a school unless the school was already open to change. Reviews of support provided for teacher training usually reviewed progress in achieving the goals that had been set for improving the teacher training institution and not impact at classroom level.

There are examples of successful change in teaching practices. A review of education in Vanuatu in the nineties illustrated one such successful initiative. Teachers who completed the Diploma in Teaching English as a Second Language (through Victoria University Wellington New Zealand) were supported by the lecturer in their classrooms on their return to Vanuatu, with repeated support sessions over time. They made major changes to teaching practices that impacted on learning and classroom management. The value of continued support and feedback loops was noted by Nakin (2007, p. 61) “Teachers are the key to the implementation of changes and shifts in curriculum, teaching and learning, assessment and evaluation” – and that this will require – “continuous monitoring, mentoring and coaching ... to be effective”.

The Graduate Diploma of Teaching and Learning (Secondary) (GDTL) provided teacher training for untrained secondary teachers and demonstrated changes in understandings, skills and knowledge in both tutors at Tonga Institute of Education (TIOE) and in the trainee teachers. Despite attrition rates of graduates and TIOE staff, French (2005, p. 290) noted that the GDTL “...provided Tonga with a significant pool of quality teachers capable of critiquing their actions and implementing effective strategies to improve their own performance. ... with the potential to lead education in Tonga...”

The 2010 evaluation of the Solomon Islands Teachers in Training Programme rated effectiveness primarily on the basis of the number of graduates (as high as 99%) and recorded the changes teachers made in attitudes, understandings and practices, despite a lack of follow up with and feedback to participants in the classroom. The evaluation it did not determine if the changes made by teachers had any impact on learning outcomes.

A stronger focus on evaluations is needed to understand the impact of teacher training (a growing trend already as the focus is shifting to results as the end product of support rather than processes). Longitudinal evaluations could determine changes in teaching and learning and to what degree these are sustained over time and/or are spread throughout a school and country.

### **Teachers and change in the classroom**

So what is needed to effect change in Pacific classrooms?

Many of the system level factors needed to support change (e.g. policies, systems, curriculum, assessment, teacher training, resources, facilities) have been reviewed or developed or are in the process of being so in most Pacific Island countries. While there is still much that could be done at this level, these factors provide the enabling or support environment for change where it matters most – in the classroom – by the teachers.

The 2010 FEDMM paper: Improving Teacher Competency and Teaching Effectiveness in the Pacific noted that “...many of the teachers currently teaching in schools ... have not done any teacher training ... and ... lack the basic teaching skills”. It also noted that opportunities for on-going professional development for teachers are limited and that continual updating of teachers’ knowledge and skills should be a high priority. It outlined the work by UNESCO, UNICEF and SPBEA to develop regional teacher standards, a tool for monitoring and tracking teacher performance and 14 competency modules, and noted that many countries had yet to take full (or any) advantage of the initiatives.

Hattie (2009, 252) cites Cohen’s premise regarding change “New and revolutionary ideas in teaching will tend to be resisted rather than welcomed ... because every successful teacher has a vested intellectual, social and even financial interest in maintaining the status quo”. (Cohen, 1985, p. 35)”. Hodges (2007, p. 50) discusses the challenges in a system where teachers, and particularly teacher trainers, teach as they were taught, e.g. using exam driven rote learning, and cites the conclusion reached by UNESCO -that “... attitudes and teaching practices are informed by ideas and beliefs that teachers begin to develop long before embracing teaching as a career and that traditional teacher preparation does not successfully challenge these beliefs” (UNESCO, 2004, p. 153).

Guskey (2002) addressed effectiveness of professional development and argued that evidence of change - improvements in learning linked to changes in teaching - is the pivotal factor in changing attitudes and beliefs. Professional development is a critical change factor. But one or more professional development events are not sufficient to embed deep change. Guskey proposes three principles that stem from his Model of Teacher Change: recognise change is a gradual and difficult process; ensure teachers receive regular feedback on student learning and provide continued follow-up, support and pressure (2002, p. 386-388). This is reflected in Hattie's analysis outlining some of the reasons for lack of change, including over reliance on judgements rather than evidence and a lack of focus on student outcomes as the barometer for successful teaching (2009, p. 253).

As well as linking changes in practice to evidence of learning progress, research points to other factors important in supporting change in teaching. Saxe, Gearheart and Nasir (2001, cited in Center for Technology in Learning, SRI International, 2009) provide evidence for effectiveness of professional development that integrates teacher knowledge, on-going assessment of students, and opportunities for teachers to work together (Center for Technology in Learning, SRI International, 2009). Sustained support through mentors often improves implementation of innovations. It takes extended time to implement changes in classroom culture and practices, and involves an additional cognitive and workload for teachers. Yoon et al. (2007, cited in Texas Instruments, 2009) noted that professional development of less than 30 hours showed no significant effects on student learning. Efforts between 30 -100 hours, with an average of 49 hours, showed positive and significant effects on student achievement.

### **A Possible Model**

Principles and parameters for effective professional development identified from research are consistent: change is not easy and it takes time. It is more effective when support is delivered as close to the point of practice as possible, over time, regularly and frequently, when it is sharply focused on results and when it is based on evidence directly related to practices and outcomes. This meets some of Pritchett's paradigm. The Professional Learning Best Evidence Synthesis (BES) extends the factors

... important for promoting professional learning in ways that impacted positively and substantively on a range of student outcomes: providing sufficient time for extended opportunities to learn and using the time effectively; engaging external expertise; focusing on engaging teachers in the learning process ...; challenging problematic discourses; providing opportunities to interact in a community of professionals; ensuring content was consistent with wider policy trends; and, in school-based initiatives, having leaders actively leading the professional learning opportunities. (p. xxvi)

The BES findings on content of professional learning highlighted the importance of integrating theory and practice, pedagogical knowledge, assessment information, how students learn, and creating links between teaching and learning. The meta-analysis demonstrated that what a teacher does in the classroom impacts on learning and the student- teacher relationship and that assessment can be used to focus teaching. Inquiry and in-depth understanding of theory help to build and sustain changes.

In 2011 the New Zealand Aid Programme sharply refocused its education support goals with a priority on improving learning outcomes. Support for system level reforms now focuses on improving learning outcomes, reinforced by a commitment to support change at classroom and school level. Other development partners have made the same move, and Pacific countries are also focusing on improving learning outcomes as an urgent priority. This has added a new dimension to partner dialogues as we go beyond support for strategic education plans to how those plans deliver desired results –change in classrooms, change in teaching practices, improved learning outcomes.

New Zealand has initiated a multi-country education programme. This will address some of the professional support issues for teachers and incorporate learnings from research and reflections of Pacific educators. The Pacific Literacy and School Leadership Programme (PLSLP) has a strong focus on change in teaching practices and student outcomes, building on evidence of learning and what works currently, and developing interven-

tions based on this, informed by research and deeply based in the specific contexts of the three participating countries – Tonga, Solomon Islands and the Cook islands. Support for teachers, principals and literacy leaders will be provided in classrooms and schools and will monitor and draw links to student outcomes. A cluster approach will help to build professional networks between schools. The focus on change in the classroom is embedded in a whole of system model which takes system level factors and their impact on classroom change into consideration. The approach should mirror Nakin's view of mentoring and coaching as it "... helps to build mutual respect for each other's views and ... extend and elaborate ... thinking and practice." (2007, 61) and mitigate risks associated with use of overseas experts, which can result in imported models. When the Pacific Island countries are the canoe, they can set the direction, the destination and the pace, the outrigger, the external support, can provide balance.

### **A potential beacon – but still not sufficient**

The PLSLP will cover up to 45 schools in three countries and will be implemented over a three year period. Its design meets many of the hallmarks of effective professional development: working with teachers over time, using evidence as the pivot point for creating disruption, problem solving and negotiating solutions with the people who will deliver them, working in schools and in classrooms, providing mentoring and coaching, and building communities of professional networks where people explore issues and collaboratively problem solve.

Research based professional development is growing in Pacific countries. Critical factors for effectiveness are evident in examples of professional support for teachers which are succeeding in changing teaching practices. For example, the work with teachers in Federated States of Micronesia and in Kiribati (Pers. Comm. Dr Ian Crosier, Federated States of Micronesia) where teachers are working in professional networks to examine evidence about learning outcomes and to search for strategies that will improve learning outcomes. While PLSLP and other examples of professional support provide a beacon for the development of effective change processes for teachers, principals and schools there are still major challenges. They are not in themselves the catalyst for bringing about critical mass sea change of teaching practices in classrooms throughout the Pacific. They cannot deliver the quantity of professional development needed to do this in most Pacific countries.

The challenge remains – how to support teachers to change teaching practices – to change learning outcomes for students – in every school in the Pacific – in a way that is relevant and appropriate for students, teachers, principals, ministries and countries. Two core issues persist: quantity – enough professional support for teachers, often enough, close to/in schools – and quality – building on evidence of what works and finding a Pacific way.

Bringing together all that has been written and researched on teacher change – internationally and in the Pacific, reviewing this in the context of Pacific countries and building Pacific based strategies for effective teaching practices is a good start and would help to address Pritchett's proposition for change: disruptive innovation supported by systemic change through context driven solutions that worry about learning, measure cohort learning and let solutions evolve locally. Attention also has to be paid, urgently, to how to do this - so changes in teacher practices reach every classroom with positive impacts for all children in the Pacific.

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## Teacher and Principal Development and Support: The Key to Improved Student Outcomes in the Cook Islands

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### Abstract

There is a compelling body of evidence supporting the importance of quality teachers and principals as the most influential factor on students' achievement. Yet for too long, teachers in many countries – including the Pacific – have received low rates of pay, limited opportunities for appropriately targeted professional development, and often substandard pre-service and in-service support. A study of countries where significant improvements in students' levels of achievement have been made indicate some common factors:

- Teachers are well qualified
- Governments contribute a large proportion of their GDP and budget to education
- Quality teaching is encouraged, acknowledged and celebrated
- High performance is expected and rewarded.
- In 2011, using the experiences from other countries as a model, the Cook Islands Ministry of Education embarked on an extensive teacher and principal support programme with the aim of raising student achievement levels. This paper and presentation will outline the steps taken to:
  - Provide quality pre-service and in-service training to teachers in-country;
  - Support principal, teacher and support staff training and development; and
  - Monitor principal and teacher performance.

### Introduction

The focus of this presentation will be on the strategies implemented and how these interventions aligned with the objectives of our national curriculum and 15 year Education Master Plan. Details of funding initiatives will be discussed and an evaluation of their effectiveness to date presented.

Although these initiatives are not totally embedded in our practice yet, significant developments are already obvious as we review and refine our intervention strategies. One thing is apparent however, an investment in our teachers and principals does hold the key to a successful future for our children.

The Education Master Plan (EMP) 2008-2023 sets a range of ambitious goals aimed at ensuring that “all people in the Cook Islands will have equal access to quality learning opportunities across the full spectrum of human endeavour from birth” (Cook Islands Ministry of Education, 2008). The Cook Islands Ministry of Education (CIMoE) identifies that, to a large degree, the achievement of these goals is reliant on quality teachers and principals and that their importance cannot be overstated.

In 2011 the CIMoE embarked on an extensive teacher and principal support programme aimed at achieving the goals of the EMP by placing particular emphasis on raising student achievement levels in literacy, numeracy and national examinations. A three pronged approach was adopted which included the provision of quality pre-service and in-service training to teachers in-country; supporting principal, teacher and support staff training and development; and monitoring principal and teacher performance through a performance management system that provides opportunities for self-review and appraisal, and which is supported by targeted professional development.

## Pre-Service Training

The last intake of pre-service teacher trainees graduated from the Cook Islands Teachers' College with their Cook Islands Teachers' Diplomas in 2007. Whilst the College was never officially closed, due to a perceived surplus supply it ceased to provide pre-service training for Cook Islanders wishing to become primary school teachers from 2008. Unfortunately, the Cook Islands had also failed to provide effective training for secondary school teachers and remained reliant on expatriates predominantly recruited from New Zealand. These teachers historically came on very inflated salaries which often resulted in resentment and barriers between local and expatriate staff.

Whilst the intention was that these "imported" teachers would train local counterparts, this was generally not the case as few local teachers had either the depth of content knowledge or pedagogical skills necessary to become sufficiently proficient. However, whilst a small number of graduate Cook Islanders were recruited to the secondary teaching service, few received quality pre-service or in-service support and training and understandably, the rate of retention was extremely low. Others wishing to become teachers had to travel to New Zealand and consequently, few returned home to join the teaching service, attracted by the higher wages and opportunities offered by the New Zealand government.

Modelled on the "Outpost Training System" that operated in New Zealand in the early 1980s and further developed from other global similar initiatives, such as the Teach First NZ initiative, facilitated by the University of Auckland; Teach First in the United Kingdom; and Teach For Australia; in 2011 we embarked on a pre-service training programme to address the aforementioned issues. Local graduates seeking to gain a teaching qualification, partially qualified teachers, former teachers wishing to re-join the teaching profession, and one graduate from the University of Waikato New Zealand (NZ) were recruited. A robust selection process ensured that only those showing the potential to become effective teachers and who had previous experience in a field relevant to education were selected.

Of the first cohort of 12 trainees, 11 were already earning an income and could not afford the cost of study nor support their families without financial reward. A combination of development partner and local government funding to provide an annual salary of approximately NZD16,000 per annum to each trainee was offered. Trainees were placed on a full time programme and were attached to an appropriate school – six focussing on gaining a primary teaching qualification and six a secondary level qualification. Individual training programmes were developed for each participant and the anticipated duration of the training, from one to three years, was dependent on qualifications and experience. In the first year, each trainee was allocated a 0.5 full time equivalent (FTE) teaching load. The remaining 0.5 FTE was allocated for university study, pedagogical lectures and mentoring support. Each trainee was assigned an appropriate mentor within their school and a full time Human Resources Advisor within the Ministry of Education managed the programme, trained mentors and monitored trainees' performance.

In order to gain certification, trainees also participated in programmes to develop competencies in pedagogical practice, subject content and pastoral care with particular emphasis on adolescent behaviour, classroom management, assessment, reporting and planning. For those training for secondary teaching, numerous workshops on the national qualifications system (NZ's NCEA) and achievement based assessment were included.

Whilst it was desirable for trainees to already hold a first degree, we were cognisant that it is not necessarily academic qualifications that make effective teachers, but rather the teacher's ability to connect with students and deliver quality lessons based on sound pedagogical practice and thinking. "Just because an Einstein knows the subject is no guarantee that he or she will be effective in the classroom" (National Council for Accreditation of Teacher Education, 2006).

In the second year, the teaching load was increased to 0.8 FTE but formal study requirements for non-graduates remained a priority. Mentoring support, both from the Ministry and from within the school, continued. It was hoped that most trainees would gain certification at the end of that year. Unfortunately, two trainees

were terminated due to failure to complete the requirements of the training and two withdrew as their families emigrated. Seven graduated with a Cook Islands' Diploma in Teaching after two years on this programme and one trainee required three years of study and support to achieve her Diploma. All of the eight graduates were offered full time employment and are all proving to be effective practitioners. Three already hold positions of responsibility within their respective schools.

At the heart of this initiative is the strong belief that “the ultimate measure of any education system is not how many children are in school, but what – and how well – they learn” (UNESCO, 2010, p. 7). Improved outcomes for students provides the foundation for this programme.

At the completion of the first cohort of trainees, the programme was evaluated. Changes were made for the second cohort, due in part to what we learnt from the first pilot, but also to better address the needs of the second cohort, most of whom were less qualified than the former cohort. We specifically focused on training for the secondary system with this second cohort to reduce our dependence on expatriate teachers. The first ten weeks of the revised programme placed trainees full time at the CIMoE where they underwent an intensive preparatory orientation programme. This included preparation for the first practicum, lectures on planning, effective pedagogical practice, assessment, classroom management and the commencement of University studies through the University of the South Pacific (USP). The programme for the year included three practicum placements (one of which had to be on an outer island), university study, and a comprehensive programme to prepare trainees for placements in schools the following year.

As we near the second year for these trainees, it is apparent that the lack of content knowledge prior to commencing training proves challenging as personal academic study must be balanced with the requirements of the course. It would be fair to say that this second cohort, in the main, has been less successful than the first and most will require three years to reach the required Diploma standard. Nevertheless, with continued mentoring and support, we are confident that with careful selection of teacher trainees, this model offers a solution to small Islands countries such as ours, looking to train teachers in country.

### **In-Service Training and Development**

Evans (2003) highlighted the serious retention problem of beginning teachers in New Zealand secondary schools whilst Renwick (2001) attributed low retention to ineffective induction processes available to newly trained teachers. In 2003, Evans reported that New Zealand had 38.4% of teachers leaving the profession within three years of joining. Goddard and Foster (2001) and Patterson, Roehrig and Luft (2003) suggested that New Zealand is not alone – it is a phenomenon common to many western countries. The Cook Islands' experience is not dissimilar and therefore we made a commitment to prioritise in-service support to teachers and principals in 2011. Approximately 80% of the current Human Resources Management (HRM) budget has been committed annually for this purpose. Advisory staff have changed their focus from subject specific content based support to pedagogical advice and guidance to schools. Teachers are now required to have or be actively working towards the attainment of a first degree to have their registration renewed in 2016. The CIMoE has financially supported undergraduates to pursue academic studies through the local USP campus by meeting all tuition fees and air transport costs for teachers from the Sister Islands.

There are numerous reports and research data confirming the importance of effective school leadership on student success (Leithwood, Louis, Anderson and Wahlstrom, 2004) and this is further substantiated through the recently launched Pacific Literacy and School Leadership Programme being rolled out by the University of Auckland to the Cook Islands, Tonga and the Solomon Islands. This programme places emphasis on the training of principals to raise the performance of teachers and thus achieve improved educational outcomes for students, specifically in literacy.

We feel very privileged to have been selected for this three year programme and are confident that this training will compliment and further reinforce that already being provided through our Ministry. The increased emphasis on instructional leadership within schools, where Principals plan with teachers, structure time for

professional development and provide resourcing appropriate to ensure the achievement of the school's vision, augurs well for the future of education in our country (Boon, 2014). Recent salary increments to principals in the Cook Islands have also reinforced the importance of their position and ability to influence positive outcomes for our children.

Annual Principals' and Deputy Principals' conferences have been initiated with an emphasis on strategic and instructional leadership. These have mainly been facilitated by local experts rather than expensive overseas consultants who, from our experience, seldom offer sustainable solutions. Our first cohort of four principals were accepted into the University of Auckland's 'First Time Principals' Programme' in 2010. This year we saw our fourth cohort join this programme which offers residential workshops and mentoring support. A local Human Resources Advisor was specifically trained by the University of Auckland for this purpose which is integral to the success of the programme. In total, 14 Cook Islands Primary and Secondary Principals have been successfully trained through the First Time Principals' programme. Each participant has been fully funded by our Ministry with the assistance of development partner funds.

Too often we see effective classroom teachers plucked out of classrooms and placed in senior leadership positions with insufficient training and support. Basically, we set them up to fail! We must ensure that those aspiring to principalship or senior school leadership in the future are adequately prepared for the new challenges they will face. This year CIMoE has enrolled and funded four aspiring leaders to join 'The Aspiring Principalship' training programme through Waikato University, NZ. A current principal has also been trained as mentor for this cohort by Waikato University. Participants attend one residential training workshop and undertake associated leadership studies extramurally. Whilst it is too early to assess the success of this programme, current indications from the participants and their mentor are very positive. The challenge will be the transfer of knowledge into improved practice.

Another cohort of thirty Cook Islands and two Niue teachers aspiring to become senior leaders in the future, have been enrolled and fully funded to undertake the Professional Certificate in Educational Policy and Planning through USP. This course offers four modules delivered through Summer Schools in the Cook Islands during our scheduled school holidays. Studies are at the Post Graduate Level and mature age entry opportunities have been provided by USP for a number of participants who have not yet completed their first degree. Contextualised for the Pacific region, this course offers relevant study and research opportunities for aspiring leaders who, if successful, can move onto Masters level studies.

In Cook Islands' schools, the agreed priorities for in-service training are representative of the training needs identified in teachers' annual performance development plans. Principals summarise the training needs of their teachers; submit these to the Human Resources Division of the CIMoE, who in turn facilitates professional development opportunities. National progress towards the achievement of the goals of the EMP also impacts on the provision of such training.

Most recent training has included: standards based assessment - specifically targeted at those teaching at the senior secondary level; supervised study groups and lectures for primary school teachers enrolled in the University of Auckland mathematics 300 level papers to improve content knowledge and address the low national numeracy levels of students; shared teaching experiences where teachers travel to another school (sometimes on an outer island) to observe effective practitioners; advice and guidance programmes for provisionally registered teachers; specific Early Childhood Education training with a focus on Play Based Learning strategies; and attendance at a range of relevant overseas workshops and conferences including specific subject association conferences and the annual U-Learn IT Conference.

The National College of the Cook Islands (Tereora College) under the leadership of a very experienced expatriate principal, embarked on an ambitious programme of teacher development in 2012. Weekly professional development sessions are held facilitated by predominantly in-school experts; professional learning groups have been established and we are starting to see the impact of this training on the achievement levels of our senior students in national examinations. This is a cost effective, sustainable model and further evidence that

effective leadership has the potential to positively impact on teacher performance.

Providing quality in-service training is not cheap, however, particularly in countries such as the Cook Islands where schools are spread over 12 inhabited islands separated by 2.2 million square kilometres of ocean. Current government spending on education represents 14% of the national budget and 3.3% of Gross Domestic Product. This requires us to be innovative and discerning in our approach ensuring that interventions are based on sound educational research and evidence of what constitutes effective practice. New legislation enacted in 2012 requires all schools to provide five professional development days for teachers. Plans for these training days are submitted to the CIMoE for approval to ensure alignment with the EMP and the school's annual goals and targets. Advisory staff is also available to provide support and training.

Ensuring equitable access to quality training for all, especially in our more isolated schools, is challenging. One successful initiative undertaken to address this involved sending an advisory team to a remote northern island on a charter flight. The teachers from the school were brought to Rarotonga for training while the advisory staff stayed on the island and ran the school until their return. This proved mutually beneficial; both for the advisory team who experienced and gained a better understanding of the challenges these teachers face, and also for those teachers brought to Rarotonga for training.

Information Technology has also provided an alternative modality for providing in-service training to teachers on our more remote islands. Using an interactive whiteboard software package (Idroo) connected via the internet, training has also been able to be provided although low band width is sometimes a hindrance to its effectiveness. We are currently trialling a range of other software for this purpose to gauge its suitability given our connectivity constraints.

In 2013 every teacher in the Cook Islands was provided with their own personal Netbook. Internet connections were installed on all islands and benchmarking of teachers' information technology skills undertaken. The range of skills was immense and informed the training required which has subsequently been provided. The challenge remains to convince teachers that IT is not a solution on its own – just another resource in their toolkit to enhance learning opportunities for students.

The importance of on-going quality in-service training cannot be overstated. In a report produced by the New Zealand Education Review Office (2000), the identified characteristics of good practice in managing professional learning and development for teachers include principals identifying and sourcing appropriate training opportunities for teachers and evaluating the effectiveness of that training. The governance structure of the Cook Islands education system places this responsibility with the CIMoE. A responsibility we have taken seriously and through the assistance of our major development partner, the New Zealand Government, have made pleasing progress in lifting the competency levels of teachers and principals. The proof of the success of these initiatives, however, will be measured by the improvement in students' levels of achievement. Whilst we are seeing student achievement levels at both primary and secondary trending upwards, it is too early to assess the long term sustainability of these interventions.

### **Monitoring Principal and Teacher Performance**

In 2009 the Ministry undertook a comprehensive review of the teacher performance management system with the assistance of Cognition NZ. An integrated, holistic, developmental model of performance management was proposed that provided clear guidelines for an effective appraisal process (Cardno, 2005; Piggot-Irvine, 2003). The process was characterised by collaborative, systematic reflective professional development, accountability against professional standards, and a professional development action plan.

The first stage of the review involved collecting data from a sample of teachers from all schools in the Cook Islands to identify key information and perceptions about teacher development and performance. Those surveyed were asked for feedback on current levels of teacher performance, recognition of performance and the general standard of learning and teaching. They were also asked for their own perceptions of the CIMoE with

regard to teacher and principal support and training opportunities. The survey results indicated that teachers were most concerned about the limited opportunities for professional development available.

Using the information gleaned from teachers and principals as well as significant research on proven best practice, a revised performance management system was adopted. Our aspiration was to also gain New Zealand Teachers' Council approval for NZ trained teachers practising in the Cook Islands to gain or renew their NZ registration. This necessitated the need for a robust programme which met the NZ registration criteria but also reflected the context within which our teachers work. The new system was aptly called the CIMoE Performance Development System (PDS) to reflect both the attestation and developmental components upon which it was based. Running these parallel was seen as essential. Barber, Mourshed & Whelan (2007) confirm that effective performance appraisal and management systems are the best way to value and provide support for our teachers and thus make it possible for them to grow. Whilst acknowledging the importance of measuring teacher performance, our approach prioritised improved teacher competency through critical self-review and targeted support and development as the key to improving students' outcomes.

The PDS required teachers to set three annual SMART goals each year, two of which had to reflect their school's agreed annual goals. Teachers were encouraged to set a personal development goal as their third goal and many chose information technology competency and skill development. The professional development to support the achievement of these goals was also clearly defined in their plan and fed through by principals to the CIMoE Human Resources Management Division who facilitated the training opportunities identified.

Considerable training and support was provided to both principals and teachers to ensure the success of this revised appraisal programme, yet feedback was not always positive, particularly with regard to the extent and speed of the change. The former system of ticking or crossing boxes required less accountability. Teachers and principals were now required to provide evidence based assessments of their own and others' performance and review their practice throughout the year.

A further review of the PMS was carried out in 2013 to streamline the system and fully align it with the NZ Teachers' Council requirements. The CIMoE has made very good progress getting formal approval for teaching service in the Cook Islands by NZ trained provisionally registered teachers, recognised by the NZ Teachers' Council. This provides an attractive option for NZ teachers to complete service as a beginning teacher and gain full NZ teacher registration whilst employed in the Cook Islands, thus aiding recruitment for hard to fill positions. It does, however, also provide opportunities for Cook Islands teachers who trained in NZ to take up higher paid positions in NZ schools – an obvious downside to this initiative.

Attestation against the teacher professional standards may result in the award of either a performance bonus or salary increment as recognition of outstanding performance, while failure to meet the professional standards may result in the initiation of a programme of advice and guidance for unsatisfactory performance. On average 9% of teaching staff receive recognition for high performance annually and 2% undergo a formal monitoring process, the aim of which is to improve performance. This period of monitoring allows the teacher to demonstrate the required level of competency in a set period of time under the guidance and assistance of a designated senior teacher/mentor. The process is monitored by the principal and CIMoE culminating in a classroom observation visit by a review officer.

As Jenkin, Jones & Lord (2006) suggest, there may be a number of reasons for teacher non-performance and as the aim of our programme is to retain and improve teachers, it is important that these reasons are identified and addressed. At the completion of this support programme, the teacher will undergo a Supplementary Review to re-assess their competency against the professional standards. Should the teacher fail to reach the required standards, they will then be placed on a Performance Improvement Plan (PIP) including a directive as to the potential consequences of continued sub-standard performance.

The PIP programme may involve a range of interventions including school visits by curriculum advisors, formal monitoring by the CIMoE and principal, continuation and strengthening of support, reduction of duties

and responsibilities, reduction in position, or even re-registration as a provisional teacher which will require the teacher to undergo retraining. These interventions allow the teacher to improve his/her performance to meet the required professional standards. Whilst this generally works very well on the main island of Rarotonga and in our Southern group, distance and isolation for our Northern Group schools are challenges that do impact significantly on teacher quality.

Regardless of how effective our systems are, the true indication of quality education rests in the quality of our teachers (Barber & Mourshed, 2007). We must therefore value our teachers as much as we value our students and their parents. The CIMoE, in devoting a large percentage of its budget to teacher development, support and training, recognises teachers are our most valuable resource.

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## **The Effectiveness of Particular Support Mechanisms for Pasifika Students in NZ: A case study**

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### **Abstract**

Pasifika students' achievement - and the need to improve it - has long been the focus for government and community strategies in New Zealand. Over the years there have been targeted programmes aimed at encouraging success at all levels in the education system.

The Pasifika community will form a major part of NZ's future workforce and the nation's economic success will be closely linked to that of its Pasifika peoples. The median age in 2013 was 22.1 years, compared to 38.0 years for the New Zealand population overall. Recent research on Pasifika Education has been on problems and issues associated with non-participation rates of students. The one-size-fits-all approach to education does not work anymore. Institutions need to ensure their staff, policies and teaching better reflects students' culture and relationships. When Pasifika learners are empowered as confident learners, they are successful (Chu, et al, p. 4) This study examined the effectiveness of the various support mechanisms in place at the Auckland Institute of Studies (AIS) in assisting Māori and Pasifika students, both in academic studies and their overall well-being. This will be beneficial in not only measuring the effectiveness of current practices (including study skills support, extra tutorials, one to one tutorials, study buddies, special midweek study groups, Whānau evenings, building relationships and trust, supportive environments and support from student services advisors) at the institution, but also in providing even better facilities and services to help improve chances of academic success and general welfare of the students of AIS, including their sister institute in Tonga, the Tonga Institute of Higher Education (TIHE).

The methodology used was a survey of more than 37 recent Pasifika graduates from AIS. The outcomes so far appear to point to the fact that some of the current AIS practices seem to work well, but more importantly, the graduates value the existence of trust and confidence in the teacher-student relationship. This seems to be the major driver in their academic experience while studying at AIS.

As most of the students in this case study were at AIS as international students from the Pacific islands, conclusions can be drawn as to the possible implications and usefulness of the paper's insights to the wider Pacific region, and to teacher education. The building of confidence and trust between the learner and the teacher plays a very important role in improving the learner's academic performance. The teacher and the training provider concerned to also provide a 'best - fit' approach, proceeding with what seems to work well and is effective in supporting Pasifika success, taking into consideration the cultural identity and Pasifika values in addition to the traditional best-practice learning experience. An understanding and supportive environment is required for more successful outcomes for Māori and Pasifika learners.

### **Introduction and Literature Review**

The Pacific population of New Zealand comprises those with Samoan, Cook Islands, Tongan, Niuean, Fijian, Tokelauan and Tuvaluan heritage (Statistics New Zealand, 2013). In terms of educational performance of the Pacific learners, the major objective of the Ministry of Education's (2013) Pasifika Education Plan 2013–2017 was to enhance the participation of these learners at all levels, particularly the success rate and achievements at tertiary level (Ministry of Education, 2011). It aimed to lessen the gap between Pasifika and non-Pacific learners, as currently the Pacific learners are represented disproportionately highly amongst the negative statistics in the education system.

Hence, Pacific island learners and their achievements are of major concern, both for teachers and parents. This issue is not only limited to primary and secondary students but tertiary learners as well. A report by the Education Review Office found that not much has been done to ensure the progress and success of Pacific learners at the compulsory schooling level. The ERO report on Improving Education Outcomes for Pacific Learners (May, 2012) studied 302 secondary and primary schools. The study focused on various factors such as the decile levels, class sizes, location of the schools and the fluctuating numbers of the Pacific learners. One of the major concerns outlined in this report was that the majority of the 302 schools under study did not implement a Pacific framework in their pedagogy.

While the educational achievements and progress of the Pacific students has improved to some extent over the years, the education system in New Zealand overall fails to provide justifiable outcomes for Pacific learners (Statistics New Zealand, 2010). Many studies over the years have focused mainly on improving Pacific learners' outcomes (Chu, 2009, 2010; Petelo, 2003; Benseman, Coxon, Anderson, & Anae, 2006; Mara & Marsters, 2009; Nakhid, et al., 2007; Penn, 2010; Rio & Stephenson, 2010). These studies, instead of focusing on the strengths and successful attainments of the Pacific learners, utilised a deficit model, identifying some deficiencies and possible remedies for improvements. They explored issues such as lack of participation of the Pacific learners, and the reasons for non- completion or dropping out from tertiary studies.

Some recent studies, however, have explored factors that could assist Pacific learners. A study by Dr Cherie Chu from The Victoria University of Wellington, for instance, highlighted some critical considerations for Pacific learners. Her study concentrated on the positive aspects. "So much of the research over the past 30 or 40 years has been about the negative, looking at non-participation rates of Pacific students, those who drop out of tertiary study or who don't complete their qualifications. I wanted to understand and appreciate what tertiary institutions are doing well for Pacific learners" (Chu 2013a). Chu indicated that "family support and personal commitment, positive teaching and learning relationships that recognized cultural identity, values and aspirations as well as commitment from the particular institution to provide significant Pacific role models, a strong and supportive leadership and actively engagement with the Pacific community" were all significant aspects to be considered when teaching the Pacific learners (Chu, et al., p.8).

Moreover, she also stated that "The one-size-fits-all approach to education does not work anymore. Institutions need to ensure their staff, policies and teaching better reflects students' culture and relationships. When Pacific learners are empowered as confident learners, they are successful" (Chu, et al., p.2013). Additionally, Thompson (Ako Aotearoa, AUT Workshop 2013) highlighted social and cultural strategies for teaching Pacific learners, such as the tendency to work better in groups and to benefit from adopting study buddies in the tertiary sector.

Additionally, The Tertiary Education Commission and NZQA are also working on numerous approaches and improvements that could be directed towards Pacific learners since the success of these learners in their tertiary studies is not just an immediate concern but also has consequences for the future. It is believed that the Pacific populace will be an integral part of NZ's workforce in the future, as its population is quite young in comparison to the New Zealand population in general; the median age for the Pacific population in NZ was 22.1 years in 2013 while the national median was 38 years (Statistics NZ, 2013).

Moreover, for tertiary education, Private Training Establishments (PTEs) have been found to be the major educational provider for the Pacific and other learners in New Zealand. In 2007, 40% of the PTE enrolments were comprised of Pacific learners (Ministry of Education, 2011). Higher numbers of Pacific learners choose PTEs for tertiary study compared to the rest of the population. For instance, Pacific students made up 26% of all the enrolments in tertiary institutes (MOE, n.d.), and in 2008, 12.5% Pacific students enrolled in PTEs compared to 6% in universities or polytechnics. Hence, PTEs have shown remarkable success in aiding the needs of Pacific learners. Five years after enrolling in various courses in PTEs, 49% of the Pacific learners complete their program of study, in contrast with the average completion rate of 34% across the other providers (TEP, 2009). These factors demonstrate that PTEs are appropriate venues for research on Pacific learners and their educational progress.

It is therefore crucial that the needs of these learners are addressed in the classroom in order to attain academic success. As Delpit (2001) points out, “In order to teach you I must know you” (p.211). So, what does knowing our students really mean, especially in the increasingly multicultural NZ classrooms? Many teachers’ classroom instructions are unintentionally influenced by their personal beliefs about meaning-making (Bishop and Glynn, 1999). Studies have shown that teachers’ perceptions on the best practices for learners are often “determined within their own Eurocentric world-view which incorporates their own particular cultural perspectives on epistemology and pedagogy” (Alton-Lee, Nuthall & Patrick, 1987; Simon, 1984, 1990; Bishop & Glynn, 1999, p. 134). Therefore a teacher’s beliefs in an effective classroom are critical for students’ achievements.

Additionally, research has also shown that the relationships that the teacher builds with the learners are significant in the attainment educational success (Carpenter, McMurchy-Pilkington & Sutherland, 2000; Cowley, Dabb & Jones, 2000; Hawk, Cowley, Hill & Sutherland, 2002; Hawk & Hill, 1998). These studies have demonstrated that for real learning to take place for the Māori and Pacific learners, the teacher’s ethnicity is not important, but rather, the ability to demonstrate “understanding of and empathy with Maori and Pasifika cultures” (Hawk, Cowley, Hill & Sutherland, 2002, p. 45) is crucial.

This is a twofold approach; the teacher is conscious and appreciative of their own culture as well as that of their students (Bishop & Glynn, 1999; Ladson-Billings, 1995). Additionally, a number of New Zealand and Pasifika researchers (Helu-Thaman, 2000; Robinson & Timperley, 2004) have stressed that in order for the teachers to understand their learners and implement effective instruction, cultural connections with the students, families and communities is essential. This will assist teachers to better contextualize their teaching and make the learning more meaningful for these learners. There is need for a holistic approach where the learners belong to a “learning village” (Thaman, 2001). The learners and their families work together to achieve academically and feel comfortable as individuals.

This also includes having academic as well as pastoral care mechanisms in place, including staff and peer mentors. Chu, et al. (2013) found that the Pacific learners found that mentors who were culturally competent worked well. Additionally, the use of their mother tongue was beneficial as it helped them uphold their cultural identity as well as to better comprehend the course content.

The teachers, therefore, have the very challenging task of not only helping the Pacific students adapt to the western system of education in New Zealand, but also assisting them to bring their prior learning experiences and identities into the classroom. The teaching and learning process in tertiary institutions needs to accommodate the multiple spheres of the Pacific learner. It is critical to begin with what the learner has to offer and what they bring to the classroom. According to Chu, et al. (2013) learning for the Pacific learner is not only restricted to effective teaching strategies but “successful learning sits on the pillars of the family, the community, cultural capital, collaborative relationships and institutional support” (p. 4).

It is therefore evident that there is a considerable need for academic and student support in the tertiary sector, to attain student success. In order to comprehend and assess the practices that are beneficial for the Pacific learners, this study aims to evaluate the current practices at a particular institution, to provide newer insights that can further improve and enhance the measures in place for the betterment of the learners.

## **Research Issues**

The literature review clearly demonstrates that in order for the Māori and Pacific Islands (MPI) students’ achievements to be improved, both in the secondary and tertiary levels, a series of learning support systems need to be in place. Teaching staff experiences over the years at AIS have also shown that such interventions can help students achieve their goals. The effectiveness of such support systems and interventions however needs to be clearly identified and the value of each one established, in order to demonstrate how it helps the learning outcomes.

## Methodology

AIS averages about 60-70 MPI students per semester, who are enrolled in various certificate, diploma, undergraduate and graduate programmes. About 50% of these students are from the Pacific Islands, with about 80% of these being from Tonga, stair-casing through AIS's 'sister school' arrangement with the Tonga Ministry of Education and Training. This collaborative arrangement has been running since 2007, and involves the Tonga Institute of Higher Education (TIHE) delivering the AIS level 5 Diplomas in International Business, Information Technology and Tourism Management. Currently both organizations are working towards adding the Diploma in Hospitality Operations as of semester 1 in 2015.

Fifty questionnaires were designed, developed (through the AIS Research Committee) and distributed at the start of the second semester (first week of June 2014), targeting more than 50 MPI graduates who have either completed or were completing various programmes and qualifications from AIS between the period of 2010-2014.

As early as 2009, as part of its effort to improve the success rates of MPI students, AIS put in place the following learning support systems:

- Special workshops
- Study buddies
- Wednesday study group
- Whānau evening
- Extra class tutorials
- One to one sessions with lecturers.

From the 50 questionnaires sent out, more than 40 surveys were returned, but only 37 surveys were fully completed. This study is based on the results analysed from these 37 surveys as shown below.

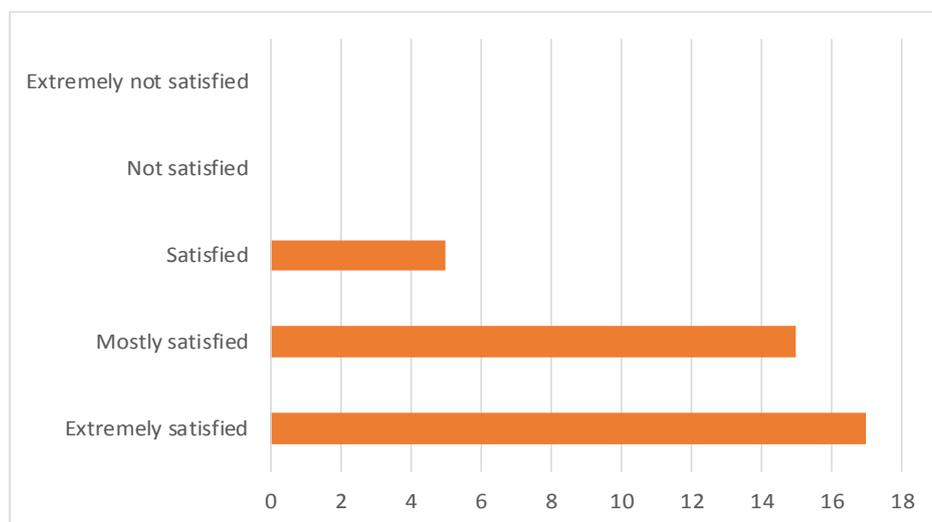
## Survey Results and Analysis

A total of 27 international students and 10 domestic students completed the survey. There were 10 male and 27 female respondents with 35 Tongan, one Fijian, one Samoan, and one Māori. Nearly half the students were from the Tourism Management programme with the balance drawn from three other programme areas.

Table 1. *Respondents by Programme*

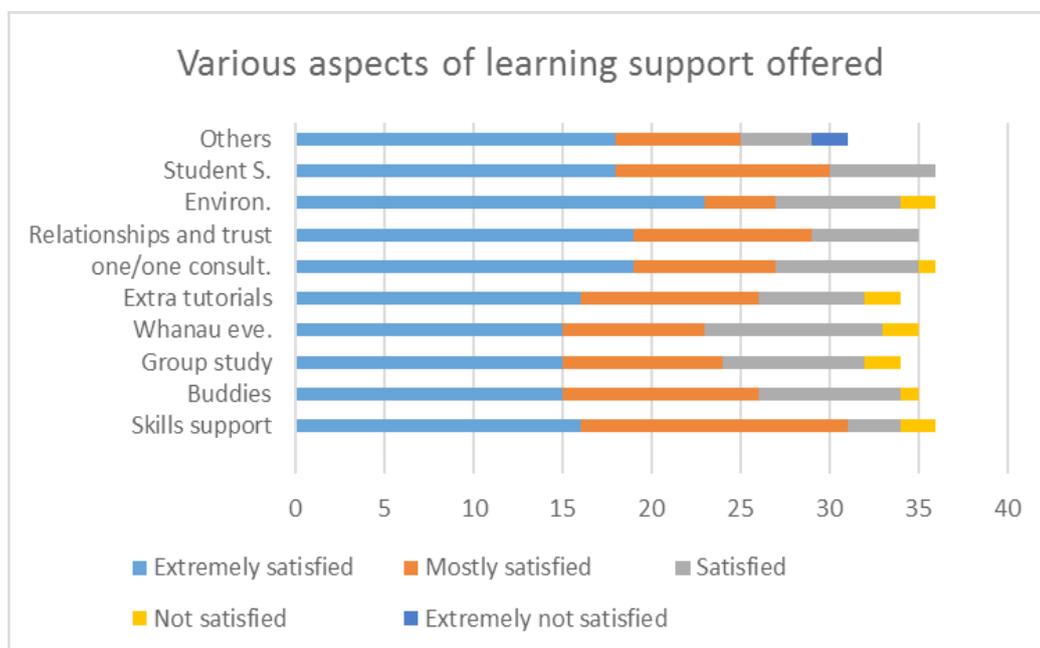
	Tourism Management	International Business	Information Technology	Hospitality Management
Respondents by programme	19	9	6	3

Figure 1. Level of satisfaction with education experience at AIS



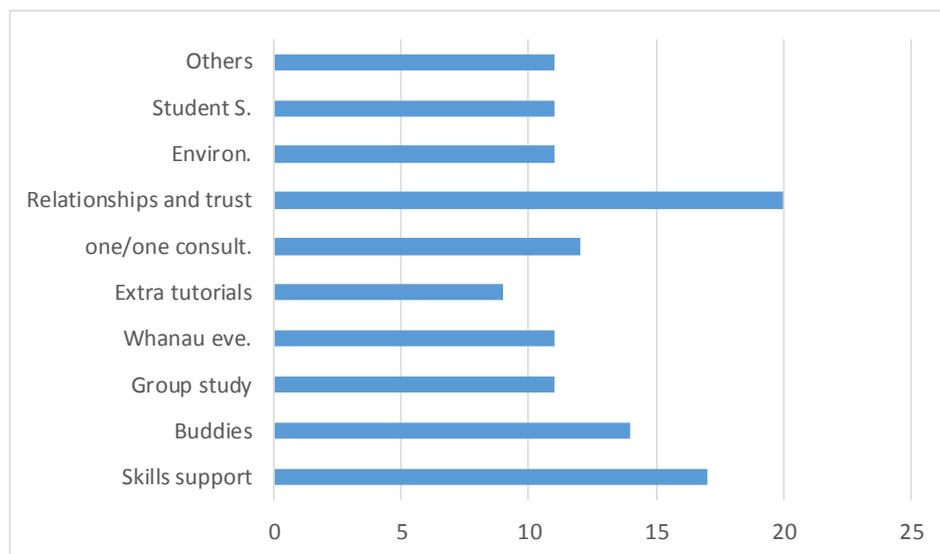
All students aid that they were satisfied with the support provided at AIS. Only 2% expressed minor dissatisfactions with some elements such as: the learning environment provided, one to one consultation, extra tutorials, *Whānau* evening, group study, study buddies and skills support. The comments expressing dissatisfaction tended to be general student issues such as: slow wifi, not getting the right book from the library, not understanding consultations, not having enough time with their study buddies, the *Whānau* evening was not well planned, and difficulties understanding some of the concepts/theories taught.

Figure 2. Satisfaction with learning support services provided



Respondents were asked to rank the effectiveness of the various support strategies. Students ranked building relationships and trust with the teachers, fellow students and with the school as the most effective element. Interventions targeting their study skills and building relationships and trust were assessed as the most valuable activities.

Figure 3. Effectiveness of the learning support services provided



The highest satisfaction reported was for the Study Skills Support (84%), a support strategy aimed at helping to build relationships and trust amongst students and teachers (83%), and the ongoing support from Students Services (83%) were also highly appreciated. The satisfaction level was lowest (66%) for the whānau evenings, and most of the comments suggesting improvement were directed at better organisation of these functions and for the programme to be more interesting and educational for students and families.

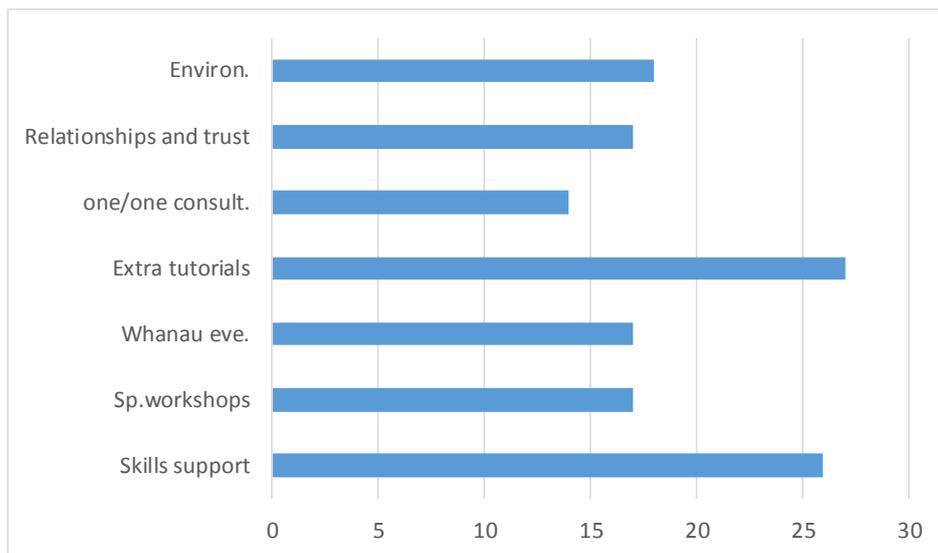
Table 2. Student satisfaction levels with AIS programmes

	Extremely satisfied	Mostly satisfied	Satisfied	Not satisfied	Extremely dissatisfied	Total replied	Percentage mostly or extremely Satisfied
Study skills support (E.g. workshops, one to one, performance monitoring)	16	15	3	2	0	37	84%
Building relationships and trust	19	10	6	0	0	35	83%
Support from student services	18	12	6	0	0	36	83%
Extra class tutorials	16	10	6	2	0	34	76%
One to one tutorial/consultation with teacher	19	8	8	1	0	36	75%

Supportive environment (E.g. Library, e-learning and parental support etc.)	23	4	7	2	0	36	75%
Study buddies	15	11	8	1	0	36	72%
Special midweek study groups	15	9	8	2	0	34	70%
Whānau evenings	15	8	10	2	0	35	66%

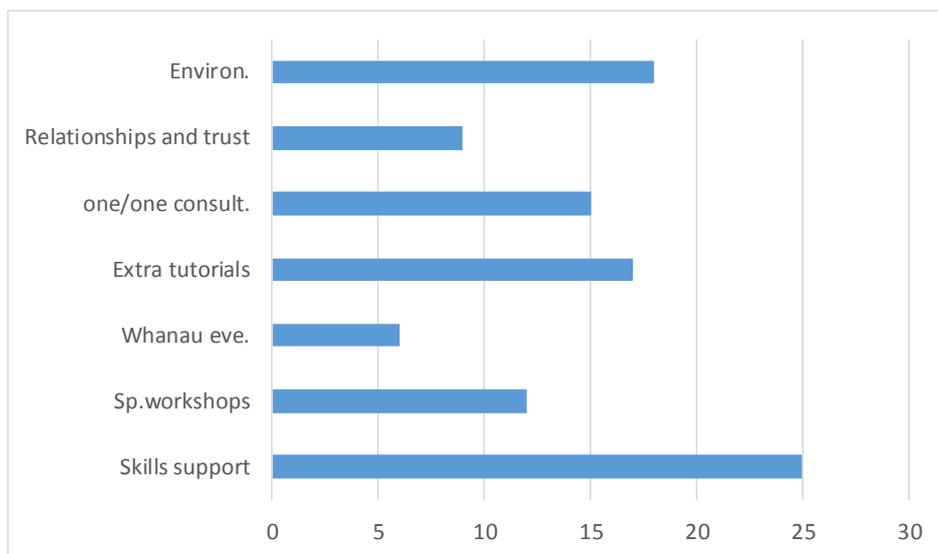
Specific areas where respondents felt that the learning support was most effective included, under the category “Understanding difficult concepts in my own language”, the extra tutorials and the study skills support, consisting primarily of extra study workshops.

Figure 4. *Understanding difficult concepts in my own language*



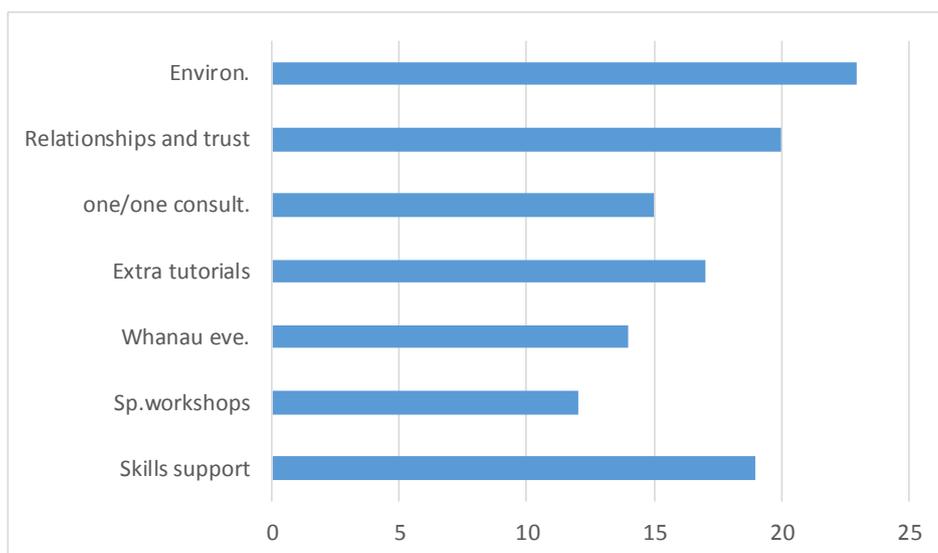
Respondents highlighted the effectiveness of the study skills sessions, but also mentioned that that the provision of a conducive environment for study significantly assisted them to prepare for tests and examinations.

Figure 5. *Effectiveness of support systems for test and exam preparation*



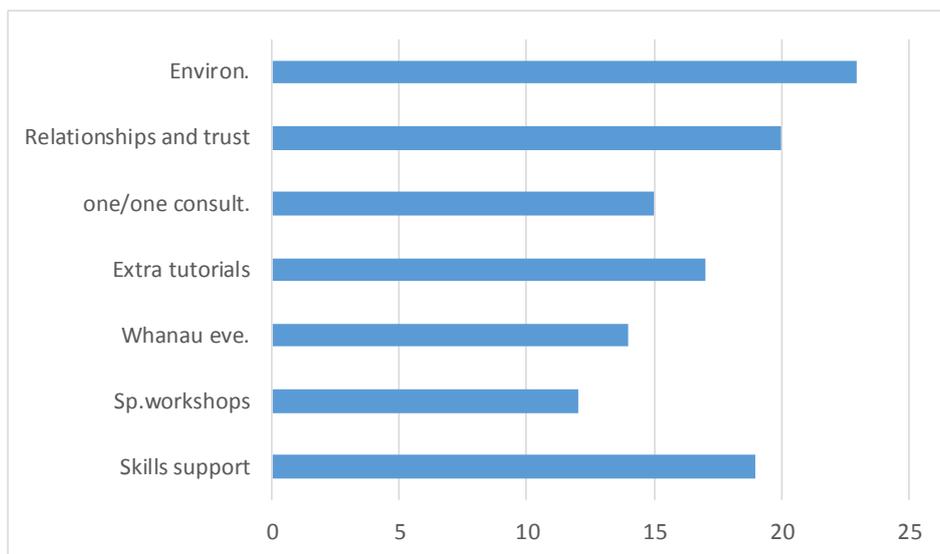
When asked which support strategy was of most help in achieving better grades, respondents gave the highest rating to the provision of an environment conducive to study and then to the continual support from the study skills sessions.

Figure 6. *Effectiveness of support systems in helping to achieve better grades*



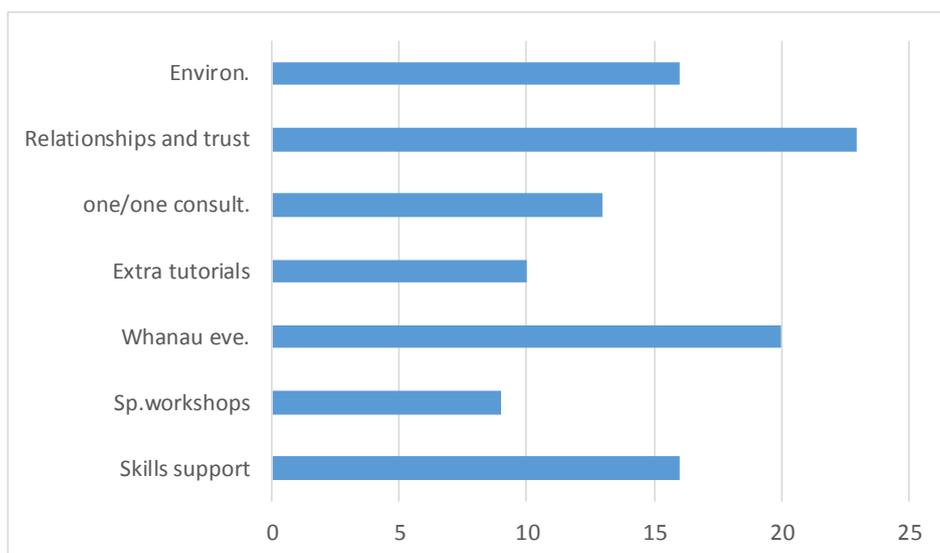
In terms of confidence-building again respondents again gave the highest rating to the provision of an environment conducive to study and then to the continual support from the study skills sessions.

Figure 7. *Effectiveness of support systems in helping build confidence in studies*



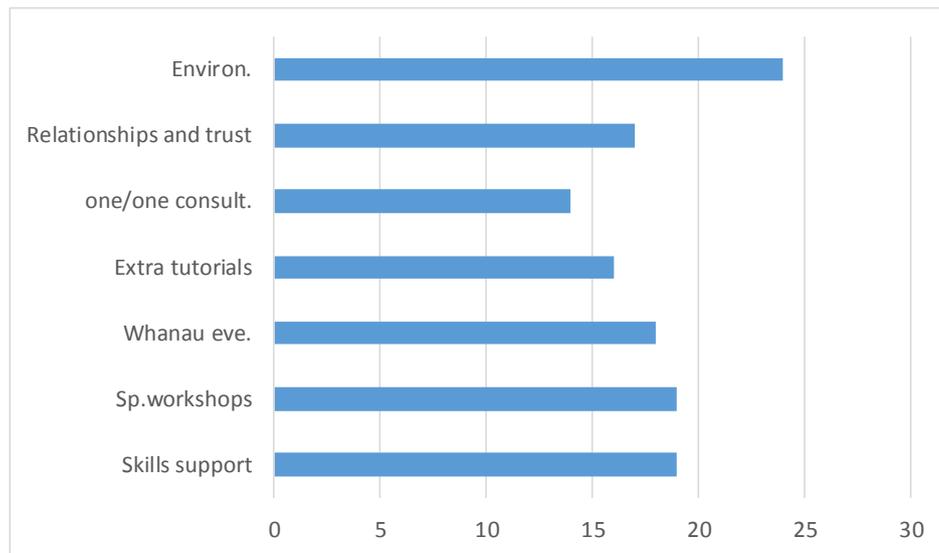
The two most useful support elements identified by respondents as making them feel more at home and able to enjoy their experience at AIS were the environment and activities that helped to build their relationships and trust with each other, teachers, and fellow students. The Whānau evenings were also ranked highly.

Figure 8. *Effectiveness of support systems in making students feel more at home*



In dealing with the pressures and expectations of studying in a western education system, most respondents indicated that having a good environment at AIS helped them to cope significantly better.

Figure 9. *Effectiveness of support systems in helping students cope better with the expectations of studying in a Western education system*



Open-ended comments from respondents suggesting other improvements AIS could make to support MPI students included the following. The italicised comments give context and outline the staff feedback provided to students.

- Improve internet and wifi speed and capacity (*major upgrading of the internet and wifi is being carried out*)
- Need extra hours for workshops (*conducted additional workshops according to demand*)
- Need to improve the *Whānau* evening programmes (*agenda is being revised for semester 1, 2015*)
- Revise time for the midweek study group as it clashes with some lectures (*this is adjusted according to the semester timetable*)
- *Whānau* room and study room tend to be too cold during winter (*central heating has been adjusted*)
- Lecturers should provide easier examples and case studies (*discussed at Programme Committee meetings*)
- Need more resource material/books for assignments from the library (*ebooks will be introduced in semester 1, 2015*)
- Enforce hygiene and care for the environment in some areas and students (*comments from students in the dormitory and appropriate notices were put up as well as continuous reminding from dormitory staff to students from time to time on personal hygiene and health*)
- AIS to drive to get more domestic students (*currently a domestic drive marketing campaign is underway with scholarships being available for domestic students*)
- More social functions and graduation celebrations and have it in the town hall (*The Graduation ceremony was at the Auckland Town Hall once but considered not as suitable to the needs of AIS like the Bruce Mason Centre in Takapuna*)
- AIS is a great learning institute (*from Pasifika students returning to Tonga*)
- Need to keep building up relationships with students because that gives us the courage to study harder (*this is ongoing*)
- MPI group to be more active and to get more PI students to be involved (*Amatakioloa Tertiary level conference for PI students was very successful in achieving this in June 2014*)
- Need one month work experience (*comments from level 3 Hospitality students who prefer 1 month at a city hotel instead of the café at Asquith Campus*)
- Keep up the MPI social activities (*ongoing*)
- Enjoy experience in the café and cookery (*from level 3 hospitality graduates*)

## Conclusion

- All MPI respondents enjoyed their studies at AIS.

- The majority of the students ranked creating and maintaining a supportive environment as the most beneficial strategy, followed by one to one support, and then building relationships and trust.
- Of the general learning supports available to all students at AIS, the most valued by MPI students are study skills support, building relationships and trust, supportive environment, and ‘study buddies’.

This project confirmed that most of the strategies in place at AIS are valued by Māori and Pasifika students. The recognition of cultural differences in the learning environment is important. While there were some minor criticisms of small operational details (such as the organisation of *Whānau* evenings and the echoing of more general student ‘issues’), it is clear that the MPI support strategies in place are having positive outcomes and a key factor in the success of the institute in attracting these students to its campuses.

While further research is indicated, AIS needs to maintain its system of “MPI” support. It needs to monitor students’ and stakeholders’ feedback and to make minor changes to one or two of the strategies it has in place.

### Further research

This is an important area for further research and complements the New Zealand Tertiary Education Commission’s goals of boosting achievement of Māori and Pasifika students set out in the Tertiary Education Strategy 2014-2019. This project studied a relatively small number of students and should be expanded to become a larger, longitudinal, study. It would be useful to distinguish between the Pacific Island students who have resided and perhaps previously studied in New Zealand, and new arrivals into the country. The small number of Māori students in the study, and at the institute, suggest that Māori students should be considered separately rather than under an aggregated MPI category. A separate survey into the support system needs of Māori students may be warranted. Country of origin, gender and age could be factors taken into account in future expanded studies. Additionally, given the large number of Tongan students and the high proportion of these who articulate through the sister institution’s programmes (based on AIS curricula) a separate study of their specific support needs and educational outcomes could provide further insights into another dimension of achieving better educational outcomes for Pacific Island students in New Zealand.

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## Profiling for school leadership improvement and development in Tonga

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### Abstract

The purpose of this paper is to share findings from a research study on the leadership practices of school principals and leaders in Tonga; and the processes used to turn the findings of the study into a profile for leadership development.

In 2011 and 2012 a total of 125 school leaders participated in a nation-wide research study that profiled the practices of Tongan school leaders from Early Childhood Centres, primary schools and secondary schools. The process also included a validation process that included participation by the national teachers' training college and senior education administrators from government and non-government systems. *Talanoa* was used to collect the data from school leaders, and this data was complimented by a quantitative questionnaire that involved over 500 Form 5 students across Tonga.

The results from the *Talanoa* showed that Tongan school leaders valued Ethical Leadership, particularly relational skills, over and above other dimensions of leadership. The overall findings of the study identified 5 dimensions of educational leadership for Tongan school leaders, which included: Ethical leadership; Visionary leadership; Organisational leadership; Instructional leadership; and Community connectedness.

The profile of Tongan school leaders which is a direct outcome from the study is a first for Tonga and no other similar work has been sighted emerging from other Pacific nations. The Tonga profile of school leadership has been used by the Tonga Secondary School Leadership Program as a basis for conducting a baseline study on school leadership practices and as a tool for professional development.

### Social cultural context

Leadership in Tonga has traditionally been the business of Kings and Nobles, where leadership is inherited, ascribed and associated with clans and land. The literature on traditional Tongan leadership is plenty and well documented. Traditional leadership is also still very much a part of Tonga's socio-economic and political scene and continues to have an influence on Tongans' conceptualisation and practice of the business of leadership.

With the introduction of Christianity, modern government, and through the vehicle of education, there has been a steady emergence of church leaders, statesmen and middle class commoner leaders in the last 50 years. Initially, these positions of leadership were taken by aristocrats, and in more recent time, a steady growth of commoner leaders has been evident. With the emergence of commoner leaders in the church, government, businesses and in the communities, also came challenges for commoner leaders relating to leading in a traditional kinship- and land-based society. The literature on political events in Tonga is well documented and this paper will not attempt to explore it further here.

At the turn of the 21st century, a series of political events occurred that brought to light underlying tension between old beliefs about leadership, new beliefs about traditional and contemporary leadership, as well as the complexities of a changing society. In 2005, the civil servants led the largest and longest civil strike in Tonga's modern history. This civil strike affected hundreds of students as their teachers left the classrooms to 'sit in' at Pangai Si'i (a park next to the Royal Palace on Nuku'alofa's waterfront) during the days of the civil strike. For the first time in our history, children and students saw their traditionally respected teachers 'revolt' against the order of the day. In a traditional society where relationships, compliance, obedience and supporting the greater good were valued, the civil strike of the 2005 gave Tongan students a shocking illustration of 'disobedience'. A year later, in 2006, on the 16th of November, buildings throughout Nuku'alofa burned as a result of political

tension between the government and the pro-democracy party.

The effect of this riot further drove an already weak economy into a crippled state. I remember clearly seeing Nuku'alofa soon after the burning, as I am sure many other Tongans remember these dark days. I wept for Tonga. In an effort to appease the growing tension amongst the civil servants and the pro-democracy party, the government were forced to increase the salary of civil servants. The effect of the increase in the civil servants' salaries and a burned down capital forced the government to adopt a massive civil servant redundancy in 2007 and 2008, as part of a cost cutting measure. Unfortunately, the impact of the redundancy saw many experienced teachers leave the classroom for good.

During this this troubled decade, Tonga also saw "the sun set" twice on the island Kingdom, with the passing away of the architect of modern Tonga, King Tupou IV in 2006, and the prince of change, King Tupou V in 2012. However, a new sun has arisen, and a new era begun, with the ascension of King Tupou VI to the throne. Also, during this short time span, Tonga elected its first democratic government in 2010, seeing a new line of ministerial leaders elected by the people and installed by the monarch.

Recently this year (November 2014), Tonga has gone to the polls again to vote for the 2nd democratic government, and in 2015, Tongans will join the celebration of the coronation of His Majesty King Tupou VI.

There is a sense that things are finally beginning to turn, but in what direction, is still not clear. However, the impact of the troubles of the early 21st century is evident in the economy and in our education system. A way forward is still shrouded in the mist of the new morning.

## **Literature & Methodology**

Literature on Tongan educational leadership is quite recent and has been minimal, but with steady growth in the last decade (Kavaliku, 1966; Paongo, 1990; Vete, 1990; Fua, 2001, 2003, 2012). The original use of the Profile for leadership development was put together by Leithwood and Montgomery in 1988. The tool was further developed by Begley et al. in 2008, and it has been used in Australia, Canada, Russia, Hong Kong and now Tonga by my work in 2012. The use of profiling as a professional development tool is supportive of Prestine and LeGrands' (1991) work on cognitive development.

The research study involved all island provinces throughout the Tonga group, with school leaders involved from early childhood education, primary schools and secondary schools. In a way, this research study was a baseline, in trying to identify a national conceptualisation of leadership for educational leaders. Given the opportunity, all island provinces were invited to join with all school leaders participating in the study. A total of 125 school leaders were involved in the research study's qualitative component. The *Talanoa* research tool was used as it was believed to be the most culturally appropriate tool for gathering data in this context, and particularly given the limited data available on educational leadership for Tonga. An additional 500 students at Form 5 level (10% of national population at this level) completed a closed questionnaire.

The analysis process involved identification of major themes and patterns, which subsequently became the key dimensions and sub-dimensions of educational leadership for Tonga. Additional analysis was conducted in sections of the data where it was difficult to map or draw connections between sub-dimensions and progressions within the sub-dimensions. Reference was made to international work on profiling to assist with this analysis.

After the initial mapping of the key leadership dimensions and sub-dimensions, it was evident that, as Tongans, we were confident about some of the dimensions of leadership. However there were other areas that were weak. In particular, very little was known about Organisational leadership and Instructional leadership. As such, a series of *Talanoa* sessions were organised as a way to validate and revise the mapped dimensions.

The validation process also included educators from the Ministry of Education and from the national teachers'

training college. The validation process was necessary, even critical, given the identified gap in the mapping of dimensions and sub-dimensions. For validation of the analysis a series of consultations were held with a number of experienced educational leaders. This further refined the layout and mapping of the key dimensions of educational leadership for Tonga.

## Findings

The study, for the first time, documented specific dimensions and sub-dimensions for educational leadership in Tonga. Earlier works highlighted the need for educational leadership development in organisations and for training, but this study brought a focus on what educational leadership actually means for Tongan school leaders in our contemporary context.

With results from this study, we can now be more assured in our talk about educational leadership in Tonga. Discussion is now possible relating to the five key dimensions identified; “Ethical Leadership”, “Visionary leadership”, “Organisational leadership”, “Instructional Leadership” and “Community connectedness”.

One of the key findings of this study is the clear priority that Tongan educational leaders give to “Ethical Leadership” over and above that of other leadership dimensions. In the dimension of Ethical Leadership, Tongan educational leaders clearly showed the importance of relationships to the role of a school leader. This of course concurs with Tonga’s highly stratified and kinship-based society where relationships are critical to socialisation and everyday behaviour and language. As relationship building is a key factor in Tongan society, for a leader, behaving appropriately is important in maintaining and building such relationships.

In the study, educational leaders were very forthcoming in sharing beliefs and experiences about professional ethics for an educational leader. One of the more interesting debates during the validation process was the discussion on the place of Christian belief in the performance of educational leaders. There were those who believed that emerging educational leaders should already be demonstrating a Christian way of life. Others believed that the most experienced educational leaders should have the wisdom of an experienced Christian.

The current profile of educational leadership for Tonga clearly reflects the time, the context and the current climate for educational leaders in Tonga. The leadership dimensions presented in this paper are a reflection of the present, and are open to change and adaptation as time takes its course and Tongan educational leaders adapt and grow in their role.

In summary, the key dimensions and sub-dimensions of school leadership for Tonga are shown in the following Table.

Table 1. Summary of key dimensions of school leadership for Tonga

Key Dimensions of School Leadership	Sub-dimensions of School Leadership
Ethical Leadership / Fakafeangai tonunga `a e taki	<ol style="list-style-type: none"> <li>1. Professional ethics</li> <li>2. Decision making processes</li> <li>3. Problem solving</li> <li>4. Relationship building</li> </ol>
Visionary Leadership / Sio Atu	<ol style="list-style-type: none"> <li>1. Managing change</li> <li>2. Setting directions</li> <li>3. Vision development</li> </ol>
Organisational Leadership / Taki `i ha Potungaue	<ol style="list-style-type: none"> <li>1. Policy, regulations, laws</li> <li>2. Financing education</li> <li>3. Organisational planning</li> <li>4. Organisational communication &amp; information</li> </ol>

Instructional Leadership/ Papa Fakahinohino	<ol style="list-style-type: none"> <li>1. Student learning &amp; development</li> <li>2. School plan</li> <li>3. School finance</li> <li>4. Professional development for teachers</li> <li>5. School culture</li> </ol>
Community Connectedness/ Fengaue`aki	<ol style="list-style-type: none"> <li>1. Parents (PTA)</li> <li>2. Churches, education committees, advisory boards, ex-students &amp; other stakeholders</li> <li>3. Cultural competency</li> </ol>

## Application

Findings from the research were translated into a profile for leadership development. A profile is a two dimensional table/matrix which outlines the key dimensions and sub-dimensions, with associated descriptors of behaviours illustrating the stages of developmental growth within each dimension.

The identification of the dimensions, sub-dimensions, and the stages of professional growth have been gathered during a series of workshops, conversations and the sharing of both international literature and local experience in school leadership.

The original ‘principal profile’ produced by Leithwood and Montgomery (1986) was based on extensive literature review and field validation. Since then, other profiles have been produced using other approaches. Begley and associates (2008) took a more grounded research methodological approach giving more weight to local practitioners’ knowledge and experience. Principals’ profiles have been developed in other countries including: Western Australia (1989); the Canadian Province of Ontario in 1993 (with updated editions in 2000, 2002 and 2006); the Canadian Northwest Territories in 1993; Pennsylvania in the USA in 2005; Sweden in 2005; Karelia in 2000; Belarus in 2003; and Hong Kong in 2000.

In all these profiles, there is obvious commonality in the dimensions of leadership that practitioners believe to be essential to improving school leadership, particularly the dimensions of “Instructional Leadership”. The use of profiles agrees with research (Prestine & LeGrand 1991) on the use of cognitive apprenticeship processes as a useful tool for leadership development. Through this process of using the profile, school leaders have an opportunity to reflect on their own practices and critically engage with the functions and roles of leadership practices. The profile is also an opportunity for school leaders to focus on more positive and aspiring practices and to define what is the “ideal”, rather than the usual focus on the “problem”.

### A leadership profile can be used for several purposes

1. A school leadership team can use the grid as a tool to identify and agree on ideal practices that can assist them in improving a particular aspect of their leadership. For example, a school may be struggling with consistent student under-achievement and wishes to improve its Instructional Leadership as a way of improving student learning. Table 1 shows that instructional leadership is a dimension that has five sub-dimensions; one of these sub-dimensions is teacher professional development. The school leadership team may then decide to focus on improving access to, and planning of, a teacher professional development program. As a group, they can decide on the range of practices that will demonstrate best practice in this area. By working together on a profile, the school leadership team can build consensus on what they agree is suitable, relevant and worthwhile for their school context. What is also important here is that the profile is owned by the school and that the practices that they commit to are based on their values, experiences and reality.

2. As an individual school principal, one can also use the profile to self-assess, set goals and monitor one’s own professional leadership development. It is often a good idea also to have a mentor to support the individual school principal in working through such a profile.

3. A profile can also be used as a way to create and produce professional development materials for school leadership. The process can be seen as action-research, using a range of methods including workshops and Talanoa, with the intention of gathering ideas about best practice from practitioners. Each dimension and associated sub-dimensions can be developed as a learning and teaching module on its own.

The profile has been recently used in a number of projects in Tonga and around the region, including the following:

- The University of the South Pacific's Professional Certificate in Education Policy and Planning program for module EDP01 Educational Leadership.
- The Tonga Secondary School Leadership Project's use of the leadership profile for evaluative purposes, and as a mentoring and training framework in their work with secondary school teachers in Tonga.
- The Pacific Literacy and School Leadership Project has used the Tonga leadership profile to guide the creation of a leadership matrix for the profiling of school leadership and literacy leadership in Tonga, Solomon Islands and in the Cook Islands.

Provided in the Table below is a presentation of one key dimension – that of “Ethical Leadership”, with its associated sub-dimensions and the growth strands that demonstrate progression from basic to more advanced performance. A particular characteristic to note about the profile is the use of Tongan words to describe each stage of the progression. *Potopoto a niuumui* refers to the characteristics of a young coconut tree which has just sprouted from the nut, while *Poto'i faiako pule* refers to a skilled school leader, and *Faiako pule ma'a Tonga* refers to a school leader for the community and for Tonga. The description of the progressions recognises that leadership is a journey of growth, and values each part of the journey. It purposefully avoids using numbers to rank – and thus discourage – potential ranking of school leaders' performance. Also included in the profile is a column that provides comments explaining the rationale for the progression. This is done as part of being transparent about the analysis of the data.

### **Ethical leadership**

When Ethical Leadership is displayed, the school leader comprehends and skilfully demonstrates Tongan core values and professional principles for school leadership when anticipating, interpreting and responding to ethical issues related to the school and its surrounding context.

Table 2. Key dimension of leadership: Ethical leadership

Sub-dimensions	Potopoto `a Niumui	Poto`i Faiako pule		Faiako pule ma`a Tonga	Comment
PROFESSIONAL ETHICS	<p>Honesty – Faitotonu</p> <p>Fairness – tatau ki he tokotaha kotoa</p> <p>Love - `Ofa</p> <p>Humility – angafakatōkilalo</p> <p>Knows individual capacity, values, responsibilities and context</p> <p>Talanoa &amp; Fanongo</p>	<p>Recognises others' perspectives &amp; values</p> <p>Patience – fa`a kataki</p> <p>Speaks well – lea lelei, loto lelei</p> <p>Motivates others</p> <p>Trustworthiness</p>	<p>What is best for everyone – seeing the bigger picture</p> <p>Takes risk and is able to learn from mistakes</p> <p>Team player, working together</p> <p>Talitali kakai lelei</p>	<p>Role models for others – lea moe ngaue; ta sipinga lelei</p> <p>Work ethics support vision and are demonstrated clearly and consistently i.e. lives the vision of the organisation</p> <p>Loyalty – ngaue mateaki, mamahi`i me`a, Ongo`i e fatongia, anga faka`apa`apa</p> <p>Maturity and wisdom – angai poto, poto fakapotopoto</p> <p>Holistic lifestyle – healthy body, mind and spirit</p>	<p>Progress from practices that display personal and Tongan core values towards meta-values of the organisation.</p> <p>Progress from occasionally demonstrating values to being a living role model demonstrating both Tongan core values &amp; organisational meta-values</p> <p>Progress from the individual good towards the collective good</p> <p>Demonstrates Christian/spiritual maturity</p>
PROBLEM SOLVING PROCESSES	<p>Problems are solved on a case by case basis</p> <p>Problems are referred to higher authority</p>	<p>Has a process for solving problems – assesses the problem and prioritises cases</p> <p>Gathers information that is valid, timely, relevant &amp; can apply it to problem solving</p> <p>Solves problems in a timely manner</p> <p>Considers each case according to each situation</p>	<p>Problem solving process includes consultation with the school leadership team and with people involved in the problem</p> <p>Problem solving process considers consequences of action to various people</p>	<p>Strategic – mohu founda</p> <p>Problem solving process is adaptive to the context/ island community</p>	<p>Progresses from solving problems by an individual to a shared process.</p> <p>Progresses from a linear, single-dimensional process to more dynamic, contextual &amp; multi-dimensional process</p>
DECISION MAKING PROCESSES	<p>Knows &amp; understands regulations, law &amp; policy</p> <p>Follows regulations, laws &amp; policies</p> <p>Makes decisions based on available resources</p>	<p>Decisions and regulations follow a purpose/vision</p> <p>Has a process for making decisions</p> <p>Decisions are timely &amp; responsive</p> <p>Gathers information that is valid, timely, relevant and applicable</p>	<p>The decision-making process is shared</p> <p>Decisions are based on consensus agreement</p>	<p>The decision-making process is interpretive &amp; contextual</p> <p>Decisions are decisive –once made they are firm decisions</p> <p>A transparent decision-making process</p> <p>Decisions are based on consequences &amp; clear principles</p>	<p>Progresses from strict adherence to policy regulations to interpretation of policy.</p> <p>Progresses from an individual making the decision to a shared decision-making process</p> <p>Progresses from decisions based on individual personal values to consensus values to consequences to philosophical ideals</p>
RELATIONSHIP BUILDING	<p>Establishes relationships with students, teachers, parents</p>	<p>Relationships are maintained, re-enforced and engaged with students, teachers &amp; parents</p>	<p>Relationships with students, teachers &amp; parents are guided by core Tongan values (mamahi`i me`a, lototō, faka`apa`apa, feveitokai`aki) &amp; professional ethics.</p> <p>Establishes relationships with other key stakeholders in the school</p>	<p>Relationships are authentic, engaged, meaningful and reciprocal with immediate and other stakeholders that work together for the school and the surrounding community</p>	<p>Progresses from superficial relationships to authentic relationships- that is, guided by values</p> <p>Progresses from relationships that are centred around the school to those with the wider community</p>

## Conclusion

In conclusion, this study has outlined for Tonga the key dimensions of educational leadership and the associated sub-dimensions and its expected enactment. This is a first attempt for Tonga, and although it is a recent study, in the space of 2 years the value of the application of the profile to a number of contexts and purposes has been evident. The Institute of Education wishes to engage in more research of this nature, where data is analysed and turned into tools that can be used effectively in our schools to bring about change. All too often, research around the region remains as written up journal articles or reports that collect dust. At the Institute of Education, we have learned through years of experience and engagement in development work, that researchers need to translate their data into practical and useful tools for practitioners. Without any further work to translate research findings into practical tools for practitioners, we can only pay lip service to making “evidence based decisions” in the Pacific.

The Tonga leadership profile remains open for dialogue, for critique and for further development to remain useful for educational leaders in the Pacific.

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## Rethinking teaching and learning in the Pacific to address climate change as an urgent phenomenon – Kiribati.

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### Abstract

This paper discusses the collaborative partnership between UNESCO (Pacific), MOE Kiribati, Indigenous Māori and Pacific Adult Education Charitable Trust (IMPAECT), and the University of Waikato, to develop a Climate Change (CC) Curriculum Framework (CCCF) for Kiribati. This research and development mapped the existing curriculum across all the school subjects to assess the extent to which CC-related areas were being taught at schools, and, where CC was not taught, appropriate points of intervention were found for its inclusion.

To ensure that the research and construction of CCCF was holistic and owned by Kiribati, that partnership was strategic, strong academically and had international relevance, the investigators used the Tokyo Declaration 2009 of H.O.P.E (Holistic, Ownership-based, Participatory, and Empowering) framework for this project. H.O.P.E is critiqued in this paper for its appropriateness to developing a curriculum that prepares a Pacific nation's schools for a future that is interconnected by technology, political ideologies, common market, and challenges of global magnitude such as CC.

The CC threat to Kiribati will be total: it is the loss of aba (fonua, land) and, with that base of identity, the means to a way of being that is unique to their geography and history. This is their story and one journey of radical hope to use a CCCF to preserve a nation's cultures so that I-Kiribati can continue to live according to their founding values and ways, even if some of them migrate to worlds they are yet to conceive.

### Education for Sustainable Development (EDS) and Climate Change (CC)

The concept of education for sustainable development is very clearly on the agenda for many small Pacific nations (Teaero, 2009; Thaman, 2009). Its overall goal is to integrate the values inherent in sustainable development into all aspects of learning to encourage changes in behaviour that allow for a more sustainable and just society for all (UNESCO, 2009). Three pillars of Education for Sustainable Development are identified; namely society, environment, and economy, and an essential dimension and driver of these pillars is identified as culture, which is a way of being, behaving, relating, believing, and acting that people live out through a process of change and exchange with other cultures (Thaman, 2009). From a Pacific perspective, education for sustainable development is education for cultural survival and continuity (Thaman, 2009; Vaioleti, 2011). Thaman (2009) asserts that it is important to hold on to culture especially in terms of resilience strategies. She suggests a total transformation of the way we behave and are educated in the industrial countries and the Pacific which, up to now, have been moving Pacific people and their communities in a direction that is leading to unsustainability.

The Secretary-General of the United Nations, Ban Ki-Moon, has stated that climate change is “the defining issue of our era” (United Nations, 2008). Nowhere is this more the case than in small islands states and coastal areas, home to some of the most vulnerable peoples, an ever-growing majority of the world's population. For the Republic of Kiribati, climate change is already being felt to the extent that urgent attention led by the Office of the President is underway. At the United Nations level, the Republic of Kiribati has involved itself extensively with the many agreements that acknowledge the challenges and problems that Small Island Developing States face in the effort towards achieving sustainable development, including the United Nations Framework Convention on Climate Change, Barbados Program of Action, and the Millennium Development Goals (Office

of Te Beretitenti, Republic of Kiribati, 2010). It is also party to the United Nations Framework Convention on Climate Change (UNFCCC) as well as the Kyoto Protocol.

At the regional level, the Niue Declaration on Climate Change (Pacific Islands Forum, 2008) has never diminished in importance and this was reemphasised at the 2010 and 2011 Forums with intensity. At the 2010 meeting of the Forum in Vanuatu the leaders accepted the need to mainstream climate change into national plans and systems as well as developing appropriate adaptation strategies (Bedford & Hugo, 2011).

The mandate for climate change education is clearly articulated in Article 6 of the UNFCCC which speaks to education, training, and public awareness and access to information in relation to climate change. UNESCO is asked to assist countries to implement activities in the area of education. The UN Decade of Education for Sustainable Development (DESD) (UNESCO, 2009) International Seminar on Climate Change Education also highlight the importance of ensuring appropriate educational mechanisms are in place for addressing climate change.

Kiribati's extreme vulnerability to climate change identifies it as a nation commanding attention (Teaero, 2009). Education, then, is seen as the most suitable vehicle to respond to climate change and its consequences. Mid-way through 2011, the authors led a team of researchers to develop a Climate Change Curriculum Framework (CCCF) for Kiribati which had at its heart, the principles of Education for Sustainable Development (ESD). In partnership with UNESCO (Pacific), the research team mapped the existing curriculum across all the school subjects to assess the extent to which CC-related areas were being taught at schools. Additionally, and where it seemed that CC was not being taught, appropriate points of intervention to have it included in the curriculum were found.

## **Kiribati**

The Republic of Kiribati is comprised of 33 low lying islands spread over four million square kilometres, yet its total land area is only 726 km<sup>2</sup>. The islands are generally small in land size, fragmented, remote, and are mainly formed of limestone bedrock. Most of the land is less than three metres above sea level with the exception of Banaba, a high limestone island which rises to some 78 metres above sea level.

The main administrative centre of Kiribati is South Tarawa which has been challenged by rapid and intensive urbanisation. Professor Richard Bedford, a noted authority on population studies and in geography, informed that the Kiribati 2009 Demographic and Health Survey shows that the total population in mid-2010 was 103,466 (92,533 at the time of the 2005 census) and 50,010 of the total (just under 50%) were living in South Tarawa. Bedford went on to inform that half of the Kiribati population is under the age of 21 and 36% of the total is under the age of 15 years (talanoa, 28 Oct, 2011). The very youthful nature of the population has serious implications for futures planning in a resource constrained environment, especially when an increase in population is predicted (Bedford & Hugo, 2011). These understandings were gained using talanoa; deliberate exchanges designed to obtain authoritative information (for elements of Talanoa Research Methodology, see Vaioleti, 2003, 2006, 2011; Morrison and Vaioleti, 2008).

Population policies to encourage responsible family planning have yet to have substantial effect, and maintaining populations on islands other than Tarawa is also requiring serious consideration. There is also an emerging, unacceptable level of inequity exacerbated by the fact that people with the highest levels of education live in urban areas and in households with high wealth quintiles. One in three people have no education or only some years of primary education (Kiribati Demographic and Health Survey, 2009; Kiribati Climate Change Study Team, 2007)

The impacts of climate change are expected to be severe (Logan, 2009) and, as reported in a World Bank Report, will have serious impacts on coastal land and infrastructure, water resources, agriculture, human health, ecosystems, and fisheries (as cited in Logan, 2009). These impacts are very evident in Tarawa already where the research team for this project observed rising sea level against their low lying lands, the impact of sea acidifica-

tion on their seafood sources, intrusion of sea water into their wells as well as other water supplies and food fields, and increased severity and regularity of natural disasters. These challenges are magnified by physical isolation and lack of financial and other resources.

For Kiribati, rising sea levels through global warming, internal migration from outer islands to Tarawa in search of education and employment, and expansion of human activities associated with population growth threatens the very survival of the Kiribati nation let alone its traditional subsistence economy and traditional knowledge systems. Despite these, more than any other Micronesian country, Kiribati has held on to its traditional values and customs (Teaero, 2009). The 2010 National Framework for Climate Change and Climate Change Adaptation asserts that culture and identity as I-Kiribati is imperative and must be at the forefront of discussions (Office of Te Beretitenti, Republic of Kiribati, 2010).

The intention of the Climate Change Framework was to encourage the use of local culture as well as scientific knowledge in order to preserve and grow their cultural and traditional knowledge so as to build a holistic capability to cope with CC and its challenges while maintaining identity, pride, and integrity.

This framework, then, is a Kiribati scientific and cultural response to the climate change discourses. The framework, therefore, recognises the central role that the community plays in giving effect to such transformation. Cultural values and relationships between people and their lands and seas become the all-encompassing and underpinning driver in our deliberations to the formation of this framework. The work undertaken by Logan (2009, p. 18-19) which notes “the degree to which Kiribati values influence adaptation to climate change” and that “cultural traditions are still very strong and relevant at all levels of governance” reinforces this position.

### **H.O.P.E framework**

The H.O.P.E framework was developed in the Tokyo Declaration of HOPE 2009. In that document, “Holistic,” “Ownership-based,” “Participatory” and “Empowering” were characteristics that have both informed and surfaced from ESD practice. The acronym, H.O.P.E, provides a list of the characteristics; the arrows indicate that it is not just a set of descriptions but an intricate inter-relationship between the characteristics that deepens our ESD practice. It is therefore a framework that advocates as well as guides ESD practice. The structure of H.O.P.E is as below:

Figure 1. *H.O.P.E framework (Adopted from Asia-Pacific Centre for Culture for UNESCO (2009, p. 8))*



There are many ways to link these characteristics. One way Asia Centre for Culture for UNESCO (ACCU) (2009) suggested is thus: the ESD principle of inter-connectedness requires us as curriculum developers to work in a holistic way. While we want to strengthen the cultural elements to increase a sense of ownership, at the same time we also want to increase its academic strength and international relevancy by partnering

with other ESD and CC authorities. UNESCO (Pacific) engaged reviewers worldwide including US, Europe, and others in the Pacific and their reviews were included in the final CCCF. This effort was a contribution to the direction expressed by the President and the leaders of I-Kiribati by preparing the students for careers in the global market as well. To this end, there is much focus on teaching English, preparing young men for the marine industry and women to be nurses and teachers. Anote Tong says that his people will not be classed as refugees but as migrants with skills which are needed by receiving countries. His people will retain their dignity should migration occur (Chapman, 2012).

The following commentary discusses the application of the H.O.P.E elements in the Kiribati CCCF development:

### **H for holistic**

Teaero (2009) says that, for I-Kiribati, the wholeness of a person is based on three significant values encompassed in the traditional blessings *Te mauri* (blessings), *Te raoi* (peace) and *Ao te tabomoa* (prosperity), and that the teaching of appropriate cultural values and their application will help on all matters and aspects of life.

Appropriate CC education and ESD are important transformative agents moving people to adopt behaviours and practises to live full and worthwhile lives (Thaman, 2009). The Kiribati ESD approach for our CCCF needed to be holistic as well as scientific. It was necessary for us to reconceptualise CC in ways that will encourage educators to approach planning and teaching CC in a systemic and holistic way. To allow for ease of planning, teaching and learning the CCCF was broken down to 4 themes as follows:

- Awareness
- Adaptation
- Mitigation and
- Related issues

Awareness was generally about being aware of the changes and the indicators of CC. Adaptation was about the study of how the Kiribati people respond to CC and its symptoms. Mitigation was about how a population reduces the cause of CC, and Related Issues in this sense were to do with the responses to issues brought about by CC. This includes urbanisation, migration due to lack of employment, loss of leadership due to migration of leaders, or the professional classes (young and old) to global markets.

### **O for Ownership**

It was vital that the research team work with the local community to ensure that the curriculum is sourced in their culture. This gave Kiribati ownership of their learning and the goals for their school curriculum. That insight drove the research team to understand from I-Kiribati what concepts define relationships between people and their lands and seas, and other cultural values which should be all-encompassing and underpinning the construction of this framework. Endeavours were made to ensure that local learning concepts, values, and language were included in the framework and the views of the teachers, teacher training institutions, NGOs, and churches were considered to enhance the nation's ownership of the framework. The work undertaken by Logan (2009, pp.18-19) which notes "the degree to which Kiribati values influence adaptation to climate change" and "cultural traditions are still very strong and relevant at all levels of governance" reinforced our hope that I-Kiribati will maintain a strong ownership of the Curriculum Framework the CCCF team was developing.

The Curriculum Development Unit had a strong sense of ownership of the framework. Partnering with other institutional experts locally and internationally was vital too for ensuring that the Framework was at the cutting edge of the CCE field, yet easily delivered and relevant to the educational needs of Kiribati in the 21st century and beyond.

### *P for Partnership*

The writing of the CCCF was reviewed by global ESD and Education for All (EFA) experts, including UNESCO

(Paris ESD team), South Pacific Regional Environmental Programmes (SPREP) (Samoa), and the Universities of Washington and Hawai'i. Within Kiribati, consultations were held with officials and community. The CCCF team used this partnership to develop the CCCF and source support from amongst the local population for the strong cultural elements of the CCCF.

## E for Empowerment

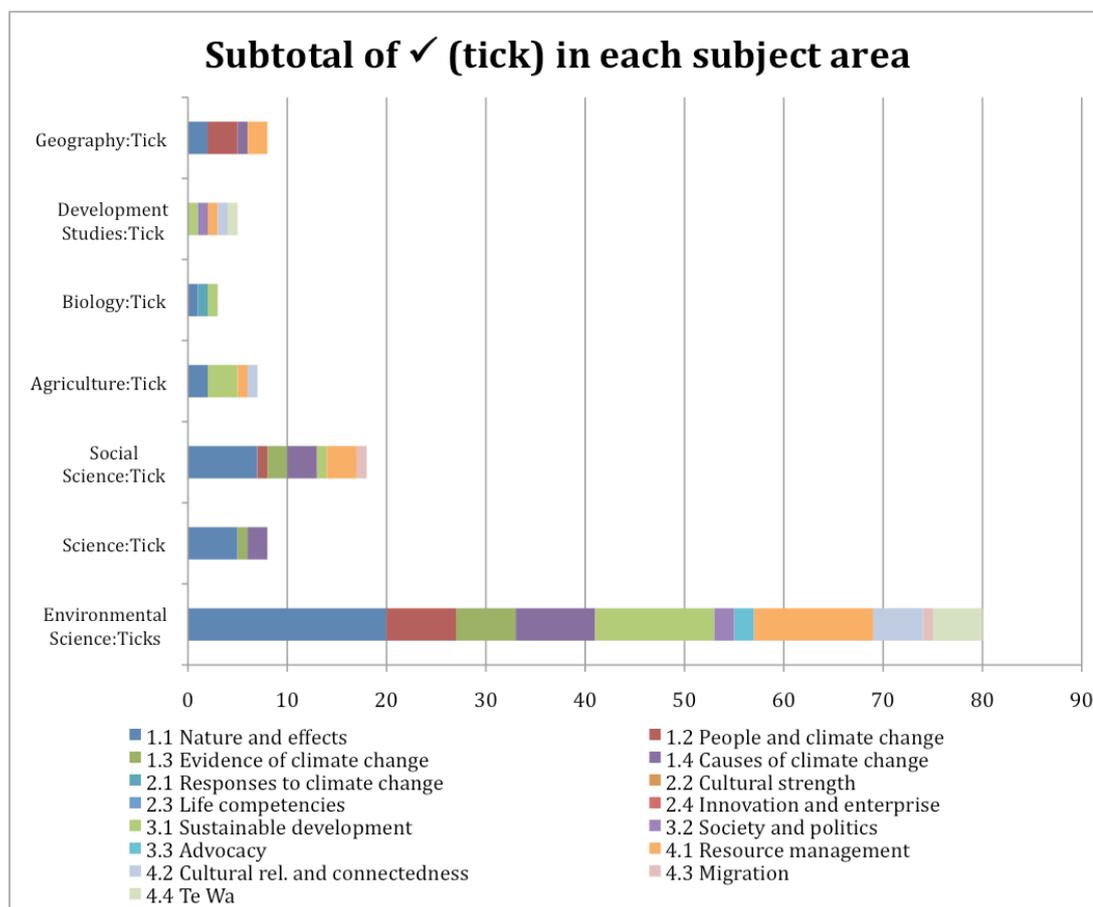
The 2010 National Framework for Climate Change and Climate Change Adaptation asserts that culture and identity as I-Kiribati is imperative and must be at the forefront of discussions (Office of Te Beretitenti, Republic of Kiribati, 2010). Along that line, more than any other Micronesian country, Kiribati has struggled but has held onto its traditional values and customs (Teaero, 2009).

The CCCF, therefore, recognises the central role of culture in any curriculum development; thus, the community played a significant role in our consultation (partnering) which promoted a sense of ownership amongst the MOE, and other principal stakeholders as well as the community. For the CCCF team, it was important, too, to empower those selflessly working on behalf of Kiribati who have performed sustained work to provide some hope for the I-Kiribati – a people who have for centuries suffered, and are likely to continue to suffer, from external waves of man-made destruction to which they contributed very little.

## Mapping of the current curriculum

Upon completing the CCCF it was used to map the curriculum to locate and assess CC-related topic coverage within and across the subjects. There were three ways that the CCCF team used to identify their findings as well to suggest where it may be possible to insert CC topics into each subject. A tick was used to signal that an existing topic was definitely CC-related. The letter 'p' (for possible) indicated a topic that could be a CC-related in the different subjects. An 'o' (for opportunity) was given to a point in a subject that can be an entry point for a CC-related topic. The following represents the accumulated ticks for each existing subject area.

Figure 2. *Distribution of CC theme topics in the current curriculum*

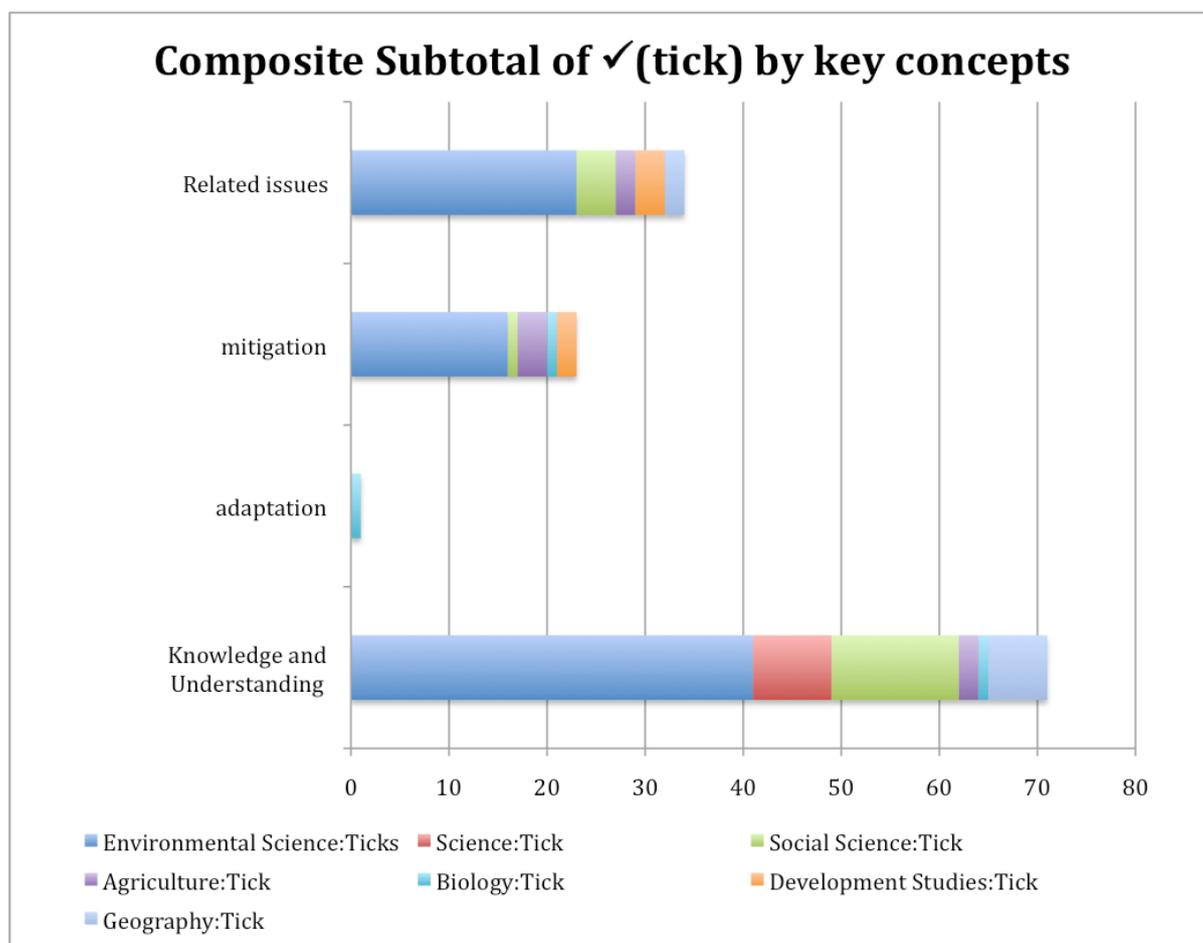


As seen in the Figure above, the CC topics in the current curriculum are heavily weighted to the Environmental sciences. Important subject areas such as Agriculture, Developmental studies, Sciences, and Geography had less than expected CC coverage.

### Distribution of Climate Change topics in the curriculum

Using data from the mapping charts, the current CC-related topics in the curriculum were analysed against the four Climate Change themes of Knowledge and Understanding, Adaptation, Mitigation, and Related issues. The following graph in Figure 3 is the result.

Figure 3. *Distribution of Current Curriculum CC topics in the 4 themes*

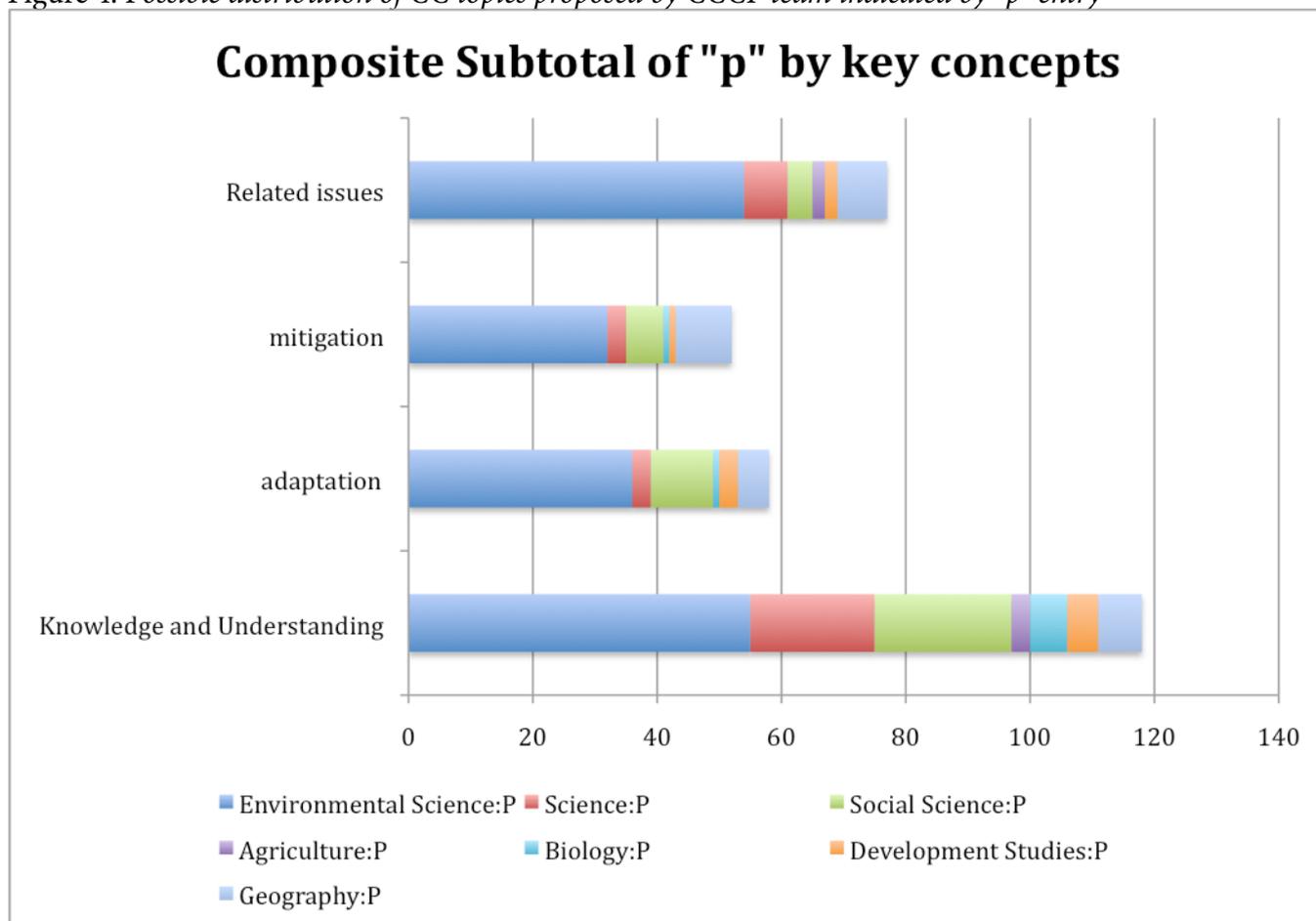


What is very obvious from the above graph is how little attention has been given to Adaptation, an area that is vital for the continuity and sustainability of the communities in Kiribati. It is an area that potentially could provide meaningful employment for the community. There are also related issues that arise from CC such as migration, and re-vitalisation of culture that can lead to improved self-esteem and other socio-political benefits.

### Enhancement of Climate Change focus in the current curriculum

For Climate Change and ESD to be embedded in the existing curriculum, a concerted approach must be applied. It requires a philosophy that aligns the need of the community, planning, curriculum development, and delivery by teachers. In this case, if every point identified as possible CC topic ("p") is actively used as CC topics, it will make the curriculum more contextual, balanced, and holistic. The following graph represents how the Climate Change Key Concepts of Knowledge and Understanding, Adaptation, Mitigation, and Related issues would be reflected in the current curriculum if all points identified as "p" in the current curriculum were actively used as CC related topics.

Figure 4. Possible distribution of CC topics proposed by CCCF team indicated by “p” entry



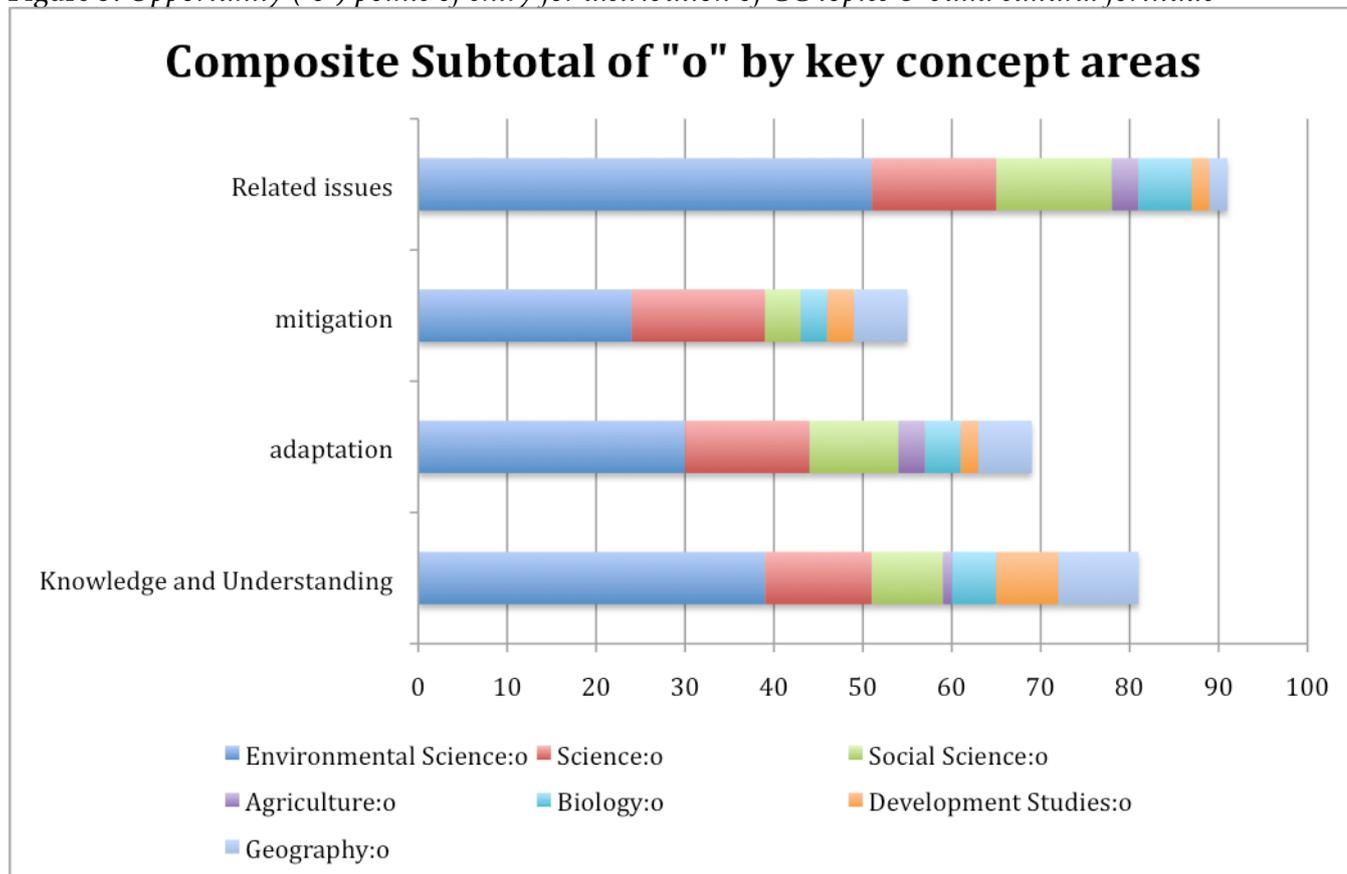
The above graph shows that ensuring that all topics identified with “p” are CC related will dramatically increase the attention given to Related issues, Mitigation, and Adaptation. It is noted that on the President’s website on CC more attention to Adaptation than to Mitigation is preferred for Kiribati (Office of Te Beretitenti, Republic of Kiribati, 2010).

### Possibility for the future of I-Kiribati in other nations

Anticipating that most of the current students may migrate to other nations in the near future, the CCCF team gave the MOE Kiribati a radical option. This option increases the CCE across the 4 themes but mainly in the Related Issues theme to specifically reinforce students’ cultural fortitude to ensure identity and community continuity. A strong element of the many talanoa the CCCF team had with teachers, principals, parents, and young people was around the loss of tradition and culture due to urbanisation and disconnection from home island or village.

Finally, in a radical hope that I-Kiribati will maintain their way of being in most situations in the future, entry points were identified as “o” for opportunity to enter CCE topics into different subjects. These o points of entry were sought by CCCF team to create a CCE system that is spread across the 4 themes to make the curriculum more balanced, more relevant, stronger, and more culturally robust than it currently is. The following graph in Figure 5 is the visual representation of the above effort.

Figure 5. Opportunity ("o") points of entry for distribution of CC topics & build cultural fortitude



The Kiribati President, Anote Tong, says that for many I-Kiribati communities, migration is a strong probability (Chapman, 2012, p. 1). The school curriculum, then, must help prepare the community for international citizenship, and the foundation for such success is in cultural continuity. The contribution of the CCCF team to that radical hope was to bring the I-Kiribati curriculum development story to you the readers. Our challenge to you now is; what is your contribution?

## Conclusion

In 2011, the authors led a team of researchers using the framework of H.O.P.E (2009) to ensure that the process for the construction of CCCF was holistic and owned by the Kiribati community. Partnership was, therefore, an important aspect of the strategy and the processes for designing the framework also empowered the local community.

This CCCF was then used to map the existing Kiribati curriculum to identify the spread of CC-related topics. It was also used to point out how to reinforce adaptation skills, the cultural knowledge and skill of the students in order for them to retain their culture in anticipation of migration to other nations as planned by their leaders (Chapman, 2012).

Climate Change in the early decades of the 20th century is the result of unsustainable exploits by the developed and industrialised nations. It is this that is depriving the I-Kiribati of the land of their ancestors, traditional way of life, and possibly their place in our collective memory. This is their story and one journey of radical hope to use a CCCF to preserve their cultures so that I-Kiribati can continue to live according to their founding values and ways, even in a world they are yet to conceive.

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## The pursuit of teacher quality in Fiji

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### Abstract

This interpretive study of teaching practices explored the perceptions of teachers in a changing landscape in secondary schools in Fiji. Research participants engaged in focus group interviews in which they shared their teaching stories. The study found that teachers were most concerned with practices related to student-centered learning and continuous assessment. It also found that teachers were skilled and knowledgeable in pedagogy, however some of their teaching practices are ineffective due to the overwhelming demands in their teaching lives. It is contended that this situation is the result of inadequate support systems for teacher quality and is perpetuating an impoverished education system in Fiji. Recommendations for teachers to develop adaptive and innovative skills that enable them to meet the changing role of teaching include a range of initiatives related to continuous professional development.

### Introduction

The 21st century education reform agenda pursues 'quality education' focusing on 'quality teachers' and 'quality teaching' in particular, the impact of teachers on learners. 'Teacher quality' is regarded as "encompassing both 'quality teaching' and 'quality teachers' and as such, includes teacher's personal qualities, skills, knowledge and understanding of their classroom practices and importantly their impact on student outcomes" (Naylor & Sayed, 2014, p. 4). According to a review by the World Bank (2012, p.1), "a number of studies have found that teacher effectiveness is one of the most important school-based predictors of student learning".

Furthermore, effective teaching practices in the classroom that meet the varied needs of students and student outcomes are considered an important measure of teacher quality. Various international studies highlight the fact that effective schools are those that have good quality teachers (Naylor & Sayed, 2014).

In Fiji, a Pacific Island country, reforms dominate the 21st century education landscape as this region of the developing world attempts to accelerate socio-economic development. However, Fiji has a history of difficulties in progressing education reform (Tavola, 1991; Narsey, 2012; Veramu, 2008; Nabobo-Baba, 2001). Accordingly, it is argued as the twenty-first century progresses the general population in Fiji continues to face issues of poverty stemming from low levels of education and an impoverished education system (Fiji Teachers Union, 2013; Narsey, 2012; Teasdale, 2005).

In spite of an abundance of research, reports and recommendations on many aspects of the Fijian education system there has been relatively minimal progress throughout its history from the colonial days (Tavola, 1991; Kumar, 2004). Notwithstanding, since the beginning of the 21st century the Government of Fiji through the Ministry of Education has led significant change initiatives reflecting responsiveness to international recognition that teachers and teaching are at the forefront of effective education reform (UNESCO, 2012; Fiji Ministry of Education, 2006).

It is contended that progress in Fiji has also been hindered by the absence of empirical studies which explore the 'everyday' lives of teachers rather than investigating specific predetermined matters. The study reported in this paper aimed to address this deficit in the research literature and adopted a broad interpretive approach to investigating the phenomena of interest. Accordingly, a broad aim of this study was formulated and expressed as "What are the perceptions of secondary teachers in Fiji on contemporary teaching practices?"

## Teacher Quality

There is an abundance of literature on the topic of teacher quality and teaching quality. Whilst some regard teacher quality as comprising the training and attributes of the teacher, others take a more holistic view. This latter view encompasses the training and continuous professional development of the teacher, student outcomes, the working environment in which the teacher operates, learning resources and other support the teacher receives including school management and leadership, and teacher remuneration (Naylor & Sayed, 2014).

Hattie (2009) reviewed over 800 meta-analyses of research into student learning and found that the impact of teacher's level of education on student outcomes is relatively negligible compared to other aspects of the quality of teaching, the strategies used and the quality of teacher-student relationships, all of which had much larger effects (Naylor & Sayed, 2014).

Whilst various studies concur that teacher quality affects student outcomes, they tend to differ in what they consider to be the important aspects of teacher quality that explain the difference in student outcomes. In an analysis by Naylor & Sayed (2014), it is purported that

part of the reason for the different views on what are considered to be the important aspects of teacher quality that explain the difference in student outcomes could be the methodologies or different contexts, or it could be that fundamentally what matters most are teacher classroom practices. (p.7)

The study reported in this paper has adopted the view that the effects of teachers on learning, in particular their teaching practices, has a critical impact on student learning outcomes which in turn affects the capacity of a nation to progress in economic and social reform.

### *The study context*

In Fiji, the key twenty-first century reforms impacting on teaching practices are associated with the new National Curriculum Framework (Fiji Ministry of Education, 2013) and the abolishment of three external examinations. In particular, the introduction of an outcomes-based education system has shifted the curriculum from 'content prescriptions' to an 'outcomes syllabus'. This shift demands a change in pedagogy from teacher-directed learning to student-centred learning. In addition, a shift in the assessment system towards increased internal assessment has required significant transformation of practice.

## Research Method

The study reported in this paper adopted a qualitative approach in data collection, analysis and presentation. A broad framework of grounded theory was used to guide the research (Strauss & Corbin, 1994). In accordance with the grounded theory approach to the analytical process, data gathering and analysis were undertaken simultaneously (Strauss & Corbin, 1990). Data analysis involved reading through the information on the transcripts and identifying major themes, including shared opinions and areas of difference. In particular, general ideas or concepts were sought and used as the basis for making generalisations. Ethics approval was obtained for the study from the University's Human Research Ethics Committee and the Fijian Ministry of Education.

### *Study Participants*

Fiji's population comprises fifty-four percent native (iTaukei) Fijians, thirty-eight percent Indian, and small communities of European, other Pacific Islanders and overseas Chinese (Government of Fiji, 2007). This racial diversity adds both richness and challenges for teachers in Fijian secondary schools (Nabobo-Baba, 2001; Veramu, 2008). A purposive sampling approach was used in selecting participants in order to obtain varied perspectives. In keeping with this notion, the criteria used for selecting the teachers comprised gender, ethnicity, years of teaching experience, highest level of teaching qualification and teaching subject areas. Furthermore, schools from the urban, rural and remote areas of the main populated island of Viti Levu were selected, and 102 teachers from 20 schools were interviewed in focus groups of between four and eight participants (See Table 1).

Table 1. Teacher Participants

Cross Categories	Gender		Ethnicity		Qualification			Yrs of Exp			Total
	M	F	ITaukei	Indian	PG	Degree	Dip/ Cert	<5	<10	>10	
TVET	17	16	15	18	1	20	12	5	11	17	33
Maths/Science	12	18	10	20	2	25	3	2	7	21	30
Language/Arts	9	18	13	14	1	20	6	3	5	19	27
Commerce	7	5	2	10		12			4	8	12
Total	45	57	40	62	4	77	21	10	27	65	102

However, in the comparative analysis of the data there were no significant differences between the perceptions of teachers from different classifications other than the subject teaching area. Thus, the following research findings highlight significant differences in teacher perceptions based only on subject teaching area. Nonetheless, the absence and existence of different perceptions within the different categories has implications for future policy development and practice.

## Findings and discussion

When reporting on their practices, the teachers described their views on a range of issues. Based on an interpretation of an abundance of data, two main themes emerged. Accordingly, the findings focus on “student-centered learning” and participants’ views and experiences of “internal assessment”.

### *Student-Centered Learning*

Student-Centered Learning (SCL) embraces a range of teaching strategies such as group learning, experiential learning and inquiry learning (Johnson & Johnson, 1994; Kumar, 2004). Through the process of sharing, experience and inquiry, students construct much of their understanding on subject matter concepts. This contrasts to the traditional approach of teacher-directed learning where student understanding is mainly constructed by teachers.

All teacher participants in this study reported using some student-centered learning strategies. The teachers described using a range of SCL strategies such as group learning, discovery learning and research activities. The majority of teachers reported group learning as their main SCL teaching practice, and provided numerous examples which demonstrated a correlation with student learning outcomes. Ten percent of teachers (approximately one per school) reported using SCL strategies to promote higher level learning outcomes for students. This understanding is illustrated by the following teacher comment:

We divide them into groups and ask them to dissect a toad. In the dissection of the toad, it’s not only the organs that they identify, but they also learn how the different systems work in the body and they learn to appreciate the need for the different parts to work together in order to have a functioning system. They can then apply this to their life and other learning.

Teachers also reported an understanding and application of other SCL methods, however these were mentioned with less frequency and by less than half the participants. Regardless of the strategy, all teachers in non-TVET subject areas described their main practices in the final two years of secondary school (Forms 6 and 7) as very focused on the external examinations. The teachers claimed that examination results are of paramount importance, in particular in Form 6, since it is regarded as a critical performance measure of schools, and consequently of themselves as teachers.

Accordingly, many teachers reported shifting from SCL strategies to more teacher-directed strategies in these final years of schooling. On this, they described practices such as handing out copious student notes, dictating notes, reading information, and having students memorise, rote-learn and repeat facts. The teachers justified this shift by claims that they were 'under pressure' to deliver a demanding curriculum to these senior years students, and they had limited time to prepare. They further claimed that they did not have the skills to efficiently manage all the demands in their teaching lives. The teachers described their working environment as one where they worked independently and for excessive hours, to the detriment of their health and family lives. They claimed to receive little, if any, support from their school or the Ministry of Education. On the subject of support systems, the teachers made reference to Ministry workshops which they reported were generally conducted during the school holidays in Suva and accordingly were difficult to attend.

The findings indicate that the majority of secondary school teachers in Fiji employ effective SCL teaching practices focused on student learning outcomes in the early years of secondary school. However in the senior years the teachers perceive their practices are constrained by policy related to curriculum, examination results and school performance. Thus, in these senior years teaching practices are reverting to traditional methods of rote-learning, cramming and memorizing for student learning. It is contended that the employment of ineffective teaching practices in the senior years of schooling is limiting progress towards quality education outcomes in Fiji. It is important to note in the analysis that although the majority of teachers reported using sound pedagogical skills, their teaching stories did not reflect adaptive and innovative skills necessary to meet the demands of the changing role of teaching.

### *Internal Assessment*

At the end of 2010, Fiji abolished three national examinations for classes six, eight and form four level. Consequently, from 2011 onwards the concept of internal assessment shifted from being formative in nature to also replacing the role of examinations (Ministry of Education National Heritage Culture & Arts, 2012). At the same time, Classroom Based Assessments (CBA) were introduced to the Internal Assessment system to support Common Assessment Tasks (CAT). Whilst CATs are designed by the Ministry, CBAs are designed, developed and implemented by the teachers.

Internal Assessment (IA) embraces a wide range of activities used in 'assessment for learning' where teachers engage in ongoing assessment of students' learning as they learn. The teacher-participants in this study described using a range of IA tasks, including projects, portfolios, research tasks and practical activities. All teachers, with the exception of TVET teachers, reported that the IA system, and in particular CBA, has an adverse impact on the effectiveness of their teaching practices and subsequently student learning outcomes.

TVET teachers reported a continuous application of IA tasks throughout all years of secondary schooling, including the higher form levels, since this formative assessment contributes to TVET final grades. However teachers in non-TVET subject areas reported a reduction in IA tasks in the final two years of school when external examinations also contributed to final grades.

Nevertheless, all teachers reported that the assessment system required them to undertake an excessive amount of work related to developing CBA tasks, moderation activities, student reports, records and paperwork. The teachers claimed they did not have the skills to efficiently undertake these numerous tasks within the standard working hours. Accordingly, teachers described their main coping mechanism as 'working in the evenings and on weekends' and at the same time noting that this was 'stressful' and 'restricting time with their families'.

At the same time, the teachers described a common practice of sending CBA tasks home as one of their coping mechanisms. They further elaborated on the system which they claimed required all students to pass, describing the situation as follows:

If they don't pass we have to let them keep trying and trying until they do pass. So we send the task home and then their friends or parents or guardians help them so they can pass.

Thus, the internal assessment situation described by the teachers reflected one where they felt overwhelmed and overworked by a demanding assessment system. Accordingly, some assessment strategies are not focused on student learning outcomes and limiting the effectiveness of the IA and the CBA system in Fijian secondary schools.

### **Conclusions, limitations and recommendations**

The findings of this empirical study suggest that existing strategies and systems that support effective teaching practices in Fiji are deficient. Although the teacher participants reported attending workshops and receiving some ad hoc in-service training, they continue to employ teaching practices which, it is contended, are ineffective. It is further contended that although teachers do have skills and knowledge in contemporary pedagogy they do not have the necessary adaptive and innovative skills to meet the changed role of teaching in the 21st century. Such skills include critical thinking and problem solving, communication, collaboration and creativity.

These findings are important for a range of stakeholders, since teaching practices have a critical impact on student learning outcomes, which in turn affect the capacity of a nation to progress economic and social reform. Therefore it is critical that the government, policy makers, teacher educators and school leaders address the situation. In particular, it is recommended that initiatives focus on continuous teacher professional development which has been shown extensively in the research literature to have an important influence on teaching practices (Naylor & Sayed, 2014). Furthermore, it is important to note the absence in the findings of any significant differences between the perceptions of teachers with different levels of teaching qualifications, years of experience, location, ethnicity or gender, suggesting that these groups are homogenous and a one-size-fits-all approach will be suitable in the delivery of this professional development.

There are various models and forms of continuing professional development and training which include in-service training workshops and school-based professional support, including mentoring, and peer learning such as teacher study groups (Naylor & Sayed, 2014). Furthermore, there is currently much interest in collaborative lesson planning (Khan, 2012; Wang & Lu, 2012), co-teaching (Milne, Scantlebury, Blonstein, & Gleason, 2011) and lesson study (Ono & Ferreira, 2010).

However in determining the appropriate strategies for Fiji it is important to note the mixed results of various studies. Glewwe, Hanushek, Humpage & Ravina (2011) surveyed a wide range of studies from developing countries. Most found a positive relationship between in-service teacher training and student outcomes, but the relationship was not strong. In contrast, a review of in-service and ongoing training in the developed world context (Cordingley, Bell, Isham, Evans, & Firth, 2007) found that it generally had a positive effect on student learning and teachers' motivation. It is contended that these mixed results in the investigation of ongoing professional development can be explained by the need for customization. In a 2012 report from McKinsey (Jayaram, Moffit, & Scott, 2012) it was contended that in-person, on-site coaching is the most effective way to deliver advice on classroom practice, and that coaching should be the core of any good professional development program. Similarly, other reviews of effective ongoing professional development (Sayed, 2009; Schwillie, Dembele, & Schubert, 2007) argue that training needs to be tailored to teacher needs, provided in schools and focused on teaching approaches and skills that teachers can use in the classroom.

It is recommended that CPD initiatives which are innovative in Fiji, such as coteaching, lesson study and collaboration, are more likely to have an impact than an extension of the existing strategies. Furthermore, a range of CPD strategies which adopt a blended approach are likely to be most successful in developing sustainable systems.

Whilst the study reported here has established important findings, the scope of the research was limited in several respects. The method used to select the limited number of participants consisted of recruited volunteers. Therefore the results are in no way fully representative of the teacher workforce in Fiji. Nevertheless, recommendations from this study in Fiji can be used to inform other similar developing countries. Additionally, the

study will inform further research into areas of quality teaching such as the correlation of elements of teacher competency with student learning outcomes.

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# **The Teacher Supply Policy and its Implications for Quality Education: Paradigm shift in teacher education, a Fiji experience**

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## **Abstract**

As the world has made gains in basic education, it now turns to look at teacher education in many contexts. While a number of OECD countries face a shortage of teachers, Fiji has recently faced the issue of having too many trained teachers, pointing to issues in teacher supply. It has also been through an incorporation of its teacher training institutions under the banner of the new Fiji National University (FNU). With this change have come some changes which will potentially impact teacher quality and supply. This paper reports on some key findings of concern from a recent comparative analysis of aspects of teacher education before and after the move to incorporate teacher training into the FNU. In light of these findings and concerns the paper puts forward a number of key recommendations for teacher education in Fiji.

## **Introduction**

Teachers are critical in achieving the Millennium Development Goals (MDG) of primary education by the target year of 2015 (Destefano, 2004). Not all countries are faced with the need to increase the number of primary teachers. However in many countries, the supply of teachers is often out of balance with requirement, or demand, for teachers which result with either a shortage or surplus of teachers reflects that there was an era in the past where the best secondary students wanted to become teachers, whereas today the best students who can afford it prefer to enter law, medicine or business schools (UNESCO/ILO; Recommendation concerning the Status of Teachers, 1966). It is only those who cannot afford it or who do not have the required qualifications for other programmes that are interested in becoming teachers.

As the world makes gains in providing quality education for children, the role of teachers becomes increasingly pivotal for achieving, consolidating and sustaining progress (Wright, 2008). However, it is hardly possible to read government policy documents or the research literature without becoming aware of concerns about teacher quality in many Pacific countries. With the gradual attainment of universal primary education, governments are shifting their attention to teacher education. Responding to the increasing demand for teacher education presents serious challenges and major opportunities in the quest for Education For All (EFA), and countries are striving to find policy responses to address these emerging issues (Gannicott, 2009).

This paper identifies a broad set of recommendations that should be given serious consideration to achieve the objectives of the Fiji National University (FNU) which is the main teacher education provider in Fiji. This paper also addresses pertinent issues of teacher training as an important means for sourcing teacher supply in assurance for quality education. However, a particular focus is on the recent trend where the Teachers Colleges were upgraded to the Fiji National University for the training of teachers.

## **The Study**

The last two decades have witnessed rapid change in the landscape of teacher education throughout the world as a consequence of globalisation. This paper provides an overview of relevant issues involved in the management of teacher demand and supply at the Pacific teacher education system, with special focus on the Fiji experience at the FNU. The author undertook research involving comparative analyses of important aspects of the past teacher training curriculum and the current, looking also at the arrangements for determining the compatibility of graduates in adapting to the dynamic teaching and learning environments to which they will be posted in the future. The research further elaborates on the importance of stakeholders' participation in

dimensions of teacher policy that reflect the teacher supply and demand and which ultimately impact upon quality education.

## **The Findings**

The study provided an account of current empirical evidence on certain aspects which impact on the teaching profession: class size, reward structure, working conditions, teacher education, certification procedures, organisation of schools, evaluation systems, structure of labour market, teaching and learning practices. From the study's findings some important concerns about maintaining an adequate supply of good quality teachers emerged. This paper reports on a few of these salient concerns.

The first relates to the demographic profiles of teachers and its impact on teacher supply. It is the case that in a great number of countries the age profile of teachers is skewed towards the older end of the age-range, and signs point to a recent worsening of the situation. In addition, the relative attractiveness of the profession, as far as the salary dimension is concerned, has declined substantially in recent years. Other evidence indicates that, at least in some countries, a substantial share of the teaching workforce does not hold a regular teaching license and the proportion of "out-of-field" teaching assignments is strikingly high in many subject key areas. It also highlights the fact that a teacher shortage is difficult to measure and raises quality as well as quantity concerns.

The investigation carried out in this study resulted in one crucial finding: teacher quality is a critical factor in determining student learning. Therefore, the recruitment and retention of good quality teachers is key to the improvement of school systems (Santiago, 2002). This reality gains even more importance given the widespread belief that several countries in the OECD area suffer from shortages of teachers. As mentioned previously, the age profile of teachers in a great many countries is skewed towards the older end of the age range, and signs point to a recent worsening of the situation. As a consequence, the future teacher supply is likely to be affected, as proportionately more teachers reach retirement in a given year. In light of these trends, the development of further investigation into what could be the best strategies for the management of the demand and supply of teachers seems amply justified.

Given that teacher quality is a critical factor in determining student learning, it is entirely appropriate that the educational authorities in the countries with the greatest difficulties develop strategies to guarantee a sufficient supply of quality teachers. Therefore it is critical to plan the teacher supply for quality assurance. On the other hand, Fiji has experienced a surplus of qualified teachers, which makes teachers compete for limited teaching vacancies annually. In planning for teacher financing, this raises the necessity of focusing on the existing teachers and additional vacancies or posts of responsibility in schools. On one hand this may be desirable since it allows some choices among teachers. However, if the surplus is too large, then another issue arises, and potentially good candidates may choose to avoid teaching, as their employment chances may seem slim. This may lead to an increasing sense of the teaching profession as a last resort, which is also undesirable.

A further issue of importance is salaries and reward structures. It is known that teachers leave the profession for various reasons, and this is known as attrition. In Fiji, the delay of teachers' salary reviews is cited as a common concern which contributes to teachers' performance and productivity and attrition.

Furthermore, class size is of importance to teacher quality. Recently during the shift to FNU the number of teacher trainees has more than doubled, with little expansion of teaching resource facilities and spaces, which results in overcrowding. The number of teacher educators has not increased either, in proportion to the class sizes. Consequently, the lecturers' teaching loads are generally heavy and they are over-stretched, resulting in a compromise in the quality of teacher education as compared to the situation within the former teachers' training colleges. Even when resources are available, the problem that administrators face in improving school quality is knowing what inputs and actions will lead to the results they seek.

The qualifications of staff at teacher training institutions is an issue of importance. The limited number of local teacher training staff qualifications less than doctoral qualifications is a concern. Moreover, with FNU's interest

in maintaining its teaching staff profile, most PhD teacher educators are from India. Consequently the contextual knowledge of local staff is compromised because they do not qualify to hold senior management positions.

The curriculum in place at any teacher training institution is also critical. Since the University arrangement came into play in 2011, the teacher education curriculum has shifted as well. Some of the subjects and programmes which formerly determined the core strength and unique teacher education curriculum for Fiji were omitted. Notably these included the enrichment, cultural and religious programmes; inclusive and enterprise education together with multi-grade teaching. This last of particular concern, because without this learning, graduates fail to successfully address such scenarios when they encounter them in their new postings. The teaching of Physical Education, Music, Art & Craft (PEMAC II) for the year 2 trainees has been overlooked. As a result, the review of teacher education is urgent, if quality education is to be achieved – as recently highlighted by the newly democratically elected Fiji First government, through the Minister for Education, Honorable Dr Mahendra Reddy (Fiji Times, 2014)

### **Recommendations for quality teacher assurance in Fiji**

Given the findings discussed above, if quality teacher education is to be achieved, then the following recommendations need to be considered:

- Change the FNU leadership style of the senior management from micro management to more participatory engagement
- Engage in proper infrastructure planning
- Build facilities specifically conducive for training teachers
- Realign the curriculum to address Fiji's need through the reintroduction of Enrichment Programs
- Recruit trainers educators who are experienced in education, especially teacher training
- Empower the institution to make its own decisions
- Provide well-structured guidelines regarding student teacher selection
- Quality teachers (lecturers) to produce quality output
- Quality curriculum developers to develop units
- Stringent selection criteria with the reintroduction of the interview of selected candidates
- Encourage staff professional development and qualification upgrades
- Introduce salary structures compatible to University standards

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## **Leadership practices: The case of Niuean school leaders**

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### **Abstract**

The small island developing states of the Pacific are experiencing a plethora of educational reform initiatives and this poses tremendous challenges to their education systems. Effective implementation and management of education reforms requires effective leadership practices by school leaders. This article reports on the leadership practices of school leaders in Niuean schools using Leadership Practices Inventory (LPI) developed by Kouzes and Posner (2013). In this preliminary study the LPI questionnaire was employed to examine the leadership practices of school leaders. Participants for the study were teachers of the two schools in Niue. Data were analysed using simple statistical analysis such as mean and standard deviation. The results show strengths, which are encouraging. However, areas needing attention and development in the leadership dimensions include modelling the way, challenging the process, inspiring a shared vision and enabling others to act. Implications of the study's results are also important to other developing contexts within and beyond the Pacific region. For leadership preparation and development to improve, leadership practices are an essential ingredient in school effectiveness.

### **Introduction**

According to Kouzes and Posner (1997), leadership is a skill that can be learned by anyone. They further conclude that leadership is not inherent in the official position but is “a collection of practices and behaviours regardless of the profession” (Kouzes & Posner, 1997, p. 5). Based on more than two decades of extensive research on the skills, behaviours, abilities and practices of effective leaders across many professions around the world, Kouzes and Posner (2007) have identified five dimensions of effective leadership practices: (1) modelling the way; (2) inspiring a shared vision; (3) challenging the process; (4) enabling others to act; and (5) encouraging the heart. This preliminary study focuses on the extent to which Kouzes and Posner's leadership practices were exhibited by the school leaders in Niue, a small island developing states in the Pacific.

### **Leads from the literature**

Kouzes and Posner's (2004) study on exemplary leadership experiences found that leaders who engaged in the five dimensions of exemplary leadership were able to accomplish a lot for their schools. These exemplary practices are advocated as a result of extensive research efforts on contemporary leadership practices (Taylor, Martin, Hutchinson & Jinks, 2007). Kouzes and Posner's leadership model can be used by school leaders to develop their basic leadership skills in each of the five dimensions. In the sections which follow, each of Kouzes and Posner's (2007) five dimensions are discussed in an effort to provide insights into how leadership can help improve schools.

#### *Modelling the Way*

The most important role of school leaders in this era of continuous bombardment by educational reforms is to be good role models. Effective leaders take the opportunity to set good examples, setting the tone through their everyday actions that “demonstrate that they are deeply committed to their beliefs” (Kouzes & Posner, 2008, p. 2). Effective leaders work towards the goal of changing learning and teaching behaviours in the pursuit of achieving excellence. Effective leaders work with their teams to create “a shared sense of purpose and direction” (Leithwood & Riehl, 2003, p. 3).

In a comprehensive case study of fifteen turnaround schools in the USA, Duke (2006) identified that the success of turnaround schools was likely to be associated with principals who modelled good teaching practices

and mentored teachers. This is particularly important for school leaders in small island developing states who are often called upon to perform dual the roles of teaching and leading. Kouzes & Posner (2002, p. 15) aptly stated that “Modelling the way is essentially about earning the right and the respect to lead through direct involvement and action. People first follow the person, then the plan”.

### *Inspiring a Shared Vision*

A good vision is a product that - if it is really powerful; creates a pull. It attracts commitment and energizes people, creates meaning in workers' lives, establishes a standard of excellence, and creates a bridge between present and future.

(Espejo, Schuhmann, Schwaninger, & Bilello, 1996, p. 12)

According to Kouzes and Posner (2007) inspiring a shared vision requires a leader to focus on the future and clearly articulate the vision, thereby gaining the followers' support and belief in the vision. Metaphorically, leadership is like a journey with vision as the destination. One of the goals of leaders is to clarify and change the values and beliefs to obtain maximum support from followers for the success of the organisation.

In relation to schools, principals must provide through their vision, an environment that promotes quality education that can be achieved by having a pleasant school culture. Successful principals create a vision for their schools based on their personal and professional values (Bush & Glover, 2003). They articulate this vision through walk and talk and influence their staff and other stakeholders to share the vision. In this way the whole school is geared towards the achievement of this shared vision. Effective school leaders envision their future and at the same time encourage others in the school to envision where they want to be in future. As Kouzes and Posner (2002) state, “Envisioning the future is a process that begins with passion, feeling, concern, or an inspiration that something is worth doing” (p. 124). Likewise, Deal and Peterson (2007) mention that a school principal must be a visionary leader and develop the capacities for their staff and students to vision for the future.

Such visionary leaders have the ability to effectively communicate the goals and aspirations of the school. The “necessity for exceptional communication skills is especially important” for school leaders, because the success of the vision invariably depends how well it is communicated to the staff, students and other partners in education. As effective leaders, school principals must be data-driven. Smart goals can be set based on past and present data. In order to achieve this, school leaders need to cultivate healthy relationships and partnerships with the wider school community. A key factor is the leader's ability to foster a culture of collaboration and team work towards the shared vision.

### *Challenging the Process*

According to Kouzes and Posner (2007), searching for opportunities to change the status quo is the first step towards challenging the process and making a positive difference. Effective leaders view challenge as an opportunity to learn rather than as a threat (Kouzes & Posner, 2010). Recognising the need to change, effective school leaders always look for ways for their individual staff to change, grow and improve, and take the initiative to encourage others “to search for opportunities to innovate, grow and improve” (Kouzes & Posner, 2008, p. 2).

These leaders challenge the process by experimenting with innovative systems and taking risks to bring about meaningful change. Effective leaders use mistakes as an opportunity to develop themselves. In every experimental process, there are likely to be failures and leaders should take some calculated risk. However, in order to succeed, leaders should learn from their mistakes. Thus this offers school leaders an opportunity to grow professionally. Effective school leaders are also willing to accept criticism, suggestions, and learn from their mistakes.

### *Enabling Others to Act*

Enabling others to act is described as a means of fostering collaboration through teamwork and individual accountability. Research indicates that “leadership is not a solo act, it is a team effort” (Kouzes & Posner, 2007, p. 224). Effective leaders actively facilitate team work to reach their desired destination. Because good leaders do not accomplish their goals alone, it is necessary to build a team that feels capable of taking action in achieving

the shared goal of the organisation. Effective school leaders support and develop the leadership potential of others if they are to succeed in achieving the desired goals. However, empowering people to act like leaders themselves requires an investment in their personal development. Moreover, effective school leaders develop their interpersonal relationships by collaborating with the wider community in order to sustain good working relationships within the team. Equally however, to sustain a good working relationship and a powerful learning community, a leader must distribute the leadership responsibilities. By distributing resources and responsibilities, school leaders build staff confidence. In doing so, they create an atmosphere where staff and the community feel important and valued.

### *Encouraging the Heart*

Encouraging the heart encompasses “supporting individuals and groups to achieve the vision” (Kouzes & Posner, 2007, p. 248). Recognising accomplishments involves focusing on the shared vision and goals and on efforts made to accomplish these shared goals. Effective leaders acknowledge the efforts of their constituents and celebrate any achievements. Recognising the efforts and contributions made by teachers in schools makes them feel capable and motivated to try innovative ways of achieving shared goals. On this account, Hargreaves (2003) conducted a qualitative study on staff emotions concerning teaching and educational change in Ontario Canada. As a result of interviews with 53 secondary school teachers, he concluded that teachers need acknowledgement in order to boost and to motivate them in their professional work. Whilst teachers in all locales need appreciation, more is needed for school teachers in difficult contexts.

Therefore, staff efforts in making innovative contributions that improve the standard of schools need to be valued and rewarded. While rewarding any small success is important in improving organisations, successful leaders of turnaround schools keep their staff focused on the long term goals (Duke, 2006). Recognising the impact of positive feedback on teachers, Whitaker, Whitaker and Lumpa (2000) state that “positive staff morale is essential for any school to be the best it can be” (p. 225). In essence, teachers need opportunities such as positive feedback, rewards and small celebrations to enhance their teaching and learning and positively impact on sustainable quality education.

### **Context and Purpose of the Study**

In terms of location, Niue is located north east of New Zealand. Niue falls in the category of a “small state” with a population of 1,200 (Bacchus, 2008). Niue is a raised atoll with a land area of about 260 square kilometres. Overall, it has few resources and low income. It faces considerable difficulties in providing funds to support improvements in educational services. Fortunately, Niue enjoys a unique constitutional arrangement with New Zealand. It has a common citizenship and also currency. On the basis of its constitutional arrangement, the New Zealand Government through NZAID offers educational support programmes. At the time of the research in 2014, the one primary school with early childhood attached and one secondary school had about 200 and 174 students respectively. In terms of teaching staff, there were 20 in primary and 22 in secondary. Due to its limited resources, Niue depends heavily on development partners for educational and other sector development.

The purpose of this investigation was to ascertain the extent to which Niuean school leaders demonstrate Kouzes and Posner’s (2013) leadership behaviours, as measured by the Leadership Practice Inventory. The central research question which was posed helped guide the study was: To what extent do Niuean school teachers perceive their school leaders to be practicing leadership behaviours as outlined in the Leadership Practices Inventory (Kouzes & Posner, 2013)?

### **Significance of the Study**

In contemporary times, schools in most contexts such as of those in the small island states of the Pacific are participating in many educational reforms. However, without effective leadership at the school level most of these reforms fail. This current study on leadership practices is timely because it will help determine the status of school leadership in one of the small island states of the Pacific. The findings may illuminate useful inter-

ventions, such as workshops and seminars to help improve leadership practices, educational development and quality provision.

This study is a starting point for research on the Kouzes and Posner (2013) model within schools in Pacific Island Countries, beginning in Niue. Also, due to the paucity of studies in the area of school leadership in developing contexts such as in the small island states (Bolanle, 2013; Tirimizi, 2002), the findings of the current study may help generate more interest in local and international researchers to undertake further research on leadership issues in the Pacific. This study could therefore, act as a catalyst for further investigation using both quantitative and qualitative methodologies and provide insight into school leadership issues in the Pacific region. Also, the findings of the study can help inform educational policies and practices related to educational leadership and school leadership practice.

### Research Design and Sample

In this preliminary investigation, due to limited time, quantitative research methodology was considered suitable. Thus, the questionnaire developed by Kouzes and Posner (2013) was employed to measure perceptions of school leaders' behaviour. Data analysis included mean and standard deviation to determine the degree to which Niuean school leaders' engage in leadership practices as per Kouzes and Posner (2013).

The questionnaire consisted of 30 statements associated with leadership behaviours and the teachers were asked to respond to each statement using a ten-point sub-scales: 1 = almost never; 2 = rarely; 3 = seldom; 4 = once in a while; 5 = occasionally; 6 = sometimes; 7 = fairly often; 8 = usually; 9 = very frequently; 10 = almost always. There were a total of six statements for each major leadership dimension. The statements representing each leadership dimension are shown in Table 1.

Table 1. Leadership Practices Inventory

Leadership Dimension	Behavioural Statements
Modelling the way	1, 6, 11, 16, 21 and 26
Inspiring a shared vision	2, 7, 12, 17, 22, and 27
Challenging the process	3, 8, 13, 18, 23, and 28
Enabling others to act	4, 9, 14, 19, 24 and 29
Encouraging the heart	5, 10, 15, 20, 25 and 30

The participants were briefed on the purpose of the study and how the findings could assist the education ministry. The questionnaire was administered in May 2014. Since the lead researcher was on the island for a few days only, arrangements were made with the teachers to give the completed questionnaires to the Director of Education, who then scanned them and sent them to the University of the South Pacific's Laucala campus.

The sample of teachers was from both of the two schools in Niue: the one primary and one secondary school. At total of sixteen teachers (38 %) participated in the study; 12 female and 5 male teachers. Most of these teachers had either a Bachelor degree or a Diploma in Teaching. In terms of teaching experience, most of them had over 10 years of teaching experience either at the primary or secondary school level. With respect to age, most of the teachers in the sample were above 40 years. All the participants in the sample were classroom teachers and did not hold any administrative position in the school.

### Results

Table 2 shows the degree to which school leaders in Niue engage in Kouzes and Posner's (2013) leadership behaviours, as perceived by their teachers.

Table 2. Results of Leadership Practices Inventory Scale

Dimension	Means	Standard Deviation
Challenging the Process	4.2	0.66
Inspiring a Shared Vision	4.0	0.44
Enabling Others to Act	5.0	0.63
Modelling the Way	4.5	0.56
Encouraging the Heart	6.1	0.45
LPI Overall		

With reference to the means of the five leadership dimensions (Table 2), “encouraging the heart” (6.1 = sometimes) was ranked the highest when compared with all other means. This is followed by “enabling others to act” (5.0 = occasionally), “modeling the way” (4.3 = once a while) and “challenging the process” (4.2 = once a while). “Inspiring a shared vision” (4.0 = once a while) had the lowest mean. In terms of variability of scores, “challenging the process” (sd = .66) and “enabling others to act” (sd = .63) leadership dimensions are slightly greater than the other dimensions.

The results show that out of the five leadership dimensions, only one was rated as “sometimes” and the remaining four were rated between “once a while” and “occasionally” by the teachers. Overall, this result illustrates that teachers perceived that their school leaders did not engage much in the leadership behaviours listed in Kouzes and Posner’s (2013) Leadership Practices Inventory.

## Discussion

This study is about the Niuean teachers’ perceptions of the extent to which Kouzes and Posner’s (2007) leadership behaviours were practiced by their school leaders. In terms of the five broad dimensions of the leadership, all received unfavourable ratings, with the exception of the “encouraging the heart” dimension. Since the model illustrates effective leadership practices, the findings are disturbing, as the school leaders appear to have failed to exhibit those essential practices that could have made a positive impact on the schools to achieve better results. However, it is worth noting that the findings presented here are not dissimilar to the findings of studies in other developing contexts such as in Jordan (Abu-Tineh et al., 2009; Al-Khalaileh, 2008) and Thailand (Oumthanom, 2001). The most striking aspect of this research is that “encouraging the heart” also received a favourable rating in a study conducted with factory managers in the four Pacific Rim countries.

A contributing factor towards the modest practice of most of the dimensions of leadership by the Niuean school leaders could be the lack of knowledge and skills on the varying leadership behaviours listed in Kouzes and Posner’s Leadership Model. This may not be the case only in Niue, but also across many of the small island states of the Pacific, due to limited opportunities for professional training on educational leadership and management (Lingam & Lingam, 2014). A similar suggestion was advanced by Abu-Tineh and his colleagues (2009) in the Jordanian study about the school leaders’ limited knowledge and experience. Only recently, some of the small island states of the Pacific such as Solomon Islands, Tonga and Fiji have started to recognise that leadership in schools does matter, and as such, with funding support from donor agencies, are providing some training for school leaders (Lingam & Lingam, 2014).

In terms of each one of the leadership domains, “inspiring a shared vision”, “challenging the process”, “enabling others to act”, and “modeling the way” received a mean of less than 5 (Table 2). The literature on inspiring a shared vision for example, suggests that the low mean in this study should be interpreted as a worrying sign for all who have a vested interest in education and would like to see improvements and developments on all fronts of the school organisation (Espejo et al., 1996). Without a shared vision it is difficult to bring people together as all partners in education hold different visions and go in different directions (Appelbaum & Goransson, 1997).

Likewise, “challenging the process” did not receive a favourable rating (Table 2). As suggested in the literature,

by challenging the process, school leaders can find out new ways of doing things and improve all aspects of the school, such as student performance (Kouzes & Posner, 2007). The low mean implies that the school leaders were basically satisfied with the way things were done and did not take any initiative to challenge any of the processes put in place. With regard to “enabling others to act”, a low mean (Table 2) indicates that the school leaders solely controlled the running of the school and there was not much shared leadership practice in place (Kouzes & Posner, 2007).

As suggested in the literature, leadership is not a solo act but should be shared. When leadership is shared a lot more could be accomplished, and this needs to be encouraged. In the “modeling the way” dimension, the low mean (Table 2) signifies that the school leaders were not seen as good role models. As leaders they need to model good practices in all areas, such as teaching and learning. With reference to “encouraging the heart”, it was ranked the highest (Table 2). This indicates that the teachers perceived their school leaders as engaging well in this aspect of effective leadership (Table 2). In this era of manifold education reforms, the work of teachers has become increasingly challenging, and this warrants school leaders who exhibit behaviour relating to the “encouraging the heart” dimension of effective leadership practice. However, on its own, this dimension may not contribute much towards making things successfully happen in schools. School leaders therefore, must consistently exhibit at an optimum level all categories of effective leadership behaviours (Kouzes & Posner, 2013).

## Conclusion

This study investigated the extent to which Kouzes and Posner’s (2013) categories of leadership behaviour were practiced by the Niuean school leaders. Despite the small number of respondents, there is evidence of unanimity in the perception that, other than “encouraging the heart”, the remaining four leadership dimensions were seldom engaged in by their school leaders. This shows that there is a need for school leaders to improve on the other four dimensions of effective leadership: “challenging the process”, “modelling the way”; “inspiring a shared vision”, and “enabling others to act”. This will then help them to better respond to the demands of educational reforms. Otherwise such lacunae in leadership practices are likely to have a negative effect on overall school effectiveness and improvement.

Given the importance of leadership for school improvement and effectiveness, it is essential that further research in this important area be conducted in other small island Pacific states to determine the gaps in the knowledge and skills and informed decisions could be made to address them. Also, future inquiry could be done to explore the correlation between leadership practices and student achievement, using Kouzes and Posner’s (2013) Leadership Practices Inventory. Embarking on such studies would yield useful information about the potential, or lack of it, in transforming leadership practices. Also, feedback from such a study would inform future training programmes, especially the content of the leadership and management training programme to help school leaders cope better with the ever changing demands of work.

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Re-thinking and Transforming  
Pacific Learning, Teaching, and Teacher Education

*Stream 4*



## Māori and Pacific traditional infant caregiving practices: Voices from the community contribute to an emerging Polynesian model.

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### Abstract

Increasing numbers of Māori and Pacific infants are enrolled in early childhood services in *Aotearoa* New Zealand. This phenomenon is part of a larger societal trend in which mothers return to the workforce within months of their infant's birth. This development has significant impacts on early childhood service provision, particularly in relation to addressing the cultural needs of infants. A significant concern is that Māori and Pacific infants are at risk of cultural deprivation and there is a clear desire for Māori and Pacific infants to be raised in culturally responsive ways; where children's home language, culture and identity are promoted and maintained. Within *Aotearoa* New Zealand, infant caregiving theory is largely based on Western European theory and principles that promote individualism and independence. This article outlines findings from a nationwide *Aotearoa* New Zealand online survey conducted with Māori and Polynesian Pacific 'language nest' teachers around traditional cultural practices for Māori and Polynesian infants. The "language nest" philosophies and programmes promote culture, language and traditional practices. Respondents expressed the desire for autonomy in providing culturally authentic caregiving practices, and frustration with educational theory and government policies that did not align, or ran contrary to, traditional practice. Research findings revealed striking similarities within Māori and Polynesian Pacific traditional cultural values, beliefs and practices, and from this similar base an emerging Polynesian theoretical model of infant caregiving practices is developing. It is hoped that the Polynesian theory of infant caregiving will inform *Aotearoa* New Zealand's early childhood education services and government policy regarding culturally responsive pedagogy for Māori and Polynesian Pacific infants and their families.

### Introduction

This article is based on research conducted with Māori and Polynesian Pacific teachers based in language nests in *Aotearoa*. Participants completed an online survey around several key questions. We sought feedback on traditional caregiving practices that centres were either practicing or that Pacific staff at the centres could recall from their own childhoods. We were keen also to learn of any challenges to implementing traditional caregiving practices with the children or any enablers that assisted the groups. Connections between traditional caregiving practices and principles within these two Polynesian cultural groups have revealed key principles and practices and have provided the impetus to further explore these within the cultural communities. This paper outlines the findings of our research and poses implications for future practice and provocations for consideration.

### Background

A recent nationwide online survey involving Māori and Polynesian Pasifika "language nest" communities showed a real desire to develop a culturally based theoretical framework with a defined set of principles to guide and provide justification for teaching approaches and practice. Findings from this research, and related research and literature, foreground cultural practices, values and linguistic commonalities, and add to the field of Pacific education and the reconceptualising of a Polynesian theory of caring for infants and toddlers in *Aotearoa* / New Zealand.

Another compelling incentive is the increasing number of Māori and Polynesian Pasifika children entering early childhood services. Teachers within both “language nest” and mainstream settings are insufficiently equipped with knowledge and expertise in culturally responsive ways of working with infants and toddlers from these cultural groups.

This body of research work is located historically, contextually and geographically within Oceania, and more specifically within the Polynesian triangle (Ritchie and Ritchie, 1970). Increasingly, historical contexts and legends confirm the connection between Māori and Polynesian peoples (Mafile’o & Walsh- Tapiata, 2007). From this position of connectedness a collaborative research base is being established, which will enable the researchers to harness shared understandings and build alliances and strengthen positions for further development.

## **Research Method**

This chapter draws from a research project conducted with our Māori and Pacific language nest communities in *Aotearoa* / New Zealand in 2013. Kaupapa Māori (Pihama et al., 2004) and Pacific methodologies, such as Talanoa (Halapua, 2005; Latu, 2009) formed a frame for the research process (Anae et al., 2004). Kaupapa can be translated as a strategy, plan or philosophy and Kaupapa Māori locates Māori understandings as central to the research process and outcomes (Pihama et al., 2004) whilst aligning with Pacific values, beliefs, knowledge processes and practices (Taufe’ulungake, 2002). This research fits within a wider Oceanic view which promotes building networks and synergies and collaborations within and across parts of the Pacific as well as strengthening the researchers and the systems that support research within and across Pacific communities (Sanga, 2012). Furthermore strategic alliances and partnerships with Māori and other Indigenous peoples in the Pacific region will allow new indigenous world views and aspirations to unfold (Kidman, 2012).

A comprehensive review of literature was undertaken as part of the initial research process. Themes identified in the literature are included in the discussion. A nationwide online survey was the main data gathering device, enabling staff in language nest settings to access and respond to the study. The research process was enhanced by personal telephone calls and face to face discussions to complement the online survey responses, in keeping with Pacific research guidelines (Anae et al., 2001). Participant communities included Māori, Samoan, Cook Island, Niuean, Tongan, Tokelau and Fijian, The participant responses provided valuable data and comments to enhance our understandings.

## **The contemporary situation of Early Childhood Education in *Aotearoa* /New Zealand**

Increasing numbers of Polynesian children are participating in early childhood services in *Aotearoa*. Between 2010 and 2013 enrolments for Māori children were 92.3% and Pacific children 88.6%. Numbers of enrolments for children aged less than 2 years of age have also risen with an increase of 21% between 2007 and 2013 for this infant and toddler age group (Ministry of Education, 2014). Whilst this demographic continues to grow, little research has been conducted into the implications of this social and educational trend. There is a noticeable gap in the literature on both Polynesian theory and practice for early childhood educational provision (Chu, Glasgow, Rimoni, Hodis and Meyer, 2012) and even less literature on Polynesian perspectives of infant and toddler provision (Rameka & Walker, 2012). Educational services are failing to meet the academic, social and cultural needs of Polynesian learners (ERO, 2010; Chu et al., 2012; Rameka & Walker, 2012).

## **Polynesian theory**

Embarking on this research has led the researchers to discover the commonalities between the traditional infant care practices for Māori and the main Polynesian Pacific groups represented in *Aotearoa* New Zealand. A review of the literature and consultation with the communities of Samoa, Cook Islands, Niue, Tonga and Tokelau within the online survey, reveals that there is a set of Polynesian caregiving practices that are also espoused by Māori in *Aotearoa*. The scope of the “Polynesian triangle” includes the paths travelled by the Polynesian seafarers from Hawaii in the Northern Pacific to Tahiti in the east, Samoa in the West and Easter Island in the

Southern latitudes. A common set of principles and practices around caring for infants have been identified, and these have been retained throughout wider Polynesia (Ikupu & Glover, 2004; Tupuola, 2000; Vini, 2003), with Ritchie and Ritchie (1970) noting that the cultural practices and language of Māori were not lost during their migration to *Aotearoa* / New Zealand (Metge, 1995). This discourse is located within a Polynesian cultural worldview and henceforth will be referred to as emerging Polynesian theory around raising infants and toddlers.

### **Western theoretical paradigms**

Exposure to a Western education system has been a significantly disenfranchising and colonising experience for Māori and communities across the Pacific (Berryman, 2008; Vai'imene, 2003). Education has been framed by a large assortment of Western theories to provide justification for teaching approaches and pedagogy. Most have occurred within timeframes and for particular purposes that have not aligned with Polynesian world views and ways of being. This marginalisation process is evident within the field of infant caregiving practices.

Western perspectives of infants and toddlers are not universal “truths” and there is a tension between those which have been espoused and normalised in mainstream early childhood centres, and traditional cultural practice. Whilst it is not intended to counter Western theory on infant caregiving, this discourse serves to provide another lens to guide practice, and promotes an understanding of Polynesian perspectives so that Polynesian infants will be cared for and educated in culturally and socially responsive ways when attending care and education settings. The prevalent discourse is largely drawn from a Western European model of raising infants and at many points is contradictory and marginalising for Polynesian cultural worldviews.

One such Western model supports a respectful approach to children which encourages independence in infants. Those working with infants have embraced Resources for Infant Educators (RIE) principles motivated by the desire to work respectfully with children in their care (Petrie & Owen, 2005; Dalli, Rockel et al., 2011). “Respect” however can be determined in many ways and should not be privileged by one theoretical or cultural model. Polynesian communities demonstrate many ways of showing respect for infants where a sense of collective identity and belonging is desired (Jenkins, Harte & Ririki, 2011) that may not fit within an RIE philosophical framework.

A further example of the disconnection between Western child development terminology and Polynesian characteristics is identified in relation to ideas about development. A Western model observes children progressing through clearly defined stages of development from infancy; these are birth until twelve to eighteen months, and then on into toddlerhood which occurs between twelve months and three and a half years (Ministry of Education, 1996). Polynesian children’s progress is monitored through a different set of criteria. For example, Piripoho (Rameka & Walker, 2012) describes development in terms of the closeness when babies are held close to the heart or chest of another, as well as the progression of the new born until they are able to sit independently. The term “*Kanakunaku*” describes the period when the child moves from breast feeding to eating solid food. The process of *nakunaku* is mincing or breaking down and this is where food was prepared by the adult, historically chewing the food before feeding the infant (Rameka & Walker, 2012). Children at this time were becoming increasingly mobile and developing verbal communication.

### **Māori and Pacific early childhood education- community voices**

The online survey sought guidance and feedback from teachers and community of the Māori language nest “Kohanga Reo” and Polynesian Pacific language nests including Aōga Amata (Samoan), Te Punanga Reo (Kuki Airani), Akoga Amata (Tokelau Islands). At the outset of the research the centre settings expressed their appreciation of allowing their “voices to be heard”.

The “language nest” movement emerged in the early 1980s in *Aotearoa* / New Zealand. Māori and Pacific communities were increasingly concerned that language, culture and identity were at risk and endangered, and measures were proposed within communities to stem this loss.

These services provided an alternative to mainstream services; they were community based and driven. Over the decades adjustments to governing bodies, management structures and government policy has encroached on the autonomy of the settings to a point where participant teachers expressed frustration at having to “justify to government departments why we do things that are our norm” and that “mono cultural ECE regulations fail to recognise cultural dimensions of ‘Māori’”. Others felt that they were challenged by the Ministry of Education, when they perceived that their service was “more than a preschool” and instead was a service to the whole community – “*noku te whenua, noku te whare*”.

### Online survey research responses

The research with the ‘language nest’ communities reveals a keen desire by such communities to contribute ideas and knowledge, to voice opinions and to partake in theory development. Respondents from the online survey outlined enablers and challenges to implementing an authentic Polynesian programmes for Polynesian infants and toddlers. These challenges are further outlined in the next points:

- **Traditional caregiving practices**

Participants in the survey noted the tensions between what may be considered best practice for caregiving. Caregiving practices within a Polynesian curriculum are viewed as a collective endeavour in which *whanau*, *aiga* or extended family all play a role. Participant statements such as “It’s all about *fanau*” (Niuean community member), and “*Whakawhanaungatanga*” (Māori), assert the importance of family involvement in caring for infants and toddlers “Effective relationships with *whanau* are integral to quality delivery”. Furthermore, *aiga* (family) guidance was central to delivering the principles of *Fa’aloalo* (respect), *tautua* (service) and *alofa* (love).

- **Intergenerational care, including grandparents and elders**

Intergenerational care, often involving grandparents or elders, was highly valued. “We feel reaffirmed by the presence of our Māori elders” and the guidance of the *kaumatua* and elders was held in high regard, to ensure the authenticity of their programme, as noted by the comment; “guidance from our elders, to ensure we are on the right track”. Grandparents and family elders were consulted on traditional caregiving, and teachers actively sought their advice. For example, a teacher approached a grandmother regarding her grandchild’s unsettled sleeping patterns and was informed “My *mokopuna* likes to be wrapped up tightly, held and rocked to sleep...” Within the language nest, the elders with their traditional knowledge and wisdom are considered *taonga* or treasures and *tuakana* (experts) for teachers who are frequently still *teina* (novices) and learning about their culture, language and traditional knowledge.

- **Spirituality**

Spirituality plays a prominent role in the delivery of Polynesian early childhood programmes. Christianity and the role of the church continue to influence the delivery of the early childhood language nest programmes. All Polynesian Pacific respondents discussed the central place of Christian practice in their programmes and ways in which it was woven into their programmes. Infants and toddlers were exposed daily to prayers, hymns and Christian practice. In part this is a legacy of the origins of the language nests which were historically established by the church. Christian philosophy continues to dominate programmes in contemporary Polynesian service provision.

- **Language**

Predictably, the ability of the teachers to speak Polynesian language/s as fluently as a native language speaker was viewed as the most advantageous and valued skill within the language nest. This, coupled with knowledge of authentic traditional cultural practice, were the most sought after skills when recruiting staff members and teachers in these services. This was particularly emphasised by staff in a participating Cook Islands setting, who also asserted that cultural learning occurred between *tuakana* and *teina* and that learning should take place “together, under one roof, without barriers or walls, rather than parcelling them (the infants) off into age groups”. Respondents within a Samoan setting reported the importance of staff “welcoming and greeting children and *aiga* (families) in appropriate Samoan language and that respectful *gagana* (practices) are delivered

with friendliness and respect”.

- **Barriers**

Feedback from these communities reveals a desire to work autonomously and independently, and not be unduly constrained by government policy which is often incongruent with the cultural worldviews of the community. Māori and Pacific community strongly voiced the need for “Government educational policy review to address the incongruence of two cultural worldviews”.

Current mainstream teacher training provision was seen as lacking and not preparing student teacher trainees to working in culturally responsive ways. Participants informed researchers that they had had to unlearn some of the formal training they had received, to be able to work in authentic, cultural ways with infants. A participant felt that in her experience:

Mainstream training is a barrier as it individualises the kaiako (teacher), hence their professional knowledge, professional practice and professional relationships are mono cultural. I speak from experience, for when I came to work in the centre I currently work in (a language nest) I found it difficult as I has become familiar with working as an individual (in a mainstream setting) rather than working in a team. The sharing of expertise was something new for me in my role as *kaiako* (teacher) but not new to me as Māori, thus it was necessary to pull my mainstream *potae* (hat) off and go back to how I was raised.

### **Implications arising from this research**

Māori and Pacific are rapidly growing communities within *Aotearoa* / New Zealand. Within these groups, infants and toddlers entering educational provision continues to increase (Ministry of Education, 2014). This calls for planning and preparation that is based on sound research, and collaboration and close consultation with communities.

It is the right of Polynesian infants and toddlers to be raised in culturally and linguistically responsive communities, to enable them to become enculturated with the traditional practices, values, knowledge and very importantly, the language to ensure that these children will be raised knowing their identity (Glasgow, 2012). Currently however, most Polynesian infants in care and education settings in *Aotearoa* are disadvantaged; they are cared for by teachers who use a predominantly Western theoretical and principled framework in caring for children. Furthermore, infant teachers are constrained by a lack of knowledge of culturally responsive Polynesian caregiving practice and theory.

The wealth of traditional knowledge within the cultural Māori and Pacific language nest communities is invaluable and needs to be foregrounded in developing culturally responsive pedagogy for Polynesian infants. The potential within these culturally located settings requires further investigation and collaboration with Māori and Polynesian Pacific language nest communities. This research has revealed a keen desire by the language nest communities to contribute ideas and knowledge to guide this process, and to enable key theoretical principles around Polynesian traditional infant caregiving to emerge.

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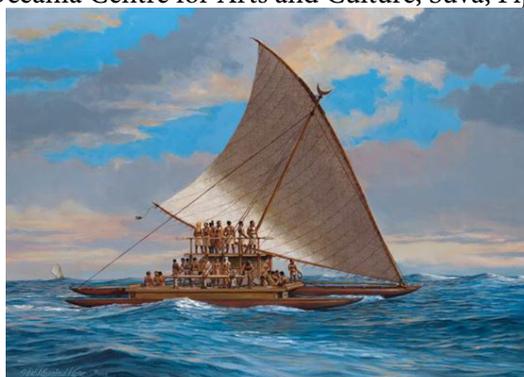
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## The Classroom as a Metaphorical Canoe: Reconceptualising teaching and learning in the Pacific Islands.

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“We are the Ocean, the Ocean is in us”

(Epeli Hau’ofa - Late Pacific Scholar, Philosopher, Writer and founder of the Oceania Centre for Arts and Culture, Suva, Fiji.)



An image of the Kalia (Courtesy of Desmond Baiza, former UU204 Winter School Student, 2014.)

### Introduction

The image of the canoe is presented at the forefront of this paper so that we can visualise the analogy of the classroom as a canoe. The canoe shown here is the Tongan *kalia*. The double-hulled canoe, also exists in other parts of our beloved Oceania; for example, in Fiji as the *drua*, and Samoa as the *alia*, Its design is believed to be a result of cross cultural navigation by Pacific peoples in the past. It may be asked “Why the *kalia*”? Its double hull signifies a level platform where teacher and students can see one another and sail collaboratively. The design gives a significant and harmonious balance. The metaphorical canoe concept was first introduced by Dr. Teresia Teaiwa of Victoria University of Wellington, New Zealand. Teaiwa (2014) focuses on how co-operative learning can be achieved in a Pacific Studies classroom. This paper draws on how such a teaching framework has been successfully adopted into a generic course at the University of the South Pacific (USP), Tonga campus. The findings have been specifically gathered from the experiences and voices of students who had formerly taken the course.

The paper is presented in four parts: the metaphorical canoe concept is explored in more detail (Teaiwa, 2014), a comparison is made with Ausae pedagogy (Sanga, 2009), how the concept reconceptualises teaching and learning with the UU204 context is explained, and consideration is given to how such a framework may be essential for University teachers and Pacific Educators in the region.

### The metaphorical canoe concept

We must realise that the classroom is and has been undoubtedly a colonial space. Hence, there is a great need for a reconceptualised approach that will lead to more productive teaching and learning of students from culturally and experientially diverse backgrounds. According to Teaiwa (2014) “the canoe metaphor is an approach that allows for co-operative learning and it fosters shared responsibility between lecturers and tutors on one hand and students on the other”. In this framework the lecturer or tutor does not claim to have total authority of Pacific indigenous knowledge. The canoe is seen as a Pacific cultural icon signifying learning as a journey where the lecturer, tutors, and crew are in total partnership and full co-operation is needed so that all reach their expected destinations. Similarly, in UU204 a Pacific Worlds course offered to students from diverse cultural and ethnic backgrounds, it would be irrelevant for a teacher or lecturer to know everything about

the 14 member countries and their distinct cultural groups. Therefore, pedagogies used involve exchanges, fieldtrips, travels which both the teachers and the students are engaged in, and throughout which the canoe concept is seen as a backbone. In this sense, the classroom – usually in buildings painted with plain colours, or even metallic, or white or black – needs to be given a more Oceanic flair and flavour. The whole culture of the classroom switches to a journey on a canoe with every member playing a vital role and is, thus, inclusive of both the teacher and his/her students.

### **Comparative framework from the Ausae Pedagogy**

The Ausae Pedagogy, described by Sanga (2009), is a metaphor for teaching and learning based on traditional fishing practices in the Malaita province in the Solomon Islands. In this framework, consideration of cultural values and perspectives is regarded as vital to help students understand better. The pedagogy sees knowledge as an interactive process in various phases. Sanga indicates an alternative means of re-thinking to curriculum developers and educators, through the search for how one comes to understand knowledge as a cultural process. The framework emphasises how knowledge and beliefs shape cultural values and perspectives, and the particular importance of this in conflict situations with Eurocentric curriculums grounded in Eurocentric knowledge, beliefs, and practices. Ninnes (1992) notes that, “success in schooling is viewed with a holistic approach and in the Solomon Island it emphasizes co-operation and interdependence”. Like the Ausae pedagogy, then, the canoe concept urges that teachers need to understand the culture and belief systems of their students and to work collaboratively with them to be able to gain the expected outcomes.

### **Reconceptualising teaching and learning in UU204 [Pacific Worlds]**

In this section, we share the voices of our former Pacific Worlds students at Tonga campus and the perspectives from two current teachers. Feedback presented is from both students who had attempted the online mode during a normal 15-week semester, and those from the four-week intensive Flexi school mode [five from each mode]. The teachers’ perspectives are from the authors: Rosarine Rafai, Laucala campus, and Betty Kamoe-Manuofetoa Tonga campus.

### **Student feedback on the Classroom as a Metaphorical canoe**

- The classroom is likened to a huge canoe where the teacher tells us from the beginning of the class. It makes us imagine...we’re on a real journey together. It is quite a wonderful experience. The roles are made clear...we have a Navigator, usually our campus teacher, and we as the crew members.
- I like the idea of the smaller *vaka* [canoe] groupings as we really learn to work co-operatively. I have made lifelong friends...I have learned from their cultural experiences as well, which have really helped in my learning.
- The fieldtrips really give meaning to the whole learning experience, where we value the other sources of information.
- The teacher’s role is fantastic. The approach is very warm, friendly, and understanding of our different capabilities. There was always respect from her and she listened and took in our ideas and was willing to learn from us too about our cultures and perspectives. We never felt belittled.
- Learning about the Pacific and ourselves was made fun and we grasped the content...easily with the teaching culture used. Communication was open and we felt that there was always mutual understanding. This motivated me more.
- Though meeting with the lecturer was only for once a week, our online communication was still good enough. She always encouraged me never to give up and she supported me with good online coaching of the topics.
- Though there was not much face-to-face because it was online learning, my teacher made the experience great. She would always ensure I was given great materials and tips that allowed me to understand the ideas clearer and submit my papers before the lifelines.
- I like the word lifelines instead of deadlines used in the course, because it meant I still had opportunities after the submission and even if I could not submit on time, I knew I had to talk things through with my

navigator.

## Teacher Perspectives

- The teacher must learn about the context in which he or she will practice, understand key aspects of the students' cultural and experiential background and learning preferences, and explore ways to bring these two factors together in framing and selecting meaningful curriculum content and learning preferences.
- Teachers must attend to diversity within the classroom and in this case the “*vaka*” groups. The classroom is a place for all students; within and across the cultural groups to learn about and share other cultural heritages with other students.
- Teachers should validate cultural knowledge sequenced outside the classroom rather than dismiss it as inconsistent with value perspectives of the predominant group.
- Teachers must be aware of the cultural mismatch that exists within one's classroom.
- Seating arrangements do matter. Having students sit facing one another in a circle or islands represents the united Pacific/Pacific equal status approach which sets the pace for everything that students will do together in the *vaka* groups. It also allows for more interaction and a more harmonious sharing of ideas.
- Identity is to be realised by the teacher who must first know where he/she is from and who he/she is to be able to requests students to do so.
- Language has to be checked. This will be a strong binding factor, with tone and intonation.
- This concept posits that academic achievement is affected by the relation between school practices and values and those found in students' home culture (Hollins, 1996).

## The Canoe Metaphor as a valuable approach for University Teachers and Pacific Educators

The canoe metaphor can be very valuable to University teachers and Pacific Educators as it allows for a more inclusive pedagogy for all students. Based on its interdisciplinary approach the framework may be used in any field of teaching and learning, as the Ausae pedagogy approach has been used by Mathematics educators and teachers (Sanga, 2009). Metaphorically turning the classroom into a canoe represents the teaching of not only content, but strengthens cultural skills and practices that students bring and which enhance their grasp of the key concepts in the lessons taught..

When students better understand who they are, or when taught cultural values using the language that they best understand and with the right attitude and respect from their teachers, those cultural values are enhanced naturally. Classroom management and control is not an issue when roles are clearly but respectfully defined at the beginning of the journey; co-operation and determination to reach the same goals is enhanced by open communication between student and the teacher.

In order for one to become a better or more competent Pacific Educator, the canoe concept may assist in two ways: 1) Intuitive – based on an shared awareness by teacher and students of the culture and the ability of the teacher to draw from the culture to develop a comfortable and supportive learning context and meaningful curricular, content, and pedagogy; 2) Approach – to become a competent practitioner involves deliberate and systematic inquiry and is reflected using specific tools to enhance professional growth. The canoe framework includes the Pacific cultural component of the students' backgrounds, which prove to be paramount in teaching and learning.

## Summary

In conclusion, we acknowledge that our education systems have changed over time and so have the key players: the teachers and students. The colonial classroom is the image of the past. As we move to further empower our students and ourselves as practitioners of knowledge it is important that we reflect deeply on the students we have, and, in doing so, their cultural backgrounds. The concept of the classroom as a metaphorical canoe portrays that learning is a process and not a product which comes to us whole or complete. It provides a neutral space for students and teachers. Like the Ausae pedagogy it sheds light on how curriculum developers and

educators must recognize that cultural methods of learning and learning preferences have a place in Western style teaching and learning expectations. Professor Konai Thaman (1992) reminds us “some answers to our questions regarding teaching and learning could come from our cultures”. The classroom as a metaphorical canoe is a framework that allows this very alternative.

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## A rethinking of educational practices through an appreciative inquiry lens: Pacific learners in New Zealand tertiary education.

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### Abstract

Pacific educational achievement is often framed in terms of under achievement. This approach is somewhat limited and there is more of a need to examine success for Pacific learners. Based on a national study undertaken at five tertiary institutes (polytechnics, universities, and private training establishments) across New Zealand, this paper shows how certain educational practices enhanced the learning of Pacific learners. A major component of the study, Appreciative Inquiry (AI), was used as a more positive and enlightening way of examining 'what works well', rather than what does not work well in an institution. Thus, the paper, within an appreciative inquiry lens focuses on factors that contribute to Pacific learner success, such as: Appreciative Pedagogy, Teaching and Learning Relationships, and Institutional Commitment. It aims to identify, understand and share educational practices in tertiary institutions that are of benefit to Pacific learners. With a cross-institutional approach, this study draws from a representative cross-section of the sector. The study places education for Pacific people as the focus of educational research. In this way, research is more likely to lead to better educational outcomes for Pacific people. It is envisioned that from positive attention, newer insights and learning for staff, students and institutions can result.

### Background and Introduction

The purpose of this study, commissioned by Ako Aotearoa and carried out with the Association of Pacific Staff in Tertiary Education (APSTE), was to identify exemplars of success for Pacific students in tertiary education. Pacific educational achievement is often framed in terms of underachievement. This approach is somewhat limited and there is more of a need to examine success for Pacific learners. Within the tertiary landscape, it is clear that there is considerable activity in academic and student support areas for Pacific students. This project focuses on examples of success and builds on previous research in tertiary education.

The study sought to identify, understand, and share educational practices in tertiary institutions that work best for and benefit Pacific learners. The research gathers clear stories of success that help to inform theory and practice in education by shifting attention from negative and deficit explanations of Pacific student achievement to a focus on exemplars of success. As a result, institutions can be inspired to improve and strengthen their own policy frameworks, actions and practices. The tertiary environment can gain a more in-depth insight into the realities and aspirations of Pacific learners and their communities.

The overarching research question was: What educational practices work best in achieving, sustaining, and reproducing Pacific student success in tertiary education? The sub-questions were:

1. What are the perceptions that tertiary students hold about success in education?
2. What enabling factors contribute significantly to one's success or achievement?
3. How do institutions engage in students' success in education?

Appreciative inquiry (AI) as a philosophy was also used as a lens in dealing with participants, particularly in the framing of questions within the *talanoa*. AI revolves around qualitative, narrative analysis, focusing on stories and their generative potential (Whitney & Trosten-Bloom, 2003). AI focuses on the life-giving forces or goodness in the system that generates a collective positive image of a new and better future, which is meaningful to the active members of that system (Chen, 2003; Norum, Wells, Hoadley, & Geary, 2002).

In all, 119 students and 51 staff from five institutions that represent the three different types of tertiary education provider in New Zealand (two universities, two polytechnics, and one private training establishment) participated in the group *talanoa* sessions. These institutions were selected because of the rates of successful completion in selected programmes and the various innovations in Pacific learner initiatives.

## **Findings**

The field of teaching and learning in tertiary institutions needs to encompass the multiple worlds of the Pacific learner. We start with what is with the learner and value what they bring to education. For Pacific people, learning is not confined to effective teaching strategies; successful learning sits on the pillars of the family, the community, cultural capital, collaborative relationships and institutional support.

In terms of Pacific learning and success, there are three broad domains: (1) appreciative pedagogy; (2) teaching and learning relationships; and (3) institutional commitment. The three domains need to operate in partnership with one another to ensure Pacific learner success.

### *Appreciative pedagogy*

Appreciative pedagogy draws out the strength of talents, skills, relationships, experiences, practices and knowledge of students that have largely been undiscovered in education (Chapman & Giles, 2009; Doveston & Keenaghan, 2006; Giles & Alderson, 2008; Kozik, Cooney, Vinciguerra, Gradel, & Black, 2009; O' Connor & Yballe, 2007). Below are three themes identified through this research.

### *Family support in education*

Families that provided a constant and meaningful level of support to Pacific learners leading to academic success were apparent in the research. Family support in education is manifested through various approaches such as praise, encouragement, giving them time to study, and support towards advancement to higher levels of education. Moreover, families who are increasingly familiar with the notion of tertiary learning increased their own appreciation of the realities of post-secondary school study. This led to further support of Pacific learners. A student commented, "My whānau is my guiding force. They are my support system; they fuel the fire in my belly; they keep it burning." Family support was integral to their educational experiences and many of the students had received regular weekly phone calls, Facebook messages and e-mail messages from family members who were proudly cheering them on.

### *Personal commitment to success*

From this study, success for a Pacific learner was primarily centred on completing their studies. One student said, "Actually, I have a great system of reminding myself what my main drive or goal is. I make sure that the wall in my room is labelled with my goal of 'I will complete my degree' – my friends see this and they have done this in their own hostels or flats."

Being driven to succeed came from personal goals and also from the external motivation of the Pacific determination for a better life. A student shared the following:

Coming from a broken home, seeing that this is not what we want to be, taking the initiative, getting support from our cousins who had come through university to be like them, and doing something for our parents. We do not want to be cleaners, we don't want to be working odd jobs. These are the drivers for me.

Resilience stemmed from learning from prior negative stories of failure. The self-empowerment that arises from external influences is a key motivator in focusing on completing their studies. According to one student, "I don't want to be on any benefit or welfare system. The news tells people that we Pacific people are on the benefit. But that's not true. Not all of us are like that and I am not going to be like that." The students would also like to use tertiary education as an enabling tool to break down stereotypes about Pacific learners being

underachievers.

### ***The learning village at the institution***

The essence of a positive learning experience for Pacific students at any institution can be summed up in one student's description of "the learning village". This was a safe, culturally strengthening place that appreciated the great range of Pacific ethnicities. Within the village, all of the fundamental academic services were evident. The village was a mirror of their own communities, imbued with Pacific values and beliefs. The village is a place where Pacific learners will be confident as *Pacific*. In institutions with a centre for Pacific students, students described it as a home away from home. One student remarked, "If it wasn't for this Centre, we would not have a place to study together and be Pacific people. This Centre helps us to come together and study."

### ***Teaching and learning relationships***

Relationships that are built on solid foundations of shared values are important in leadership development. Some of these values are respect, compassion, humility, honesty, integrity, trustworthiness and reciprocity. These values can be integrated into teaching and learning practices and policies for Pacific students in education. Values build relationships.

### ***Respectful and nurturing relationships between teacher and learner***

Teachers and non-teaching staff who developed respectful and nurturing relationships with students greatly enhanced the students' learning experience. One student commented, "It's funny, huh. Everyone contributes to our success – even the security guards and cleaners. We can ask them questions about places on the campus, if we are lost, for example. They have a vested interest in our development." As a result, expertise was shared and learning from one another occurred.

Teachers who consistently went out of their way to get to know the students and were approachable were highly regarded by students. Pacific learners placed great value on relationships and specifically stated that strong relationships with staff were prominent in their success. One student noted, "I like the learning that takes place especially if you get a lecturer who is passionate and able to connect with students. Once again it helps to have a lecturer whom you can connect with but more importantly, a lecturer that cares about you and your learning."

### ***Recognition and implementation of cultural identity, values and aspirations***

The people, teaching strategies and spaces that facilitated Pacific students' cultural identities, values and languages further contributed to overall student confidence and motivation. Such recognition allowed Pacific students to maintain their sense of Pacific identity and cultural capital. Further, the recognition should be translated into an implementation strategy such as:

- when teachers become interactive and they get students to talk;
- when they make learning personal, fun and real;
- when teachers show balance in their lectures, which can be exploratory, dialogue, debates;
- when they pose issues and look at them from 360 degrees;
- when teachers use metaphor, pictures, simple words, concrete and current examples, or life experiences to clarify ideas for students;
- when teachers repeat the main ideas or important processes that students need to know several times until they are able to grasp them;
- when teachers give different options for assignments other than a paper and pencil test or research paper;
- when teachers provide various avenues for teaching and learning aside from within the four walls of the classroom;
- when teachers try to connect the curriculum and learning to the identities or ethnicities of the students

Teachers who used their own knowledge of Pacific concepts and used them well were instrumental in facilitating the acquisition of knowledge. Students' own knowledge was validated and they were able to use this as a strength and not as a deficiency.

### ***The creation of 'Pacific' physical spaces***

The creation of culturally thoughtful and nurturing teaching spaces is vital to the learning experience of students. This is also vital in providing access to space that supports the students' course of learning outside the formal lecture room. Spaces that nurture specific cultural values such as collectivity, relationships, identity and togetherness are beneficial in enhancing the Pacific student's journey to success. Students described Pacific space as a "space [that] would support our learning. It provides us with a space that nurtures our identity. We can be Pacific. We can eat, share ideas and talk in our own way."

Connections between people are important – particularly in tertiary institutions where Pacific students have come to study as individuals from various Pacific Islands or local communities:

Identifying with others who are like me – Pasifika – means that I have a connection with my community. It motivates me. I feel reaffirmed as a Pasifika person. Maintaining my Tongan identity is important in a big place like this. I am Tongan. I have Tongan values which are important to me, so that I remain as a Tongan while I study.

Pacific students generally come from communal cultures, so it is important to connect them quickly to other people in order to avoid isolation within the university. This is even more critical for postgraduate students because of the nature of independent study.

### *Incorporation of students' learning needs*

What students bring with them in their learning experiences is as vitally important as what the teachers bring to the classroom. Students described a range of deliberate learning strategies to enhance their own learning and for students to support one another. The teacher who could clearly see specific learning strengths of Pacific learners was perceived as a good teacher. Creative and innovative teaching and learning approaches that captured the talents of students was fundamental in teaching practices. Small-sized classes and small group learning in courses were considered essential to the success of learning. Teachers who actively engaged and mentored students outside formal teaching contributed to further learning and student success. According to one teacher, "Interactive strategies in teaching are really important. They engage the student with the material. There is more interest and more discussion. Small group work has been a key factor in my courses – the students' grades increase as they work together."

### *Insistence on high standards*

The teacher who outwardly and constantly instilled high expectations for Pacific learners greatly contributed to Pacific student motivation to do well in their studies. As one teacher shared, "High expectations produce great results in my experience, especially for Pacific. Day one of teaching – I start by saying that we are all going to do well in this course and I keep that message going through my course. I make sure my tutors express it in feedback in assignments too." Ongoing and constant insistence was regarded as meaningful, consistent and genuine to students. Furthermore, expectations need to be transferred into practice and into a context for ensuring Pacific student success is a priority.

### *Opportunities for students to pursue further higher education*

Staff who encouraged and provided opportunities for students to pursue further higher education greatly increased students' outcomes. For a staff member to see their potential and offer encouraging words and the relevant directions was important in students' decisions to further their studies and educational journey.

### *Learning relationships between students*

Students' *talanoa* repeated a key message in their learning. They valued learning relationships with fellow students, and learned from one another in a comfortable way based on their own cultural routine. Cultural associations for students included the groupings of Samoans and Tongans. In these associations, the students located themselves within a culture of motivation to do well. They felt empowered by their cultural links with other students. Learners found ways to facilitate their own learning communities. Teachers who created learning communities among students in their courses also contributed to learner success.

### *Mentorship as a learning relationship*

When people (Pacific and non-Pacific) in the institution become long-term mentors to students, it can create positive outcomes. The mentors have provided learning beyond the text book and facilitated pathways for learner development. In many cases, students have gone on to pursue higher degrees and obtain influential positions. Lives can change for the better and many learners have returned to serve their Pacific communities. Mentoring relationships extend further than academic development. They permeate into pastoral, personal and professional development when mentorship is fully encompassing of Pacific values. A student said, "Mentoring from lecturers is key to my success. Lecturers have this amazing knowledge, which they can share and aid my learning beyond the lecture room."

### *Institutional commitment*

Institutional support varied across the sites but when it was evident, it demonstrated the commitment and responsibility towards Pacific students, their families and the wider community. Institutional support has to be more than a 'tick-box' feature.

### *A firm level of support from the institution*

The level of support received by Pacific students impacted on the extent to which they enjoyed their course of study and valued their programme. It has an influence on how Pacific students perceive their programme and connection to the institution. The degree of integration and inclusion of community support and engagement is connected to the institution's performance and the sincerity of its relationship within and outside the community. According to the research, the presence of a Pasifika education strategy within the institution was highlighted as a significant development for Pacific staff, students and their communities. The strategy was viewed as an approach to lift the aspirations of Pacific people. The support from non-Pacific staff was also recognised as valuable behind the goals and visions for Pacific student success, and hinged on the belief and ownership of the strategy and the goals. A firm level of support from the institution also affects the development (including resources) of programmes and practices for Pacific students and the ability of a support programme to provide a physical space for students.

### *Active institutional engagement with the Pacific community*

Institutions should actively engage and intentionally involve themselves with their Pacific community. They can go out into the communities to *talanoa* on educational matters, to learn about Pacific life, and to support Pacific development. Institutions have an influential role on Pacific success in education. It was about a relationship between the institution and everyone Pacific. When the institution was committed to Pacific development in terms of its resources and overall strategic policy, mood was enhanced and staff felt that they could support students better.

### *Strong and supportive leadership*

Pacific and non-Pacific individuals across the institutions (academic and non-academic) were perceived as leaders when they truly valued and cared for their students. Staff knew of each other's roles across the many departments. Working together meant that they were united in the cause to help Pacific students achieve in their studies. They knew of each other's skills and knowledge and could send students to see a particular staff member if the student required advice or support. Staff in such a situation report: "I love working here. This place reflects me, my Pacific values. I enjoy how the institution promotes success for Pacific people. It's community oriented." It was identified however, that such outstanding leaders should be supported by the institution to provide a succession plan, in case the leader leaves the institution and someone else must take over.

### *Significant Pacific role models*

Positive role models of varying Pacific ethnicities in the institution increased students' motivation to succeed. Seeing academic role models around them had indirect influence on their success. One student remarked, "I don't know if my teacher knows he had an influence on me, but he did, and it is the best influence. He was my role model. One day I will tell him." Similarly, another student recalled, "My Palagi English teacher was awesome. She constantly encouraged me through my years at school. She told me I could make it to university."

## Conclusion

To develop a successful Pacific learner, people need to locate the 'passionate point' for the learner. Each learner is sparked by a different passion. An appreciative pedagogy is about what educators can do to understand the Pacific learner within a wide range of contexts and life influences. At each of the sites, we have been excited by the amazing learners and staff who bring such wonderful skills, talents and knowledge to their studies. There are so many excellent ways of working with Pacific students already, and non-Pacific people can also help to support our students, but these good people need to be supported by their institutions.

Discovering what works well for Pacific learners provides much excitement in terms of knowledge seeking. Ultimately we are all participants in this study, learning together, and hoping that our stories will help to influence the attitudes, practices and policies of educational institutions across New Zealand, so we can support the agenda of changing the situation of Pacific tertiary education. There is further discovery ahead for educators. This research is merely a starting point. We hope other researchers will develop projects that help to transform the education system.

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## Research with children in Oceania: Getting the methodology right

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### Abstract

This paper offers an approach by researchers based in Aotearoa New Zealand, who are engaging as Pālangi and New Zealand Pacific educationalists with the Re-thinking Pacific Education Initiative by Pacific Peoples for Pacific Peoples (RPEIPP). Children and their school communities are essential stakeholders in teaching and teacher education research in Oceania, and we discuss a study carried out with 55 primary schools from three countries: Vanuatu, Solomon Islands, and Kiribati. This project aimed to find a range of views on schooling from key stakeholders in order to inform future policy, planning, and practice in education. We describe the approach we took in the design of appropriate methodology used to collect high quality quantitative and qualitative data from a range of participants: Year 1-3 and Year 4-6 children in the schools, out-of-school children, parents and community members, and other key local and national stakeholders. From this experience we offer a number of areas of decision-making to be considered when designing tools and processes to be used by multi-country teams researching with children in Oceania schools, so that the results can best inform the theory and practice of transformative teacher education. Each of these points is illustrated with small vignettes from our research implementation.

### Introduction

This study was a commissioned research project which aimed to measure six “pillars” of quality schooling, which had been developed through extensive consultation before the current project began:

1. Inclusiveness
2. Effective teaching and learning
3. Health, safety, and protection
4. Gender responsiveness
5. School-community partnerships
6. Effective leadership

These provided the theoretical framework for the study, around which the methodology would be developed. This is a different situation from research contexts in which the theoretical frameworks and methodological approaches are both developed by researchers, such as in postgraduate research projects. Other requirements in the contract for this project included the locations of the study, and the necessity for a focus on children’s perspectives. Some of these aspects were addressed in the tendering process for the project, while others were developed once the contract had been assigned.

In the context of the Re-thinking Pacific Education Initiative by Pacific Peoples for Pacific Peoples (RPEIPP), it was necessary to address our role as a small Pālangi-owned research organisation based in Aotearoa New Zealand. The challenges around cross-cultural research with indigenous people globally have been considered by Hall (2014, p. 377), in the context of her research in Australia:

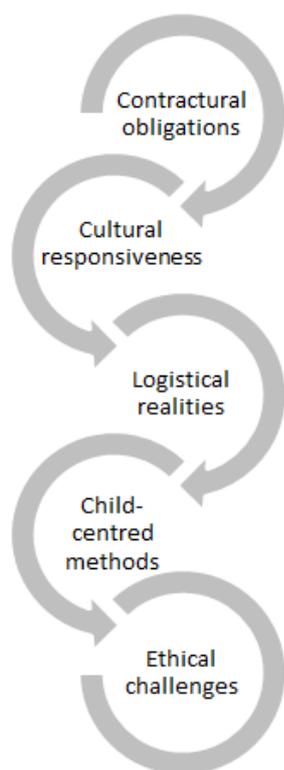
Fortunately we are now living in an era where many Indigenous researchers and academics are speak-

ing back to the Academy and not only naming the impact and damage of past research practices, but also claiming their right to rethink the underpinnings of the research process through an Indigenous lens. This is leading to emerging research paradigms that have at their heart Indigenous ways of knowing, worldviews, values, ethics and methodologies. These paradigms offer researchers and research participants working in a cross-cultural space valuable opportunities to explore how they could do research differently especially around questions of ethics, research design, methodology and dissemination.

Although Hall is referring to the international research context rather than the RPEIPP, her statements reflect the current situation for research in Pacific education as articulated by Pacific leaders such as Taufe'ulungaki (2003) and Helu Thaman (2014).

Figure 1 shows the main areas of decision-making in the methodological design of the project: contractual obligations, cultural responsiveness, logistical realities, child-centred methods, and ethical challenges. Although they are presented in discrete parts here, in practice they interacted with one another in different ways at the various stages of the project. Each of these areas will now be discussed in turn, interwoven with vignettes which illustrate some of the operational challenges we faced in meeting them.

**Figure 1: Areas of decision-making**



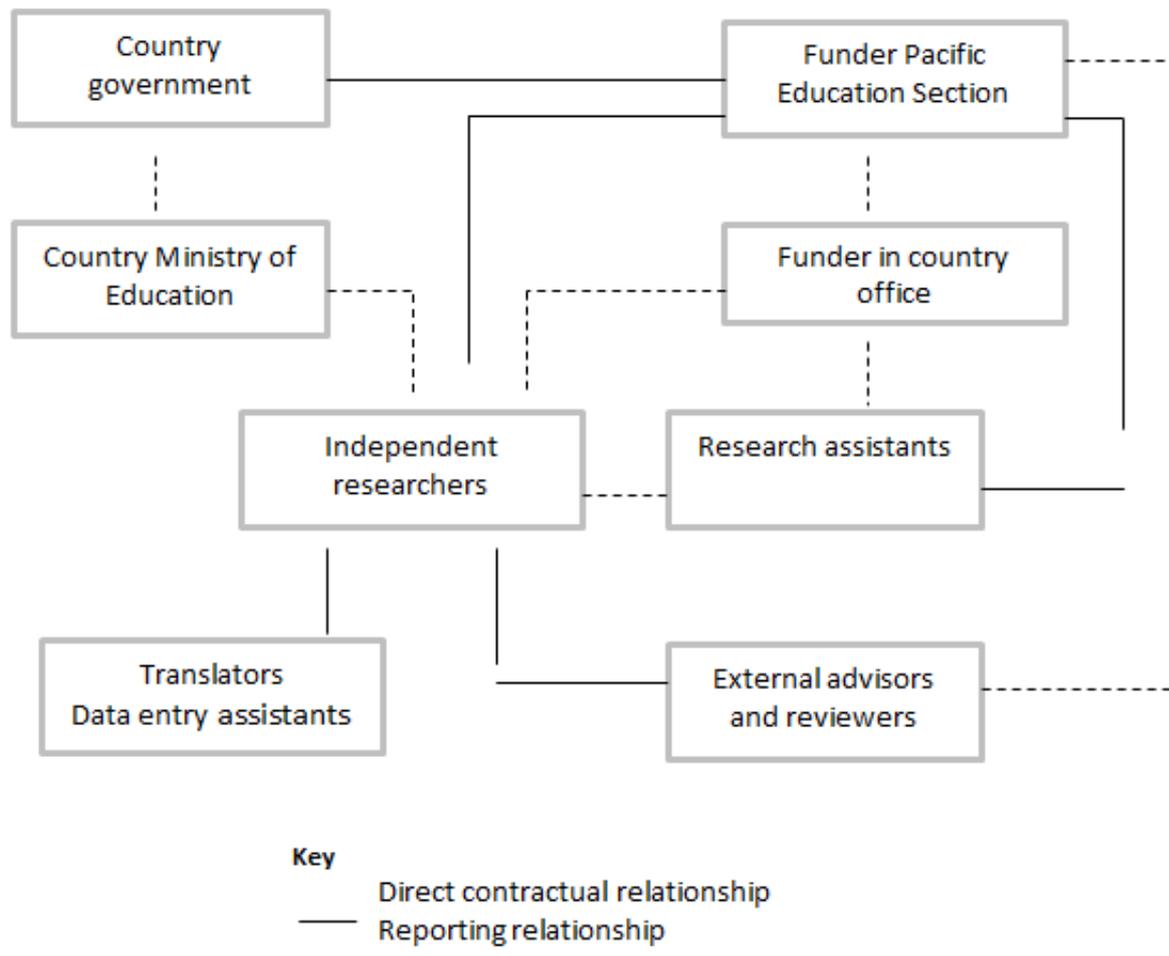
### **Contractual obligations**

The research team of six people has travelled to the main town in an outer province of Vanuatu, and is visiting the provincial education office to authorise and set up the research, as has been required and organised by the funding organisation under the terms of its relationship with the local education ministry. Unfortunately the designated person is ill, and we wait for several days until the meeting can proceed.

Since the research was carried out through a contract with a funding organisation who is also a large donor in the Pacific region, we were representatives of that organisation and needed to operate within its systems and requirements, as well as its relationship with local stakeholders. This was in addition to our own relationships

with them as researchers. Figure 2 shows the formal structure of the relationships, with both the contractual and reporting relationships.

**Figure 2** Formal research structure



During the official welcome by the chiefs in a remote area of Solomon Islands, the research team is informed that the village is preparing an evening programme and the team should make presentations to the assembled villagers. The provincial government representative who is accompanying the group leads with an official talk about education, and is followed by members of the research team responding with personal responses about their childhood and approaches to the education of children.

As visits by outsiders to remote areas appeared to be rare, the boundaries between research and official visits tended to become blurred. However, this seemed to be generally regarded by the school communities we visited as a positive aspect, and the participants often regarded the research visits as an opportunity for dialogue on issues of education for their children.

### Cultural responsiveness

When we arrive at an atoll in Kiribati we need to drive to the end of the island to pay tribute to the island spirit goddess, at her shrine. We are told that the usual tribute consists of cigarettes, but as representatives of an organisation which also has a health mandate we feel this is inappropriate. We negotiate an alternative offering of chocolate drink and tea, which is placed in the shrine by the lead male researcher in the team.

The composition of our research teams was important in ensuring that the methodology was appropriate for the multiple Pacific environments we would be working in. The two main aspects we considered were gender balance and ethnicity; there was a gender balance in all country teams. The need for Pacific people to be involved at all levels of research for the Pacific is an aim of RPPEIP and has been clearly articulated by Pacific educational leaders such as Taufé'ulungaki (2003, p. 35). The lead researchers are pālangi, one of whom has lived in Tonga and Papua New Guinea, and both of whom have worked extensively in Oceania. Our associate researcher is a Sāmoan New Zealander who has also lived and worked in Solomon Islands; he has a chiefly title and brought considerable mana to the project. We have been engaging with the ideas of the RPEIPP for some time (see Smith and Pakau, 2005).

A teacher's accommodation in Vanuatu has been affected by volcanic ash and is not waterproof. We can see that the rain is ruining the few belongings she has. When we leave she presents us with woven mats which we suspect she can ill afford. Although in some contexts accepting gifts as researchers is unethical, we feel we need to acknowledge her generosity and accept her gift.

In each country local research assistants were recruited by the funding organisation in consultation with us. This brought the local knowledge which we relied on to advise us on protocols such as offerings and gifts, although we were all mindful of the myriad different local customs. For each school we visited, the project budget included costs for a shared meal, and we took gifts of laminated maps in recognition of the importance of reciprocity with research participants (albeit largely symbolic and asymmetrical).

In a village in Vanuatu one of the women in our research team is told by the men that the village meeting ground is a sacred area. It is beside the road and she is warned that no women must look at the men as we drive past when leaving the school, otherwise we will be attacked. We follow the instructions and leave safely.

We approached each school community through the local education administration office, but at times it was appropriate to contact the village chief before any other community or school leaders. We invited church, and other community leaders to our meetings and to take part as appropriate. Our local researchers were in pairs of one male and one female, which allowed us to ensure that men and women were interviewed separately by respective men and women researchers wherever possible, reflecting the importance of gender roles in many of the communities we visited.

### **Logistical realities**

One of the Kiribati schools is only accessible by boat across a shallow lagoon. Our local research counterparts order a boat to be sent over at high tide, and we will meet it early in the morning. We walk out for 30 minutes until the water is deep enough for the boat to float with us on board. The crossing takes a couple of hours until the water is again too shallow, and we wade another 20 minutes to shore. After interviewing the children, their teachers, parents and community leaders, we repeat the process to get back to the main part of the atoll in the evening.

For this project we carried out visits to 55 primary schools in six different locations. In Vanuatu, we visited a sample of schools in Tanna (10), Sanma (10), and Penama (10); in the Solomon Islands, we visited a sample of Isabel schools (10); and in Kiribati, we visited all schools in Abemama (4) and South Tarawa (11). In total, we sampled 3,600 children in schools, as well as principals and teachers, community members, out-of-school children, and other stakeholders. The decision to use a sample survey was so that we could explore the situations in as wide a variety of different schools as possible. This would add considerable extra cost and time to the project, but we were aware that previous research projects have tended to focus only on schools within a one-day travel radius from airports, and this meant that the results might not accurately reflect the situations for the many schools in isolated regions of Oceania. By using a random sample survey of schools (or inclusion of all schools in smaller locations), we could ensure that our results would be generalisable to all children in the regions studied.

In the Solomon Islands the access to the schools in our sample is by motor boat in a two-week trip around the perimeter of the island. When some researchers return to the capital town of Honiara, we see on the television news that there has been an earthquake in New Zealand with considerable loss of life. We do not know if the other New Zealander in the research team has friends or family in the quake-affected city, and have no way of contacting him until he reaches an area of cellphone coverage again in a week's time.

The logistics of our research locations meant that the researchers had to commit to travel away from contact. We were hosted in villages and carried our own mosquito nets and solar chargers for the cameras which were used to collect observational data. In the event all villages hosted us generously with one or two hours of electricity, and comfortable accommodation with mosquito nets (although one of the team became seriously ill with malaria on return to New Zealand).

### **Child-centred methods**

Many children in Solomon Islands draw pictures of “paddling”, both as something they like and something they dislike about their school. This reflects the situation for many children in the coastal regions of Solomon Islands who travel to school in canoes, which might be motorised or hand-paddled. They travel either in pairs or groups of children, or with adults, along the open sea, through mangrove swamps, or along rivers.

As it was important to ensure that our research included the perspectives of children, we were keen to ensure that our methods were child-centred, and would be meaningful for children whether they were living in isolated coastal areas of the Solomon Islands, volcanic plains of Vanuatu, or crowded urban atolls in Kiribati. A major complication was that we were working in one of the most linguistically complex areas of the world, and so we needed to minimise any reliance on the interpretation of verbal reports. The initial meetings of the research team with funding representatives focused on the development of tools which would be appropriate for the developmental stages of children. The issues in choice of the best tools in child-centred research have been discussed by a number of researchers (e.g. Adams, 2000; Barker and Weller, 2003; Fargas-Malet et al., 2010). We used a “draw and write” method of graphic elicitation for the Year 1-3 children (Merriman and Guerin, 2006), and a two-page questionnaire for the Year 4-6 group (Bell, 2007). These tools and the findings have been outlined elsewhere (Smith, Haslett, and Lulu-Karae, 2012).

We notice that quite a few of the children in one province of Vanuatu are drawing beautiful butterflies as something they do not like at school. They can not explain this adequately to us, and we are mystified until one of the researchers notices a display of the life cycle of a caterpillar. It becomes clear that the children, who help the adults in their home and school plantation gardens, regard butterflies as a pest. This is seemingly too obvious to the children for them to explain.

We were particularly impressed with the thoughtfulness shown by children of all ages, as we had not known whether they would find the tasks meaningful, and were mindful of previous research findings that children in the Pacific are not usually involved in decision-making (McMurray, 2006, p. 11).

### **Ethical challenges**

It becomes clear in one school that a few children in Year 4-6 are struggling to understand the questionnaire as it is read aloud in Bislama, the lingua franca of Vanuatu. We do not have any teachers in the room while the children are answering the questionnaire (and it is possible that they might not speak the language of all of the children), so we make the decision to ask one of the other children to translate the 43 questions one by one for their classmates, so that all children can participate.

Ethical issues were considered throughout the development of the methodology of the project. Formal ethics

protocols were developed and signed by the research assistants and data entry assistants. Since it is difficult for children in a primary school situation to refrain from taking part in a classroom activity, issues of informed consent were addressed through the design of the tools, by allowing children complete freedom to choose what they drew (Year 1-3), and including a middle choice as well as non-response or “opt-out” choice in the questionnaire (Year 4-6). Although children were randomly assigned to the research group, any children who decided not to join in were not put under any pressure to take part. Asking students to translate for each other might have been considered to be putting undue pressure on those children, but we took that decision in the interests of enabling participation.

Although it is not legally sanctioned, a teacher explains to us that the children in this province of Vanuatu are “hard-headed” and need to be beaten in order to learn. The children’s drawings include several instances of teachers beating the children with sticks, with children crying as a result. We decide to address this finding through the research reporting process, as it appears to be a widespread issue reflecting a need for better student management through teacher development.

The need for re-thinking ethics in Pacific research to allow for the complexities of local ethical systems has been identified by leaders such as Sanga (2014). In our project we were able to develop formal ethical guidelines and protocols with the input from Pacific experts at the start of the project, but then had to be sensitive to issues as they arose in the field through discussion among the research team. This further highlighted the need for diversity among the research team, and although our responses were not always comfortable, we were able to arrive at mutually agreed outcomes.

## Conclusions

Given the resources needed to carry out large-scale research projects in Oceania, it is essential to ensure that the projects provide value for money through the collection of high quality data. Such research is fundamental for the development of new theory, which in turn forms the basis of new and innovative approaches to teaching, learning, and teacher education.

We do not claim that through our approach we were successful in achieving the best methodology for a Pacific educational research project, but we hope that this sharing some of the decision-making processes we carried out as a cross-cultural Pālangi and Pacific team of researchers will be useful for the development of future methodologies for the complex research environment in Oceania.

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# A proposed framework in deconstructing teaching innovations that benefit Pacific learners in New Zealand

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## Abstract

There is a need to transform Pacific education in order to provide quality knowledge that would lead to enhanced practices, appropriate decisions and actions, and better policies for Pacific learning and achievement in education. Though various research projects have been conducted to understand how educational outcomes of Pacific learners in New Zealand might be improved, very little has been framed from an appreciative or strengths-based perspective; few studies focus on teaching innovation and its practice in the secondary education context; research on describing what the innovation looks like in practice and its operations or microscale procedures is limited; and few studies focus on the impact of teaching practices on students, particularly on Pacific learners. To fill the gap, this paper discusses a framework using Activity Theory (AT) guided by Appreciative Inquiry (AI) in deconstructing teaching innovations that benefit Pacific learners. AT conceived learning as a dialectic exchange and change of subject and object through engagement in activity. Its core issue is that the individual-in-context does not merely react to his or her surroundings or community but has the power to act and change his or her actions and therefore to change the surroundings and community. AI focuses on exploring and affirming the best and strengths of people, systems, and their surroundings in a way that is inclusive and positive. Through this framework teaching innovations are explored not only for what this looks like in practice but, more importantly, how the innovation works, why it is effective, and how it affects students. It is anticipated that results will be translated into new approaches to teaching and learning that will be instrumental to students' learning and achievement in education, and eventually will be institutionalised through policy development.

## Introduction

Pacific people are ethnic minorities in New Zealand, and apparently they are part of the lower bracket of the statistics in terms of educational achievement. Pacific people are New Zealand residents belonging to the seven Pacific nations of Samoa, Cook Islands, Tonga, Niue, Fiji, Tokelau, and Tuvalu and representing 6.9 percent of the country's total population (4.4 million) (Statistics New Zealand, 2006). Though grouped under one name, these Island Nations in the South Pacific have diverse cultures, different languages, and various ethnicities, which constitute this population's three most salient features (Fischer, 2002).

In terms of educational performance, 33.2 percent represents Pacific school leavers with a university entrance standard and 27.8 percent corresponds to the tertiary participation rate of Pacific students aged 18 to 24 years old. Of the Pacific students enrolled in tertiary education, 73.2 percent enrolled in their second year but only 43.2 percent of Pacific students were able to complete their qualification within five years (Education Counts, 2013). Despite the Government's plan and efforts to improve the educational progress and academic achievement of Pacific learners, the educational system still fails to deliver equitable outcomes for Pacific peoples (Statistics New Zealand, 2010).

Through the effort and hard work of some schools, teachers, and parents, the educational progress and academic achievement of Pacific students has slightly and steadily improved, such as school leavers with university entrance standard and tertiary participation rate, compared to previous years. However, there is still an increasing academic performance gap between Pacific students and their counterparts. Some Pacific students become easily disengaged with schooling quite early. Most Pacific students still achieve significantly less well

in NCEA (Statistics New Zealand, 2010) and Pacific are over-represented at the lower end of the literacy rating (Telford & May, 2010). There is a need to rethink Pacific education in order for students to attain equal opportunity to learn and achieve in school.

According to Pang (2009) “Equal educational opportunity is highly dependent on the beliefs and abilities of teachers” (p. 55). Effective teachers are essential in increasing and improving learning and achievement of students (Alton-Lee, 2003; Bazylak, 2002; Nye, Konstantopoulos, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005; Rowan, Correnti, & Miller, 2002). Effective teachers are defined as teachers who continuously learn how to develop their teaching practice, how to deliver the curriculum, how to support their needs in teaching a subject, and how to enhance their skills and attitudes through education programmes or professional learning opportunities (Ministry of Education, 2007). Therefore, an indication of an effective teacher is his or her capability to create and implement teaching innovations that would improve student learning and achievement.

But what framework can we use to deconstruct and understand teaching and learning innovations from a positive perspective? The researcher proposes the use of Cultural Historical Activity Theory (CHAT) and Appreciative Inquiry (AI) as two guiding lenses in understanding teaching and learning innovations.

### **Cultural Historical Activity Theory (CHAT)**

Russian psychologists L. S. Vygotsky, A. N. Leont'ev, and A. R. Luria founded the school of cultural historical activity theory in the 1920s and the 1930s. Vygotsky was opposed to mainstream movement psychology that treated organisms and the environment as separate entities. Vygotsky believed that human consciousness and actions have social origins and are mediated by the cultural means of artefacts such as signs, tools, and languages through socialisation and participation in shared activities with other humans (Miettinen, 2005; Vygotskii & Kozulin, 1986). He introduced mediated action as a product of the interaction between subject, tools, and object. The object-oriented action mediated by cultural tools and signs was the unit of analysis (Vygotskii & Cole, 1978). Arbitration of other factors such as social others and relations were not integrated into Vygotsky's basic mediated action triangle (Cole & Engeström, 1993).

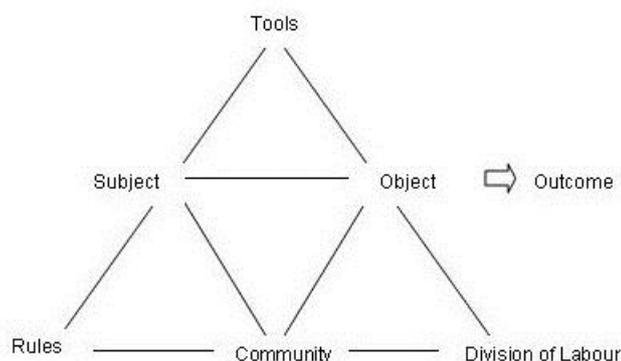
With the death of Vygotsky in 1934 and the changing political atmosphere in Russia that banned all his study on human intelligence and consciousness, his colleagues sought refuge in Kharkov, Ukraine to avoid political pressure and persecution (Wertsch, 1985). As a result, Luria and Leont'ev, together with other local psychologists, shifted the focus of their work to human activity. Activity theory was introduced to examine the interaction between organisms and their environment. This school of thought was the result of the reexamination of Vygotsky's writings and an extension of Rubinshtein's work focusing on the psychological aspect of activity theory making human activity as a unit of analysis (Brushlinskii, 2004; Scribner, 1997).

Part of CHAT's historical progress is the development of activity systems analysis. Described by Yrjö Engeström as the best-kept academic secret, cultural historical activity theory conceived learning as a dialectic exchange and change of subject and object through engagement in activity (Shanahan, 2010). Its core issue is that the individual-in-context does not merely react to his or her surroundings or community but has the power to act and change his or her actions and therefore change the surroundings and community (Roth, 2009). Hence, Engeström developed an activity system model based on Leont'ev's work that further develops the analytical methods within cultural historical activity theory. The activity system consists of the following elements: the subject, object, and outcome of the activity; the tools or mediating artefacts; the division of labour; the rules; and the community (Engeström, 1987; Engeström, Miettinen, & Punamaki-Gitai, 1999)

In Engeström's activity system model shown in Figure 1, the subject pertains to the individual or groups of individuals involved in the activity. The object is the goal or motive of the activity. The tool is the instrument or medium such as social others and artefacts that act as resources for the subject in the activity. The rules are considered to be the limitations or regulations, either formal or informal, that can affect how the activity occurs. The community refers to the social group of the subject while engaged in the activity. The division of labour pertains to how the task is distributed or shared among the community. The outcome of the activity is the end

result of the activity. In fulfilling the activity, the subject not only responds to and changes the environment, but also changes and develops himself.

Figure 1. *Engeström's activity system model*



Rooted within the Cultural Historical Activity Theory (CHAT), activity systems analysis is a methodology that works well with qualitative research in understanding the individual, his or her activity the context, and how these elements affect one another. As an analysis method, it is descriptive by nature and simplifies human activities into representative snapshots or manageable units of analysis based on a complex context (Yamagata-Lynch, 2010). Activity theory as a resource of theorising is suitable for use with case study in examining individuals and activity systems (Shanahan, 2010). According to Stake (2006) the aim of qualitative case study is particularisation and not grand generalisations. Similarly, this is the goal of activity systems analysis; that is, to understand complex human activities through discussion of general findings particularly within the cases being examined.

There are criticisms of activity theory and activity systems analysis. Yamagata-Lynch (2010) summed up three issues relating to the “comprehensiveness of activity theory as a theoretical framework, the complexities involved in understanding and conducting activity systems analysis, and the problems associated with using human activity as a unit of analysis in research” (p. 27). Critics such as (Toomela, 2000, 2008) argued that activity theory as framework is inadequate because it focuses only on observable activities within cultural settings disregarding human cognitive processes. However, the work Roth, Radford, and LaCroix (2012) emphasised the “recognition of subject, object, community, material and semiotic tools, and other features of cultural practice as constitutive moments of activity” (p. 1). This echoes with the activity systems analysis of Engeström that captures not just the observable material tools or activities but also semiotic or psychological tools like signs and symbols.

Another issue related to CHAT and activity systems analysis is the level of difficulty that makes it hard for ordinary readers to follow. Nardi (1996) mentioned that it's hard to publish about the CHAT framework because of the complexities involved as described by the publisher. However, such complexities give way to opportunities for researchers to investigate rich real human interactions and to thoroughly identify and describe the elements involved in the activity systems and give meaning to it. The success of such investigation depends on the clarity, trustworthiness, and engagement of the researcher.

Human activity is dynamic, versatile, and complex. It is “endlessly multifaceted, mobile, and rich in variations of content and form” (Engeström, 1999, p. 20). However, through activity systems analysis, real-world complex situations are unpacked and understood through particularisation and manageable units of activities shared by individuals or groups of individuals.

### **Appreciative Inquiry (AI)**

In the 1980s, David Cooperrider and his mentor, Suresh Srivastva, developed the Appreciative Inquiry (AI) model to create an organisational assessment that focused on strengths or positive-based approach (Reed, Pearson, Douglas, Swinburne, & Wilding, 2002) so moving away from traditional deficit-based thinking (Lord,

2005). Cooperrider and Whitney (2005) state that AI is the:

... cooperative, co evolutionary search for the best in people, their organizations, and the world around them. It involves systematic discovery of what gives life to an organization or a community when it is most effective and most capable in economic, ecological, and human terms. (p. 8)

Hence, AI focuses on the life-giving forces or goodness in the system (Chen, 2003; Norum, Wells, Hoadley, & Geary, 2002), qualitative narrative analysis of stories and their generative potential (Whitney & Trosten-Bloom, 2003), asset-based language, and the concept of “appreciative eye” (Gergen, 1999) that results to a collective positive image of a new and better future, which is meaningful to the individual or community. AI is a shift from deficit-based language into asset-based language.

However, AI has its share of censure (Van der Haar & Hosking, 2004). Some criticisms were revealed in the study of Bushe and Khamisa (2004), which evaluated the effectiveness of AI in achieving change in social systems by examining 20 published case studies using the AI framework. Only 35 percent of the cases studied were identified as result of transformational change. Patton (2003) argued that AI puts too much emphasis on the positive and does not directly address the problems, weaknesses, or things that are going wrong. Pratt (2002) added that recognition should also be bestowed on “the need to honour the multiple and undivided realities of human experience in organisations” (p. 119). Rogers and Fraser (2003) questioned whether AI encourages “unrealistic and dysfunctional perceptions, attitudes and behaviour” (p. 77).

In AI’s defense Coghlan, Preskill, and Catsambas (2003) stated that AI addresses the problem or issue but from a different angle or perspective, concentrating not on the problem *per se* but its surrounding strengths and successes. Similarly, Whitney and Trosten-Bloom (2003) affirmed the idea that AI recognises the conflict, issue, or problem as lived experiences but never uses them as the basis of analysis and action.

Primarily an organisational development (OD) strategy that that is inclusive and positive and is focused on exploring and affirming the best and strengths of people, systems, and their surroundings (Cooperrider & Whitney, 2005), AI is also becoming recognised as a social research method (Reed, 2007). Reed (2007) argued that AI has the “potential to contribute to research-derived knowledge” (p. 48) particularly when connected to research models such as critical theory and case study methodology widely used in education.

## Discussion

CHAT has been used as a research framework and a research methodology through the development of activity systems analysis, which is attributed to the second generation of Activity Theory. CHAT has been applied to research of different fields such as information and communication technology, student welfare services, pedagogic practices, teacher education, educational leadership, and other socio-cultural research contexts including human experiences. As a research methodology within CHAT, activity systems analysis has been applied to inform research practice (Yamagata-Lynch, 2007), to critique other research design (Roth, 2005), to evaluate educational programmes and innovations (Sezen-Barrie, Tran, McDonald, & Kelly, 2014), to analyse educational and classroom research (Mosvold & Bjuland, 2011), to create CHAT inspired research frameworks (Foot, 2014), and to develop theoretical amalgam (Darwin, 2011; Wells, 2011).

On the other hand, AI is an alternative approach in reframing the way people think and see their surroundings or condition. It is a discourse on looking beyond the problem and seeing the reality through a positive manner or inquiry. AI’s flexible framework allows it to be moulded according to the needs and desires of a system or organization (Whitney & Trosten-Bloom, 2003). From its early beginnings as a tool for organisational evaluation, AI has now evolved into a theoretical research perspective or design, a research method, and a world view (Calabrese, Hummel, & San Martin, 2007). A number of desired outcomes have been facilitated through AI like in education, government, community, personal growth, personal relationship and even parenting (Conklin, 2009). Martin (2002) believed that helping a person or community from a deficit perspective will disempower and devalue the person or community, hence the AI approach.

Therefore, the amalgamation of CHAT and AI as a theoretical framework serves as an appropriate lens in understanding teaching and learning innovations as suggested by this article. This is because CHAT provides the framework and methodology that can deconstruct important aspects of an activity being investigated through activity system analysis, while AI gives a new frame for looking at the activity that moves away from a deficit perspective – which most Pacific education research in New Zealand is based on – to an appreciative or strengths-based approach. Using this framework, educational practices that work, particularly for the Pacific students, can be evaluated, reaffirmed, improved, and used as models to promote learning and increase achievement.

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## Situating Peace (Nowe) Education in Local Realities and Practices: Case study of Temotu, Nendo, Solomon Islands

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### Abstract

Peace is often difficult to imagine, but this paper puts the process in a global, historical and local context that helps us to see what might be possible. Education for peace and development that characterize discussions about the Solomon Islands immediate past, present and future prospects are complex and interrelated. In order to understand how peace can be achieved in conflict and post-conflict contexts, it is necessary to understand the theoretical landscape within which the integration of peace education into school curriculum sits. It is appropriate for peace education to draw on such a longstanding history because conflict, war and violence have persisted throughout the entire existence of the human race. Building on these orientations, this paper strongly supports the integration of indigenous-based peace practices and perspectives into the curriculum. The diversity within cultures affords an opportunity to understand school curricula as culturally situated. Through the analysis, the concept of peace is understood as the basis upon which a curriculum is constructed. The study demonstrates that a classroom peace curriculum can be culturally relevant if it is guided by a clear concept of peace. In *Temotu Nendo*, the conceptualization of peace as *nowe* easily lends itself as a framework upon which the development and teaching of peace can be developed. This paper is based on the findings of my doctoral research on the topic the role of education in peacebuilding in Solomon Islands.

### Peace Education: Setting the Context

To lay the foundation, the concept of peace education is defined within divergent contexts. For some researchers, peace education is primarily a matter of changing mindsets with the purpose of promoting understanding, respect and tolerance toward one's enemies (Deutsch, 1994; Oppenheimer, Bar-Tal, & Raviv, 1999). The lack of an integrated approach to peace education has necessitated the theorization of the Integrated Theory of Peace (ITP) and the dissemination of the Integrated Theory of Peace Education (ITPE) (Danesh, 2006).

There is a common core to peace education despite these divergent meanings and approaches. In the words of Salomon (2002) the common core of peace education includes violence prevention, multicultural understanding, tolerance towards enemies and promotion of dignity and equality. These key elements add clarity to what really constitutes peace education in any context but, as Salomon stressed, not all peace education programmes are equal and able to be transferred from one country to another. Harris (2002) created a scenario for peace education consisting of five key areas: human rights education, environmental education, international education, conflict resolution education and development education.

### Nowe: The origin of peace

Within a cultural context peace has different connotations in which peace is practised. Galtung (1969) distinguished peace as inner and outer peace. An inner peace is a state of being accommodating reverence for others, while outer peace relates to environment, the culture and other external interrelationships. These two spheres incorporate different meanings and concepts about peace. Galtung (1969) further defines peace within the parameter of positive and negative peace. He understands negative peace as the cessation of violence and positive peace as establishing standards for justice, human rights and sustainable development in communities.

So what is peace in the Solomon Islands culture? In the *Natgu* language on *Temotu Nendo* (Santa Cruz) in the

eastern Solomon Islands, peace is termed as *nowe* which connotes a calm sea or still crystal water. This implies that calmness of the heart embraces interaction with open arms in the community. Hence, when there is any conflict it must be resolved so that an atmosphere of calmness encloses the community again. This concept was derived from the relationship between the sea and any natural disasters such as a tsunami. A tsunami does not trouble the sea for a very long period but erupts in a very brief moment and then the sea returns to its normal state of calmness. It is this conceptualization that enables *Temotu Nendo* culture to view conflict and violence as a brief social disaster that has to be dealt with promptly so that the calmness of the community is not disturbed. *Nowe*, as the fabric of the Solomon Islands peace education curriculum, has the potential to address ethnic hatred, environmental destruction, interpersonal conflict and structural violence.

The origin of peace in *Temotu Nendo* has a lengthy history. According to the legendary history that has been passed on through generations, *Temotu Nendo* descendents originated from two tribes called *noubu* and *noubelbla*. *Nou* means tribe or clan while *bu* and *bebla* are names of fish. It is believed that when the *bu* and *bebla* were washed ashore they were transformed into human beings. The *bu* became a man and the *bebla* turned into a woman. They married and their children populated the island. When the *bu* was transformed into a man, he had a war club on his shoulder and the woman *bebla* had a *tibir* (climbing robe) on her head. The war club signifies that every citizen of the island should respect their culture. Failure to abide by the cultural norms could result in a tribal war.

This instils fear of cultural norms and fear of cultural norms regulates the citizens' behaviour and their everyday living in the community. It also signifies that men are in charge of protecting their tribe and are at the forefront in tribal wars. The *tibir* speaks of provision. *Temotu Nendo* people depend very much on fruit trees as staple food and women are adept at climbing fruit trees to feed their families. Because women's role is largely to provide for the family, the *Temotu Nendo* culture treats women with dignified respect. This treatment is based on the belief that if men are killed in tribal wars, women must shoulder the social responsibility of taking care of the children.

### **Conflict and peace through *Temotu Nendo* cultural lens**

The most common cause of conflict in *Temotu Nendo* is dispute over land. As with many Melanesian societies, *Nendo* people value land and therefore to relinquish their land for development has presented a major problem. Almost all the land on the island is in customary-ownership and large-scale resource development is often made difficult by this land tenure system. It does not mean that *Nendo* islanders do not want land-based development on their customary land, but to them, the economic value of land as a commodity has no place in their traditional value of land. Traditionally, land is of great significance and indeed the most valuable resource. Its religious and traditional significance makes it the most highly valued heritage of the whole community. Land is not individually owned but is usually owned by the clan or tribe.

Similarly, land disputes were fuelled by manipulative practices. In this generation, many *Nendo* islanders have lost the ancestral boundaries to their land. This has become the centre of conflict and traditional politics. Traditional elders frequently lay claim to land boundaries which can be verified by their knowledge of oral traditions and legitimate ownership of different portions of the land on the island. However, when traditional politics becomes the main player, oral traditions can be manipulated to legitimise ownership of land.

The second common source of conflict is the marriage arrangements. *Temotu Nendo* has a culture of arranged marriage. However, this practice has been violated by the younger generation. Today, the arrangement for marriage comes after a love relationship has been established between a boy and a girl through *na kwami nanga olva* (escaping with a girl). It is a very serious issue in *Temotu Nendo* culture for a boy to fall in love with a girl without paying the bride price and in many cases this has resulted in violent conflict. This is because the culture values the girl as a form of traditional investment. The more daughters in the family the more bride prices will come to that family. The bride price is currently valued in *Temotu Nendo* at between SI\$8,000-SI\$15,000 and ensuring the virginity of a girl before marriage is likely to attract a higher bride price. This is one of the reasons why conflict arises.

In pre-colonial days mediating and resolving violent conflicts involved two key strategies. The first strategy was the use of red feather money. During traditional warfare, women usually put red feather money on their head and they danced with it to the opposing warring party and rolled the money down the bows of any warriors in the front line. Once the red feather money was in the possession of the opposing party, they dropped their weapons and sat down to negotiate a peace settlement. When a woman is dancing with the money towards the opposing party, warriors are forbidden to shoot or kill the woman. This is because the death of a woman peace-broker in *Temotu Nendo* culture results in deadly retaliation. This retaliation is called *tepiti*. It is a hidden spiritual war that usually wipes out an entire village. It is believed that women in *Temotu Nendo* are respected as occupying a secret place in the community and their involvement in peace-making has yielded successful outcomes.

The second strategy was generally used in conflicts where there were a number of deaths. The first step involved the use of red feather money as explained above. Once the woman peace-broker handed over the money, both parties had to sit down and count the number of deaths in their camp. If one of the parties had fewer deaths, that party had to offer a 'peace child' to compensate the death shortfall on their side. The intention was for the other warring party to ritually kill the peace child to equalise the number of deaths in each camp. However, in most cases, the life of the peace child was usually spared by a *bonie* (traditionally wealthy man). The *bonie* usually paid off the life of the peace child with rolls of red-feather money, a portion of land and other traditional gifts. He would then adopt the child.

In marriage-related conflict mediation and resolution the strategy is different. Escaping with a girl before the marriage arrangement has taken place can fuel violent conflict so resolution of such conflicts must follow the procedures for any violent conflict as described above. On the other hand, arranged marriages and secret boy-girl love relationships are dealt with in a different manner. If a father wants to arrange for his son's bride or knows that his son is in a secret love relationship with a girl, he has to step in before the issue turns violent. The father would ask a mediator to go to the girl's parents. In an effort not to disturb the community *nowe*, the mediator carries out the mediation during the night.

At midnight the mediator comes to the girl's parents; as he comes closer, he sings a traditional song softly and gently, signalling to the girl's parents that he would like to enter their home. At the door, the mediator drops to his knees and crawls into the house. As the girls' father comes out to receive him he presents him with a compensation called *dalu nangla tonga* that traditionally signifies that the trespassing crawl has a respectful intention. When the girl's father accepts the *dalu nangla tonga* the mediator can offer another mediation compensation called *dalu navianga*. This denotes 'wanting to ask.' Upon the father's acceptance, the mediator asks if the father will allow his daughter to be engaged to the boy. The girl's mother would then whisper the news to her daughter. According to traditional protocol, if the girl cries it means that she accepts the offer. This is followed by the mediator's presentation of an engagement token called *dalu namakinga*.

The girl's cry can symbolise sadness at leaving her parents. On the other hand, if the girl has been in a secret love relationship with the boy, the cry is a cry of joy as her love dream is now fulfilled. If the girl refuses, particularly if she is not in a love relationship with the boy an hour of silence is required as respect in saying no. In this case, the protocol of *dalu nangla tonga* and *dalu navianga* would cover the boy's shame so that the girl's parent cannot fabricate any gossip later. Similarly, the mediation of the arrangement in midnight signifies that no one in the community knows what has transpired so as to maintain *nowe*.

### **Nowe as the conceptual framework for classroom-based peace education curriculum**

Danesh's (2006) framework for an integrative theory of peace education and Harris's (2002) approaches to peace education have served to conceptualise constituents of effective peace education programmes. However, they assume a rather rigid view of peace education. A difficulty therefore arises in a situation where a singular form of peace education is integrated into the school curriculum but is driven by a number of different philosophical orientations. The integration of peace education into school curriculum in the Solomon Islands

presented this challenge wherein the entire education system was driven by a rationale of academic education juxtaposed with practical issues and concerns. For instance, practically teaching peace education in an exam-driven curriculum and integrating diverse peace practices are among the key challenges identified in this study. The integrative theory of peace education and peace education approaches do not accommodate such issues. They are further limited because they do not appear to accommodate indigenous concepts of peace and their dominant peacebuilding practices as a prerequisite for contextualising the teaching of peace education in the classroom. Given the concerns raised above, the study sees fit to conceptualize a framework for a classroom-based peace education curriculum (Figure 1).

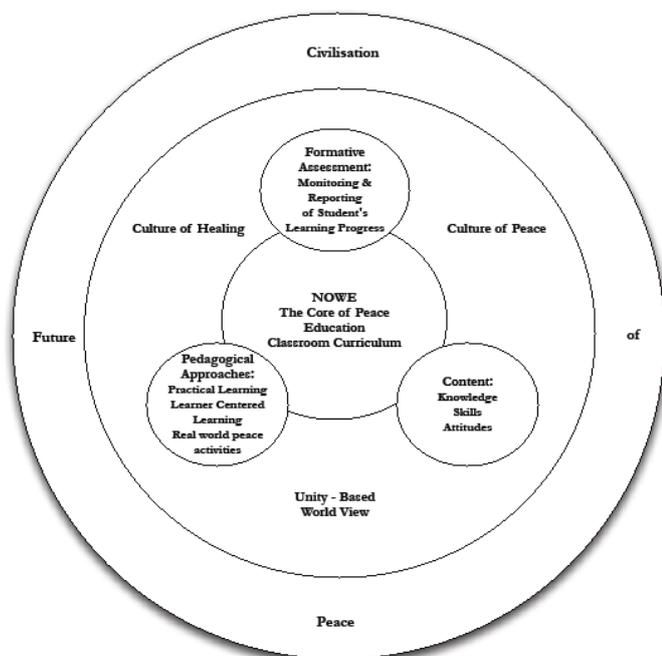
The reasoning underpinning this framework is based on the 'official' curriculum that stipulates the themes and topics. However, the approaches taken to implement them in the classroom differ across the country. As demonstrated in this study, in *Temotu Nendo* schools the conceptualization of classroom-based peace education curriculum should be based on *nowe* as the unifying core of the curriculum and its content, pedagogies and assessment (Figure 1). Figure 1 depicts the multiple underlying goals of peace education activities. The peace concept of a particular culture should form the core of the classroom curriculum and thereby ensure that various contents, pedagogical approaches and assessment of students' learning are interwoven into the core. The unification of the three inner circles within the core can ripple outward to create a culture of peace, a culture of healing and a unity-based world view.

The application of the conceptual framework in *Temotu Nendo* schools entails grounding the content and pedagogical approaches of the classroom peace education curriculum in *Temotu Nendo* culture and practices. This accords with what the literature refers to as a culturally inclusive curriculum (Thaman, 1992) and confirms the argument that development of a curriculum must be guided by a culture-sensitive model (Thaman, 1991).

Given the sensitivity of some of the culture-based content in peace education, the conceptual framework, as depicted in Figure 1, could guide the teacher's delivery of the classroom curriculum. In practice, this conceptual framework would act as a filtering mechanism to assist teachers in selecting culturally relevant content, teaching and learning approaches and assessment tasks before they are implemented in the classroom. The filtering process is vital to the teaching of peace because from a cultural standpoint, once culturally biased content is taught in the classroom, it can create a culture of hatred instead of healing, a culture of conflict as opposed to a culture of peace and a worldview of disunity.

Such sensitive consideration for the content of the classroom curriculum also applies to selecting teaching and learning approaches and assessment tasks. For example, a teacher has designed a research project whereby pairs of students are tasked to investigate a logging operation and why it has disturbed the *nowe* in the community. Such out-of-class activities are likely to have negative repercussions on the community if a boy and a girl are paired to work on the project and especially if they are found in an isolated location in the name of researching a school project on logging operations. To protect the school and the teacher, out-of-class projects must be undertaken as a class under the supervision of the teacher. If they are going to independently investigate a topic in pairs, the teacher must avoid pairing a boy and a girl.

Figure 1. *Nowe the conceptual framework for classroom curriculum*



The scenario presented above depicts one of the ‘official’ curriculum policies which warn teachers that they ... must take note of culturally sensitive issues, social values, religious and traditional beliefs that are practiced by various groups and be consciously aware of them. It is very likely that some classroom settings may pose a situation where there is a cultural, social or traditional barrier to a normal lesson plan strategy. (Ministry of Education and Human Resources Development, 2008, p. 13).

Furthermore, within the spirit of *nowe*, this conceptualization of a classroom-based peace education curriculum must adhere to the guidelines of curriculum development. In particular, this would assist teachers to be conscious of “cultural and social values, traditions and beliefs, controversial issues, practical skills, inclusive curriculum, safety and learning and teaching with a practical focus” (Ministry of Education and Human Resources Development, 2008, pp. 13-14).

## Conclusion

The key areas described in this paper are important in their own right. The theoretical details of peace education and the indigenous peacebuilding practices are all constituents of the analytical framework. From an empirically grounded perspective, these components are deeply inter-related in the process of situating peace education in local realities and practices. In this sense, this paper has attempted to treat the integration of peace education into school curriculum as it appeared in practice; as a culturally/socially situated endeavour. A significant amount of theoretical consideration was required to enable these key areas to come together in the same analytical frame.

Through the theoretical foundation provided by an integrative theory of peace education, the focus remains on a variety of concerns which relate to critical features of the theory. Emerging from this foundation, the concept of *nowe* held the theoretical position together during the analysis process as the core of classroom-based peace education. It allowed constant engagement with the intricacies of classroom content, pedagogy and formative assessment as determinants of a relevant classroom peace curriculum in a particular cultural context, without recourse to divisive theoretical frameworks. This critical premise also allowed the cultivation of a culture of healing, peace and a unity-based worldview as key components to a future civilisation of peace.

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## Utilising playfulness to maximise learning and development in the early years

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### Abstract

It is widely accepted that play makes a positive contribution to children's development, particularly in the early years. More so, the traditional perceptions of what play constitutes is said to capture the attention of young children (Wood, 1986), children are more enthusiastic about participation (King, 1979), and are free from the fear of failure in the safe learning environment play provides (Moyles, 1989). This is particularly important when the act of play is distinguished from the internal quality of playfulness.

This paper summarises part of the findings of my fieldwork towards a doctoral thesis which focuses on the Indigenous Fijian (IF) or the *iTaukei* children's perceptions and expressions of *vakatatalo* or play. Nabobo-Baba (2006) explicates the use of the *vanua* research methodology framework to articulate the indigenous Fijian values, protocols of relationships, knowledge, and ways of knowing, and in this case, to elicit and reflect the realities of the *iTaukei* children researched in the village context. The research tools utilised to stimulate children's views were (*vei talanoa* (exchanging stories) and *vakatatalo* (engaging in child play)). The findings suggest that children's perceptions are related to everyday experiences and, to some extent, reflect traditional roles and responsibilities. Further, *vakatatalo* as perceived and expressed by the *iTaukei* children in the study context is considered and manipulated from an educational perspective.

Consequently, in the effort to rethink early childhood education, practitioners need to be reminded that children's experiences during *vakatatalo* in the community are inseparable from the essence of play in the early childhood curriculum. The significance of understanding children's perceptions for comprehending and exploiting playfulness is articulated, to offer some possible resolutions for guiding educational reform, particularly in enhancing developmentally appropriate practice (DAP) for the early childhood/early years curriculum in the Pacific Island Countries (PICs).

### Introduction

This paper is a brief overview of my current research study on play in the community. Much has been said and documented about the essence of play towards the holistic development of a child, however few studies have investigated children's perceptions of play and how playfulness being an internal state comprises the internal qualities that children bring to an activity. It is, therefore, important to understand what really is demonstrated when children are at "play" (of course, as a result of children's thinking and information processing) and how such perceptions may have developed and how feelings of playfulness can be evoked, particularly in the child's immediate surroundings, outside the preschool contexts.

### Theories and Notions of Play

Research indicates that children learn best in an environment which allows them to explore, discover, and play. Because play is an important part of a developmentally appropriate childcare programme, it is also closely tied to the development of cognitive, socio-emotional, and physical behaviours. Generally, from an adult's perspective, on one hand, play is associated with the surplus energy theory, in which play is considered to be an aimless expenditure of exuberant energy. Play was thought of as running around, climbing trees, and other activities that had no connection to learning. For this reason, play has been looked at as a waste of time, as proven by a study of Pasifika parental perceptions of play in Auckland New Zealand (Leaupepe, 2011). On the other hand, adults, in their recollections of play, have lamented that play is fun and is a way of making friends thus enhancing social skills. Specifically, an elderly *iTaukei*, remembers play "in the good olden days", as a means of relaxing

and exercising the body, particularly when engaged in cultural games, for instance *veitiqa*, which is to throw or to cast a dart over a long distance, a favourite game for young boys in the *iTaukei* village context.

### **Play versus Playfulness**

Whilst these theories and notions have illuminated the complexity of play, it is arguable as to whether or not they have drawn us any closer to reaching a definitive or generic definition (Wood and Attfield, 1996). For this reason, definitions have focussed on categorisation, criteria, or continuum. Previous research has suggested that difficulties in defining play appear to stem from a failure to distinguish the act of play (the activity) from the construct of playfulness (the attitude). The proposition that behavioural characteristics can be used to define play, as in criteria approaches (e.g. Krasnor and Pepler, 1980; Rubin et al., 1983) leads to an either/or situation where an activity is categorised as play or not play, failing to consider varying degrees of play. Even though continuum approaches have addressed this issue by suggesting that the more characteristics present, the more pure the play becomes (Pellegrini, 1991), the use of defining characteristics suggests that these behaviours are specific to play and that playfulness cannot permeate any other activity. The limitations of defining play in this way are clear in the play-work dichotomy. If a distinction were drawn between play and playfulness, then this dichotomy would be less visible as feelings of playfulness could permeate both play and work.

### **Children's Perceptions**

Karrby (1989) suggests that children's perceptions of play are related to classroom experience. In this study, children from a play-oriented environment appeared to have a more diverse perception of learning, where opportunities to learn were described in a number of classroom activities including play. Children in a more teacher-directed and structured setting separated play from learning, describing teacher-directed activities as learning and self-initiated activity as play and consequently not learning. The use of such characteristics has been affirmed by Wiltz and Klein (2001) who also found that regardless of classroom quality, self-selection and choice are important determinants of play activity. The authors also indicate that self-selection and choice can override activity type in the categorisation of an activity; for example, a teacher-directed colouring task could be categorised as work whereas a self-initiated colouring activity be regarded as play. This again highlights the need to separate the act of play from the feelings of playfulness brought to the activity by the players themselves, as what looks like play from the outside may not be approached in a playful manner.

Previous research, has suggested that children are more enthusiastic about involvement in play and even describe negative classroom experiences as being those which interrupt play activity; for example; participation in circle or nap time (Wiltz & Klein, 2001). Therefore rather than concentrating wholeheartedly on the task in hand (Manning & Sharp, 1977) children so appear to distinguish activities and may approach them with a specific mindset.

### **Implications for Early Childhood Educators**

Hence, if one understands the kinds of things that lead children to categorise an activity as play, then one is able to inject feelings of playfulness into a number of classroom activities. For example, if children use teacher presence when making judgments about play, then they are less likely to approach an activity playfully when there is teacher involvement. Children who are used to teacher involvement in play activity are less likely to use this as a defining feature and so will be more likely to accept adult involvement and retain a sense of playfulness. This is important if educators are to be accepted as "committed co-players" to facilitate learning (Rich 2002). Understanding children's perceptions of play and subsequent playful approach enables playfulness to be harnessed and injected into a number of classroom activities. This enables practitioners to align developmental and educational objectives through the exploitation of children's natural propensity (tendency) to play. Hence, the underlying principle is to determine the elaboration of schema or a thread of thought which is demonstrated by repeated actions and patterns in children's play.

To elaborate on children's schemas, which at the simplest level refer to the repeated patterns in children's play presented consecutively, is a thread to my research findings on the *iTaukei* notions of *vakatatalo* or child play

and its implications for early learning and development.

### **Vanua Research Framework**

Ideally, in order to draw upon the essence of the *iTaukei* perceptions, the use of an appropriate research methodology, the use of the *Vanua* Research Framework (VRF) (Nabobo-Baba, 2006, p. 24) was deemed appropriate. Nabobo-Baba advocates the usefulness of utilising the VRF as it upholds indigenous Fijian values, protocols of relationships, knowledge, and ways of knowing. The researcher in this framework derives its data from the *vanua*, people and the land, and uses *vanua* protocols to access and validate data. In a nutshell, in studying the intricate aspects of the VRF, it is a blend of the *iTaukei* epistemology and ontology at work. By way of adopting the VRF, this study ensures that the knowledge obtained reflects the realities of the *iTaukei* children in the *vakatatalo* or play space.

Within the VRF, the two research main instruments utilised to obtain data were *veitalanoa* and *vakatatalo*. According to Nabobo-Baba (ibid) *talanoa* is a process in which a person talks and the others listen, hence, in a sense it is a one-way conversation. As an expansion, *veitalanoa* was ideal for my study due to its dialogic nature. In this research, the prefix *vei-* is added to the word *talanoa* in an attempt to emphasise the dialogic process or two-way conversation. In this light, there is a free exchange of information or stories occurring between the parties involved. The *veitalanoa* sessions were recorded as field notes in *Bauan* (Indigenous Fijian language) and later translated into English language during the transcribing stage.

The *vanua* elders, including women and men participated in this informal and semi-structured *veitalanoa* activity. The length of the session varied according to the elders' or the *vanua's* time. The functions of *veitalanoa* is similar to what Nabobo-Baba had suggested: that *talanoa* is a natural research tool for indigenous Fijians and Pacific islanders which can either be conducted around a *yaqona* bowl or informally in a lighthearted manner. These story exchange sessions occurred in similar ways during the village gathering in the village hall, by the beach, or in the food gardens, to name a few places.

The other data collection instrument *vakatatalo*, or to be actively engaged in the play scenario, proved to be quite challenging at first, as the status of the child will vary with respect to age, general cognitive ability, emotional status, and specific knowledge at the time of the research (Lindsay, 2000). Therefore, closer attention needs to be directed at the methods and techniques used for gaining children's perspectives because there is recognition that much of children's social experience is highly structured by the adult world (James et al., 1998).

These techniques involve the use of prompts and props to engage children's interest, avoiding direct questioning which could threaten the children (Brooker, 2001) and avoiding actions that could lead to the loss of the child's view (Lewis and Lindsay, 2000). *Vakatatalo*, as my point of contact with the children, is fitting given the nature of my research. It is common practice in Western societies to get "down" at eye level when holding conversations with young children, to minimise the authoritative distance created when talking down from the adult height (level). During the initial stages, I was an intruder, someone who had interfered in the children's territory. However, after some time when I began to gain the children's trust and confidence, and much to my delight, I was allowed, and to an extent, welcomed to participate in *vakatatalo*, though now and again questioning glances continued to be thrown my way.

### **Findings: The *iTaukei* Play(fulness) Expressions**

The direct translation of the term play from the English language to *Bauan*, which is the common Fijian language is *qito* – "*Kemudou iko sa rui gone dau qito*"(You're such a playful child"), which usually has a negative connotation attached. For the purpose of my research, the term *vakatatalo* (child play) was used synonymously with *qito* (games).

In summary, the way in which *iTaukei* children act and demonstrate their thinking during play aligns with van Wijk's (2009) study on children's schematic thinking:

- *Vakasosolo/enclosing/enveloping*

Briefly, the two preschoolers on the right were noted to be engrossed in filling an open pipe with dirt. When approached, they merely uttered “*Keirau va-tatalo jiko.. me biu i loma na qele vaka na trecta*” (We are filling in this pipe like what the tractor does). The repeated actions, as if testing something out, provided me with some form of understanding into how children organise their thoughts and how their thoughts were demonstrated into actions. Researchers have termed these schematic actions as explorations that spring from children’s own interests. As children repeat actions that go with their schematic ideas, they are forming cognitive structures in their brains that allow them to use those ideas in other contexts.



- *Vakatasosoko/transporting*

The notion of *vakatasosoko* can be approximated to sail about for pleasure or moving materials using movable objects and sometimes dumping instead of unloading. In this case, due to the fact that children live on an island home, their main mode of transportation is by sea, hence going to school, to the market, or to the next island requires travelling by fiberglass boats. In addition, during *vakatasosoko*, the children in the study were noted to have the tendency to play with their hands full of sea shells and things they could collect from the sea.

- *Veikalawanasari/connecting*

A connecting schema is more or less self-explanatory, to “piece” things together. Children were noted to be playing, usually, with their hands full with objects. A grandparent recalls her grandson’s interests in taking apart and putting together parts of their old and unused radio. “*Dau nona cakacaka na sereka na retio makawa me qai cobacobara tale. Na gauna qo e sa cakcaka tiko vaka-mechanic ni dua na kabani mai Weligtoni, Niusiladi*” (My grandson’s favourite past-time when he was little was to disconnect and connect parts of our old radio. Now, he is working as a mechanic in a company in Wellington, New Zealand).

- *Vakataseseu/disconnecting*

Connecting and separating items are important preliminaries for learning to write (van Wijk, 2009). This may involve lots of cutting with scissors, chopping up wood, smashing things as evident in how the two young boys on the right are enacting a tribal slaughtering practice of the past. In this light, disconnecting and connecting are occurring simultaneously.



- *Vakatalimikomiko/ trajectory*

An interest in trajectory is characterised by an ongoing fascination with things moving through space, both vertically and horizontally. For instance children in the research site were seen to enjoy running in such manner particularly when they get a chance to play in the *rara* or the flat open space in the middle of the village green. The expression of this schema may be challenging to adults at times as children would send everything scattered onto the floor making messy explorations.

- *Vakatatawai/transforming*

This schema is characterised by an interest in changing things, whether instant such as mixing mud and water to make paste, or slower changes such as sewing pieces of rags together to make quilts. The transforming activities were also detected during *vakatalimikomiko*, the trajectory schemas, when two kids were noted to enact a tribal slaughtering practice of the past.

- *Vakacowiriwiri/rotation and circulatory*

An interest in circulatory and rotation is often linked with an interest in trajectories. According to van Wijk (ibid), rotation is the action and more complex version of the static circular schemas. In addition, the author states that circulatory is associated with two dimensional and rotation three dimensional.

## Conclusions and Recommendations

In a nutshell, the children's perceptions and expressions of play is an interesting phenomenon, particularly for indigenous societies as the *iTaukei* context where *vakatatalo* is still considered an aimless activity that does not correlate to any learning at all. To conclude, findings from research into children's perceptions of play support the proposition that children use environmental and emotional cues to form schema for action and events. Children use both concrete experiences (as in what opportunities have been provided for them) and the nature of peer interactions to form their perceptions of play and learning.

All in all, focusing on defining play can be restrictive. The definitions of play do not always benefit play and playfulness, whilst often occurring at the same time, are different (external and internal), both are important but perhaps playfulness makes children's learning experiences unique. In focusing on playfulness or play as an approach to an activity allows flexibility, facilitates similar studies to increase confidence, enables classroom planning using children's prior knowledge and experiences, improve relationship between research theory and practice, and most importantly, increased parental/community support so that children are not alone in their developmental journey.

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# Rethinking Early Childhood Education through the Inati Metaphor: A Tokelauan Perspective

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*Ni alofoaga mo oku matua pele ko Ata ma Lisone Kupa, "E he fakagalogia, e he ko mafaia, e he puli koulua i toku mafaufau"*

[In loving memory of my parents Ata and Lisone Kupa.]

## Abstract

This paper considers Tokelau's inati system as a metaphor for teaching and learning in Early Childhood Education within Aotearoa New Zealand.

Omai ki na Inati" is the invitational call to gather and engage with the distribution of resources. It ensures that everyone in the village including men, women, orphans, widows, the disabled, the vulnerable as well as the successful, each has a critical role to play as a part of this process.

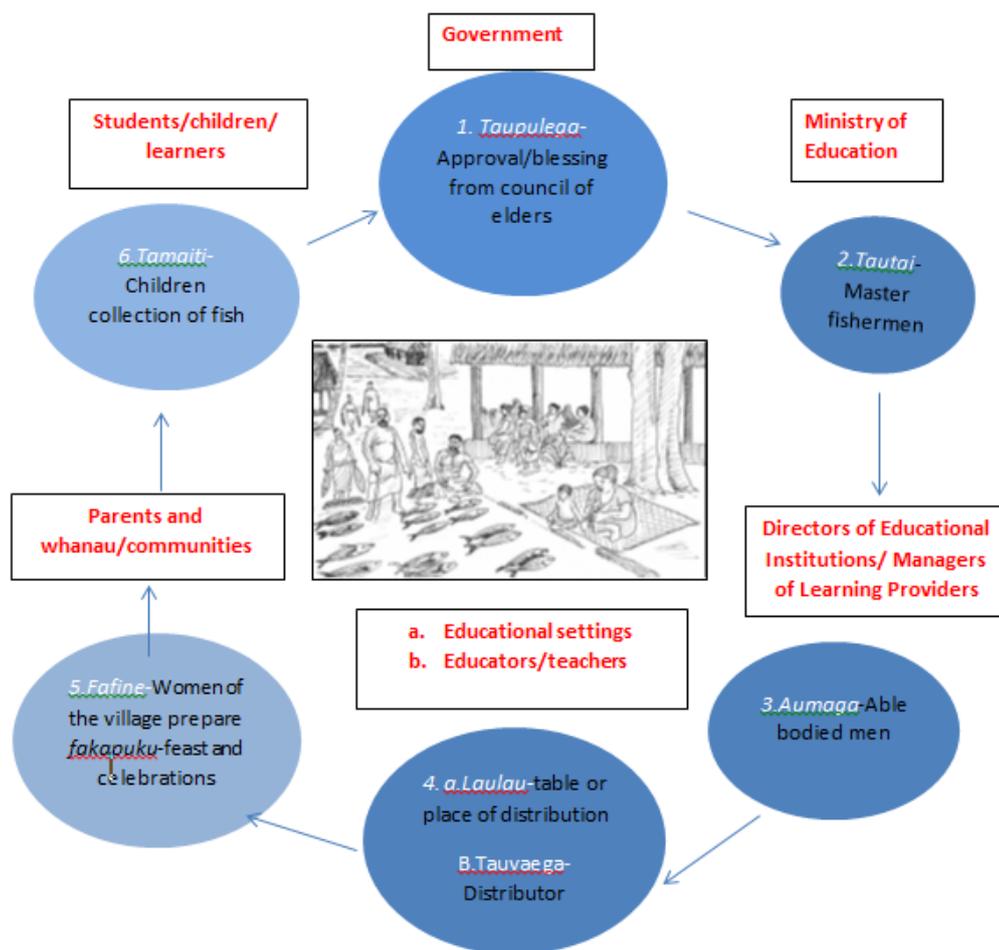
The inati system offers a unique set of cultural principles which underpin Tokelau way of life. These include: Alofa Lautele (Love and compassion), Fakaaloalo (Respect), Va Fealoaki (Relationships), Maopopo (Unity and inclusion), and Fakahoalelei, (Equity and Fairness). It is examined here as a framework for understanding the roles of stakeholders in the education of Pacific children in Early Childhood Education.

## Introduction

The realities of ensuring learners are engaged within education and achieving successfully has proven to be challenging for both learners and educators throughout New Zealand. For example, recent findings from the Education Review Office revealed that for some Pacific learners the reality of their experiences has been "isolating and disengaging" (Ministry of Education, 2013, p.14). Thirteen percent of the total numbers of early childhood services have no awareness of how to promote success for Pacific children resulting in "placing them together with the rest" (Ministry of Education, 2013, p.20).

On the other hand *inati* is a unique framework which has been purposefully aligned here with Ministry of Education structures for the purpose of demonstrating the potential success and achievement that can be achieved if indeed everyone is committed to their roles and responsibilities within education. This approach challenges Western assumptions that education may only be obtainable through formal education as in this case; learning is accessible, equitable, compassionate, inclusive, and holistic. Similar to Ministry of Education, *inati* places paramount emphasis on the idea that the *tamaiti* (child) is at the heart of the matter through a distributive leadership approach and being of service to others and selflessness.

Figure 1. The process of Inati



## Process of Inati

### 1. Taupulega – Council of Elders

In Tokelau, each atoll is governed by a council of elders, otherwise traditionally known as Toeaina/Taupulega. The elders are also regarded as “guardians of culture and traditions” (Government of Tokelau, Department of Education, 2006, p. 4). They are highly respected and have the ultimate responsibility for everything that takes place within the village context, including the approval for fishing expeditions (Hooper and Huntsman, 1996, p. 51). Inati can be held monthly, weekly, or even daily depending upon the need, availability of resources, and weather permitting.

Similarly, in New Zealand, the Ministry of Education has the ultimate responsibility for ensuring that all children receive care and education, whilst kept safe from harm. In alignment with the concept of inati, the Ministry of Education develops and implements policies, regulations, and procedures which help to ensure “children are at the heart of the matter” at all times regardless of threats from the forces of nature (Ministry of Education, 2011, p. 1).

### 2. Tautai – Master Fishermen

The *tautai* are knowledgeable and skilful master fisherman whose responsibility it is to lead fishing expeditions. Once a fishing expedition is approved by the *taupulega*, the *tautai* will then inform the *aumaga* (able-bodied men) of the plans to go on a fishing expedition; for example, date, time, fishing location, specimen of fish. According to Sanga, 2009 the Malaitan fishing expedition of *ausae* has a similar process whereby the “rallying process is initiated days and even weeks in advance” (p.224). This allows ample time to prepare tools and equipment necessary for the journey ahead. This also allows the *tautai* ample time to consult and decide on the best route for the journey ahead.

In the same way the Ministry of Education sets out regulations and procedures for various educational providers and institutions to plan and prepare children and adults with the necessary tools and equipment required for their journey of education that lies ahead. For example, *He Whanau Manaki o Tararua*, formerly known as the Wellington Kindergarten Association, is highly committed to providing quality care and education for all children based on the values of *Mana*, Excellence, Partnership, Fairness, and Fun! (Wellington Kindergartens Association, 2011, p. 6).

### 3. *Aumaga – Able-bodied Men*

To this day gender roles within the *inati* system are strictly adhered despite the influences of modern times. Within village life, *aumaga* are expected to perform most of the communal tasks around the village; for example, building houses, working in the taro plantations, collecting food supplies, and fishing. This is similar to the structure of Solomon Islands “*wantok* system”, Nanau (2011) suggests that organising society in this way not only helps to ensure a “way of survival,” but it also “emphasizes reciprocal networks and caring for each other’s needs as and when necessary ensuring the security of members from external forces and threats” (Nanau, 2011, p.35). Unless one is sick all *aumaga* are expected to take part in the *inati*, signifying the critical importance of their role.

Similarly, in the New Zealand Education context, are the Directors and Managers of Educational Learning Institutions whose vision – shared with the Ministry of Education – of courage, strength, selflessness, and commitment to serving, ensures children and learners have access to quality education.

### 4. *Laulau – Table or Place of Distribution/Tauvaega – Distributor*

Once the village men have all returned with their catch, they transfer their fish to the village *laulau* which could be a specifically designated “area or space/platform” (Hooper and Huntsman, 1996, p. 76) in preparation for distribution. Again under the watchful eye of the *toaina/taupulega*, the fish is then allocated into equal piles depending on the specimen of fish and the total number of people in each household. The role of the distributor or *tauvaega* is pivotal at this point of the *inati* process because it is here under close scrutiny and observation of the village the *tauvaega* must ensure that every family in the village receives a fair share of *inati*.

Similarly, in education teachers and educators are required to offer their skills and expertise to ensure quality learning and education is evenly distributed amongst all learners. For this to happen, careful consideration must be given to the unique backgrounds, socio economics status, values, and beliefs of each individual to ensure that everyone indeed receives their fair share. As indicated by the New Zealand Children’s Commission report (2013), despite our best efforts as educators and teachers, the reality is that not all children in New Zealand are achieving their educational potential. Recurring patterns strongly suggest that “education achievement is closely correlated with ethnicity and socio economic status” (Ministry of Education 2013, p. 1).

### 5. *Fafine – women*

As a general rule *fafine* (women) do not engage in the fishing activity of *inati*, as this is a man’s role. However within their respective roles as *fatupaepae* – matriarchal leaders within a *kaiga* or family – *tuafafine* (sisters), and *lomatutua* (elderly women) wives and daughters, each hold unique areas of responsibility which impact directly upon the successful process of *inati*. For example, within her immediate *kaiga* (family), generally the wives, mothers or *lomatutua* provide men with words of encouragement and well wishes- *kupu fakamalohi*, for the journey ahead.

Moreover *fafine* “provide leadership in many rituals such as *fakapuku* which is food that is prepared by the village women for the return of the fisherman (Ministry of Social Development 2012, p. 18). It is during this time that women will collaboratively prepare and present men with a feast and an adornment of gifts such as clothing and wreaths in acknowledgment of the day’s efforts and success. During the men’s absence, *fafine* become responsible for the organisation of household chores and activities; for example, ensuring that the children are prepared and organised for school, as well as ensuring daily tasks around the village are done.

In relation to education, the role of parents, caregivers, and families can have major impacts on children's learning and educational success. This is reflected through children's engagement with the adults and peers within their learning environment, their level of social competencies, and confidence as individuals.

## 6. *Tamaiti – Children*

Essential to the *inati* system are the children; they are central to everything, highlighting the fundamental principles upon which *inati* is based: *Maopopo* (Unity), *Va fealoaki* (Relationships), *Fakahoa lelei* (Fair Distribution), *Fakaaloalo* (Respect), *Alofa kite Tamamanu* (Compassion for the vulnerable). For their own safety young children are not encouraged to take part in the fishing expeditions, nevertheless with their *kete* (baskets) at hand they will wait with much excitement, and anticipation for the return of the *aumaga* trusting that they will receive their share of *inati*.

Once the *aumaga* have returned and fish evenly distributed the children are then invited through this traditional call, "*Omai ki na inati, Omai ki na inati*", formally welcoming them to come and collect their share of *inati*. In this way invaluable learning is occurring all the time; for example, the principles of love, compassion, unity, collaboration, equity, and fairness are demonstrated through this process. Equally as important children get to experience first-hand how they can be valuable contributors to society.

Through their observations children also learn "to gain an understanding of the different aspects of *faka-Tokelau* or Tokelau way of life" (Government of Tokelau Department of Education 2006, p. 5). Over time they will naturally take up their rightful role as either a *tautai* or *fatupaepae*. The value of children's role within *inati* is reflected within the nuances of this Tokelau proverb, "*te au o matua ko fanau, te au o fanau ko matua*", translated this means "the heart of every parent is their child, the heart of every child is their parent". This is reflected in the *inati* process whereby the child is central to everything.

To conclude, *inati* illustrates the importance of distributive leadership, through unity and collaboration, equity and fairness, and being of service to others regardless individual backgrounds, abilities or circumstances. Research findings and personal experiences confirm that, even in this day and age, inequities within early childhood education continue to taunt us. However the *inati* framework offers a unique opportunity for rethinking and transforming Pacific learning, teaching, and teacher education whilst upholding cultural values, principles, and practices that may be applied across all levels of education. The principles and processes of *inati* are held in high regards by the people of Tokelau, allowing authentic connections to be strengthened and maintained regardless of the outside influences of modern times.

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# Curriculum Implementation: Principles for Policy Adoption and its Transfer into Classroom Practice

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## Abstract

The education of teachers and their subsequent ongoing professional development is founded upon national policies that emphasise implementation of content-pedagogy into classroom practice. However, although various models of educational policy development and teacher education and development exist, there is little focussed attention on incorporating curriculum content and specific teaching behaviours from one national/different system into another and the transfer of specific teaching/learning ideas into local classroom practice. In this paper, these two key aspects are examined within the Pacific context. At the national macro-level, the policy adoption process, using the borrowing of international inclusive education philosophy and practices by a Pacific nation (Samoa) as an example, is discussed. What has become apparent is that policy transfer from one system to another should be a contextual process, and not a simple outcome orientation exercise. Unless there is an orderly progression of adaptation and acceptance, difficulties can arise. Secondly, from a micro-perspective, the implementation of the policy (e.g., teacher skills, knowledge, competencies and attitudes) into classroom practice benefits from the development of a strategic transfer plan acknowledging important cultural issues and other relevant and integrated procedures. Without a systematic approach, there is potential for large-scale absence of transfer following the introduction of new ideas and the subsequent teacher training and professional development. In response to this need, the author has developed the Transfer of Training Audit (TOTA©) from evidence-based practices including his research and experiences in Samoa and the Cook Islands and will demonstrate its utility as a planning process to facilitate transfer into classrooms.

## Policy Adoption and its Transfer into Classroom Practice

The education of teachers and their ongoing professional development and learning (PDL) centres upon implementation of policies, curricula and practices intended to improve student outcomes. However, problems often arise because implementation of policies/practices is multifaceted, set in a culturally bound socio-political context involving a range of actors and intended to fit a wide range of educational institutions (Bell & Stevenson, 2006). This is made even more complex in contexts with borrowed policies, as there is need for planning that contextualises and operationalizes overseas ideas (Perry & Tor, 2009). In this paper, the introduction of an inclusive education (IE) policy into the Cook Islands and Samoa is illustrated and a transfer of training audit (TOTA©) is presented as a means of facilitating the classroom impact of PDL ideas flowing from such policy introductions.

## Education Policy Borrowing

Education is a culturally bounded system, but the globalisation trend has implied a de-territorialisation, with policy imports becoming commonplace (Steiner-Khamsi, 2004). In New Zealand, for example, IE policy was successfully imported from other western nations and teaching skills/practices developed for the classroom. Needless-to-say, this import from a donor country with a similar cultural orientation is less problematic than two nations with varying cultural foundations, as localisation of the policy will be required (Phillips & Ochs, 2003) in the latter case.

Policy borrowing is the conscious adopting of policy used in one context to another. It can occur between countries and agencies, but in this discussion, reference is to cross-national transfer. Phillips and Ochs (2003) have identified four stages in this process. At stage 1, impulses occur as a result of a dissatisfaction with the present

system and the import policy is examined for more acceptable values and practices. Stage 2, decision-making, is the start of the process of adoption. The decision(s) to proceed may occur for a number of reasons (e.g., quick fix) but hopefully the policy is chosen for realistic/practical reasons. Implementation, stage 3, involves a process of policy contextualisation (inclusive of PD) but also involves key actors adopting a policy position. Resistances will need to be considered at this stage – for example, interagency conflict, opposing perspectives, encroachment on social mores, political hijacking, funding restrictions and the potential inability to deliver to all (Gallagher & Clifford, 2000). Stage 4, internalisation/indigenisation, is concerned with examination of the impact on the existing system, absorption of the new ideas into practice and an evaluation of the implementation.

In considering the import of the IE policy into the Cook Islands and Samoa via the Phillips and Ochs (2003) model, it is apparent that both nations have made progress (Tavola & Whippy, 2010), but there are a number of interesting comparisons to be made. For example, compare the reports of Cook Islands Ministry of Education (2007) and Lene (2009). During 1995-2001 in the Cook Islands, a 'bottom-up' implementation occurred whereby many teachers were introduced to classroom practice of IE via a tertiary PD programme. This involved development of understanding about IE and implementation of inclusive teaching practices, but was undertaken prior to adoption of the policy. In Samoa, IE policy was adopted prior to the development of a PDL cascade model of IE teacher education. However, in a recent study (McDonald & Tufue, 2013), Samoan teachers indicated concerns about their lack of PDL/preparation and minimal resources. However, observations made by this writer, indicate that the implementation of IE policy in the Cook Islands was easier because it fell on receptive ears – the earlier introduction of the contextually based IE PD programme promoted classroom practice in a resource-scarce environment.

In the Cook Islands, the bottom-up met the top-down and this provided a relatively easy transition to IE policy adoption. Many key Cook Island educators (including principals and the future director of education and special needs advisers) developed IE understanding and skills via the PDL and hence, policy introduction occurred with minimal difficulties. Stage 1 and 2 of the Phillips and Ochs (2003) model interacted with stages 3 and 4, facilitating the contextual foundation – not the Phillips and Ochs linear process, but an interactive system promoting change.

In Samoa, a top-down approach predominated, and the results of a recent study indicated that the policy implementation was only partially successful. Although many study participants subscribed to the philosophy of IE, they were unable to define its meaning and were concerned about implementation difficulties, particularly those related to a lack of physical and personnel support, a lack of consultation, Ministry inaction/unilateral action, and an overlooking of cultural/ownership issues. Indeed, IE was considered a disservice by some - it was identifying previously unidentified students for whom it was perceived there was no effective support. It is apparent that policy that is borrowed needs contextualisation and careful implementation, and within this process, teacher PDL is a central concern – without it the policy implementation will fail. In an attempt to unravel some of the complexity of the classroom implementation of PDL flowing from policy borrowing, McDonald (2014) has promoted the idea of a strategic and culturally sensitive transfer of training (ToT) plan.

### **PDL and Transfer of Training**

The key promise of PDL for educators is improved student learning. Timperley (2011) identified PDL as an ongoing development of the teacher's knowledge and skills, promoting student learning by an inquiry process linked to student progress and the use of evidence. However, despite the vast amount of literature on what constitutes effective PDL, it is unclear whether and how PDL translates into improved student learning in these contexts. In relation to this, Timperley, Wilson, Barrar and Fung (2007) have discussed the significance of a black box between PDL and teacher practice, implying that there are unknowns about transfer. However, there is a vast body of ToT literature explaining how PDL can be transferred to the class – despite this however, research clearly indicates that transfer does not readily occur where a ToT plan has not been developed (Cheng & Ho, 2001).

ToT refers to the application of knowledge, skills and attitudes learned from a formal learning event and subsequent maintenance of that learning over a period of time (Baldwin & Ford, 1988). It has been a controversial, perplexing topic and although some consider it to be a spontaneous occurrence (e.g., Bereiter, 1995), others (e.g., Detterman, 1993) suggest it is difficult to achieve, but most commentators (e.g., Haskell, 2001) believe careful planning will promote transfer. Nevertheless, implementation cannot be assumed, for as Saks and Belcourt (2006) report, on average 40% of employees do not transfer learning immediately, despite good intentions, and after 1 year, 66% are not using the ideas. Indeed, it is generally accepted that implementation rates remain low, even though there have been significant theoretical and practice advances with a recognition of the important roles that people need to adopt to ensure transfer.

One particularly important role for bringing about transfer is the PDL facilitator, who is a catalyst for initiating and sustaining the ToT process (Berry, 2012). Although others (i.e., the learner, and work manager/colleagues) have significant roles, the facilitator's role in ToT is crucial, because that individual is not only concerned with content and course methodology but also the coordination of the overall programme (Berry, 2012). However, as noted, many facilitators have not grasped the central importance of ToT; Hutchins, Burke and Berthelson (2010) indicated that many learn about it informally despite the need to gain a workable ToT knowledge and skill base via the research-practice findings (Sanders, van Riemsdijk & Groen, 2008). Many facilitators simply learn by trial and error, emphasising learning activities and over-looking transfer strategies (Cheng & Ho, 2001).

As a means to overcoming lack of attention to transfer, an uncomplicated, guided flexible approach is needed, although PDL facilitators should still understand the basic principles of ToT. A transfer plan would promote teacher implementation of ideas and the TOTA© has been developed for this purpose, using evidence based ideas (Refer to Appendix 1). It uses a before-during-after X role model (Broad & Newstrom, 2001), and incorporates the findings of Grossman and Salas (2001) and Holton, Bates and Ruona (2000), who have identified factors strongly linked to the promotion of transfer. In TOTA©, these factors are shaded grey to denote priority importance, but some have attached related factors arising from the evidence-based review. Not all items are applicable and the planner should be selective (depending upon the context) in considering which need to be incorporated into the PDL programme.

One area often overlooked by PDL facilitators is the use of culturally responsive ToT approaches. Often PDL participants are from diverse backgrounds and furthermore, if a policy is borrowed from another country, the programme needs to be related to the cultural context of the home country (Burke, Chan-Serafin, Salvador, Smith, & Sarpy, 2008; McDonald, 2002; Sarkar-Barney, 2004; Hassi & Storti, 2011). In TOTA©, issues relating to culture are often embedded in many of the general items but many are also highlighted in a separate culture section.

## **Conclusion**

Teachers' behaviour is founded on policies and practices that have been introduced into the education system. In the global world, many originate from another national system and accommodation to the local setting is needed before successful transfer can be accomplished. At the meta-level, this involves a process of acceptance, contextualisation, and absorption of ideas into the system, while at the micro level, specific teaching behaviours need incorporation into the teacher's behavioural repertoire. Transfer of policy and training are deceptively simple processes however, and integration of ideas into a local system and into the behaviour of the teachers requires careful deliberation, planning and execution. Too often, effective policy change and development of competencies are overlooked by the key change agents – this needs to change.

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**Appendix 1: Transfer of Training Audit (TOTA© )**

TOTA ITEM	Yes	No	Comment
	✓	X	
Has a needs assessment (organisation and individual) been undertaken?			
Has a return on investment plan (identification of the benefits in relation to the actual costs of the training) been developed?			
Will collaborative planning by key stakeholders (trainer, participant, and manager) be a feature?			
Will the culture of the workplace (e.g., values, goals, setting, attitudes communication styles) be considered in planning?			
Does the planning centre upon roles and responsibilities of the learner, trainer and work roles linked to before, during and after training phases?			
Will the planning promote participant and manager positive attitudes to learning and indicate that learning can be achieved?			
Does the planning promote the participant, colleagues, managers and Ministry knowledge/support for the programme and develop positive attitudes about expected outcomes?			
Does the planning incorporate valid content that is perceived by participant as having job utility?			
Does the planner/instructor know the content field and the organisation?			
Was selection of the trainer based upon reputation/status?			
Does facilitator have the personal qualities to work with participants?			
Does the trainer have skills/knowledge to build relationships, facilitate the learning and be a good listener?			
Do all instructors understand each other's plans and content prior to commencement of course?			
Will there be pre-programme activities (e.g., readings) for the participant?			
Will the participant feel confident to learn and change performance (self-efficacy)?			
Has the participant volunteered for the course?			
Is it convenient time for the participant (hours during the day/time of year)			
Will the training meet the meta needs of the participant in terms of training approach? Which objective(s) will it centre on?			
• Re-energise the participant?			
• Provide practical ideas useful to the participant?			
• Present ideas for later use?			
• A forum to discuss ideas?			

TOTA ITEM	Yes	No	Comment
<ul style="list-style-type: none"> <li>• Observation and modelling opportunities?</li> </ul>	✓	X	
<ul style="list-style-type: none"> <li>• A combination of some of these?</li> </ul>			
Will the participant be motivated to learn and transfer prior to training by:			
<ul style="list-style-type: none"> <li>• Information given out about content value for work setting?</li> </ul>			
<ul style="list-style-type: none"> <li>• The opportunity to provide input prior to planning completion?</li> </ul>			
<ul style="list-style-type: none"> <li>• Being able to relate the programme to career goals?</li> </ul>			
<ul style="list-style-type: none"> <li>• Knowing what to expect (content, methods, outcomes)?</li> </ul>			
<ul style="list-style-type: none"> <li>• Having a belief that effort will be worthwhile and lead to improved performance?</li> </ul>			
<ul style="list-style-type: none"> <li>• Knowing that key people/colleagues will support</li> </ul>			
<ul style="list-style-type: none"> <li>• Completing some introductory tasks/readings?</li> </ul>			
Can expected resistances/sanctions by others to course implementation and expected outcomes be accommodated/altered?			
Will the training site be inviting, realistic, suitable for the learning activities, and capable of being transformed into an on the job simulation?			
Will the needs of the participant from different cultures be considered?			
<ul style="list-style-type: none"> <li>• Are languages differences accommodated?</li> </ul>			
<ul style="list-style-type: none"> <li>• Are the different cultural values considered (Refer to Hofstede's ideas for example)?</li> </ul>			
<ul style="list-style-type: none"> <li>• Are interpersonal and non-verbal behaviours considered?</li> </ul>			
<ul style="list-style-type: none"> <li>• Will the differences in technical resources be considered?</li> </ul>			
<ul style="list-style-type: none"> <li>• Will the learning preferences be considered?</li> </ul>			
<ul style="list-style-type: none"> <li>• Will the knowledge, skills and attitudes be culturally acceptable?</li> </ul>			
<ul style="list-style-type: none"> <li>• Will there be the correct balance between motivation to achieve and group harmony?</li> </ul>			
<ul style="list-style-type: none"> <li>• Are the basic values, practices (etc) in the work-setting different?</li> </ul>			
<ul style="list-style-type: none"> <li>• Will a whole or analytical thinking approach be used?</li> </ul>			
<ul style="list-style-type: none"> <li>• Will family/parent/community support be considered?</li> </ul>			
<ul style="list-style-type: none"> <li>• Will appropriate motivation strategies be used?</li> </ul>			
<ul style="list-style-type: none"> <li>• Does the facilitator have knowledge about the culture and appropriate skills to teach?</li> </ul>			
<ul style="list-style-type: none"> <li>• Should the community benefits be outlined?</li> </ul>			
<ul style="list-style-type: none"> <li>• Will the role status of a trainer be ascertained?</li> </ul>			
Will the training emphasise the following approaches:			
<ul style="list-style-type: none"> <li>• Motivation for participant to learn content (knowledge and skills) that is valid and has job utility?</li> </ul>			
<ul style="list-style-type: none"> <li>• Satisfaction of the learner?</li> </ul>			
<ul style="list-style-type: none"> <li>• Facilitative, fun programme that promotes leadership and followship?</li> </ul>			
<ul style="list-style-type: none"> <li>• Use of advance organisers?</li> </ul>			
<ul style="list-style-type: none"> <li>• Promotion of prosocial outgoing behaviours?</li> </ul>			
<ul style="list-style-type: none"> <li>• Promotion of professional practice, recognition of variations in work and culture and development of autonomy?</li> </ul>			
<ul style="list-style-type: none"> <li>• Participation by facilitator in the activities</li> </ul>			
<ul style="list-style-type: none"> <li>• Time for participant to plan tasks (etc)</li> </ul>			
<ul style="list-style-type: none"> <li>• Practical, realistic programme linked to the job?</li> </ul>			
<ul style="list-style-type: none"> <li>• Capability to provide for training of identical elements in learning and on-job sites as well as teaching of general principles for targeting different contexts?</li> </ul>			
<ul style="list-style-type: none"> <li>• Teaching via error-based learning, how to correct the errors and identify potential problematic issues to be overcome?</li> </ul>			
<ul style="list-style-type: none"> <li>• Some choice of training techniques by participant?</li> </ul>			

TOTA ITEM	Yes	No	Comment
	✓	X	
<ul style="list-style-type: none"> <li>Strategies for dealing with differing cognitive abilities (e.g., grouping, buddies, alternative readings)?</li> </ul>			
<ul style="list-style-type: none"> <li>The use of different age group strengths (e.g., promotion of innovative ideas Vs use of experience)?</li> </ul>			
<ul style="list-style-type: none"> <li>In-depth and background learning being made available?</li> </ul>			
<ul style="list-style-type: none"> <li>A balance of individual, group and cooperative work – but mostly cooperative?</li> </ul>			
<ul style="list-style-type: none"> <li>Setting of individual goals within organisational goal setting framework?</li> </ul>			
<ul style="list-style-type: none"> <li>The giving of knowledge about what is to be transferred and how?</li> </ul>			
<ul style="list-style-type: none"> <li>Accommodating the socio-cultural context for application of ideas?</li> </ul>			
<ul style="list-style-type: none"> <li>The motivation of the participant during training to transfer: Participant's ideas, experiences (etc) are part of the teaching, meaning and attitudes are related to the life of the individual and competence of participant is displayed in and out of the course?</li> </ul>			
<ul style="list-style-type: none"> <li>The development of the participant's self-esteem, image and awareness?</li> </ul>			
<ul style="list-style-type: none"> <li>The development of personal mastery objectives (rather than just looking good to others) and seeking of feedback to improve?</li> </ul>			
<p>Will the following specific training ideas be used:</p>			
<ul style="list-style-type: none"> <li>A teaching cycle of theory, demonstration, practice and observation?</li> </ul>			
<ul style="list-style-type: none"> <li>Many examples and showing how to apply them?</li> </ul>			
<ul style="list-style-type: none"> <li>Role modelling of positive and negative examples?</li> </ul>			
<ul style="list-style-type: none"> <li>Analogies?</li> </ul>			
<ul style="list-style-type: none"> <li>Practice ideas over a distributed time?</li> </ul>			
<ul style="list-style-type: none"> <li>An emphasis on thinking how to apply?</li> </ul>			
<ul style="list-style-type: none"> <li>Promotion of adaptive expertise to meet the different contexts</li> </ul>			
<ul style="list-style-type: none"> <li>Questioning, problem solving and scenario building</li> </ul>			
<ul style="list-style-type: none"> <li>Over-learning?</li> </ul>			
<ul style="list-style-type: none"> <li>Descriptive and developmental feedback?</li> </ul>			
<ul style="list-style-type: none"> <li>Manageable chunks of learning?</li> </ul>			
<ul style="list-style-type: none"> <li>Computer based learning</li> </ul>			
<ul style="list-style-type: none"> <li>Part- and whole-task learning as appropriate?</li> </ul>			
<ul style="list-style-type: none"> <li>Cooperative learning, group tutorials, peer tutoring</li> </ul>			
<ul style="list-style-type: none"> <li>Dynamic visuals?</li> </ul>			
<ul style="list-style-type: none"> <li>Hand-outs?</li> </ul>			
<ul style="list-style-type: none"> <li>Frequent content reviews?</li> </ul>			
<ul style="list-style-type: none"> <li>Practising retrieval of ideas and development of cues?</li> </ul>			
<p>Will the participant will have time, energy and ability to think about making the changes necessary to implement ideas?</p>			
<p>Will some form of certification be available?</p>			
<p>Will the participant have access to own notes/course booklet of ideas and school resources to implement ideas?</p>			
<p>Will the participant have the opportunity to use ideas and integrate into practice on return to work setting?</p>			
<p>Will the participant be ready to use ideas on return to work?</p>			
<p>Will an action plan for implementation of ideas to be developed for immediate and future use?</p>			
<p>Will the participant have a belief that management of change is possible and management of environmental obstacles is possible?</p>			
<p>Reflection of others feedback on the new ideas will be used to modify (etc)</p>			
<p>Will participant be able to notice improvements in teaching (etc) to reinforce behaviour?</p>			
<p>Will the participant demonstrate flexibility and actually change behaviour and attitudes</p>			
<p>Will there be management /supervisor support and reinforcement of the new learning on the job?</p>			

TOTA ITEM	Yes ✓	No X	Comment
Will there be opportunities for informal sharing of new ideas in the work setting because it is considered valuable by them?			
On-going coaching of ideas by teams and/or peer support to implement will be possible.			
Can support by participant be given to peers to use the new ideas?			
Will the school be able to incorporate the ideas into polices (etc) on a more formal basis?			
Will the colleagues positively acknowledges effort, reinforce and support on return to work?			
Will the participant be able to get constructive feedback from organisation's employees?			
Will the participant be rewarded (e.g., salary, promotion, public recognition) for implementation of ideas?			
Does the participant have expectations that valued outcomes will follow implementation of ideas and that the ideas are valued by the organisation?			
Will the participant be able to avoid negative personal outcomes?			
Will the trainer follow-through to monitor/help in the after phase (including consulting with participant and key others)?			
Can parent/community acknowledgement be given to the participant?			
Is post-training learning/maintenance of new ideas planned and/or relapse prevention programmes to be implemented?			
Are there measurements of the introduced ideas and impacts?			
Will there be resistance by work groups and can it be overcome?			
Can there be avoidance of manager sanctions?			

# An exploration of identity, language, and culture: Re-thinking Pacific students' educational outcomes through dance.

Louise Fielder, *The Victoria University of Wellington, New Zealand*

## Abstract

The New Zealand Ministry of Education Statement of Intent 2013-2018 has defined Māori and Pasifika students as “priority students, those traditionally under-served by the education system” (Ministry of Education, 2013b, p.2).

The Statement of Intent 2013-2018 states that the Ministry of Education will contribute to the delivery of the Government's priorities for education to improve the educational outcomes for the “priority students”. To realise this goal, the Ministry is currently implementing three key strategies: Ka Hikitia – Accelerating Success 2013-2017; the Pasifika Education Plan; and Success for All – Every School, Every Child (Ministry of Education 2013a).

The Ministry's prescribed objectives state that the learning experiences of priority student education will “acknowledge, support and incorporate their identity, language and culture” with the aim to raise Pasifika student “participation, engagement and achievement”, and to raise Māori student achievement and retention (Ministry of Education, 2013b, p.8).

However, findings show the education community did not know how to put into action previously proposed strategies to raise education success (Ministry of Education, 2008). The question, therefore, arises: How are colleges going to achieve these intentions?

I propose that to achieve these objectives it is pivotal we gain an understanding of the current underpinning curriculum philosophy. As a dance educator and choreographer, I propose we need to re-think our pedagogical practice, process, and product. I propose dance in education is a fundamental channel for the success and educational development of Māori and Pasifika students.

Dance in education enables a variety of success opportunities to develop and reinforce learning in students. Performers and observers apply interpersonal and intrapersonal skills and literacy, presentation, and evaluative capacities are enhanced (Brinson, 2004, p.164).

## Introduction

What if the world were to share a lunch?

How do we as educators and learners create environments of balance between subjective epistemologies and ontologies within a standardised educational context and increase Pasifika student “participation, engagement and achievement”? (Ministry of Education, 2013b, p.8).

Following an overview of dance in the New Zealand Curriculum and a discussion on the underpinning philosophy of the New Zealand Education system, I present two metaphoric examples grounded in the concept of a “Shared Lunch” frame. I offer practical knowledge of implementable strategies that weave theory and practice to raise student achievement and retention.

Example one is based in the space of praxis exemplifying an environment and ontology created through a process of pluralism and polyphony. The frame values subjective knowledge, identity, and culture with the intent to encourage the “integrated nature of knowledge learning” (Sanga, 2009, p.222). Example two offers a sample of how standardised dance pedagogy can be taught and explored grounded in the frame of the Shared Lunch.

This paper is written from an interpretive and radical humanist paradigm with the perspective that identity is a

construction (Baumann 1996, Butler 1990, culture a contested notion (Geertz, 1973), community an imagined concept (Anderson, 1991, and knowledge a control construct that “.cannot have universal features” (Young 1971, cited in Thaman, 2009, p.16).

## **Dance and the New Zealand Education system**

Dance in the New Zealand Arts Curriculum is segregated into four strands: Understanding dance in context, Developing practical knowledge, Developing ideas, and Communicating and interpreting. Each strand has its own set of Achievement Objectives which develop over eight levels to provide “progressions of learning opportunities” (Ministry of Education, 2007, p.45).

New Zealand’s National Certificate of Educational Achievement (NCEA) system is generally sequentially implemented from Year 11 at Level 1, Year 12 at Level 2, and Year 13 at Level 3. The standards are assessed against prescribed criteria that result in grades stipulated thus: Not Achieved, Achieved, Merit, and Excellence. The system fits into a National linear frame quantified from 1 (certificate) to 10 (degree and postgraduate qualifications). The New Zealand Qualifications Authority (NZQA) defines the “standards-based” system as a method to describe “their [students’] strengths and weaknesses in detail” (New Zealand Qualifications Authority, 2014).

The Ministry of Education states the intent of this system is for students to “build on and revisit learning from previous levels” to ensure the students’ learning is “relevant, in-depth, and meaningful” (Ministry of Education, 2013a). I pose: Who is defining what is “relevant” and “meaningful”? How are relevant and meaningful defined? How and by whom is the relevance and meaning judged? I propose the answers lie beneath these questions in a core question, What is the underpinning world view of the current education system?

## **Effects of colonisation**

During the colonisation of Aotearoa the West positioned itself as “self’, progressive and knowing, and “Other” as inferior and problematic” (Sunseri, 2007 p.94). Scholarly “knowledge and power” (Said, 2003, p.35) was exercised to construct negative, generalised connotations of Other to justify imperial power to assimilate, control and dominate.

The Capitalist Western strategies employed to colonise and recolonize aided the construction of a dualistic hierarchy of political and social ideologies. The binary construction (Sunseri 2007, p.94) of “positional superiority” (Said, 2003, p.7) established marginalisation, inequality, and boundaries constructed by “universal”, “natural”, “truths”, defined by a Western linear belief and value system – a world view that was, and is arguably still, covertly reflected and reinforced in a current Eurocentric biased curriculum (McKinley, 2009, p.185).

The West constructed positions of empowerment and control through the fabrication of “identity” and “culture” (Bayart 2005, Geertz 1973) and employed strategies of dominance and assimilation through concepts such as oral language prohibition, oral and written language construction, and (re)construction. Similarly to how oral and verbal language has been, and arguably continues to be, used as a vehicle to term, classify, and compartmentalise Other (Pere 1991), the physical language of dance in education has the potential to objectify Other.

McKinley refers to the notion of the Other remaining “deeply embedded” in a Eurocentric framed education system that continues to value conventional assessing protocols. (McKinley, 2009, p.186).

I agree with McKinley that the epicentre of the New Zealand Education system is grounded in a Western context. Its construct is predominately a linear-based model where standardised protocols and quantitative methods remain highly valued. “Progression” is prescribed as the attainment of prescribed objectives.

Thaman refers to curricula as “planned and organised learning experiences” (2009, p.13). The Eurocentric curriculum is moving away from a binary construction where the West positioned themselves as the superior

Self, placing and viewing a marginalised Other “under a microscope” (Mita, 1989, cited in Smith, 1999 p.58) and defining and re-defining Other as an “object” (Anderson, 1991; Said, 2003; Smith, 1999). The dualistic curricula has moved towards what McKinley (2009) labels “Culturally inclusive curricula”, a curriculum taught in English which includes “Maori pedagogy” and “Maori contexts”, and “Translation” referring to bilingual and immersion schools that embed schooling with Māori values and philosophies.

However, the current New Zealand Dance curriculum has not moved away in its entirety from objectification and potential marginalisation of Other. To illustrate this point I reference Level 1 Achievement Standard (AS) 90002 1.2 “Perform dance sequences”. AS 90002 requires students to perform two or more sequences in varying styles or genres. The stated intention of the standard is for the student to: “Develop and demonstrate skills in selected dance genres and styles; Prepare, rehearse and perform a range of dances and demonstrate an understanding of the performance requirements of the genres and contexts” (NZQA, 2014).

The NZQA advocates Māori *Waiata-ā-ringā* (accompanied by a *waiata*), African Gumboot dance, and a Classical Indian Bharata Natyam as prospective sequences for demonstration. The criterion refers to a sequence being “not a complete dance in itself” and states the length of a sequence should be forty five seconds. The grading for an “Excellence” is defined as: “Perform dance sequences with clarity, control and accuracy” (NZQA, 2014).

In addition, the criteria states the student can “demonstrate stylistic techniques and movements usually associated with particular dance genres or styles or that include personal ways of moving that emerge from improvisation and creative work” (NZQA, 2014).

AS 90002 is presented as a unit to learn and demonstrate practical knowledge of selected dance styles or genres; however, the standard presents a myriad of ethical issues based on the concept of “taking” and “assessing” dance out of context and placing it in a standardised frame.

I pose: Is it acceptable to take and manipulate dance material from its context? Who judges who is appropriate to teach and assess? Is learning and re-creating a sequence out of context “relevant, in-depth and meaningful”? (Ministry of Education 2007, p.20)

Just as generalisations of ethnocentric research gave and continue to give, a distorted view of Maori social reality enabling the West “to see”, to “name” and “to know” (Smith, 1999, p. 60), is a Eurocentric education frame perpetuating stereotypical assumptions or re-creating distorted views of “reality”? Are “discoveries” by the West still being established as commodified property that belong to the “cultural archive and body of knowledge of the West” (Smith, 1999, p.61)? Is misinterpretation and misappropriation a continuing contention in our post-colonial world?

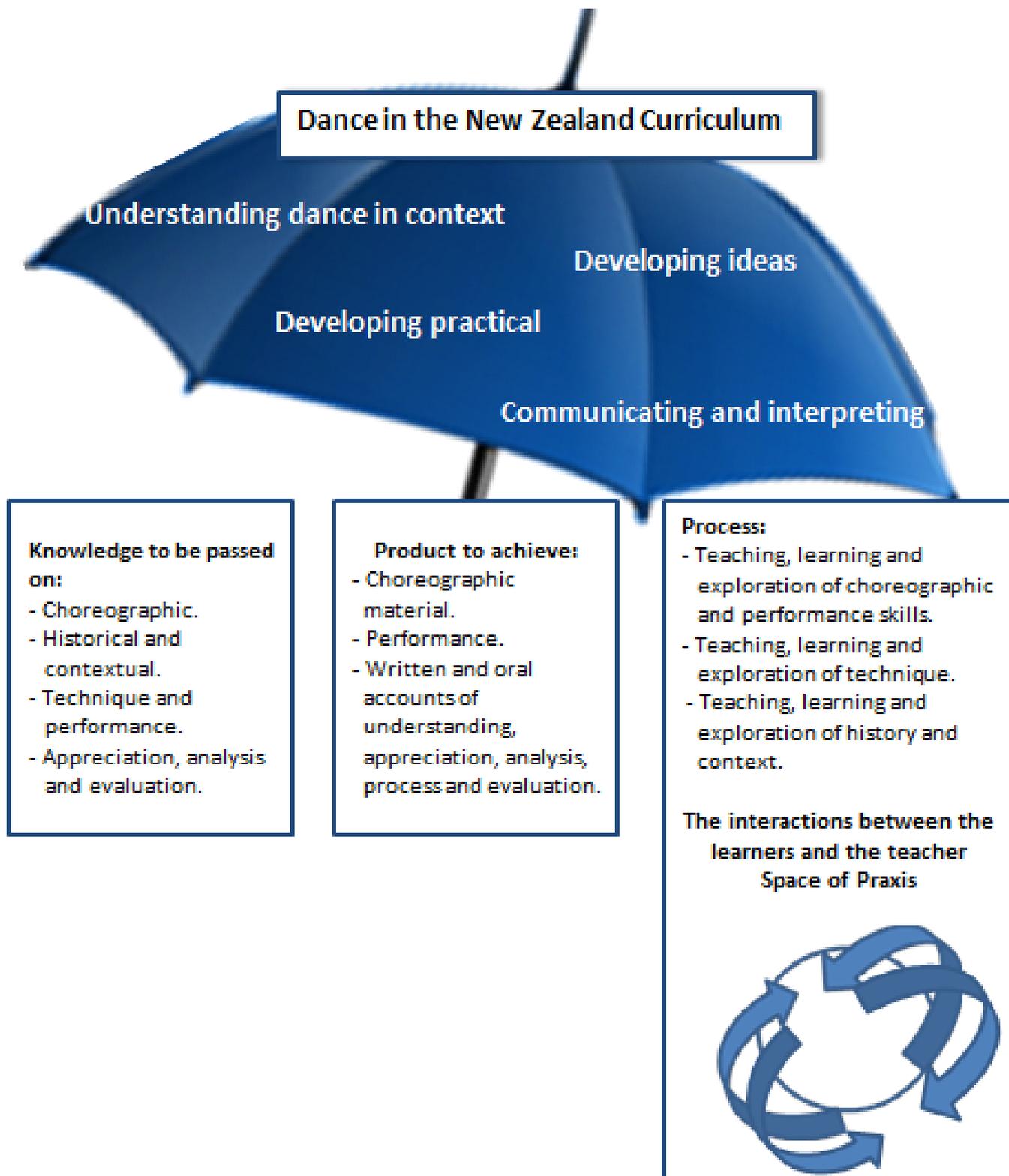
AS9006 exemplifies the underpinning philosophical assumption that to take, assess, and consequently objectify Other is acceptable.

I propose it is essential that further research is undertaken to explore the “cultural authenticity” (Kringelbach Neveu and Skinner, 2012) of dance in education. O’Carroll’s (2009, p.2) question (in reference to Haka and Hula performances in the tourist industry) is a relevant and poignant starting point: [how do we] “enable cultures to be represented in an accurate and appropriate way as defined by the culture itself?”

Affirming, empowering and valuing ontologies, philosophies, cultural pedagogies, epistemologies and methodologies within a standardised curriculum.

Three views of curriculum have been identified by Sanga (2009, p.222): “as a body of knowledge to be passed on; a product to achieve; and as process”. The following Figure places Dance in the New Zealand Education curriculum into the three areas.

Figure 1. *The place of dance in the New Zealand Curriculum*



The illustration highlights the separate areas of the dance curriculum. The areas are embedded in Eurocentric, linear methodologies and are underpinned with a dualistic objective philosophy in ontology, epistemology, and axiology. A linear methodology emphasises and encourages a linear approach to “thinking and doing” (Thaman, 2009, p.15).

Figure 2. *Linear Eurocentric worldview*

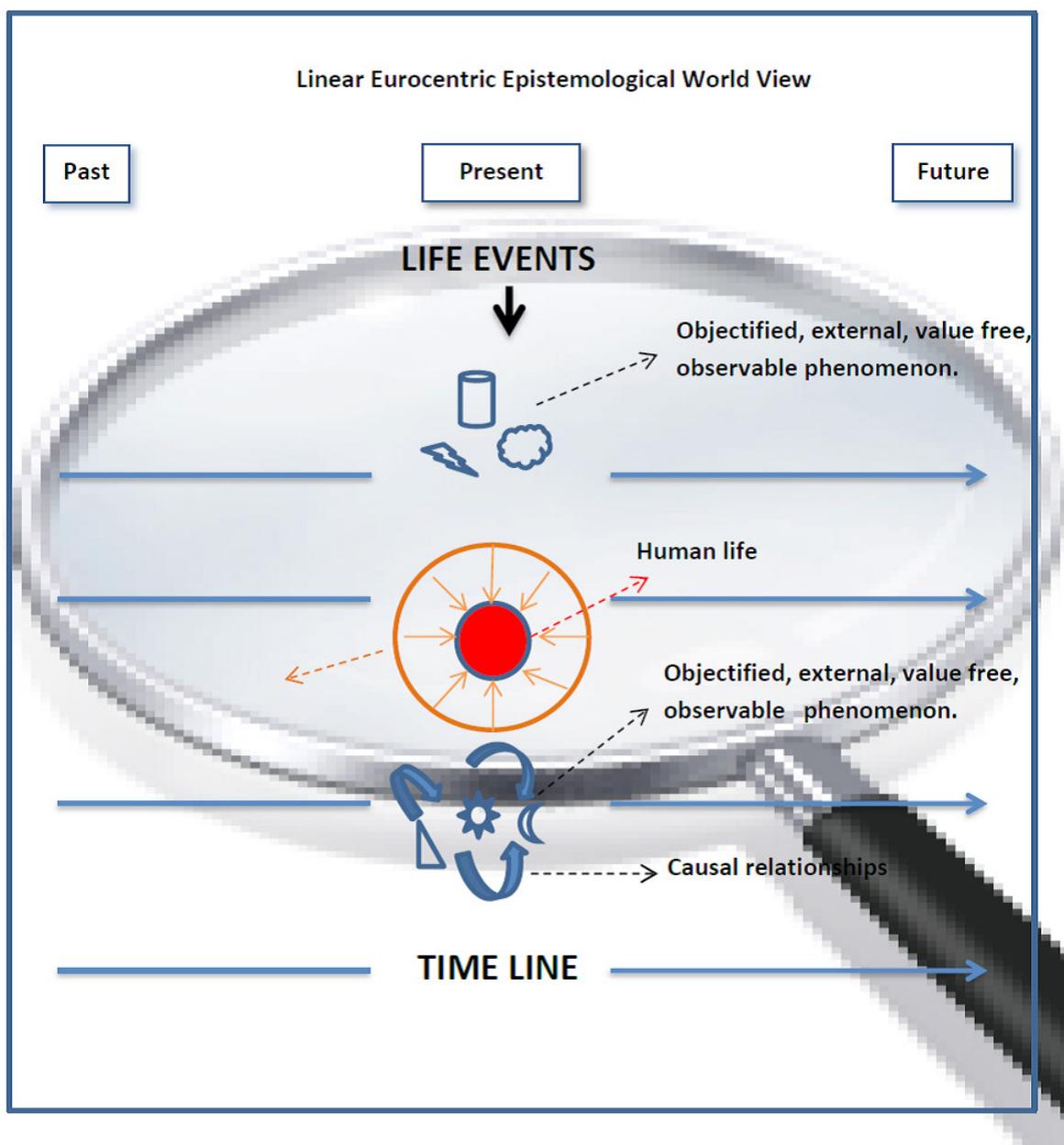
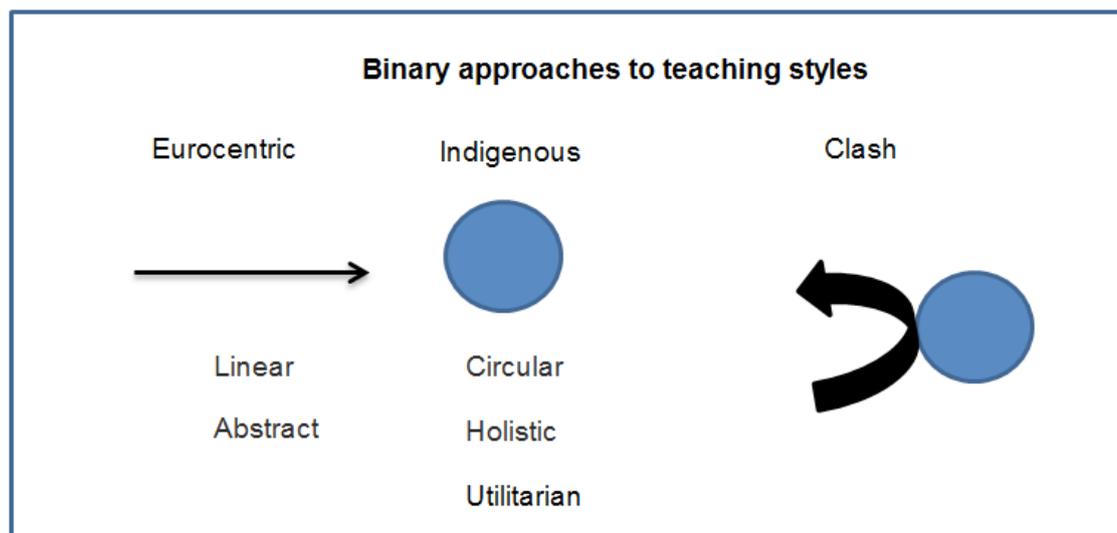


Figure 2 highlights a linear epistemological world view where human reality is believed to be attached to the present moment in time and space, there is no energy/spiritual connection to the past or future, and reality exists outside of our human experience.

Thaman (2009) labels the fundamental issues at the core of Eurocentric teaching as a “clash of expectations” (p.15) which can arise when students, whose dominant method of learning is holistic, engage in a predominantly linear Eurocentric educational frame.

Figure 3. *Binary approaches to teaching styles*



How do we as educators deepen the understanding of concepts and constructions related to identity, culture, and community, and raise Pasifika “participation, engagement and achievement” (Ministry of Education, 2013a) and raise student achievement and retention whilst working within the Eurocentric curriculum?

I propose the answer is in an education environment grounded in a holistic subjective approach reinforced with a transparent forum of praxis, subjective content, and a value laden process. The Shared Lunch metaphor will support a balance between maintaining currently prescribed academic standards and be “responsive to social and cultural demands” (Sanga and Thaman, 2009).

The Shared Lunch reinforces the basic education ideals referred to by Delor’s four pillars of learning “learning to know, learning to do, learning to be and learning to relate or live together” (Delor 2000, cited in Sanga and Thaman 2009, p49.)

We as educators with our own ontologies, epistemologies, axiologies, methodologies, histories, and relationships have to ensure our time with our students reinforces the value of each student’s unique identity and culture, in a safe environment that validates and contributes to the development of all knowledge and links the “community” of each student within the frame of the current education system, to help create a world where peoples from “various cultures...learn to live together and to respect each other” (Penetito, in Sanga and Thaman, 2009, Preface).

To achieve this we must value questioning the embedded philosophy underpinning the education system by placing it “on the table”. We must encourage universal dialogue and model questioning and reflection of the philosophy in relation to self, identity, community, and culture. This can be achieved in the frame of a universal Shared Lunch.

The Shared Lunch touches upon identified elements from the SLEP (Sustainable Livelihood and Education in the Pacific) research associated with a Tongan learning style featuring “Listening, feeling, thinking and observing” (Johansson Fua, 2009, p.217).

#### A Shared Lunch as an educational class frame

- Everyone attending is invited. An invitation implies you are a welcome and valued member of an occasion.
- By attending the lunch your presence is a representation of your past and present connections to your family, friends, land, community, and wider communities.
- Your presence connects you to the occasion and the link weaves a thread to the future through your accountability of your presence at the occasion.
- An “occasion” signifies there is a specific focus for the gathering.

- Your choice of food you bring to the shared lunch is a representation:
  - 1) Of what you, your family, friends, and community value.
  - 2) Of the individual value-laden body of internal knowledge, experience, values, and beliefs.
- The vessel the food is brought in represents the respect given to all external interactions – verbal and non verbal – of self and others.
- The gifting of the food to the lunch table and to all those present symbolises a gifting of cultural values, beliefs, norms, and expectations.
- Participation in a collective acknowledgement of the occasion (prayer, Karakia) affirms the group’s acceptance of the shared space, time, and intention(s).
- A verbal explanation of the ingredients and the preparation of the food symbolises an openness and willingness to connect to others and share valued knowledge.
- Listening to others describe and explain their food acknowledges your respect and interest in understanding varying ideologies, epistemologies, and methodologies.
- Physically eating and passing dishes and condiments amongst one another symbolises the shared celebration and acceptance of subjective values and embracement of the collective experience.

A Shared Lunch frame emphasises the “collective inquiry” and the ability to “live together and to respect each other” (Penetito in Sanga and Thaman, 2009, Preface).

A sample of the Shared Lunch metaphor - A process to create an environment of collective respect in education.

Phase one	Shared lunch	Dance space
<b>Respectful, consciousness, mindful preparation.</b>	Prior to attending the lunch attendees wash hands and either individually or jointly (in their homes) prepare (and cover) their dish and prepare themselves.	Students change out of their day clothes into comfortable, loose clothing in a designated changing area. Some students may talk to one another, others may choose to change in silence.
	The host washes hands and prepares their dishes and themselves. The host follows any formalities of the venue (unlocking/giving thanks) and prepares the venue (lighting, heating/ventilation, table, utensils, seating).	The teacher changes in a separate area to the students into comfortable, loose clothing. The teacher takes off shoes and socks then unlocks and enters the dance space before preparing it for teaching (lighting, heating/ventilation, instruments/sound equipment).

This first ritualistic phase is of preparing oneself physically, emotionally and spiritually – centring oneself in one’s own value-laden beliefs, attitudes, knowledge, experiences, and values prior to entering the designated space.

Preparation of dish = Physical, mental, emotional, and spiritual process of preparing self to enter into dance space. Focusing mind, body, and spirit in preparation to enter a shared space for collective and individual engagement.

Food = value-laden internal knowledge, experiences, values, and beliefs.

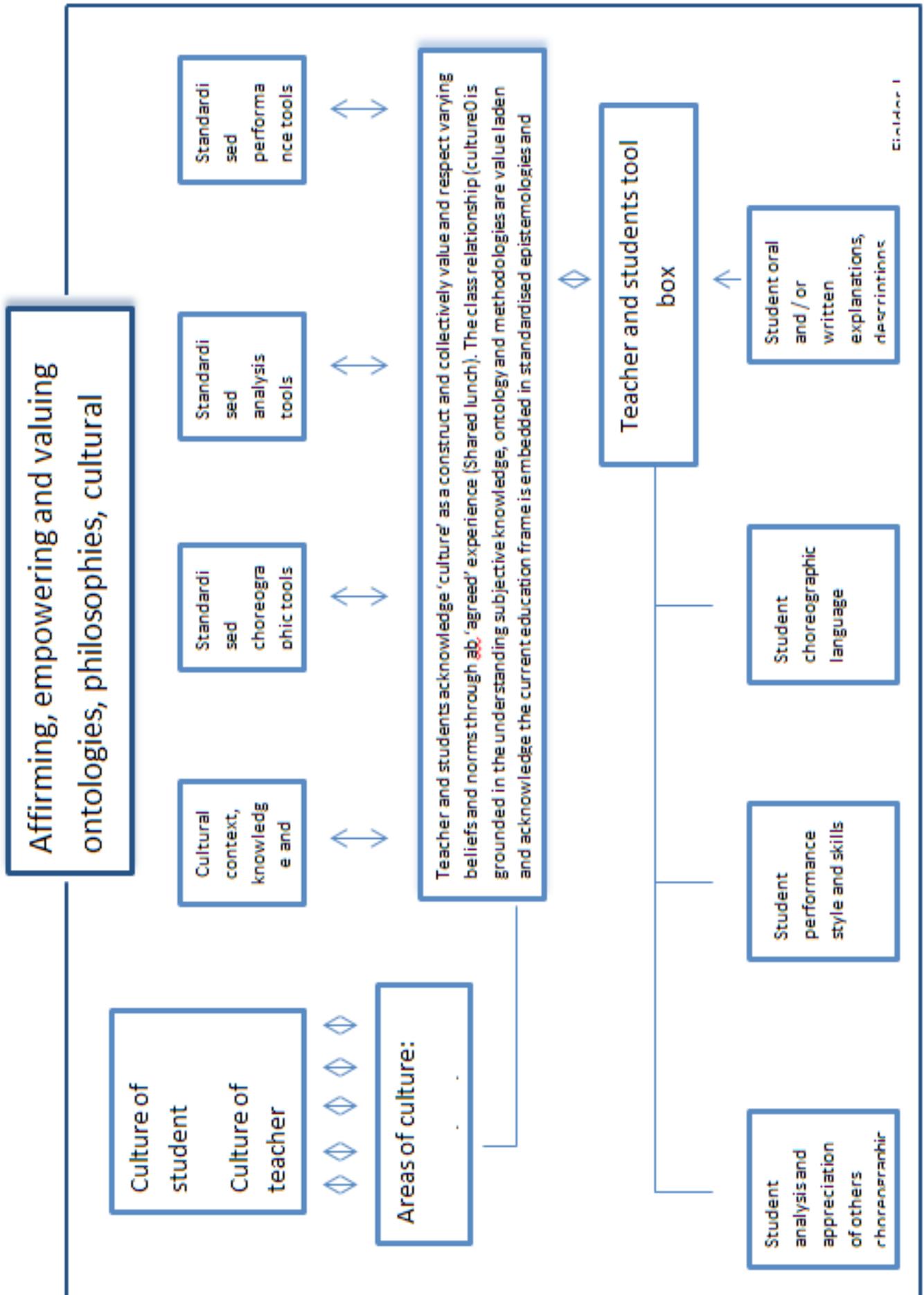
Vessel = external respect to verbal and non-verbal communication and interaction.

Preparation of the venue = Creating a “clear” (physical and spiritual) environment appropriate for receiving guests and for engaging in purposeful activities.

Phase two	Shared lunch	Dance space
<b>Engaging physically, mentally, emotionally and spiritually to the event.</b>	Attendees travel to the designated venue whilst carefully carrying their dish. Attendees greet and are greeted by the host. Attendees take the covering off their dishes.	Students walk to the dance space. Students take off shoes and socks prior to entering the space.
<b>Travel to the venue carrying dish = Transportation of value-laden physical, mental, emotional, and spiritual knowledge, experience, values, and beliefs to the space.</b>		
<b>Removing dish cover/shoes and socks) = overt ritualistic action of engagement.</b>		
Phase three	Shared lunch	Dance space
<b>Informal acknowledgment, acceptance and respect of roles and relationships.</b>	Host and attendees greet one another manner appropriate to the occasion (formal or informal).	Teacher and students greet one another.

The following model depicts a pedagogical frame to establish an environment of transparency and balance between subjective epistemologies and ontologies within a standardised educational context through the application of a Shared Lunch process.

Figure 3. *Affirming, empowering, and valuing ontologies, philosophies, cultural pedagogies, epistemologies and methodologies within a standardised dance curriculum*



The following outlines the standardised components of assessed dance criteria in the New Zealand Education system.

Tools of choreography:

(1) *Production Technologies*

(Performance space, lighting, special effects, accompaniment, set, props, costume)

(2) *Structure*

(Narrative, binary, ternary, rondo, abstract, collage)

(3) *Knowledge and choreographic application of the prescribed “Dance Elements”*

(Time, Space, Energy (dynamics), Relationships, Body Awareness)

(4) *Knowledge and choreographic application and manipulation of motifs and phrases using the prescribed “Choreographic Devices”*

(Accumulation, Repetition, Retrograde, Embellishment, Augmentation, Instrumentation).

The following table is an example of how “Production Technologies” can be taught within the frame of a Shared Lunch concept with the intention to embrace collaborative inquiry and relational understanding in dance.

### Production Technologies

	Shared Lunch	Dance Space
Preparatory questions	<p>Who has called the lunch?            What is the reason for the lunch?            Who will be attending?            Where is the meal being held?            What are the requirements of the setting?            What is the appropriate attire?            What is the accompaniment – live music or singing, sounds of the nature?</p>	<p>At this preliminary discursive and investigative stage it is important to consider the underpinning reasons behind the choreography and/or performance.</p> <p>The teacher and students discuss, research, and examine (with consciousness to bias interpretation and authenticity of cultural knowledge) the requirements of cultural expectations, norms, and protocols.</p> <p>Internal (personal) and external (research) knowledge is shared and discussed in relation to the subjectivity and objectivity of the intention(s) of the choreographer/performer and the potential perception(s) of the viewers.</p> <p>This process highlights the curriculum is relational; the dance material is relational to its context; place, time, lighting, special effects, accompaniment, costume, set, props are embedded in meaning and communicate meaning both individually and collectively.</p> <p>For the meaning to be conveyed “successfully” a clear understanding of the expectations, values, norms, and beliefs of the underpinning “attachments”, philosophies of the “representations” are required.</p>

As McKinley (2009, p.194) states “Cultures are never unitary, nor are they simply dualistic in their relation of self/ Other”[therefore] we must question in “relation to self, identity, and difference” the curriculum, ourselves as educators and as learners, and actively encourage students to question and explore.

To achieve this aim we require transparency in the education environment, an openness to “a democracy of experiences” (Hannula, et al., 2005, p.33) to remove the hierarchal epicentre, and unidirectionality of scientific methodology which allows for a “co-terminus with the multi-directionality of criticism” (ibid, p.36).

To ensure a balance is established to ‘enable harmonised cohabitation of culture and standardised assessments (Moe-Langi Fasi, 2009, p.91) we must shift the individualistic, Eurocentric, imperial epicentre and encourage the “subject” to take on the role of the all-enquiring, self-reflective power centre. Bishop (1999, p.3) references Heshusius’s concept of “participatory mode of consciousness” where “I” is released in order to enter a consciousness larger than self, so allowing the creation of deeper connections with ourselves and others.

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# How do Pacific Island families perceive the role and engagement of Pacific parents in their children's education?

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## Abstract

This presentation reports on a recent study which examines Pacific Island families' perceptions of the parental role in the learning process in a high school in Aotearoa - New Zealand. The purpose was to develop an understanding of how both parents and students perceive parental involvement. While other projects have evaluated perceptions of Pacific parents and students, this research was unique in that its context was a high-decile school (students are largely drawn from a high socio-economic community) with a small but growing number of Pacific students. By focussing on this demographic group, it addressed a gap in research on the role and engagement of Pacific parents in their children's education. A phenomenological qualitative design was employed, using focus groups and interviews. Careful consideration was given to Pacific research methodology, such as the use of 'Talanoa' principles.

The study examines how parents and students perceive the communication process, both within the family and between home and school. The findings highlight how parents' values and beliefs affect communication between parents and their children at home, and how parents engage with teachers. For example, parents stress the importance of education as a means of securing economic prosperity; whilst they wish to support teachers by encouraging their children to work hard, they are not always confident at communicating with the school. The research also reveals how parents' values and beliefs affect student engagement in the classroom.

Recommendations from this study focus on the need for schools to develop inclusive strategies which encourage dialogue between teachers, parents, and students. It carries an important message for all educators passionate about achievement for Pacific students, calling for a re-thinking and transforming of school systems to allow for Pacific parent and student voices to be heard.

## Background

The need to improve educational outcomes for Pacific students in New Zealand (Aotearoa) is reflected in the claim that the Pacific Island population has "the highest proportion of people with no qualifications" (Statistics New Zealand and Ministry of Pacific Island Affairs, 2010). The New Zealand Ministry of Education emphasises the importance of engaging families to help raise the achievement of this cohort of students (Ministry of Education, 2012a), and has highlighted the engagement of Pasifika families as a research priority at secondary level (Ministry of Education, 2012b).

The specific context for this study was a school where academic results have overall been more positive than those reflected in national statistics (NZQA, 2013). This research setting was unique in that the school is located in a higher socio-economic area than other schools which have participated in studies involving Pacific Island students. It has an increasing percentage of Pacific Island students (currently twelve per cent of the student population), many of whom have come here in preference to more local and lower decile schools. The purpose of this study was to explore the role and engagement of Pacific parents in this particular setting and, therefore, address a gap in existing research literature.

## Literature Review

### *The involvement of parents at secondary level*

Secondary schooling is a demanding time for young people as they work towards national, academic qualifica-

tions, make decisions about subject choices, and consider future careers. Parents can provide invaluable support. They may notice the first signs of their child's disengagement with learning and may know how best to solve it; and they can guide their children through educational pathways as they progress through their senior years of schooling (ERO, 2008a).

Parental involvement, when carried out at home, is most effective at supporting the academic outcomes of children (Bull, Brooking, & Campbell, 2008; Deforges & Abouchaar, 2003; Harris & Goodall, 2008). Senior students benefit when parents give encouragement and advice related to learning strategies, academic goals, and career choice (Hill & Tyson, 2009), when they set high expectations (Jeynes, 2007), and when they are well informed (Catsambis, 2001). Parents can help their children develop self-efficacy by modelling, nurturing, and encouraging a young person's belief and ability to take on challenges and persist through difficulties (Bandura, 1994; Schunk & Parajes, 2002).

### *The involvement of parents from minority cultures*

Many Pacific Island parents in New Zealand value education as a means for a better, more economically prosperous life (Siope, 2011) and, subsequently set high expectations for their children to perform academically (ERO, 2008b). When students from minority groups perceive that their parents place a high value on education, they are more likely to be motivated to do well (Okagaki, 2001). However, if parents rely on the notion of student effort as a major tool for achieving academic success, they may not understand their child's ability or be able to set realistic goals (Yamamoto & Holloway, 2010). Furthermore, issues such as limited English proficiency, lack of experience with the education system, and financial constraints can also negatively impact on the quality of parental involvement from parents from minority cultures (Yamamoto & Holloway, 2010). In addition, schools tend to have institutionalised codes of behaviour and act as providers of knowledge so that the power dynamics reflect the school's top-down control. This causes further alienation with parents who feel they do not have a voice (LaRocque, Kleiman & Darling, 2011). Pacific parents in New Zealand, indeed, have reported discomfort about interacting with school, feeling they do not have a voice, despite a strong interest in their child's education (Fletcher, Parkhill, Fa'aofoi, Tufulasi Taleni, & O'Regan, 2008).

### **Method**

A phenomenological approach was used to address the research question: "What are the perceptions of Pacific Island parents and students of the parental role in the learning process?" In order to address this question, this study specifically explored how Pacific parents and students perceived the parents' communication role when parents and students interacted at home about the students' academic progress and, similarly, when parents and teachers interacted at school.

The involvement of students and their families can present particular concerns regarding coercion. All aspects of the university ethical procedures were adhered to in order to maintain an ethically reflexive approach. Since this study was conducted by a Palagi researcher (of European descent), Pasifika methodology was employed to help develop respectful relationships with the participants and to secure trustworthiness of data. The principles of Talanoa (Vaiolleti, 2006) and of Teu Le Va (Anae, 2010) promoted respectful dialogue as did the incorporation of cultural advisors to give advice on protocol and other cultural matters.

### **Participants, data collection and analysis**

In total, seven parents and 12 senior students participated, recruited with the support of cultural advisors and via snowballing. One parent focus group and two student focus groups took place, followed by one-to-one interviews for those participants who expressed an interest and were willing to attend. In all cases, semi-structured questions were used to allow for a free flow of dialogue. Transcriptions of meetings were analysed in order to uncover the thoughts of the participants. Through this immersion in the data, using an inductive and reflexive process, broad categories arose and, into these, emerging themes were slotted. An important principle throughout was to remain close to the participants' own words.

## **Findings – the parents' perspective**

### ***The importance of education***

Parents confirmed that families had migrated to New Zealand for a better quality of life. They valued education as a means of achieving economic security and, therefore, believed it was important for their children to work hard at school in order to get a good education. One father said:

You've got to be a hundred per cent. You can't be half-hearted in things you do or you get half-hearted results.

Parents wanted to encourage their children to do as best they could but expressed concern that sometimes children did not work hard enough. One mother said:

I know my son is bright and he's got his head screwed on but I also know he can be lazy.

### ***Relating to others***

Parents placed a high value on supporting their family and being part of a community. They spoke of family arrangements and their willingness to make personal sacrifices. A mother explained: "They (Pacific Island families) have a lot of visitors that come and go and also there might be some family that comes and stays and so there is overcrowding."

The importance of relating to others was particularly evident through their commitment to church. A parent said: "Church is your extended family. It's more like family." In addition, parents explained that they placed a high value on respectful relationships. For example, the incorporation of a prayer at the start of the parent focus group was positively acknowledged because: "It's part of respect."

### ***Respect and listen***

In particular, parents emphasised how listening was an important part of respectful relationships. As one father said of his son and classmates: "They need to respect them and listen. ...because he is too much chatting with his friends and not listening to what the teacher said." Parents acknowledged that their respectful nature made it hard to ask questions and was a potential barrier in communication with teachers, who were seen as figures of authority, because: "Sometimes we are too polite".

They also acknowledged that it was also difficult for their children to speak up when they needed help in class. A mother showed concern that: "if you don't voice your concerns, it will be left". Therefore, there was a dichotomy between showing respect and yet also recognising the need to speak up.

### ***Work as team***

Despite some parents acknowledging the difficulty of asking questions, they did want to build relationships with the teachers so they could understand how to support their child. As one mother said, they wanted teachers to give "honest feedback, not something that is just token". A consensus of opinion amongst parents was to work alongside teachers: "as a team to help with achievements".

However, they felt this was difficult due their lack of knowledge. As one mother explained: "NCEA (examination system) I am still trying to get my head around it". Another mother explained that a lack of understanding, combined with other commitments, meant that parents often chose not to attend meetings at school: "There's no point. They won't understand or it clashes with family/church activities".

Since parents expressed difficulty communicating with teachers, they relied on their children to report academic progress. This was potentially problematic, as one parent summed up: "You trust them that they are telling you the truth".

## **Findings – the students’ perspective**

### *Go to uni*

Students showed they understood their parents’ message about the importance of education, as this student qualified: “If you wanna good job you have to do well in school, you need a good education”. Whilst they expressed a personal desire to go to university, they confirmed that these stemmed from parental expectations. One student said: “My parents really want me to go to uni”.

### *Parental pressure*

Although students knew they were expected to do well, some acknowledged that they did not work hard. One said: “It’s just laziness and I don’t like doing homework”. A number also said that they kept information from parents, such as: “If it’s a bad grade I will keep it to myself”. They spoke of not wanting to cause disappointment, as one explained: “I am just so ashamed to bring it up”.

Added to this was the complication that parents did not understand the students’ academic world. A student said: “I could tell them more but, actually, they don’t have a clue about the system”. Therefore, some students avoided conversations at home about academic progress but, at the same time, appreciated the fact that parents pushed them because: “It’s good”.

### *Separate worlds*

Students reported that they kept their worlds separate. One explained:

So you got your church-self, your school-self and then you’ve got your home-self. So it’s like three different things so you wouldn’t want your parents to know all about your school and stuff ‘cos it’s got to be different from your home.

Students often faced difficult decisions with their time as they moved from one world to the next. A student, who focussed seriously on her academic studies, talked about her other commitments:

Me and my sister, we clean the house. I babysit. Yeah, like, I do everything in the house. I help out the family, cook dinner, and yeah, we have church youth practices after church or after school but, like, at 6 o’clock and we just practise and practise and then go home and do some more chores.

### *The importance of others*

Like the parents, students showed a preference for group settings. For example, they appeared comfortable with their church commitments. One declared: “Oh, we enjoy it... It’s just that we were raised, brought up to go to church”. In class, students spoke of the importance of being able to work in groups to support one another. A student said they liked to: “discuss and talk about the different ideas”. They felt more comfortable in small group situations where they could ask questions. They feared, in whole class situations, they might be judged unfavourably by other students so they elected to remain quiet. As one student declared: “They don’t want to look bad in front of people”.

### *Consequences*

Students, therefore, often combined a passive approach in class and maintained a distance in academic conversations at home. The consequence of this was summed up by one student. Aware that parents have high expectations and that students do not ask questions in class, he said: “They don’t want to fail their parents. ... but without them telling their parents and without the teacher knowing, they’re going to anyway”.

## **Discussion**

### *The impact of parental expectation*

Whilst parents wanted to encourage their children to do well, they were disappointed in their children’s passive attitude to learning. The parents’ ability to positively influence their children’s approach to learning was limited

by the lack of reciprocal interaction in the home context. One reason was the parents' lack of understanding of the NCEA qualification system. Parents, who have low self-efficacy in terms of their own academic ability, may lack confidence in supporting their children's learning, especially as the children progress through high school to more complex work. However, even well-qualified parents expressed confusion about NCEA. Their children could have facilitated conversations in the home, helping them to gain a better understanding of their grades but often chose not to do so.

When students kept information about low grades from their parents, parents possibly found it hard to measure what was a realistic expectation to set their child. Instead, they encouraged their children to work hard and achieve the best grades possible. Consequently, students may have felt they were expected to perform to a high standard and achieve unrealistic grades. They, therefore, kept negative information away and this seemed to form a circular pattern, making it harder for parents to adjust their expectations to a more realistic level. Any friction and lack of communication between parents and children, therefore, may have stemmed from a parental over-reliance on effort as a grade determinant (Yamamoto & Holloway, 2010).

Ironically, students expressed an appreciation for the fact that their parents pushed them to work hard, suggesting that they depended on their parents to motivate them to study. However, the students' ambivalent attitude about whether they wanted to engage in the conversations made it difficult for their parents to play an effective role. Furthermore, since some of the students expressed a reliance on their parents' encouragement, they may not have been intrinsically motivated and fully engaged in their own learning. Otherwise, they would not have needed their parents to push them.

Students can achieve positive education outcomes when they exercise self-efficacy and visualise success (Bandura, 1994). When parents set high expectations for academic outcomes, their children may feel that they cannot attain these goals and, consequently, lack self-belief and feel they are not competent. Any negative feedback from parents may reinforce feelings of inadequacy. An unintended, negative consequence from parents' high aspirations for their children is that it may have undermined their child's personal confidence and, subsequently, their inclination to be self-motivated with their studies.

### *A contrast in values between home and school*

The students, like their parents, showed a preference for operating interdependently in groups and reflected the collectivist values of their parents. In effect, they operated within two potentially contrasting value systems: individualism and collectivism. Schools generally support the value system of the dominant culture which has a Westernised, individualised perspective (Trumbull, 2003). The New Zealand curriculum encourages thinking skills that are both independent and critical (Ministry of Education, 2007c). However, in a collectivist culture, independent thought is discouraged when children are expected to listen and respect the knowledge of their teachers (Trumbull, 2003); and students may choose to focus on relationship maintenance at the cost of striving for individual success which risks separation from the crowd (Gore, Wilburn, Treadway, & Plaut, 2011).

Students operated in different worlds, choosing to keep home and school separate. Since previous research has also reported this (Hill & Hawk, 1998; Siope, 2011), it is interesting that this pattern continues with subsequent generations of Pacific children. In a collectivist culture, interdependence and strong family cohesion are emphasised in parent-child interactions (Kwak, 2003). As individuals continually negotiate meaning through social interaction, and in doing so, adapt existing cultural values, the younger generation is likely to develop different perceptions to those of their parents (Kwak, 2003). Students possibly elected not to talk with their parents to explain their perceptions in order to avoid any friction and confrontation.

Parents, too, faced a dichotomy in the different value systems. In a collectivist culture, the concept of the self is someone who only has meaning in relationship to others which is a different way to perceiving the world compared to that from a Westernised, individuated perspective (Tamasese, Peteru, Waldegrave, & Bush, 2005). It was important to the parents to build relationships with teachers in order to communicate with them about their children. Whilst these parents showed confidence in the educational system by electing to send their child to a high-decile school, the consequence was that, like parents in earlier research, they felt disconnected

from the school system and perceived there were barriers to communication.

## Conclusion

This research concludes that the selection of a high-decile school by parents may not be enough to bring positive academic outcomes for Pacific Island students. These findings highlight the need to re-think and transform school systems so that home-school relationships move beyond traditional models. Schools need inclusive strategies which encourage dialogue between teachers, parents and students in order to promote a shared understanding of the students' academic targets and goals. The Ministry of Education has made its clear in its Pacific Education Plan for 2013 – 2017 that it seeks to improve the academic achievement of Pacific Island students. The engagement of families is an important ingredient for success. It is to be hoped that funding will be available to support further research and initiatives engaging families at secondary level.

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# Rethinking teacher and Pasifika student learning and relationships in a New Zealand secondary school

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## Abstract

This paper describes my proposed PhD study in Aotearoa which focuses on investigating positive experiences of Pasifika boys in a secondary school. By following a number of students through their first year at the school, I hope to rethink and critique the way institutional practices contribute to the perceived success of Pasifika students over an extended period of time, and to locate positive areas for replication or expansion. The study is centred on a model of a school as a web of relationships.

I assume that part of the answer to the question: ‘What do teachers need to know to teach Pasifika students?’ is more accurate information about themselves, their students, and their mutual relationships. In this paper I discuss how I will provide teachers with opportunities to reflect on their practices and their assumptions, by considering how such practices and assumptions appear to Pasifika students and their families. Pasifika students will be given the opportunity to represent themselves in their own terms to their teachers, and to have the first word in their learning relationship. The wider Pasifika community of the school will also be invited to collaborate in the activities catalysed by the research focus.

This study will make a contribution to the growing body of strengths-based Pasifika research by focussing on boys in transition into the secondary education system. In a climate where ‘Pasifika success as Pasifika’ is often focussed on objective measures, the study is designed to add depth and clarity to a fuller discussion of success. This will interest those involved in teacher training, particularly those providing professional development for teachers who are in service and have Pasifika students in their schools. It will also interest those trying to build theory into professional practice, and those interested in the creative possibilities of new technologies.

## Introduction

A paradigm shift is in progress in relation to Pasifika education in Aotearoa/New Zealand from a concentration on problems to a focus on strengths. This can be seen in research and in the rhetoric of government. However, encouraging such a paradigm shift in schools is more difficult than writing policy documents. Shifting the mind-sets of key individuals in the lives of Pasifika students involves changing thinking at the deep levels of beliefs and values. Changing teacher thinking is crucial in transforming Pasifika education: in-service education designed to glean accurate information from local contexts is capable of assisting in such shifts.

My role of Specialist Classroom Teacher (SCT) in a boys’ state school in Aotearoa/New Zealand – roughly translated as “teacher mentor” – involves deliberate acts of leadership, often involving one-to-one or small group teacher education conducted through relational trust (Robinson, Hohepa, & Lloyd, 2009). One of my goals is to help improve the educational outcomes of our Pasifika students.

The latest Education Review Office (ERO) report on the school in which I work praised most aspects. The school celebrates a culture of achievement which should be capable of promoting a high degree of success for all students. The ERO report suggested that the school is taking seriously its responsibility to serve its 5% of Pasifika students. However, examination statistics mirror national educational disparities for Pasifika students.

The main focus of this PhD study is an ethnographic tracking of a cohort of Pasifika boys as they go through their first year in secondary education. My question concerns how schooling experiences of “success” are understood, described, and explained by this group. The aim is to assess, critique, and rethink the way institutional practices contribute to the perceived success of Pasifika students over an extended period of time, and to locate positive areas for replication or expansion.

One part of the research sits adjacent to the tracking of individual students, and deals specifically with relationships in the school. It is an attempt to use theory and research to inform a programme of staff development, and to sharpen some existing practices in order to open new possibilities for transforming school-based relationships.

Key orientations in the research are the adoption of a Pasifika research paradigm (Sanga, 2004) and congruent Pasifika research methodologies (Anae, Coxon, Mara, Wendt-Samu, & Finau, 2001). In this paradigm a school can be seen as a web of relationships and teaching can be seen as a relational activity. This understanding draws attention to dialogic activity as the core of relational life, just as it is of the teaching/learning process in the constructivist tradition.

### **Outline of the issue**

In our relationships, we use “crude measures to sort and slot people into categories” (Ladson-Billings, 2012, p. 118). As a result there are tensions between lived and conceptualised realities with regard to ethnicity. The concept “Pasifika” used in discussing the education of people of Pacific origin in Aotearoa/New Zealand contains such tensions, and is neither neutral nor uncontested. The key criticism is one of simplification, a homogenisation which has implications for teachers seeking to develop complex and informed relationships with Pasifika students. How do they theorise “Pasifika” and how does that affect their practice? How can such simplicity be transformed?

In terms of lived realities, the umbrella term Pasifika is complicated, extending across all the islands of origin, and affected by inter-generational experiences of cultural progression, by mixed origins, and by the suggestion of an ethnogenesis of a Pasifika people (Tupuola, 2004). Lived experiences are intersected by other categories such as class, and lives are conducted in a number of communities of participation (Rogoff, 2003). Certainly amongst the 60 Pasifika boys at school, I can see a living-out of aspects of a shared existence which makes the concept Pasifika useful. However, this is more a brotherhood of relationships than homogeneity of identity. Pasifika students, like all others, are unique. However, all Pasifika students have become “priority learners” through Government policy (Ministry of Education, 2014).

### **Three triangulating methods**

García and Guerra (2004) make a number of assumptions about the necessary elements of an effective programme to deconstruct teachers’ deficit thinking. One is that teachers require sufficient, and I would add accurate, information about “others”. I propose the video *mihi* as a way of doing this.

*Mihi* is a Māori term which implies a deliberate start to a relationship through greetings and introductions. I propose offering new Pasifika students the opportunity to make a video “selfie” – now part of life – to introduce themselves to their teachers before they meet. The school has a set of iPads which can be used for this at student induction days. Using the skills of senior Pasifika students as buddies, an app such as VideoPad will let a student mix their voice, music, and still and moving images in a short mash-up celebration of themselves.

This method has catalytic potential at several levels. Students will be able to positively represent themselves in their own words, to recount their successes and aspirations, before they formally enter the school. Teachers will begin to know their students before the busy-ness of school takes over. Focussing on individual success is intended to change the tone of interaction and to shift the balance of power in student-teacher relationships.

Having first-hand accurate and individual knowledge of their students may help teachers to create space for an identifying process in their relationships and to respond by adjusting learning programmes, if and as required. Reciprocal accountability around goals and aspirations is another potential outcome. By working with senior students, bonding into the school “family” may assist the transition of the new student. Later, for the researcher,

student definitions of success may emerge, and during the ethnographic tracking, there is an opportunity to set up a dialogue between students and their past selves by re-viewing the video *mihi*.

I also propose to use *talanoa* sessions to explore with parents what they feel staff should learn in order to benefit Pasifika students. This addresses the concept of Pasifika as an umbrella term. As well as building relationships, such dialogue has the potential to offer teachers insight into a Pasifika world-view and, thus, contextualise individual Pasifika students. The dialogue presents an opportunity to rethink classroom practices and relationships through an accurate, locally-focused, transformative pan-Pasifika lens, creating the potential for teachers to begin monitoring themselves (and each other). Space for students' valued identifying processes may result.

The third method is that of mediated dialogue (Nakhid, 2003; Spiller, 2012). Staff need to envision how to apply new and accurate information about their Pasifika students in shaping curriculum content, pedagogical structures, and relationships. Two focus groups, of Pasifika students and of their teachers, will be offered the chance to "talk" to each other about their teaching and learning relationships through a mediator.

An iterative mediated dialogue cycle has the potential to begin to address Garcia and Guerra's (2004) concern regarding sufficient opportunities to embed transformational changes in practice. It provides students a voice in a way which partially alters the power relations in face-to-face school relationships, potentially leading to more accurate information. Teachers will be learning about themselves from a Pasifika point of view, and, armed with the wisdom provided by Pasifika parents, may be able to interpret this learning effectively and positively. The iterative cycle of dialogue gives scope for change and development. I hope that over the year any gap in perception between Pasifika students and their teachers concerning classroom matters will diminish as a result of improved understanding.

### **Transforming Pasifika education through re-thinking teacher education**

To transform Pasifika students' education requires a local practice grown from more global theories. To be sustainable, weaving theory and practice requires looking at the strengths of what is available in our own education "village". A school is a web of relationships, unequal in power, but with potential to move more towards *ako* and reciprocity. Pasifika students need to be successful in their own terms. They need to edge-walk (Tupuola, 2004), to be successful both in their own communities, and in mainstream Aotearoa/New Zealand. In order to help students in this, teachers need more accurate understandings about their students. We have an opportunity for teachers to re-think their part in Pasifika education based on Pasifika voices through weaving theory with wisdom from students, parents, communities, and teachers. Teachers may find themselves transformed (Semali & Kincheloe, 1999) edge-walkers by the experience.

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## How can Tuvalu teachers' performances be improved?

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### Abstract

National consultations with current teachers, community and stakeholders about ways to improve Tuvalu teachers' performances were conducted. Some of the findings found that Tuvalu Education system offered the least contact hours for their students compared to other Pacific nations, their teachers are expected to be 'at schools' during term break, the need for capacity and leadership building within the Education Department (ED) and teachers and the issue of training un-train teachers and upgrading teachers' qualifications. This paper will discuss in details all the findings from these national consultations.

### Introduction

The Tuvalu Education Strategic Plan 2011–2015 and the Tuvalu Education Support Program (TESP 2) places significant emphasis on providing equity and quality education for all children in Tuvalu. The Tuvalu Millennium Development Goals Progress Report 2010/2011 reported that, despite having one of the highest enrolment rates in the world, and achieving near-universal primary education for all, Tuvalu's quality of education is still the greatest challenge the education sector faces.

Access to education is central to the Millennium Development Goals because the achievement of universal primary education in low-income countries like Tuvalu is vital to the efforts to reduce poverty. Access to education is strongly connected to quality education (what children have access to) and educational outcomes (what competencies and capabilities are required). The UNICEF Pacific Education Program and the Tuvalu Education Department (ED) have identified the high rate of absenteeism, dropping out and repetition at primary and secondary school levels and the ways in which teacher time is spent and the tasks of teachers and how teachers' performance can be improved, as areas that require investigation.

### Methodology

The Principal Investigator (PI) conducted a national consultation (*talanoa*) to identify an appropriate professional development framework for Tuvalu teachers and to find solutions for student absenteeism.

At the beginning of every *talanoa* session, the PI gave a presentation to the participants on the purposes of the *talanoa* and why it was important that a professional development framework for Tuvalu teachers be developed and solutions for students' dropout be found.

The participants were then divided into small groups (3-4) to *talanoa* among themselves about the issues. Each group was asked to identify a list of problem areas in the education system that hindered teaching and learning, then to select one problem area and come up with strategies to solve it. Each group presented their work to the whole group, which generated further *talanoa* and discussions. The PI took field notes during these *talanoa* sessions and the groups' charts were also collected. The PI field notes and the information from the charts were combined into one dataset. This *talanoa* dataset was analysed using thematic analysis. The repeated themes that emerged from the data itself are discussed below.

### Findings

These following themes emerged during the *talanoa* sessions. They relate to ways in which participants be-

lieved teachers' performances could be improved.

### ***Improve institutional/human capacity at the ED***

According to teachers, the ED needs to improve its institutional capacity by employing more officers and improving the quality (qualifications) of officers. There is currently only one officer each for curriculum, assessment, and Education Management Information System (EMIS), and teachers believed that to effectively implement the ED's plans and policies the number of officers should be increased to at least three curriculum advisors – one each for the early childhood (ECCE), primary and secondary divisions, or one for each curriculum area – and that the assessment division required two people, one for primary and one for secondary schools.

Teachers also reported that most ED officers were trained primary school teachers and they wanted more trained secondary school teachers to help with secondary school issues such as professional development, advice on curriculum and assessment, and other matters.

### ***Improve school resources and resource management***

One theme was out of date (or no) resources at schools. ECCE was singled out as the sector most deprived of resources, but the problem was seen to be common to all sectors. Most ECCE centres were started on existing premises with extra space, not properly or purpose-designed and built, and in most cases this presented significant challenges to a conducive and secure learning environment. ECCE programmes were based around play, and lacked resources which are very vital for student learning.

The ED budget allocation for ECCE reflected the desperate need for school resources. In 2011 the ED allocated \$24,909 for resourcing the 18 ECCE schools. In the primary sector, the situation is similar. Teachers believed that a mechanism should be established so that teachers effectively share resources within and across schools. One way of doing this is to establish a Tuvalu Teachers Association and various subject Teachers' Associations, such as a Science Teachers Association. A resource inventory for each subject area needs to be established in order for teachers to be able to share.

One of the strategic and priority areas to improve the teaching and learning environment is to upgrade and maintain school facilities (including dormitories, kitchens, staff houses, etc.) to a standard conducive to teaching and learning in a healthy environment (Education and Human Resources: Priorities and Strategies 2005-2015 Environment for teaching and learning).

### ***Develop leadership capacity for teachers, head teachers, and principals***

Leadership training for teachers was identified as an area for further development. The skills that teachers learnt in their teacher training programmes did not necessarily prepare them for leadership roles beyond their classroom duties. To assume leadership roles, teachers may need further expertise in curriculum planning, assessment design, data analysis, and similar activities. They may also need to develop the abilities to listen actively, facilitate meetings, keep a group discussion on track, decide on a course of action, and monitor progress. In a small education system like Tuvalu, with very limited resources, leadership skills are much needed to ensure that amidst all the challenges, the education system still offers quality education.

### ***Promote community/school partnership***

School–community partnership was raised as an area that needs support. Schools do not exist in isolation – and in small communities like Tuvalu, schools are often the centrally located and at the heart of the community. Schools should utilise their position in the community to work together with other community members, for the benefit of all. It is well known that learning is not limited to the classroom, and parents' contributions are a powerful determinant of student achievement. Understanding the school, home, and community contributions to student learning helps cultivate a holistic learning environment. Most importantly, effective communication between schools, parents, the community, and students forms the foundation in developing and maintaining effective partnerships.

This community partnership is particularly central to the ECCE sector. At the moment, this sector is very much at the mercy of the community goodwill and commitment. Some suggested that instead of paying the *Kaupule*, that money should be used to pay ECCE teachers; however data did not reveal who is paying the *Kaupule* and for what reasons. Others believed that the Government should compensate ECCE teachers and pay for their salaries.

## Teachers

### i) Qualifications

Table 1. *Teacher Qualifications (2012)*

	PhD	Masters	Bachelor	Diploma	Certificate	No cert	Grand total
ECCE				4	14	32	
Primary		1	16	40	24	18	
Secondary			16	18		10	
Form 7		2	6				
<b>TOTAL</b>	<b>0</b>	<b>3</b>	<b>38</b>	<b>62</b>	<b>38</b>	<b>60</b>	
							<b>201</b>

According to the ED 2012 figures, almost 30% of teachers have no qualifications at all. 53% of these unqualified teachers are in ECCE, 30% at primary schools and 17% are at secondary schools. Certification of teachers, especially at the ECCE level, is an area of priority that the ED must look at. Qualified teachers are needed to deliver the curriculum successfully.

A further 30% of all Tuvalu teachers have diplomas. These teachers should be encouraged to upgrade their qualifications, and the ED should provide the support for these teachers to do so.

Participants suggested encouraging ECCE teachers to enrol at the USP's ECCE certificate programme through Distance & Flexible Learning (DFL) or the Australia-Pacific Technical College (APTC) training programmes. Another suggested alternative was for summer school training, which will not disadvantage children, because teachers can still teach during the school terms and undertake summer school study during school breaks.

### ii) Gender Distribution

Table 2. *Gender Distribution (2012)*

Sector	ECCE		Primary		CTC		Secondary		VOC		F7	
	M	F	M	F	M	F	M	F	M	F	M	F
	1	49	15	78	7	1	26	17	1	0	5	3
<b>TOTAL</b>	<b>50</b>		<b>93</b>		<b>8</b>		<b>34</b>		<b>1</b>		<b>8</b>	

Figures from the ED show that females dominate the teaching profession in Tuvalu. 73% of teachers are females and only 27% are males. According to the Tuvalu Employment Act (Cap 84) all female officers shall be entitled to a maximum of 60 working days maternity leave on full pay. Therefore, assuming that the majority of female teachers are still in their reproductive years, the impact of teacher absence due to maternity leave will be significant. Some possible implications of this may include high prolonged absences due to maternity leave, and reductions to students' time on task, because their teachers are away. The opportunity to learn for Tuvalu students is also reduced compared to other Pacific countries which have longer school contact hours.

### iii) Teachers' attributes

Teachers' attributes were a concern to the participants. For example, there was concern about teachers' dress code. Participants reported that there is a dress code for teachers, but that it is obvious that teachers do not adhere to it, because teachers are observed wearing a wide range of clothing to school, and not all of it is ap-

appropriate or adherent to the dress code.

In addition, a teachers' code of ethics should be observed by all teachers and enforced by school administrators and the ED. Other attributes, such as discipline, punctuality, commitment, positive attitudes, and team work, are important for teachers to practice. Personal and moral values and beliefs including self-efficacy, confidence, honesty, respect, trust, consideration, love, care, flexibility, and patience are all needed by teachers.

#### *iv) Teachers' Professional Development*

It is apparent that Tuvalu teachers would benefit from a PD programme designed and implemented by ED officers, because there is no such arrangement at present. The following areas were identified by participants as requiring PD:

- Training on writing Learning Outcomes
- Teacher commitment & attitudes (currently negatively exemplified in a lack of lesson planning, short cuts, heavy reliance on textbooks/blackboards), and general teacher proficiency
- Effective teaching strategies
- Assessment, evaluation, and preparation of exam papers
- Multi-grade and composite teaching
- Classroom management
- ICT skills for education

#### **Review Curriculum**

Currently, each ECCE centre is responsible for developing its own curriculum. Teachers wanted the current curriculum to be reviewed, as they felt that it was not applicable to the local context, and not up to date with current issues. Once designed, delivery of the curriculum needs qualified teachers; therefore there is a need to upgrade and upskill teachers. Others believed that an increase in school hours may improve the delivery of curriculum.

Related to the delivery of the curriculum, is the concept of contact time and the opportunity for students to learn. Tuvalu contact hours are the lowest when compared to other Pacific countries which have longer contact hours and therefore provide greater opportunities for students to learn. Furthermore, other Pacific countries give their teachers breaks in between terms. Currently, teachers in Tuvalu do not have breaks during the school holidays. They are expected to work in their own schools or attend workshops at the Department of Education. School breaks could drastically reduce teacher and student exhaustion, and give them the chance to rest before the next school term.

#### **Conclusion**

These findings are crucial for the ED in their effort to improve teachers' performance. Some aspects of teacher development in Tuvalu are beyond their control, such as there being no national teacher training body, but these findings will provide them with the appropriate blueprint needed to improve education in general. Some of the donors have implemented initiatives to alleviate some of the issues found. The ED needs to work together with these donors to ensure sustainability of these projects. It is hoped that the discussions of the findings above will help the ED design policies to help teachers in Tuvalu improve their performance.

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## A Locally Focused and Sustainable International Teacher Education Project within Oceania

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### Abstract

Developing Pacific Island Countries (PIC) often battle with remoteness, a lack of available resources resulting in outdated infrastructure, too few well-trained local teacher educators and a heightened lack of available local teachers. Approaches to alleviate these problems in many PICs have included the employment of expatriate teachers to supplement teacher supply from local teacher education institutions. In the Republic of Nauru, a model is being implemented where the Department of Education has partnered with the University of New England (UNE) to develop a two-phase quality teacher education programme with a Pacific focus. The mixed-mode delivery offers online teaching material with continuous full-time on-island support to enable the students to remain in-country for their studies in Early Childhood Education, Primary Education, or Secondary Education. A sustainable and transformational aspect of this model is its mentoring. Those mentored will in turn provide academic support to help later cohorts complete this Pacific-focused international teaching qualification. The project design has an associated multi-faceted longitudinal research and programme evaluation component. Data collected includes students' online reflective learning journals, in-class and online interaction, and video footage and course assessment data as well as interviews with students, their families, the Department of Education, and the University lecturers. This paper reports on the project design, the characteristics of the cohort and identified changes in students' perceptions of themselves as a teacher and learner during the first year.

### Background

Significant cultural issues come into play when providing effective teacher education in the Pacific region. According to Thaman (2014), delivery of culturally democratic teacher education requires the flexible provision of globalised content catering to both local contexts and international teaching cultures. This involves a balanced reliance on cultural values through online and face-to-face deliveries even to remote areas of the Pacific. With many small island countries dispersed over huge areas, recent advances in technology, in particular the internet, should offer considerable logistical benefits to the region. However, Thaman (1999) cautions that technological processes of delivery can often be incompatible with localised social and economic infrastructures, prone to interruptions in supply and communication, and can significantly limit the effectiveness of the learning. These limitations disempower learners.

Another obstacle (Hogan, 2009) is that in Pacific locations where remoteness has made it difficult to develop quality technology infrastructure, online learners must learn the use of such technology. However, Yusuf (2009) believes that flexible delivery modes have the potential to overcome barriers caused by remoteness, natural disasters, lack of quality technology, and contextual alignment with individual student's personal and academic needs. The project attempts to undertake this compromise with what might be considered a "blended" or "hybrid" programme that takes account of both the cultural and technological needs of delivery.

Green and Reid (2004) argued, “teacher education – like education research as well as schooling itself – should always be understood as situated practice” (p. 1). Situated learning and community of practice notions (Lave & Wenger, 1991) are collaborative, interactive teaching and learning approaches focused on addressing issues of common interest over an extended period of time. Such notions seem to be an ideal foundation for teacher education where educators come together to share ideas and experiences for addressing teaching dilemmas and reflecting on learning issues.

Shared learning emphasises inquiry and classroom research. Green and Reid (2004) concluded more forcefully that “preservice preparation programs must accentuate the primacy of partnerships and relationships as being central to the provision of quality education” and that “by working collaboratively with others the impact of teachers and their work is multiplied” (p. 8).

Mentoring – a popular concept in teacher education – can however have negative impacts, such as mismatch between mentor and mentee. This article reports on the impact of formal mentoring on a group of trainee teachers (pre- and in-service) in Nauru as they undertake an online teacher education qualification, with on-island support, provided by the University of New England (UNE), Australia.

According to Heirdsfield et al. (2008), many first year teacher education students experience feelings of isolation and uncertainty, and struggle with their studies as they face personal, academic and technical challenges whilst balancing academic workload with commitments of work and family life. This often results in diminished academic performance and increased rates of attrition. Mentoring has been viewed as one way to address some of these challenges, and although there are few examples of mentoring programmes in teacher education at present, interest appears to be growing (Heirdsfield et al., 2008). However, as Hargreaves and Fullan (2000) point out, good mentoring is not accomplished easily.

Others view mentoring as a developing relationship between teacher and student (Awayaa et al., 2003) that supports student teachers in their journey to confidence and competence. Ehrich, Hansford, and Tennent (2004) identified a number of consistent positive outcomes for mentees: support, empathy, and encouragement on an emotional level and, more practically, help with teaching strategies, subject knowledge, and resources. However, some negative aspects also emerged from the review: lack of time with mentors, personality mismatches, and mentors who were critical, perceived to be out of touch, and in some cases, stifling.

Effective and positive mentoring incorporates a pervasive characteristic of Pacific culture, described as its relational aspect (Sanga, 2005). According to Sanga (2005) the ideal format of foreign aid for the Pacific is development of equal relationships, including nurturing decision-making structures that enable the foreign aid to mentor Pacific counterparts to synthesise the best of both foreign and Pacific practices and processes to fit the Pacific context. In teacher education, this would result in a compatible globalised teaching culture that supports international as well as local curriculum content and delivery. This bi-lateral focus is important if future generations of Pacific countries are to function in a globalised society.

This is the view of mentoring held by the authors of this paper, and what follows is an account of on-going research to determine if the teacher education project in Nauru has achieved its chosen approach to mentoring or, as is often the case in the Pacific region, has resulted in developing dependency.

## **Context**

Nauru, population approximately 10, 000, is an island country located in Micronesia, well known as one of the three great phosphate rock islands of the world. However, as a result of extensive mining, Nauru has very little capacity for industry and the large area that has been mined is uninhabitable and requires massive rehabilitation. Education remains key to enabling Nauruan youth to find innovative approaches to industry and development in their home country.

Due to its small population and physical remoteness, to remain in Nauru for tertiary studies, has meant enrolling in courses delivered by international providers, who establish small on-site campuses and attempt to deliver offshore versions of the institutions' courses. In attempts to keep the delivery manageable and affordable, some institutions present shortened versions of their courses in the form of intensive face-to-face sessions and modifications to written assessments. Whilst these measures alleviate immediate problems, the students may not experience the benefits of reflection and deeper learning of concepts possible when studying over a longer period of time.

### **The Nauru Teacher Education Project (NTEP)**

The Nauru Teacher Education Project began in 2013 as a result of a need identified by Nauru's Department of Education to increase the number of qualified teachers and improve pedagogical and content knowledge amongst in-service teachers. Statistics in 2008 identified that "only 9% of teachers have a degree, 6.4% a Diploma, 50% have a Certificate, and 34.4% have no qualifications" (Department of Education and Training, 2008, p. 21).

NTEP was designed as a two year Associate Degree in Teaching (Pacific Focus) with successful candidates having the option to undertake a further two years of study toward a Bachelor of Education (Pacific Focus). The courses are designed in accordance with the Australian Quality Framework, covering early childhood, primary, and secondary education. Special education is also offered as a teaching specialisation within the Bachelor programme. These courses combine existing university units with new units designed specifically to address Pacific contexts.

### **Technology and Flexible Delivery**

Technology and flexible delivery are key elements of the programme. Prior to the start of the programme, twenty state-of-the-art laptop computers and associated IT hardware were freighted to Nauru and internet connection was established via five classroom modems in a dedicated space at a secondary school. Classroom and laptops are available to students Monday through Saturday and each student is given an SD card to store individual work and assignments. All technology infrastructure will remain with the Department of Education for use beyond the specified project, a key element of the sustainability of the programme.

The online degree is enhanced through multi-modal delivery, integrating Moodle platform participation with classroom tutorials, group collaboration, and unit-specific workshops delivered by visiting lecturers from UNE. This format is uniquely structured to maximise programme flexibility and continuity of learning despite frequent interruptions to communications technology on the island.

### **Dedicated Student Support**

Extensive online and in-person support is essential to student learning and progress within the degree. Initial support was provided by an on-island project representative who helped establish the necessary infrastructure and assisted students through the completion of their enabling units and enrolment in the formal degree. At the commencement of the Associate Degree, the level of on-island and online support was increased substantially with the addition of two full-time on-island Pacific Education Lecturers and two UNE-based support staff. The continual presence of on-island lecturers enables a consistently high level of support for all units (which are undertaken online) and facilitates the development of a learning community amongst the cohort. Because this level of support would be costly to maintain long term, students who successfully complete the programme will fill on-island support roles for the future.

Programme candidates were selected in consultation with the Department of Education and based on an English writing and comprehension test administered by the UNE in Nauru. An initial cohort of 41 students was admitted and undertook a four-week preparatory programme. Associate Degree students also enrolled in pathway enabling units to build literacy and numeracy skills foundational to their study, with those enrolled in

Secondary Science teaching taking an additional enabling unit in science.

## **Methodology**

The overarching study investigates the nature of change in pre and in-service teachers in Nauru enrolled in the Associate Degree in Teaching (Pacific Focus) that uses a model inclusive of intensive in-country support. It uses qualitative methods (interviews, observations), and quantitative methods to gauge engagement and completion (Agostinho, 2005; and Cresswell, 2009).

In summary, the data set pertinent to this paper is:

- Nauruan UNE Students interviews (three to-date per participant, 20 minutes duration) to collect longitudinal data (n=25).
- Qualitative participation records collected from the UNE Moodle site (after completion of the unit, n=26).
- Online personal reflection survey (three rounds to – date, n=27).

Thematic content analysis techniques are employed alongside quantitative analysis methods used to quantify attendance and Moodle engagement. Individual participants will be tracked longitudinally as the project unfolds.

The findings are continually collected and used as feedback; to programme coordinators and the Department of Education, Nauru in order to redesign aspects of the programme where necessary to sustain an effective learning environment; to students to confirm where best to enhance aspects of the programme; as accountability through regular progress reports; to professionally share the strengths and weaknesses of the programme through conference presentations and journal submissions such as this paper. This process also tends to enhance the data trustworthiness and authenticity (Shenton, 2004).

## **Participants**

The first cohort comprises 14 in-service and 14 pre-service students, with a mix of students ranging from scholarship holders who studied overseas and locally. To date, this previous school experience has not been a precursor to academic success in the programme. Of the 28 current students, 20 are mothers with many family responsibilities and commitments outside their work and studies. Only five are male, all of whom are in the pre-service group.

Most students in the programme are pioneers in their own families when it comes to university studies.

## **Research Questions**

The two research questions that guide this discussion are:

- 1) What is the nature of the change in Nauruan students' engagement strategies to promote learning enrolled in the Associate Degree of Teaching (Pacific Focus) during the first six months of study?
- 2) What elements of mentorship are evident in their online interaction and shared reflections of their studies?

## **Findings and Discussion**

Students' levels and types of engagement have changed considerably during the first six months of study. Interview data indicates a shift from personal time-management issues and focus on development of technological skills, to a sense of valuing the learning space and the commencement of a community of practice. There is evidence of growing confidence in their online presence. At the commencement of the programme, online interaction was limited to "lurking" and waiting for a question similar to one that they would like to ask. This passive presence is evidenced in the following interview excerpts:

*Betty:* I am finding ideas and how to do things. I sometimes go on the forums because I think that I have the same problem as other students.

*Lou Lou:* Yeah, I participate in discussion forums. I ask questions or answer some but...[when]...I have a question, then I go through the forums. I find the same questions being asked by other students doing the same unit courses so it is very...helpful.

*Eric:* I find it very helpful..., because all the time I want to post a question, I feel a little back, shy, so I just give it a while...and then...later, I check again, more, the questions are more sometimes. Okay, then the lecturer, she explains.

A few months later, Eric indicated a sense of accomplishment, and fulfillment in his personal contribution to the Moodle forum including the confidence to put a question or comment into the forum.

*Eric:* I have two questions up on the forums now. First, I waited and waited. No one asked these questions. I wait, I wait...okay I post it. I have two questions now in that forum...I feel confident now to post.

Whilst most of the 16 units of study require the students to engage with Australian and international students, up to five units only include Nauruan students in the first year of offering, 2014. It is evident that the students contribute more freely to the forum when it is only their Nauruan peers. Whilst the stimulus for the forum discussion is drawn from the unit content, there is a strong connection in the content of their discussion to their Pacific Island context.

Some conversation threads have continued for two days, indicating that the students are beginning to link the content of the unit of study with their own Pacific context. For many of the in-service students the use of, and participation in, discussion forums is a new learning experience for the students. Some students acknowledge they are hesitant to post in the discussion forums due to shyness and a fear that the lecturer may disagree with them:

*Charline:* I guess I am not confident enough to express myself but I go through that... there are times when I see some lecturers, they are too blunt. I am trying really hard to be part of the stuff, so...if I see comments from lecturers who are blunt about a question...that makes me more step away from ...

Students are, however, interested in hearing about experiences and seeking knowledge and advice from their international online peers in different contexts:

*Joan:* I really want to get to know them or share their ideas...about all the studies, how they are going through the studies, how they manage their time?

*Michelle:* It helps me a lot because I've been looking at some other's comments too – like I get some ideas from...other teachers from our countries. ... I learn [not only]... one ways of teach, learning and teaching children.

After six months of online study, one student provided the following summary of her experiences using the online reflective journal (survey):

*Louise:* At present I am up-to-date and will try and be consistent in logging into the forum discussion; which I have just found out is very helpful as I am learning and another point is if I am still unclear about a topic ... other students doing the same program help me get a better understanding. The

English pedagogy unit has exposed me to viewpoints of other students enrolled into this unit. ... I feel inspired by their passion and their dreams; some of them are almost very close to achieving their dreams and that is what I aim for. So, yeah how do I feel about UNE course at present - I can just say I am much much more at a stable, steady pace and more confident in finding my way about the moodle and forum discussion and my personal development is healthy.

The participants were asked to respond to the following questions:

- Considering where you are on your journey to being a teacher,
- Where do you think you need to go next on your journey?
- What will help you get there?

Both pre-service and in-service teachers' perceptions of what they need in order to get to the next stage is beginning to shift from general statements and/or external support networks to specific personal or pedagogical development. Survey 1 and Survey 2 were administered 8 weeks apart.

*Timothy:* (Survey 1)

To succeed in this journey I would need the help of my peers, parents and mostly myself to be motivated and never give up.

*Timothy:* (Survey 2)

I need to be more effective on interaction with the students and *building friendships* with them so that *we can work together* and make it much easier.

*Yvonne:* (Survey 1)

I need to stop for a bit and rethink my priorities

*Yvonne:* (Survey 2)

I need to develop my classroom management and antecedent strategies. To help me get there I need to observe a more experienced teacher so that I can see for myself how it is actually being done.

*Lou Lou:* (Qualtrics 2)

I definitely want to graduate with a master degree. This journey of a roller coaster with this associate degree, [with] agility and motivation

*Lou Lou:* (Qualtrics 3)

I think I need to enhance my technology skills and would very much want to use technology in class. Tackling the needs for my slow learners more quickly and effectively. Better teaching skills and methods and more importantly, resources are greatly needed to help me be a better teacher.

It is evident, then, that students are beginning to reflect upon themselves as teachers and are looking more inwardly at their own abilities, experiences, and personal teaching needs. They are beginning to value group work and cooperative learning and are enjoying the social aspect of learning. There is a growing awareness of the supportive component of online learning with one student commenting that they "feel someone else out there". Some in-service teachers are sharing that they are putting new strategies – mostly related to management and routine – into practice in the classroom.

In summary, in the first six months this cohort of students appears to have progressed through three phases of online interaction as outlined in the conclusion.

## Conclusion

Of particular interest is that the Nauruan students did not pass through a “Retreatism” phase, often identified when teachers use a form of technology for the first time (Serow & Callingham, 2011, p. 169). This is characterised by a “focus on technical difficulties, time constraints, and specific perceived lack of suitability” of the technology and the content. Whilst attendance remains a problem for approximately 25% of the cohort, generally, the students did not retreat from the online learning environment. The findings suggest the students have passed through the following levels of participation:

*Phase 1:* Preparedness for social online interaction as a form of introduction, and passive observance in relation to online learning.

*Phase 2:* Willingness to participate in forums in order to manage learning and locate materials.

*Phase 3:* Participation involves reflection and sharing of experiences. A level of risk-taking is evident in attempting to share their viewpoint.

Phase 1 is not surprising. Throughout the Pacific, it is customary to develop a relationship with people before entering into in-depth discussion sessions in which members of the group would be raising ideas and furthering the learning of the whole group. Furthermore, this group learning process occurs in face-to-face, informal, and often unstructured ways (Sharma, 1996).

The Qualtrics surveys and interview data does indicate that the students are supporting one another and many are working together as a learning community. This is very different to most online students in other contexts who do not have a system provided that facilitates collaboration. Whilst the material is presented in English, it is quite common to observe the students explaining an idea or task in Nauruan language. These explanations connect the in-service cohort with the pre-service cohort. In this regard, the students are beginning to mentor one another. The data does however provide evidence that a focus on a bridging between the in-service and pre-service cohorts is required, including addressing the structure of the students’ study timetable to better provide an environment where participants mentor one another on a regular basis by working together as a community of practice.

The mentoring to date takes the shape of aiding others to reflect more deeply on practice, understandings, assumptions, and beliefs. The on-island lecturers challenge the students’ perceptions of effective learning and teaching through questioning their comments and actions. Asking them to justify or explain why they are taking a certain approach, how an approach might work in their classroom, and consistently endeavouring to work within the context of their lives and experiences.

The on-island lecturers’ mentoring role can be described as mentoring for academic study and mentoring into the teaching profession. Responses provided by students, six months into the two years of study, do not provide evidence at this stage of fostering independence. This notion of mentoring will be monitored closely over the next twelve months to ascertain changes in levels of independence.

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## *Va'ingá mo e akó* - The Playing and Learning Child: Rethinking pedagogies for the early years of learning in Tonga

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### Abstract

“*Tuku e va'ingá, mo e maumau taimi!*” (Stop playing, it is a waste of time!) – is a common expression that indicates the misconception often assumed by local parents, caregivers, and teachers of Tongan preschool aged children in regards to the universal term play (*va'inga*). Past and present early learning discourse advocates that play is an extensive element of learning (*ako*) in the early years. It is observed as a unique form of child development and the natural means by which children learn about themselves and the world that exists around them (Leaupepe, 2010, p. 2). Educational theorists such as Piaget and Vygotsky further propose that play is a way of expressing social behaviour and intellectual development where children become actively involved in their own learning. In Tonga, *va'inga* is regarded as a physical activity rather than a meaningful form of learning. It is not purposefully valued nor understood for its learning attributes but continues to be viewed as an activity limited to children's free time (*taimi va'inga*) and often frowned upon as a waste of time (*maumau taimi*). In spite of this, play and the practice of play should not be interpreted outside of the cultural, political, and historical context from which it emerges (Fleer, 2003). Conceptualising the playing and learning child in Tonga generates understanding of how the concepts and activities of learning as development (*ako fakatupulaki*) and *va'inga* are perceived and practiced. The outcomes should inform appropriate parenting and culturally inclusive teaching and learning pedagogies for learning and development in the early years.

### Background

Throughout Oceania, and more specifically in Tonga, early learning within the context of a preschool setting or early childhood centre has become a matter of great importance to parents, guardians, teachers, educational institutions, and other stakeholders. Participation rates are soaring and within the span of the past 20 years, a significant number of local preschool centres has been established around the main island Tongatapu and in the outer islands. Local church oriented groups and private regional and international groups coexist around the country to indicate recognition of the importance of Early Childhood Education (ECE) for the nation's expanding and growing population.

Much of this popularity is tailored towards the observed education benefits this type of formal schooling proposes on a long term basis. Parents are the main supporters of this development and thus play a major role in supporting local ECE establishments and developments – a rare occurrence in the past. It is believed that children who attend preschool centres will achieve higher academic results and that the effects are long term. Van Roekel (2008) presents the findings of two paramount longitudinal studies on the long-term benefits of ECE, the High/Scope Perry Preschool Project and the Abecedarian Early Childhood Intervention Project. Outcomes of that study showed that:

Individuals who were enrolled in a quality preschool program ultimately earned up to \$2,000 more per month than those who were not, and that young people who were in preschool programs were more likely to graduate from high school, to own homes, and to have longer marriages...Children in quality preschool programs are less likely to repeat grades, need special education, or get into future trouble with the law (p. 1).

## **Va'inga and Ako in Tonga**

Just as play is a universal activity of children, the forms of *va'inga* practiced in Tongan homes are similar to universal practices in other cultures. These forms include: exploratory play, object play, construction play, physical play (sensori-motor play, rough-and-tumble play), dramatic play (solitary pretense), socio-dramatic play (pretense with peers, also called pretend play, fantasy play, make-believe, or symbolic play), parallel play, language play, games with rules (fixed, predetermined rules), and games with invented rules (rules that are modifiable by the players). Some early forms of *va'inga* still exist in Tongan households and alongside the universal forms of *va'inga*, they also entail the learning elements to children's physical, social, emotional, intellectual and creative development. Some of these early *va'inga* forms are: *fananga*, *one-tusi-tusi-sipai*, *lanitā*, *tolo moa/pato*, *pani*, *ta'umu*, *tāfue mokofute*, *kaka niu /'akau* and *teke*.

### **Challenges**

*Va'inga* for young children in Tonga continues to be perceived as a physical activity and natural process that children progress through as part of their natural life development. The learning attributes of *va'inga* are still foreign knowledge to some Tongan parents and ECE teachers and thus require extensive cultural insight as to how it generates meaningful and worthwhile learning for the holistic development of children so that it is embraced and valued as such. The obliviousness is assumed to stem from the impacts of early colonialism where education and learning for Tongans essentially focused on formal instruction. Thaman (2003) evokes this as:

the impact of colonialism on Pacific economies, environments, politics, and social structures, little attention has been focused on its impact on people's minds, particularly on their ways of knowing, their views of who and what they are, and what they consider worthwhile to teach and to learn (p. 2).

The colonial influence appeared to generate and secure the best solution to a good life and future. The arbitrariness of this notion has developed into an ideology which questions other means of learning as less significant and less valued. The ways and ideas of the white man were regarded as superior and definite, yet contemporary and innovative approaches to learning such as *ako* through *va'inga* oppose the ideology of formal instruction as it was not common knowledge and practice during the colonial period. Locals have yet to adapt to its significance let alone comprehend to its knowledge and application.

The relationship of *va'inga* and *ako* from a cultural standpoint has value for informing the behaviour of parents and teachers. Every so often *va'inga* and the parental engagement of *va'inga* are hindered due to: unavailability of time, idleness, ignorance, unfamiliarity, insignificance, and restrictiveness of culture. The result is that parents tend to devalue its worth to learning, are unable to practice and encourage it at home, are unaware of its significance, and therefore consider it obstructive to societal living. These reflect socio-cultural conditions and assumptions that play disrupts adjacent settlement structures due to the elevated noise level it creates and the so-called dangerous and boisterous outcomes of physical rough and tumble play.

### **Towards a Rethinking**

It is imperative to conceptualise the notions of *va'inga* and learning as development (*tupulaki*) in order to obtain an inclusive understanding of its significance, relationship, and practice for child development and learning. This has value for informing the rethinking and reforming of specific pedagogies of learning to assist parents and ECE teachers. An initial approach is to differentiate the unique learning expected of children in the early years which differ to the general notion and process of *ako* (to study), *ilo* (knowledge), *poto* (knowing what to do and doing it well; educated) espoused by Thaman (1990):

Many Tongans, for example, consider learning in school as important not for developing one's intellectual capabilities per se, but as part of the process of achieving *poto* (knowing what to do and doing it well). The achievement of *poto* is, in the Tongan sense, the equivalent of being educated (p. 4 & 5).

There is also a need to align the idea of a contextual meaning of *tupulaki* to Johansson Fua's (2004) definition of *ako* as "all kinds of learning throughout one's life as such reflecting a life-long approach to learning" (p. 1). *Ako* and *va'inga* in the early years is conclusively what Puamau (2008) discloses as something not entirely appreciated as a means of learning. Formal instruction is by far the single means of achieving *poto* and ECE teachers demonstrate this as they "place a premium on preparing students for class one by, for example, teaching them English or arithmetic" (p. 13). This attitude is also adopted by parents.

Educational theorists such as Piaget and Vygotsky for decades advocated the significance of the relationship of learning and play in the early years through their theories of the "Stages of Child Development" (Piaget) and the "Zone of Proximal Development" (Vygotsky). The theories of how young children perceive and do things and the support and instruction they often require indicate the necessity for parents and adults to understand these theoretical views in order to effectively support *ako* through *va'inga*. Extensive Western discourse also supports the idea, specifically the assumption that it contributes to the holistic learning development of the child – physical, social, emotional, intellectual, and creative.

Tongan parents of young children have developed a keenness for their children's learning and propose to encourage and assist children's *va'inga* through; frequent involvement; providing environment/space/resources to/for *va'inga*; designing *va'inga* programmes for children; enabling children to freely express *va'inga*; identifying children's *va'inga* interests; identifying children's behavioural conduct during *va'inga* (their weaknesses); appropriately disciplining children during *va'inga*; avoiding unnecessary/dangerous *va'inga*; frequently accompanying children to *va'inga* grounds; setting boundaries and limits to *va'inga* intervals; avoiding "*va'inga* as a waste of time" notion; and sharing and raising awareness of *va'inga* benefits.

This indicates the effort to decolonise local mindsets from the ideology and arbitrary perception that learning in the early years only takes place through formal instruction. It is imperative to take ownership and heed of Indigenous Knowledge Systems (IKS's) as they inform the appropriate and contextualised methods to *how* learning is generated within a cultural setting. If this is as influential as the impacts of colonial education, approaches to learning that are most suitable should emerge and – with the proper guidance – appropriate practice. Thaman (2003) encourages this notion:

What we might perceive to constitute Pacific studies (knowledge) therefore constitutes a type of power exercised over those who are "studied" or "known," and those who produce the discourse (that is, we) have the power to enforce its validity and its scientific status and make it "true" (p. 3).

It is important to note that the forms of *va'inga* practiced in Tongan homes merge both Western and early forms. This indicates the importance for families to conserve and sustain early forms of *va'inga* which also features the learning elements vital to children's learning. It is furthermore necessary to assist in maintaining and rethinking the IKSs of these forms of *va'inga* as it indicates a significant aspect of the Tongan *va'inga* culture. Thaman (2006) supports this notion as:

If education is about worthwhile learning then it is about culture, since the content of education has value underpinning it, associated with a particular culture, which I define as a way of life, and includes particular ways of knowing, knowledge and wisdom, as well as ways of communicating these (p. 51).

People need to be reassured that these forms of learning are in fact a reality and will suffice to grant similar achievements in the continuous education they so highly regard and are familiar with. *Ako* and *va'inga* should not only be maintained as a theory practiced for the sake of completing curriculum requirements, but a proactive aspect of curriculum as a whole. ECE curriculum, teacher training curriculum and practice, as well as curriculum planning and development for ECE should actively advocate the rewards of the mutual relationship of *ako* and *va'inga*. Parents and teachers as prime stakeholders should also be supported in the knowledge and practice of *ako* and *va'inga* to enable them in assisting and promoting it in their homes and school environments.

## Conclusion

It is clear that conceptually and in practice, *ako* and *va'inga* work together. It is essential they exist alongside each other to ensure learning for children within this age range is holistically catered for at home and at school. Tongan perspectives of *va'inga* determine how the practice of it as a learning element is viewed from a cultural standpoint, and the extent to which it informs the methods and practice of ECE teachers, and what forms of *va'inga* they value. Tongan perspectives also identify the parental behaviours towards its practice, summoning proactive efforts from involved stakeholders to ensure it is appropriately advocated as a worthwhile and culturally relevant element of learning in and for the early years.

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## Re-imagining and re-defining Pacific Proverbs, Myths, and Legends and their Relevance to our Time

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*Ae oute le'i papaeina ti'a o le tauti'aga e pei o le upu o Tavasaga, e muamua ona ou fa'atulou, fa'atalofa atu i outou paia ma outou mamalu ua aofia i le maota fono nei. Fata ia i mauga o ao outou pa'ia ma outou mamalu, ma ia nuu'nuu fa'atini o tausala outou sa ma faiga, ona e le gafa taulimaina i sa'u fa'amatalaga. Ae avea ia lenei avanoa oute fa'atalofa atu ai ma le fa'aaloalo tele lava. Susu maia ma tala mai a'ao.*

### Abstract

Globalisation, modernisation and new technology have a strong effect on young people today. Young people generally take less interest in learning about their cultural roots, resulting in the disconnection from who they are and where they come from. This, and more, perpetuates a wide range of social problems. Artful teachers have the ability to be spontaneous and to improvise: to seize the moment and make it into something larger and more compelling. Dreamshow; Arts An Education in Action, is a new approach to interactive teaching that captures the interest of young people to be active learners about their culture and stories of origin, whilst engaging them to be creative, realise their talent potentialities, and enjoy learning within the classroom confines.

### Introduction and Background

Early Education systems imposed Western Literature and Language among other aspects of Western culture to the point that Indigenous expression and methods of teaching had and have (in many instances) no place in Pacific schools. Persecution and punishment was accorded if Indigenous language or customary practices were encouraged within school boundaries and, as a result, the schooling experience has been described as alien and disempowering for many Pacific Island students. We heard in the plenary yesterday from Professor Konai Thaman that when she entered the gates of her school she was mortified by the fact that she was not allowed to speak her vernacular, risking detention and corporal punishment if she was caught speaking her mother tongue.

It is indeed a great pleasure to be able to share with you at this conference some of my personal ideas developed and contextualised throughout the years about the Arts and Education. My emphasis for this presentation is on the Arts, perceived to be a less formal Education as the Arts is always something that is among the least of priorities in curriculum development and implementation throughout the Pacific; being one of the least funded, least emphasised profession in the list of Government priorities. The irony is that before the advent of the written word the Arts was the only way our Pacific people used to pass their civilisation and epistemologies down through the generations – through songs, dances, storytelling etcetera. Nevertheless, other than it being my passion in life, it is worth emphasising as it is a medium of Education, so poignantly put by Professor Konai Helu Thaman yesterday in a metaphor describing Education as a kato within a kato or a container with many compartments.

My enquiry as of late is summed up in the title of this presentation – “Re-Imagining & Re-defining Pacific Proverbs, Myths, & Legends and their Relevance to our Time”. I take a cue from the late Professor ‘Eveli Hau’ofa, my mentor, father, friend, and leader. He states in, *We Are the Ocean: Selected Works*: “Just as the sea is an open and ever flowing reality, so should our oceanic identity transcend all forms of insularity, to become one that is openly searching, inventive, and welcoming” (2008, p. 33).

This afternoon I wish to focus on the development of the Performing Arts as an educational tool for relaying issues of importance in Samoa, paying particular attention to the creation of the Secondary school competition called “Dream Show-Arts” An Education in Action”, created in 2013 for the Teuila Festival – an annual national tourism calendared event in Samoa like that of the Hibiscus festival in Fiji, Heiva in Tahiti, and Heilala in Tonga.

Allow me to give a brief backdrop to the origin of the Dream Show initiative. In 2012, I was invited by a colleague to join a team of researchers to tour the Savaii and Upolu islands in a survey to gauge perspectives of people about Climate Change. We talked with matai (high chiefs), the elderly, women, youth, and even to the young children. I came away with many findings – but two most striking themes that were prevalent throughout all the responses from these informants were: first, there was generally a lack of meaningful engagement and communication between parents and their children. The second was that youth were taking much interest in Western popular cultures and that they were seen to be less active in their roles as cultural practitioners. Youth from the rural areas were flocking in large numbers towards the urban settings and along with that came a social and cultural disconnect from their roots. Such a gap is being perpetrated by new technology, young people's soaring use of mobile phones, internet, and new technologies for Facebook, emails, space games, etcetera.

I was disturbed by this as I grew up in an age where we had to create our own toys from coconut shells; for example horse shoes with *afa / kafa* strings, and coconut leaves to make propellers with which, once flapping or spinning, we pretended that we were flying planes. Creativity of the imagination then was not just out of reality but also out of necessity. This was also a time when we listened to stories told to us through *fagogo* by our grandmothers and parents. In those days, I remember vividly and distinctly being proud of my heritage as I learned where I come from and who I am – a descendant of Nafanua, the warrior Goddess of Samoa who prophesied the coming of Christianity and the new age.

Western influences from the media and the new technology is bombarding our young people and they are unprepared to face the challenges of their time. Social issues such as teenage pregnancy, child molestation, HIV/STDS, incest – and the list goes on – are facing young people. When they ultimately cannot find solutions to peer pressure and, at times, familial-associated problems largely due to the breakdown of communication between parents and children, the young people turn to suicide as the “easy” way out, giving rise to growing suicide rates in Samoa. I note here that, according to statistics, Samoa is ranked the second highest if not the highest in the world per ratio in youth suicide (Samoa Bureau of Statistics; SBS).

This I found alarming and began asking the question “How can I help bridge this gap and help our young people find their voices, movement, action, and an outlet to express their frustrations and relieve them of the social pressures in Samoa today, even if momentarily?” I remembered my grandmother telling me mythical stories to put me to sleep – it was as if she was whispering the voice of my ancestry and this became the impetus behind the creation of the Dream Show. The Dream Show, then, is an initiative that was conceptualised and developed to counter and address the alarming social and cultural concerns of our young people.

## **Dream Show**

“Dream Show – Arts: An Education in Action” is a programme that utilises both traditional and contemporary expressions. It is essentially storytelling using the mediums of Dance, Music, Songs, Theatre, and multimedia to retell ancient myths, legends, and proverbial sayings of old Samoa through artistic performance productions. The beauty of this programme is that these ancient myths, legends, and proverbial sayings are being retold through the lenses of young people of Samoa at the secondary school level. How they interpret and redefine the myths, legends, or proverbial sayings is open. They are free to choose how to interpret them in ways that they find meaningful and relevant to themselves, putting into action their creativity and inquisitiveness to research the subject matter not found in any text book as it is old oral history. This fundamentally encourages the students to obtain the information needed through *talanoa* with their elders, parents, aunts, uncles, teachers, and so on.

Dream Show has been a journey of discovery – a liberating process for students and teachers, but it has also been personally and professionally rewarding for me.

Dream Show is the evolution of my own ideas and a teaching philosophy based on a conceptual framework founded on the Samoan concept of *Va*, and how these ideas have filtered through and are received and vali-

dated. Each participating school adapted these ideas in the making of their debut body of works originally produced, choreographed, and directed by themselves and performed to an appreciative and approving audience, who validated their performances.

As a Samoan artist, educator, and researcher, the re-enactment of history and memory that embodies our past through performing arts, music–chant/dance–movement, validates my place in contemporary space. The Performing Arts reflect people’s history, culture, and society. They are an expression of human feeling, a method for communicating and telling stories of myths and legends that are the collective memory of Pacific cultures. Along with architecture, navigation, oratory, and the visual arts, music, dance, and the Performing Arts have always functioned as the primary vehicle for creating, recording, sharing, and transforming knowledge in traditional Pacific societies. Music and dance as in the Performing Arts have permeated time and space and continue to connect and inform us today. They were the vehicle through which our Pacific epistemologies were transmitted over generations and today this medium has not lost its vibrancy. In fact, its essence and value as a medium of exchange has heightened in importance as time has evolved and the spaces we occupy have been renegotiated and changed.

In 2012, after consultation and development of the initial concept of the Dream Show, I then introduced it to the Samoa Tourism Authority and the Ministry of Education Sports and Culture. It was important to convince these institutions of the value of the Dream Show and how it would benefit young people and add value to their respective strategic priorities. In this way they could take ownership of the initiative.

A year later in 2013, the inaugural Dream Show was introduced to schools as part of the Teuila festival programme, and funded and supported by the Samoa Tourism Authority and the Ministry of Education Sports and Culture. Initial support was difficult to gauge with some skeptics doubting the value of such a performing arts programme. Eighteen schools expressed an initial interest in participating, with eleven making it through to the finals. The outcome of that first Dream Show was validating on a number of levels and in unexpected ways. Student and teachers’ evaluation post-Dream Show indicated that they felt they needed more time to familiarise themselves with the concept, process, and judging/evaluation criteria. More positively, students talked about their relationships with parents and elders, and that family networks being strengthened by the talanoa research process. Additionally, it was a platform that allowed for their creative talents to be explored, constructed, and performed. These opportunities have never been provided to these students before and it was liberating for them to express freely without hesitation.

The general public response was overwhelming. I had not anticipated the extent to which support for this cultural arts education initiative began pouring in – from friends, family, the wider public, and the mainstream media. The Dream Show was affirmed as the best show during the Teuila programme, 2013 and was seen as the best way of reviving myths and legends which were fast disappearing. Newspaper reviews showed that the general feeling was that the performing arts are an appropriate and effective way of reinforcing cultural knowledge and stories that many Samoans, and especially young people, are beginning to forget. Generally, the audience was in shock that a story re-told in ten minutes through the performing arts resonated so deeply and meaningfully, reigniting a part of their cultural memory that many had forgotten.

This year, 2014, Dream Show has graduated from an initiative to become a programme with a supporting budget, that will be part of the annual Teuila Festival. This year four schools from the island of Savaii joined six schools from Upolu to compete for the contemporary and traditional categories.

Additionally, this year has seen the expansion of the original concept to informing policy development in culture and education, so recognising the role of the Arts in curriculum. It is really overwhelming and humbling for an arts practitioner such as myself to see this level of impact in national development. While the arts are normally sidelined, they are now being recognised as an important medium for the development of young people in Samoa.

Traditional and contemporary Oceanic Performing arts is an empowering tool for young people to re-enact

their histories and past memories. It enables the development of artistic identity and techniques as a way of empowering, not only themselves, but also people and communities with whom they work.

## Pedagogy

I did not realise that I was developing and fine tuning Dream Show – Arts: An Education in Action pedagogy.

A brief summary of the process begins with the engagement with the Samoa Ministry of Education, school principals, a creative team of art practitioners, teachers, and students themselves. The Ministry of Education opened the gate to allowing for the programme to be promoted.

Schools allocated within their weekly programmes an average of half a day each week towards Dream Show preparations. Some schools reorganised their timetables, shortening class periods to allocate designated time for the Dream Show preparation. This intensive school-based curriculum development programme was intended to be a gradual and progressive integration into the curriculum over sixteen weeks, or a three and a half month period. This is a time in which students work closely with their teachers, parents, wider community, and a team of creative and cultural experts to develop their production. The reality of the implementation process has seen schools concentrate all three months' activities into just one month leading up to the competition. It is unsurprising that our Pacific island people most times delay the inevitable.

An electronic resource, “The Dream Show toolkit” is provided to each school which has expressed an interest in participating in the project. The toolkit provides a guided learning experience for teachers and students to conceptualise, develop, and produce an effective performance piece for the competition. The use of the toolkit applies a flexible curriculum approach allowing schools to appropriate and adapt it to suit their needs.

My role in the Dream Show is that of Arts Educator. I advise, guide, coordinate, and facilitate the entire process. I am not a Judge in the final competition; rather I assist the schools and the children to provide the logistics including sponsorship for their boat fares, accommodation, meals, and transportation during the competition. I visit schools regularly to review progress, and to offer technical and administrative advice. Based on school requests for specific support such as technical or artistic assistance, I facilitate by identifying and providing the necessary experts from the Samoa Arts Council or wider community.

In summary, the pedagogical framework is likened to a Samoan *Fale*. The metaphor of the Samoan *Fale*, or house, is categorised into four main parts.

- i) *Fa'avae*: literally the foundation of the fale, is parallel to Phase 1, raising such questions as why we are doing creations and for whom are we creating. For any substantial work of art, it must go through the process of “Research” which arrives at some point at “Conceptualisation” that establishes a more rooted reference to the work.
- ii) *Pou*: literally pillars or posts that hold up the Samoan fale, is equated with Phase 2, which is connected to the concept of “Contextualisation” that immediately locates the creative work.
- iii) *Aso/Iviivi*: the intricate weavings and designs of the roof, is compared to the work put in by the builder (or choreographer in this context). This encompasses the various “Techniques”, “Complexities of Education”, “Pacific Cultural epistemologies” and “World-view” in the work.
- iv) Finally, the end product, the *Taualuga*, or roof of the fale, is symbolic of the extra “Effort” involved in the presentation of the final work manifested in the aesthetics and beauty of the creation – the “Production” or “Performance” of the dance piece. There are other elements involved which are also crucial in this process such as the sharing, the giving, the receiving, and the dissemination of information.

The Dream Show Competition is parallel to the *fa'aulufalega* or celebration of the newly built *fale*. Once cel-

ibrated, all parts of the fale, embodied in the making, are left open for the public to analyse, interpret, and appreciate. This openness in design promulgates another feature of the lifestyle of the Samoan people that is invoked in this cultural pedagogy. Information is only considered valuable in terms of its accountability and transparency once it is freely shared and disseminated. There is a negotiation process involved in this fundamental part of the creation, which brings us back my point of reference, the *va*.

In summary, the premise on which I positioned this presentation was drawn from a response by the Samoa Head of State, His Highness Tui Atua Tupua Tamasese Efi. In an interview for the purpose of this paper, he explained, “in the Pacific, the indigenous incorporates not only a way of life but also an accompanying intellectual and religious tradition. It involves a knowledge system and culture that, while not static, is able to show continuity of values and logic across time” (Pers. Comm. September, 2014). This supports the fact that our ancestors’ belief systems, values, customs, and ways of knowing need to be intensified now more than ever. Global influences create an onslaught of Western knowledge systems designed and contextualised in and for the developed world.

## Conclusion

I propose that Arts initiatives such as the Dream Show are adopted as a cultural democratic pedagogy into the Education system as a meaningful and practical way that can be used to inform an ethical and transformative practice in teacher education, not just in the non-formal learning sphere, but also essentially in the formal ways of knowing and learning for our teachers in the Pacific region.

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## Māori principles in mainstream schools: Recognising, redefining and reclaiming indigeneity in western settings

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### Abstract

The conscientization of indigenous peoples worldwide continues to re-empower and mobilise oppressed groups as they ‘push back’ against marginalising policies. In *Aotearoa*-New Zealand, re-empowerment began with the recognition of *Te Tiriti o Waitangi*-Treaty of Waitangi, and the status of tangata whenua that it affords Māori as the indigenous people of the land. In the almost thirty years since the landmark decision to establish the Waitangi Tribunal as recourse to breaches of the Treaty, the education sector in this country has moved from a ‘one size fits all’ mainstream mentality. Today, a multitude of educational contexts are offered in addition to mainstream, state schooling. Educational providers grounded in Western ideology include Montessori, Steiner, charter schools, special character schools, universities and polytechnics, while *Māoritanga* is reflected in bilingual classrooms, *Rumaki* (full-immersion classrooms), *kura kaupapa Māori* (Māori-immersion schools), and *wānanga* (Māori tertiary institutions). Yet despite the advances in policy, two fundamental truths persist – Māori continue to fall behind in educational achievement, while Pākehā remain the dominant, privileged partner in our bicultural society. These dual realities provide the backdrop to an increasing dilemma faced by Māori educators – how do we hold fast to our indigeneity while teaching within mainstream settings dominated by Western discourse?

This paper explores the juxtaposition of indigeneity within Western frameworks, through the experiences of two teaching degrees grounded in *Mātauranga Māori* (Māori knowledge). Comparing a “Māori content” approach to a “Māori principles” approach, the author advocates for a re-evaluation of how we define ourselves as Māori educators. This paper contends that individual responsibility to principled actions and a commitment to engage in *mana*-enhancing interactions should be the markers of an indigenous educator, as opposed to ethnic belonging or collective group labelling. Finally, this paper asserts that it is through individual accountability to our own principled actions that empowers educators to hold fast to their indigeneity within conflicting mainstream settings.

### Introduction

In 2000 *Te Wānanga o Aotearoa* launched its first teacher education programme, the Bachelor of Teaching (Primary) degree (renamed *Te Korowai Ākonga* in 2004). *Te Korowai Ākonga* describes a Māori cloak, a symbol of status, ability and value. The name was given to the degree as a metaphor that bestows *ākonga* with status and learning. Underpinned by *Mātauranga Māori* (Māori knowledge), the degree reflected the philosophical framework of *wānanga*, by clearly situating educational models that drew from *te ao Māori*, such as Durie’s (1994) *Te Whare Tapa Wha* and Pere’s (1991) *Tē Wheke*, alongside Western education staples such as Vygotsky’s “Zone of Proximal Development” and Piaget’s developmental theories. The purpose – aside from training teachers in both schools of thinking – was to acknowledge and *whakamana* (uplift) Māori knowledge and research to the same status as Western theories that dominate teacher education in *Aotearoa*-New Zealand. The goal of *Te Korowai Ākonga* was to produce graduate teachers steeped in the Western knowledge required by *Aotearoa*-New Zealand regulations, as well as fortified by *Mātauranga Māori*, through knowledge of *te reo* (language) and *tikanga* (cultural practices).

By 2010 *Te Korowai Ākonga* had evolved to a teaching degree that aimed to:

[I]gnite, educate and prepare *ākonga* to become teachers that will facilitate learning opportunities for

both Māori and non-Māori ... utilising timeless Māori principles to ensure that the ignition, education and preparation of our ākonga embrace a Māori world view grounded in relevant research, theory and practice. (Te Wānanga o Aotearoa, 2010, p.4)

Ten years into *Te Korowai Ākonga*, research was undertaken to investigate its impact on teacher graduates in the workforce. Although *Te Korowai Ākonga* was a *wānanga*-developed teaching degree with Māori learners as its consideration, the research produced some surprising outcomes. One central finding uncovered by the study was the belief that there was too much focus on mainstream teaching. This may have been a two-fold implication, as the graduates disclosed that they chose Te Wānanga o Aotearoa specifically because of its status as a Māori institution, and thus their assumption was that there would be a stronger focus on *tikanga* and *te reo Māori*. The flip-side was that schools also perceived that *Te Korowai Ākonga* graduates would be *matatau*, or expert, in all things Māori, and so would be able to take a lead role in this area across the school. The upshot of both (mis)conceptions was that *Te Korowai Ākonga* graduates felt unprepared for delivering Māori content within mainstream settings.

Despite the explicit place of Māori education models and frameworks within *Te Korowai Ākonga*, none of the graduates made any reference to these in their classroom teaching. Instead, Western models were identified as 'best practice'. Although small-scale, this research indicated that in spite of the aims of the degree, *Te Korowai Ākonga* was not producing teachers who fulfilled the graduate profile that it aimed to provide. The research team reflected on the findings, stating:

So why is this? Why is it that when we ask how our Māori children learn best that our graduates list Western methods of teaching and learning without hesitation? Is it because the schools dictate that these must be used within the classroom, and the graduates do not want to 'rock the boat'? There seemed to be no indication or frustration if this were the case. Maybe it is because our graduates have been infused into the mainstream thinking and assimilated into believing Western theories of teaching and learning are working for our children. Yet evidence on Māori student achievement shows current teaching and learning theories are not working.

(Kingi, Mackie, Pukepuke, Hemana & Rogers, 2010, p. 66)

### **He korowai ākonga – a new direction**

In 2012 *Te Korowai Ākonga* was redeveloped and replaced by *He Korowai Ākonga* (Bachelor of Education (Primary)). As an extension of the singular '*Te*' *Korowai Ākonga*, the plural '*He*' *Korowai Ākonga* alludes to many cloaks of learning. As a contrast to *Te Korowai Ākonga*, which situated Māori models of learning alongside Western theories, *He Korowai Ākonga* has grounded *Matauranga Māori* (Māori knowledge) across curriculum content and teaching practice, applying the framework of *Kaupapa Wānanga*. This approach enables students to align their indigenous ways of being within the Western settings and documents to which they are expected to conform. One component of *Kaupapa Wānanga* utilises *takepū*, or indigenous principles, which are contextualised to primary education. The four *takepū* of *Kaupapa Wānanga* are:

**Koha:** The constant acknowledgement that valued contributions are to be given and received responsibly.

**Kaitiakitanga:** The constant acknowledgement that participants (including Te Wānanga o Aotearoa as an institution) at any time and place are always engaged in relationships with others, their environments and kaupapa.

**Āhurutanga:** The constant acknowledgment that quality spaces must be claimed and maintained to enable activities to be undertaken in an ethical and meaningful way.

**Mauri ora:** The constant acknowledgement that pursuit of wellbeing is at the core of all Te Wānanga o Aotearoa kaupapa and activities.

(Te Wānanga o Aotearoa, 2012, p.13).

*Takepū*-in-action is not new to either Māori or the mainstream. Within *Aotearoa*-New Zealand a principled

approach has been adapted by the restoration process undertaken by the Waitangi Tribunal, in upholding the promises of *Te Tiriti o Waitangi*-Treaty of Waitangi. Both the New Zealand Curriculum and its Māori medium counterpart, *Te Mauratanga o Aotearoa*, are underpinned by principles.

Through the framework of *Kaupapa Wānanga*, *takepū* has an infinite number of applications to teaching and learning at both a surface level or deeper, being embedded across all aspects of degree learning. In one approach, the four *takepū* are used to frame pedagogical approaches to teaching and learning. Additionally, *takepū* are used as a self-reflection framework, where students appraise their position as a teacher (*kaitiaki*) and reflect on their contributions of consequence (*koha*). *Takepū* are also applied in the context of pastoral care for students, to evaluate overall wellbeing and classroom readiness before practicum (*mauri ora*). Given the constraints, this paper covers only a few examples of the endless examples of *takepū*-in-action.

### *Āhurutanga*

*Āhurutanga* in teaching is acknowledging the need to provide safe contexts in which learning can occur. When considering safety, the physical space of a school or a classroom needs to be considered. In Western rationale, providing a safe classroom may mean adhering to Health and Safety regulations, such as maintaining a fire exit or ensuring attendance rolls are current. In *te ao Māori*, *āhurutanga* can also encompass the spiritual safety of the space, and so *karakia* (prayer) is practiced to open the teaching day and to set the tone of the day. *Āhurutanga* can also align to Maslow's Hierarchy of Needs, where the child's basic needs must be met before learning can occur. *Āhurutanga* may also take into consideration the teacher's own safety. To this end, teaching students are guided to constantly reflect on their actions and ethical practice in all situations.

One example of *āhurutanga* in practice occurred during a recent practicum placement. An *ākonga* (student teacher), who was a native speaker of *te reo Māori*, had been placed in a bilingual class with an experienced teacher for whom Māori was a second language. From the first day in the classroom the *ākonga* recognised that the Māori language the teacher was using (and teaching) was structurally and grammatically incorrect, something the *ākonga* was uncomfortable with. When the concerned *ākonga* approached *kaiako* (lecturers) with this dilemma, the issue was addressed through the application of *takepū*. Through reflection guided by *kaiako*, the *ākonga* recognised that he needed to build a safe environment so that the issue could be addressed.

The importance, therefore, of *whanaungatanga* – establishing a professional relationship with the teacher over time, built on trust and respect for her status as an experienced teacher – was identified as fundamental in the formation of *āhurutanga*. Only once *whanaungatanga* had been established could the *ākonga* address the language issues, in a way that the teacher's *mana* (and the *mana* of the *ākonga*) could remain intact. This approach facilitates the pursuit of *Mauri Ora*, whereby balance and well-being in its holistic capacity is attained. Another *ākonga*, faced with the same issue in a separate incident, had no hesitation in correcting the teacher in front of the children, ensuring *whakaiti*, or humiliation of the teacher. The fall-out from this approach necessitated a restorative hui with both the *ākonga* and the associate teacher, in order for the *mana* of the teacher and the *mauri* of the class to be repaired.

### *Koha*

*Koha* reinforces the contributions we make in our multiple roles of *ākonga*, teacher and *kaitiaki*. For our student teachers, *koha* is the acknowledgment of the gift of wisdom, carefully crafted over time, received from their associate teacher during their practicum. It is the acknowledgement of the *koha* of the school, in opening their doors to welcome the *ākonga*. *Koha* is also expressed through what the student brings to the class. Is the *ākonga* prepared for their lessons? Have they devoted the required time to developing engaging, relevant learning opportunities? While Western mainstream thought may approach these questions as mechanical 'givens' expected of every teacher, for Māori, viewing these expectations through the principle of *koha* engages their sense of *mana*, and appeals to them as *kaitiaki*. A student who is told 'you must come to class planned and ready to teach' will engage differently to a student who is asked 'you have received multiple *koha* from your class, are you ready to in turn, *koha* back?'

## ***Kaitiakitanga***

*Te ao Māori* defines a *kaitiaki* as a guardian of his or her realm. When applied to the context of teaching, *kaitiakitanga* refers to the multiple roles that a teacher is required to maintain, under the collective expectation of professionalism. The obvious *kaitiaki* role involves the direct guardianship of children in a teacher's care. Additionally, teaching professionals are *kaitiaki* of collegial relationships. As such, *ākonga* have a duty to uphold teaching as a respected profession, therefore as *kaitiaki* they are mindful of the way they conduct themselves with staff, parents and the wider community. Furthermore, *He Korowai Ākonga* students are *kaitiaki* of their degree, and of Te Wānanga o Aotearoa, mindful that the standards they set today will lay the path for those who follow in their footsteps tomorrow.

Like *koha*, *kaitiakitanga* is more than a term or a title. Whilst the responsibilities identified here are common for all teachers, the *kaitiaki* role elevates these expectations above those defined as a job, or something one 'has to do'. Whilst a student teacher may think 'I have to come to school today because I am on practicum' a *kaitiaki* considers all who are impacted by their actions, and so will think wider than 'because I have to'. An *ākonga* who considers themselves as *kaitiaki* will think 'I have to come to school today because my children are counting on me to be there for them; my associate teacher has provided me with valuable learning opportunities and I, in turn, need to respect and acknowledge that through my actions; my fellow *ākonga* will be pre-judged by how I conduct myself and so I need come to school mindful of how my actions impact our programme'. Thus, with *kaitiakitanga* comes collective responsibility, to our programme, to our relationships with our schools, to our *reo* and *tikanga Māori* practices, and most especially, to the children in our care.

## ***Mauri Ora***

In *te ao Māori*, all things have *mauri*, an essence that requires constant care and conscious attention to maintain *ora*, or wellbeing. In short, *mauri ora* refers to a state of wellness. The implication for teachers from *He Korowai Ākonga* is that the *mauri ora* of people, relationships and the classroom environment need to be considered. Actions and interactions must account to the wellbeing of both the teacher themselves and the individuals and groups they encounter as part of their *kaitiaki* role.

In Western theory, *mauri* is an intangible construct. However for an indigenous practitioner, *mauri* is definitive, something that is experienced, fostered and grown. *Mauri* is perceived in schools and classrooms, and it is palpable in the relationships between people who occupy these spaces. *Ākonga* therefore are accountable to how they contribute to *mauri*.

## **Redefine**

Under *Te Korowai Ākonga* indigenous teaching models were presented as an alternative option to Western theories. In this circumstance, we define our Māori teachers through the pedagogical models they choose to engage in, creating the expectation that our Māori teachers will be homogenous, and all teach using the same 'Māori approaches'. Under this definition, Māori teachers cease to be 'Māori' in mainstream schools when they choose to conform to using Western models.

So what defines us as indigenous practitioners? For some, it is our *whakapapa* links that make us indigenous practitioners. For others, it is the colour of our skin, or the number of syllables in our names. From an outside perspective, a neo-liberalist definition of an indigenous practitioner may involve parallels to ethnicity, tradition and sacred identity (Rata and Openshaw, 2006), where 'ways-of-knowing' should be limited to only traditional cultural contexts. When we allow our indigeneity to be defined by external factors, or when our cultural identity is reduced to one of ethnic belonging, there is an inherent danger that our ways of being and knowing are relegated to our own traditional contexts.

## **Recognise**

The challenge for us is to recognise that our indigeneity is in our collective practice, in our pedagogy, and in our actions. *Takepū* empowers our Māori student teachers to be indigenous in mainstream schools, as the focus

shifts from external expectations and labelling of what it is 'to be' indigenous, and moves towards to individual accountability of actions and responsibility. For example, we know that in a mainstream classroom behaviour management is important, but how does my response to a fight in the playground set me apart as an indigenous teacher? I may ask myself – 'What is my *kaitiaki* role over those children involved? How do I respond to the incident in a way that ensures both children's *mana* remains intact?' If these are the internal dialogues our *ākonga* are continually undertaking in reflective practice, then we can recognise our actions as those of an indigenous teacher.

## Reclaim

*Takepū*-in-action therefore allows teachers to be indigenous within any situation they are working in. Through engaging *mana*, *tākepu* enables our Māori teachers to 'be' Māori in mainstream schools, because the indigenous knowledge that they work with "presents knowledge as an energy rather than a finite product" (Royal, 2005, p.3).

For *He Korowai Ākonga*, what reinforces all four *takepū* beyond 'feel-good principles' are their inextricable link to *mana*. When *takepū*-in-action is practiced without consideration of *mana* then we are defaulting back to our Western ways-of-knowing and leaving our indigeneity at the door. This is not to say that mainstream approaches are second-rate. But when we teach through indigenous principles that engages *mana*, then we are defined as indigenous practitioners through our actions and inter-actions, and not by the colour of our skin, our genealogy or the models of teaching and learning that we choose to employ. As Royal (2005) claims, we turn towards an epistemology of indigenous knowledge.

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# The Language of/for Understanding Mathematics within a Tongan-Type Bilingual Context

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## Abstract

The role of a natural language in mathematical learning is vitally important and the question of how it actually influences mathematical understanding has long been a critical one. This is true in any bilingual mathematics education program, and as such, it has always been desirable to explore how the relationship between mathematics and multiple languages occurs and what problems and benefits such a relationship entails. This paper revisits the findings of the author's doctoral study, conducted in Tonga between 2001 and 2005. It found that Tongan bilingual students' choice of language and ways in which they switch between the two languages indicate different pathways towards understanding mathematics. This finding also corroborates Cummins' contention that there is a minimal level of linguistic competence, a "threshold", which a bilingual individual must attain in order to perform effectively on cognitively demanding academic tasks such as mathematical learning. This paper argues that a Tongan-type bilingual student can progress further in mathematics only if s/he attains a certain level of proficiency in the language of instruction. It is also the intention of this paper to discuss the important roles of Pacific indigenous languages in mathematics education and in the classrooms. This offers fresh insights into the teaching and learning of mathematics in Tonga, with implications in both the sciences and other Tongan-type bilingual situations.

## Introduction

Bilingual students are often said to be naturally disadvantaged in mathematics in comparison to monolingual students, simply because they find mathematics harder if the language of instruction is their second language (Gorgorió & Planas, 2001). This is furthered by claims that indigenous language learning is actually detrimental to bilingual students' education (Fasi, 1999), or that their indigenous language is irrelevant to their understanding of mathematics (Clarkson & Dawe, 1997). As a result, educators have adhered to the belief that, in countries such as Tonga, students who are more competent in the dominant or second language are actually better educated and more intelligent than their peers (Fasi, 1999), spurring a growing opposition toward the use of indigenous languages in formal education, particularly at the secondary school level.

My doctoral study (Manu, 2005a; 2005b; 2005c) was in part an attempt to challenge such claims concerning bilingualism in mathematics education, and the assumption that bilingual students have enormous problems in the mathematics classroom. It was also an effort to dispel cultural "myths" about the relationship between bilingualism and mathematics education in Tonga or any Tongan-type bilingual context. The "Tongan-type bilingual context" refers to bilingual education systems similar to that of the South Pacific country of Tonga, which reflects one of the many features of bilingual programmes existing around the world.

## The Research Question

It is generally understood that learning mathematics in and through a second language context presents a double challenge for both teachers and students: difficulty in learning mathematics (and its vocabularies), and the need to understand the language of instruction (Adler, 1998). The inadequacy of indigenous languages for mathematics, and students' lack of proficiency in the language of instruction are two principal reasons why students and teachers switch languages during mathematical discourse (Celedon, 1998). This dilemma has persisted in mathematics education settings such as Tonga, which have used a dominant second language for formal education. This was the basis and motivation for my doctoral study which was set up to investigate Tongan bilingual students' growth of mathematical understanding and its relation to the students' use of two languages.

The question of how two natural languages that are interacting through switching actually influence mathematical understanding has long been a critical but under-researched one. Halliday (1978) noted this inevitably challenges teaching within a bilingual setting, and suggested that if “languages differ in their meanings, and in their structure and vocabulary, they may also differ in their paths towards mathematics, and in the ways in which mathematical concepts can most effectively be taught” (p. 204). Halliday then proposed the need to ask which mathematical idea or concept is most easily conveyed when the medium of teaching or learning mathematics is in any particular language. The significance of such a perspective is reflected in Jones’ (1982) suggestion that what one needs is knowledge of the aspects of that particular language that impinge directly on the learning and/or understanding of mathematics. This is one of the fundamental reasons for mathematics educators to re-examine the important role of any indigenous vernacular in the mathematics classroom.

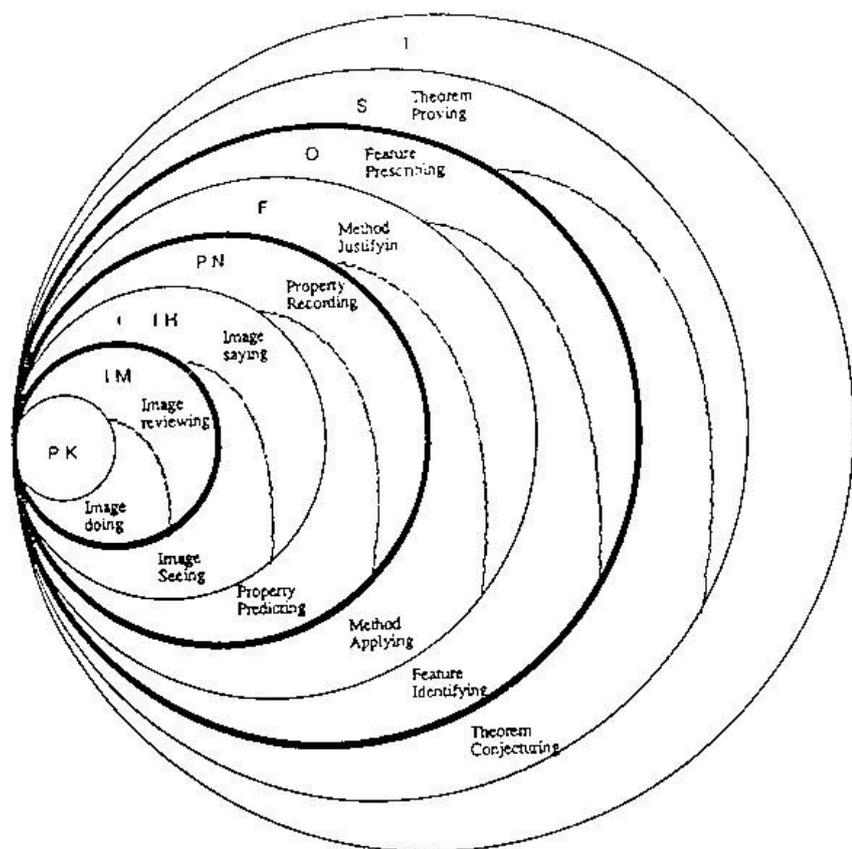
## **The Theoretical Framework**

My study of Tongan bilingual students expands on Pirie and Kieren’s work on the nature and growth of mathematical understanding. This expansion, from a monolingual to a bilingual context, explores how acts of “language switching” (otherwise known as “code-switching”, and referring to the way bilingual individuals alternate between two languages, whether in words, phrases or sentences (Baker, 1996)) influence, or are influenced by, the process of mathematical understanding.

In discussing mathematical understanding, I am influenced by elements of the “Pirie-Kieren Theory for the Dynamical Growth of Mathematical Understanding” (Pirie & Kieren, 1991) which I employ in the analysis of my data. This Theory and its associated model (see Figure 1) is a well-established and recognised theoretical perspective on the nature of mathematical understanding (see for example, Pirie & Kieren, 1992, 1994; Pirie & Martin, 2000; Warner, 2008). This theory considers understanding in terms of a set of embedded levels or modes of knowledge building activity (Towers & Davis, 2002, p. 318), and thus characterises mathematical understanding as an on-going dynamic process. It views “growth of understanding” occurs through a continual back and forth movement among eight potential layers of knowing. These are Primitive Knowing (PK), Image Making (IM), Image Having (IH), Property Noticing (PN), Formalising (F), Observing (O), Structuring (S), and Inventising (I).

Figure 1 below is a diagrammatical model of the theory along with its complementarity feature of “Acting and Expressing”. Pirie and Kieren (1994) believe that each layer beyond Primitive Knowing is composed of a complementarity of Acting and Expressing. Acting encompasses all previous understanding, either mental or physical activity, and expressing concerns making explicit and articulating to others or to oneself what was involved in that activity. Each layer within the Pirie-Kieren Theory contains all previous layers (except for “Primitive Knowing”) and is embedded in all succeeding layers, as the individual reflects on and reconstructs his or her current or previous knowledge.

Figure 1. *The Pirie-Kieren model and the Complementarities of Acting and Expressing*



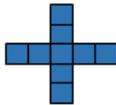
Pirie and Kieren have also developed a technique they call “mapping” to allow an observer, using the diagrammatic representation of their model, to trace the pathway and thus produce a “map” of a learner’s growing understanding of a particular mathematical topic, as it is observed. The important aspect in any mapping is the dynamical nature of what the path exemplifies in terms of one’s growth of mathematical understanding.

### The Methodology

The complex and subtle nature of language switching and mathematical understanding prompted the use of video case study as the most appropriate means of recording, collecting, and examining the described relationship in a small-group setting. The case study fieldwork was conducted in Tonga between 2001 and 2005. Five of the seven largest secondary schools in Tonga participated. 63 Forms 2-3 students (aged 13-14) were selected using a “purposeful sampling” method. Participants worked in groups of two and three and were encouraged to think out loud while solving a set of tasks on their own.

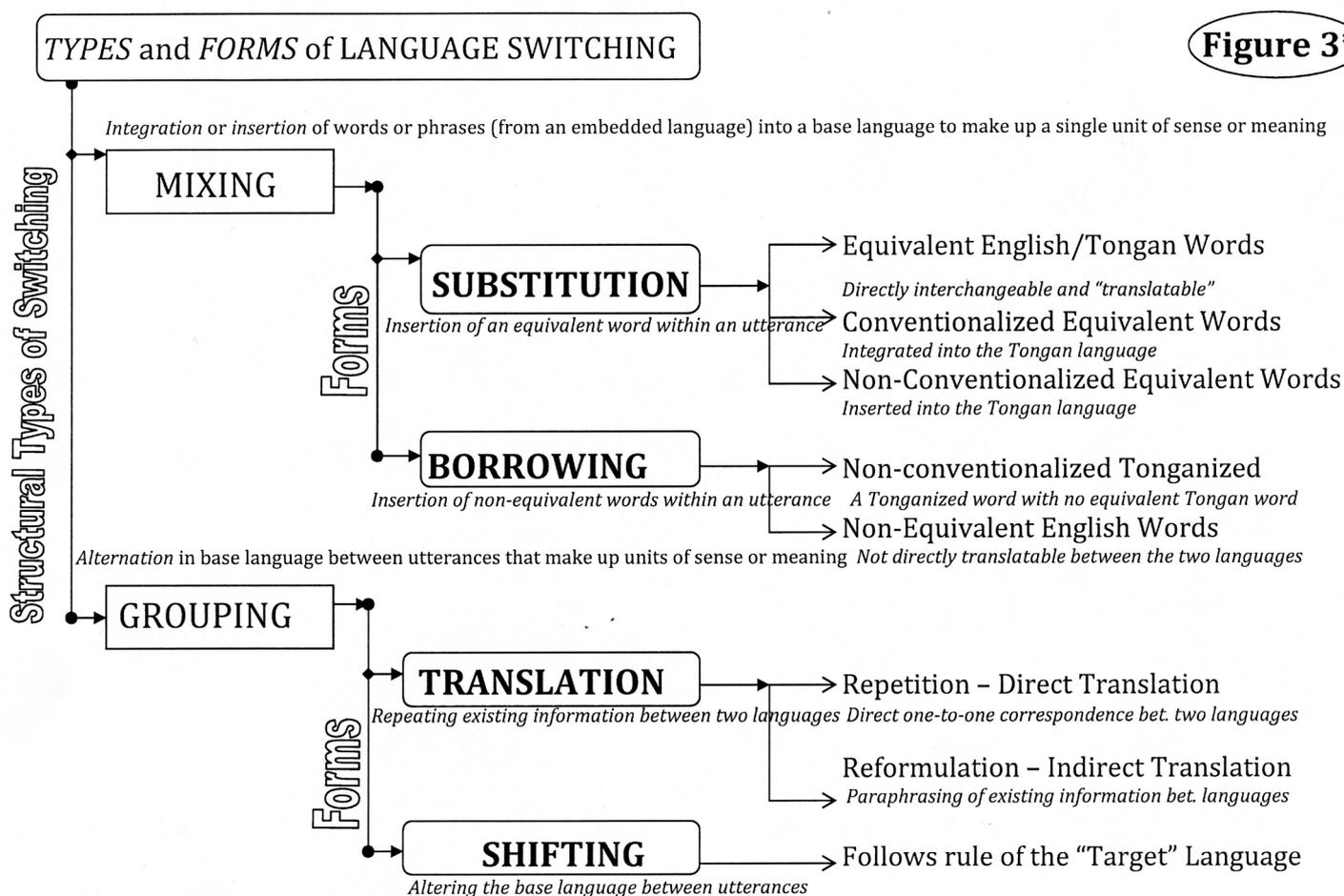
In one of the designed tasks, students were shown a set of pictorial sequence of square blocks or “tile arrangements” (see Figure 2), to engage them initially in “visual thinking”. The sample task in Figure 2 was intended to provide a mathematical-oriented environment, whereby the students were able to create, manipulate, test, and explore their ideas, particularly in constructing the 4th, 5th, 17th and 60th diagrams, and to generalise the rule for constructing the  $n$ th diagram.

Figure 2. The continuing pictorial sequence for Task 2

<i>Continuing Pictorial Sequence</i>	<i>1<sup>st</sup> diagram</i>	<i>2<sup>nd</sup> diagram</i>	<i>3<sup>rd</sup> diagram</i>	<i>4<sup>th</sup> diagram</i>	<i>5<sup>th</sup> diagram</i>
<b>Task 2</b>	■				

The video data provided evidence that is comparable to the finding of Baker (1996), wherein the bilingual students' verbal alternation ranged "from one-word mixing, to switching in mid-sentence, to switching in larger square blocks" (p. 86). The language-switching pattern was characterised by alternation between Tongan and English, whether in words, phrases, or sentences. Categories of language switching emerged from the data using Glaser and Strauss' (1967) "Constant Comparative Method", an approach which was employed as a way of "grounding" the emerging and developing themes in the data. The categories, or "language", developed were used in discussing the relationship between the students' use of two languages and their growth of mathematical understanding of the specified topic. Figure 3 provides a diagrammatical summary of all the categories, and the students involved were observed to switch languages frequently in each of the four categorised forms, irrespective of what layer or mode of understanding they were at.

Figure 3. Types and forms of language switching



\*(Manu, S. S., 2005a, p. 157)

In analysing the Tongan students' growing understanding of patterns within the designed tasks, the Pirie-Kieren Theory draws significantly on the notion of "images"; that is, any ideas the learner may have about a topic, any "mental" representation, not just visual or pictorial ones. The evidence from the study suggests that the effect of bilingual students' learning and development of understanding in mathematics is largely depend-

ent on the kinds of mathematical images each student associates with his or her language.

In mapping growth of understanding, a variation of the Pirie-Kieren diagrammatic model was used, which follows Towers' (1998) approach in order to see clearly the pathways of one's growth of understanding within and between the various layers of understanding. Due to the scope of this paper, the mapping of only one of the participating groups' investigation of the topic "patterns" in Task 2 (refer to Figure 2) is given to illustrate the mapping process (see Figure 4).

Figure 4.

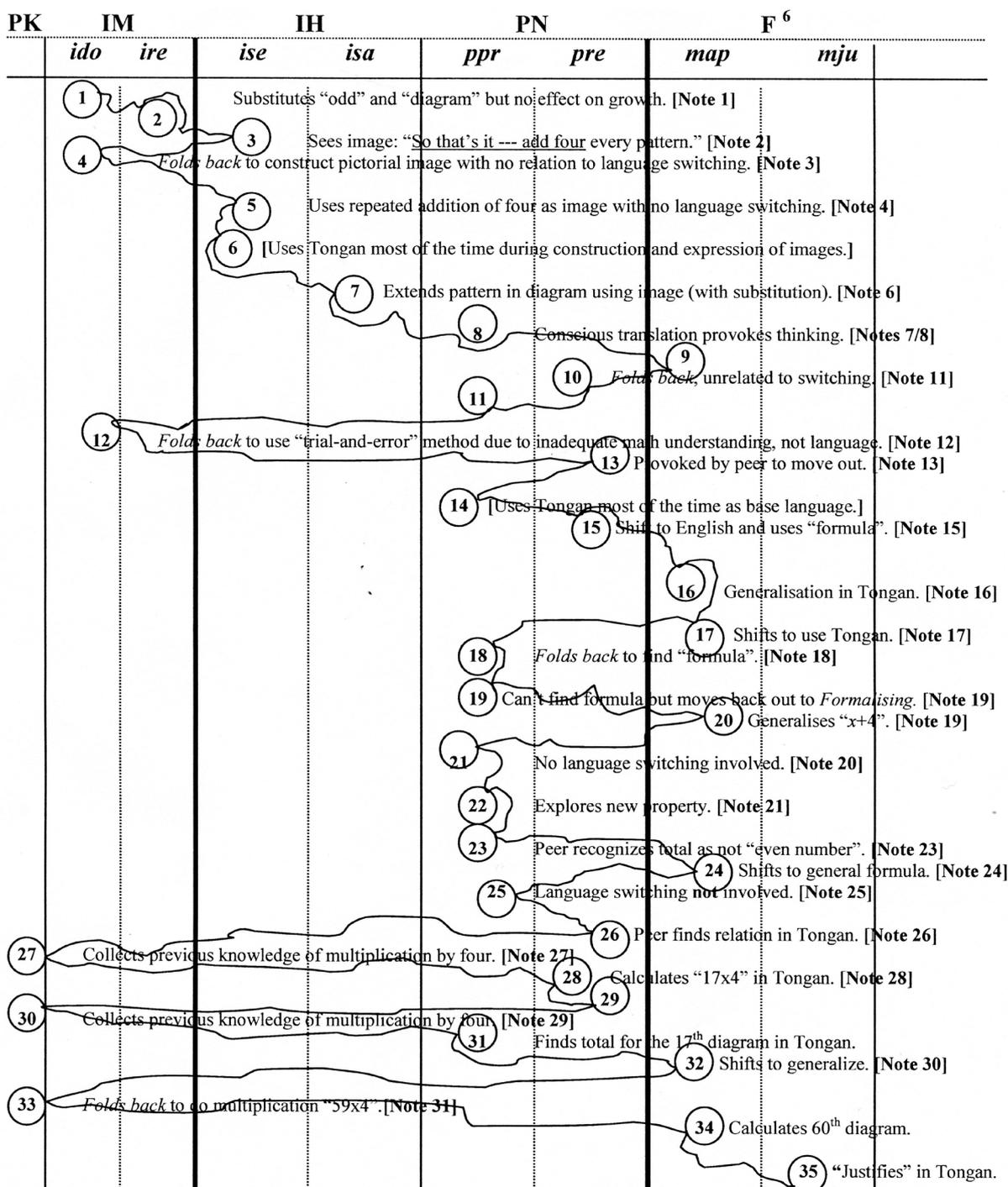


Figure 4: Pirie-Kieren's "Map" of a Tongan Student's Growing Understanding of Patterns in Task 2

<sup>6</sup> Abbreviations used: Primitive Knowing (PK), Image Making (IM), Image Having (IH), Property Noticing (PN), Formalising (F), image doing (ido), image reviewing (ire), image seeing (ise), image saying (isa), property predicting (ppr), property recording (pre), method applying (map), and method justifying (mju).

In this example, one of the student's growing understanding of "patterns" is mapped using points to represent the observed pathway of growth of understanding and the connection (or disconnection) between what the student does from one learning incidence to another. In addition, specific lines (e.g. [L13] for "Line 13") from the video transcript are included for any notable interaction between the student's acts of language switching and growth of mathematical understanding.

## The Key Findings

The following key findings (Manu, 2005a) regarding the nature of the Tongan bilingual students' language switching and how such action affects or contributes to the students' mathematical learning are noted:

(a) Language switching is a significant aspect of the Tongan students' mathematical activities, and in their understanding of any mathematics topic. The students were observed to switch languages frequently in each of the four categorised forms (refer to Figure 3), irrespective of what layer or mode of understanding they were observed to be working at. However, certain acts of language switching appeared to enable or facilitate the process of mathematical understanding particularly through the construction of mathematical images or meanings.

(b) That growth of mathematical understanding can bring about language switching. Students who did not have the necessary language capacity to express their mathematical understanding in Tongan were found to either "borrow" or "shift" in order to be able to express their understanding in their second language, even in cases where some mathematical words were used incorrectly. This exemplifies the point that lack of proficiency in language does not necessarily mean, nor equate to, lack of mathematical understanding.

(c) That growth of mathematical understanding can also occur without language switching, and that language switching can occur without any observable evidence of "growth" in the students' understanding of a particular topic. The former is significant because students were observed to grow in their understanding of mathematics while using either Tongan only, or English only, as was the case for those who were proficient in English.

(d) That the interaction between an individual and his or her peers played a significant role in the individual's and also the group's "collective" growth of mathematical understanding (defined by Towers and Martin (2006) as the kinds of mathematical actions and learning occurring when a group of learners work together on a piece of mathematics), and that the individual's growth of understanding is dependent on, but not determined by, the actions of his or her peers or the demands of the question. This is also very important particularly if one considers how language switching may be used or viewed within a classroom setting.

## Discussion and Reflections

These findings highlight how Tongan bilingual students' acts of "language switching" relate to their understanding of mathematics. The following reflection points are worth considered if my study's findings are considered together with the findings from other similar bilingual studies, notably Fasi's (1999) study in Tonga:

First, the goal of any bilingual education system is for all its students to be dominant and proficient in both languages. A mathematics teacher in such a desirable bilingual situation would then have the flexibility to use either language without any detrimental effect on the students' learning and understanding of mathematics. That, unfortunately, is not the reality in Tonga or any of the Pacific islands at any school level. Various studies (e.g. Dawe, 1983; Clarkson, 1992; Stevens et al., 1993; Fasi, 1999) corroborate Cummins' (1979) contention that a minimal level of linguistic competence is needed for bilingual learners to perform effectively on cognitively demanding academic tasks such as mathematical learning. This raises the following questions: If a student in a Tongan-type bilingual classroom does not meet this minimum threshold for understanding mathematics content in a particular language then why should he or she be taught or assessed in mathematics in that language? How is equity and access to mathematical knowledge in Tongan-type bilingual situations addressed, say, within a classroom setting, a whole school, or nationally across various schools or school systems?

Second, there are two alarming trends in mathematics and the sciences at both the elementary and secondary

school levels that need serious consideration. The first is the decline in literacy and numeracy skills in many of the Pacific islands since the 90s. The second trend is the consistency of the top ten countries in international studies like Trends in International Mathematics and Science (TIMSS) and the Programme for International Student Assessment (PISA) over the past few years where, with the exception of Singapore, mathematics is taught in the students' first language (e.g. South Korea, Hong Kong, Taiwan, Japan, Russia, Finland, Canada, Australia, New Zealand). One of the vast differences between those first world countries and our small Pacific island states (e.g. educational resources, mathematical language, post-secondary education, teacher education system, etc.) must be that first world nations predominantly enjoy the great comfort and confidence of using their first language as the language for learning, language for understanding, and language for assessment.

Third, my study showed that Tongan students can grow in their understanding of mathematics while using only their first language, Tongan. In addition, a Tongan bilingual student within a mathematical situation would switch to using Tongan depending on what mathematical image (or aspects of the image) is being attached to or evoked by the act of switching. In such situation, the act of switching is said to enable or facilitate the process of mathematical understanding and thereby influence growth of mathematical understanding. This significant finding calls to attention the important role of the Tongan language as a language of and for understanding mathematics.

Furthermore, knowledge of the aspects of the Tongan language or any indigenous language that impinge directly on the learning and/or understanding of mathematics is necessary. In specific cases and in various situations in which two or more languages differ in their meanings, structure, and vocabulary, they may also differ in their connections to, and paths towards, mathematics, and thus in the ways in which mathematical concepts can most effectively be taught (Halliday, 1978). As a result, we must all pay close attention to the unique characteristics of a particular language, especially where a mathematical idea or concept is most easily conveyed when the medium of teaching is in that particular language.

Lastly, there are other important roles a bilingual student's vernacular can play in a mathematics classroom setting as well, such as cultural, and psychological roles. Culturally, an indigenous language is a vehicle through which indigenous values, beliefs, and knowledge – including mathematical – are transmitted. Tongan ways of counting certain objects like coconuts, fish, tapa, crops, etc., is one such culturally-based activity. Psychologically, a bilingual individual would find comfort in his or her own vernacular without feeling alienated by a teacher who is not using the student's own vernacular in the classroom or when a student is being "challenged" to express his or her mathematical thinking verbally in class. A learner's own vernacular has such an important role in framing his or her thinking and emotions. Nelson Mandela was quoted as saying that if you talk to someone in a language he or she understands, then that goes to his or her head. But if you talk to him or her in his or her own language, then that would go to his or her heart (2009). Perhaps such distinction is not far-fetched to imagine it happening in the mathematics classroom as well.

### **Implications for Further Research on Teaching in a Tongan-Type Bilingual Classroom**

The current issue with any Tongan-type bilingual mathematics education system is how teachers can best teach mathematics in a way that students are able to learn and understand its concepts effectively, and to determine the language that is best suited to such a task (Barton, Fairhall, & Trinick, 1998). The categorized types and forms of language switching in my study provides a useful tool for describing the pattern in the Tongan students' use of two languages. This "tool" along with understanding when, how and why Tongan students switch languages, are the necessary incentives for extending my study towards classroom teaching and how teachers can use one or two languages effectively in a Tongan-type bilingual setting.

My study showed how language switching was a valuable part of the Tongan bilingual students' mathematical activities, particularly in areas where certain images could only be accessible or expressed verbally through one of the two languages. This finding strongly suggests that language switching can be a way, if employed deliberately and purposefully, for mathematics teachers to direct bilingual students' ways of thinking and consequently their understanding of the mathematics in an appropriate way. Language switching can serve as a

resource for communicating mathematically and for pedagogical strategies (Moschkovich, 2007) especially if “mathematics is about precision of thought”, which if “best expressed through precision of language”, then one needs to be “drawn to the need to attend to the subtle power of the individual words” (Pirie, 1996, p. 115). Acts of language switching provide a precise means or a “conceptual peg” for identifying, retrieving, and guiding one’s existing understanding and ability to work with images (Cummins, 1981; Dawe, 1983). Finding a more effective pedagogical approach toward the use of two languages within a Tongan-type bilingual classroom environment would avoid educators from being misled by the belief that students understand mathematics better when they limit their use of language to one particular language or that any language switching practice is deficient.

### Final Remark

Based on the discussions in this paper, I strongly recommend a re-thinking of the language of instruction in any Tongan-type bilingual mathematics classroom, one which has to be based on the students’ language proficiencies. If students are proficient only in their first language, then classroom instructions and mathematics communications should be conducted mainly in that language along with deliberate and purposeful switching with a second language, whenever appropriate. This pedagogical technique however needs further study within a classroom setting, and particularly in a setting (classroom or school) where the majority of its students does not have the required minimal level of linguistic competence in the language of instruction.

Understandably there may be reluctance from some mathematics teachers in Tonga, for example, to adopt a pedagogical approach in which the base language of instruction for mathematics is Tongan, and not English, especially at the high school levels. Part of this “reluctance” comes from some teachers’ perception in elevating one language as an “elite language” and regarding the other – often students’ own vernacular – as “inferior”. The obvious way to battle this type of “oppression” and for everyone to appreciate the multiple roles of any of the Pacific languages in the teaching and learning of mathematics is to develop its mathematical language further. This ultimately has to be done for the Tongan language and many of the other Pacific vernaculars, as we have witnessed with the revival of the *Te Reo Māori* project in New Zealand, and such a project can go hand-in-hand with a research-based approach to how language switching can be employed as a pedagogical tool in mathematics classrooms.

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# Weaving Education Theory and Participatory Action Research: Creating a Framework for Organising Community Education

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## Abstract

Participatory Action Research – PAR (Lewin, 1946) is an alternative philosophy of social research. PAR is often distinguished from conventional research methods by reference to three main characteristics: (i) shared ownership of research projects, (ii) community based analysis of the problems at hand, and (iii) an orientation towards community action research. PAR has value as a framework for organizing community education practices in Oceania. Participatory Rural Appraisal (PRA) is an approach which has been built upon PAR principles.

This paper shares insights gained from doctoral research in 2008 into the strengths and limitations of PAR, and proposes that PRA be interwoven with Cambourne's (1988) 'conditions of learning' as a suitable educational theory to support PAR in the Tongan context. The conditions of learning theory emphasizes the importance of the engagement of learners in a learning community, and states the need for immersion and demonstration to be accompanied by engagement, and for engagement to be fostered by presence of expectations, responsibility, use, approximation, and response, in the learning process. Based on the study, this paper proposes that Cambourne's model can be usefully adapted to effectively guide an adult education program in the context of rural Tonga, and that such a model has potential to be effectively used in similar education programs in other rural education contexts in the Pacific.

## Introduction

Participatory Action Research – PAR (Lewin, 1946) is an alternative philosophy of social research and has often been associated with social transformation in the developing world. Based on 'liberation theology' and neo-Marxist approaches to community development in Latin America (Freire, 1968), PAR is often distinguished from conventional research methods by reference to three main characteristics: (i) shared ownership of research projects, (ii) community based analysis of the problems at hand, and (iii) an orientation towards community action research.

Participatory Rural Appraisal (PRA) is an approach to community education and change which draws upon this concept of Participatory Action Research (PAR) as a theoretical framework (Lewin, 1946; Whyte, 1995). This paper proposes that PRA has value as a framework for organizing community education practices in Oceania. Specifically, in the context of a community education project to address the issue of safe use of pesticides (SUOP) and promotion of ecological sustainable agricultural practices (ESAP) in Tonga.

The paper proposes the weaving of Cambourne's (1988) Learning Theory together with the PAR approach in order to create a framework for organising community education practices in Tonga which would encourage local communities to participate in community decision-making processes for sustainable development. The success of the approach developed for this study depended upon a deep understanding of the socio-cultural nuances of Tongan society, and so the researcher's background was a key factor in the study. The context of the study was villages, and it made use of traditional Tongan social structures to provide a vehicle for delivering and supporting the approach taken to adult and community education. The rural context of the initiative and the role of NGOs are also important considerations in addressing the problem of chemical misuse in agriculture.

## The Problem

Tonga is undergoing a process of rapid change. King Siaosi Tupou V who was the Head of State of the tiny South Pacific island nation divested himself of business interests and relinquished much of his power in favour of a more representative, elected parliament. Despite these changes, however, Tonga is still facing many socio-economic and environmental problems.

Tonga is a small and relatively poor country and is environmentally vulnerable. The coastal zone of Tongatapu, the most populous island of Tonga, is susceptible to hazards associated with climate change and rising sea level, particularly inundation, flooding, beach erosion and tsunamis (Pelesikoti, 2003; Lao, 2007). Tonga's small open economy is vulnerable to fluctuations in world commodity prices and susceptible to frequent natural disasters including cyclones. Within this context, the Tongan economy depends upon significant inflows of remittances sent from workers and relatives overseas. This is known as a Migration, Aid, Remittances, and Bureaucracy (MIRAB) economy, consisting of a large public sector with a high dependency on aid and remittances.

Inundation, flooding hazards generated by tropical cyclone storm surges, beach erosion, saltwater intrusion, agricultural runoff and social trends of population growth are the common threats for coastal villages because of their low-lying settings (Lao, 2007; Pelesikoti, 2003). Further, freshwater in Tonga, as in many Pacific Islands, is either obtained from the collection of rainwater or by the pumping of the freshwater lens overlying a saltwater body in a limestone aquifer (van der Velde et al., 2006). Thus, the economic and social well-being of the population is dependent upon the quality and the quantity of fresh water, much of which is now proven to be contaminated by chemicals, such as fertilisers and pesticides.

The reason for the over-use of fertilisers and pesticides is that traditional subsistence agriculture is being replaced by monoculture of non-traditional cash crops for export, such as squash pumpkins (Murray, 2001). In order to maintain the yields of non-traditional cash crops at a competitive level, it is necessary to ply crops with copious amounts of fertilisers, herbicides, and pesticides (Murray, 2001; van der Velde et al., 2006). An exporting economy of monoculture cash crops reduces biodiversity and dietary diversity and creates socio-environmental tensions such as water pollution and soil degradation while promoting health problems in the population (Overton, 1999). The squash market is one of high risk in that it is a single market for a bulky, relatively low value crop. It is a one-way trade which involves large inputs of seed, fertiliser and chemicals, and the crop is subject to the vagaries of climate, pests, and diseases.

Bagchi (2000) provided an overview of the extent of chemical use and availability in Tonga. An assessment of the various aspects of chemicals production, import, and use in Tonga identified the following areas as priority concerns:

- the lack of regulation of chemical imports
- the improper storage, transport, and distribution of chemicals
- the inappropriate use of chemicals
- the improper disposal of chemicals.

The Pesticides Awareness for Sustainable Agriculture (TCDT, 1998b) reported that during a survey in Tonga:

- 47% of the respondents did not wear protective gear during mixing and application of pesticides
- 65% of the respondents did not understand the English labels on pesticide containers and synthetic fertilisers
- 30% of the respondents asked for the translation of English labels into the Tongan language
- 71% of the respondents reported that English instructions were too difficult to understand and hard to follow.

Van der Velde (2006, p. 461) reported that “during an initial survey of the groundwater quality, traces of pesticides dieldrin, diazinon and carbaryl have been identified in three of 12 groundwater samples taken around Tongatapu.” This report provides evidence that pesticide use in Tonga is high and poorly managed and needs to be regulated. It is an indication that an effective educational programme needs to be developed to educate

local farmers and their families how to safely use pesticides, as well as about the alternatives for sustainable agriculture. Van der Velde (2006) further argued that “improved agricultural practices have to be implemented through educational tools to ensure continuing economic prosperity derived from agricultural exports.”

### **Origin, strengths and weakness of PRA in the Tonga context**

This approach to agriculture reflects how international development activity has occurred over the past 50 years: the predominant approach has been that of “modernisation” which views poverty as something that can be attributed to the unfortunate continuation of a series of traditional and ostensibly irrational practices that prevent people from doing what is in their best interests (Greenwood & Levin, 1998). Therefore, the “solution” to the problem is seen to be well-targeted actions that modernise the traditional practices, often through a process that emphasises education and communication strategies that transform “traditional” people into “modern” thinkers (Greenwood & Levin, 1998; Chambers, 1997). This approach has been powerful as governments with lots of money, agencies such as the International Monetary Fund and the World Bank, and agencies for international agricultural research, controlled the agendas which often focused on more productive varieties of basic food crops and the application of “modern” agricultural techniques (e.g., improved fertilisers, pesticides, mechanisation, integrated pest management).

Greenwood and Levin (1998) point out that much of the development work in places like Tonga is limited by considerable constraints on what can be done and how. Others (Chambers, 1997) claim that a multi-billion dollar “aid” industry has developed globally, often representing the interests of industrial nations by supporting an immense bureaucracy of professionals and quasi-professionals who have made nice incomes by being “experts” on the world’s poor.

In the early 1970s, the rise of the feminist movement and the environmental movement moved the focus to approaches that were more participatory and holistic. Coupled with this was the emergence of a strong international movement for human rights that went beyond poverty and included self-determination, freedom from coercion, gender equality, the rights of children, and the rights of ethnic groups (Greenwood & Levin, 1998).

By the mid-1980s, many private voluntary organizations (PVOs) and non-government organisations (NGOs) had entered the development scene as major players (Greenwood & Levin, 1998). Free from constraints associated with nationalistic economic policies, these organisations have been able to be open in their ideology and focus on social, economic, and ethical goals that better serve the needs of local communities. During the same period, the approach known as Participatory Rural Appraisal (PRA), which draws upon participatory action research as a theoretical framework (Lewin, 1946; Whyte, 1995), was developed. This theoretical framework informed the study that this paper is drawn from.

PRA applies a set of practices based on farming systems research, and closely observes local farming practices from a systems perspective. The use of a number of interviewing and sampling methods and some group and team dynamics approaches identifies significant local sources of knowledge that may come from individuals or groups. Participants help to analyse a specific issue and develop and monitor action plans.

However, often a PRA team arrives in a local community, begins a rapid process of data collection and analysis, but does not take the time to become aware, in a detailed way, of the nuances of local politics. Further, programmes are often not self-sustaining, as they are not supported by sound community-based education. There is a need to recognise and address these limitations. This was the focus of the study that this paper reports on.

### **The study**

This paper reports on a small part of a larger doctoral study.

#### *Purpose*

The larger study aimed to address the issue of safe use of pesticides (SUOP) and promotion of ecological

sustainable agricultural practices (ESAP) by identifying a relevant educational theory that can be applied to extend the impact of PRA. The study recognised the importance of encouraging local communities, men and women of all ages, to participate in community decision-making processes, and in sustainable development, because their interests, knowledge, skills, and wide experience in ecologically sustainable development are essential to the success of improvement programmes (FAO, 1999; Halavatau and Hazelman, 2003; Pretty, 1995).

### *Goals and objectives*

- i. To assess the strengths and limitations of Participatory Rural Appraisal (PRA) as a framework for organising community education designed to improve ecologically sustainable methods of crop pest control in Tonga.
- ii. To identify an educational theory that would be suitable to support the PRA framework and that also addresses the reported limitations of PRA.
- iii. To use the perspective of a participatory action research framework (PAR) to guide and evaluate the implementation of this theoretical educational model in the context of Tongan community groups – a group of women from a town and a group of young farmers from a village.

### *Research questions*

1. What are the strengths and limitations of PRA as a framework for community-based action that focuses on the safe use of pesticides and ecologically sustainable agricultural practices in rural communities in Tonga?
2. How can educational theory be combined with PRA to guide the planning and implementation of a community education program designed to improve the SUOP and ESAP within a group of women and young men in rural communities in Tonga?

### *Significance*

Because the economy of Tonga is based heavily on agriculture, local growers are using more pesticides to get better yields, and the majority of farming projects are run with little consultation with local communities (Ecowoman, 2000; PASA TCDT/FSP Annual Reports, 1998, 2001, 2002, 2003 & 2004), the outcomes of the study were designed to contribute to informing and educating local communities about safe farming practices. Theoretically- and educationally-supported PRA strategies may encourage women and young male farmers to more actively and effectively participate in the education process, and empower them to collaborate and work as problem-solving or learning teams develop their own solutions (alternatives) for crop pest control in Tonga. Local families can then develop home-grown gardens and create locally-owned solutions to ecologically sustainable development requirements, such as making compost for their gardens, growing companion crops, and using local insect repellents to deter pests.

Participatory Rural Appraisal (PRA) is an alternative to conventional, top-down education approaches to rural development and is based on village experiences. Conversely top-down approaches, often imposed by the government, do not have the capacity to implement sustainable objectives (Pelesikoti, 2003). This study was designed to identify and apply a theoretical education framework that would inform and support the PRA process, making it more effective. Thus the study also contributes to the evolution of theory, as an anticipated outcome was that the theoretical framework may be applied across a variety of similar contexts.

### **The Learning Theory**

This paper asserts that, to combat some of the possible weaknesses of the PRA model, Cambourne's (1988) Model of Learning is an important educational framework to couple it with.

Cambourne's Model of Learning consists of the following:

- Immersion: The context in which the learning takes place
- Demonstration: The learners could see, hear the actions of the artefacts to be learned
- Engagement: The learners are convinced to learn because the activities are do-able and own-able by them
- Expectation: The learners could expect that the demonstrated activities are do-able and own-able
- Responsibility: The learners are responsible for their own learning
- Approximation: The learners are trying out what they have learned and being able to experiment and

make mistakes

- Use: This is related when learners put into practice what they have learned
- Response: The facilitator and the demonstrators respond to the learners' progress and performance.

It is proposed that this model provides a structure for PRA and facilitates adult learning, and that any efforts towards educational programmes in communities must distinguish between the characteristics of adult education and notions of schooling or the education of other age groups.

## Adult Education

Adult education is defined as the practice of teaching and educating adults. This often happens in the workplace, through "extension" or "continuing" education courses at secondary school, at a college or university (ASPBAE, 2008). Other learning places may include high schools, distance community education, and lifelong learning centres. The practice is also often referred to as "Training and Development" and it has been referred to as andragogy to distinguish it from pedagogy.

Adult education can occur after both formal and non-formal education (Kingdom of Tonga - National Policy on Gender and Development, 2001; Tonga Environmental Education Program TCDT/FSP, 1998; USP, 1997; MOE Annual Report, 2002). Adults might participate in church and village education activities. Local governments rarely offer scholarships for adult learners. Also adult learners often have more commitments to their families than to adult education programmes. As a result, many do not complete their studies. These cultural obligations often make adult education programmes unsuccessful in Tonga. Therefore this researcher was challenged to consider different approaches, such as non-formal education.

Non-formal education can be an extension of formal education (Social Aspects of Sustainable Development in Tonga, 2002). It is also organised to provide a second chance for learning to those who missed formal schooling. Male dropouts may help their fathers in fishing and gardening (Hala'apiapi, 1997). Girls can either serve kava (social/ceremonial drinks) or help their mothers to weave mats, cook, and making tapa cloths for families, villages, and church festivities.

Fordham (1993) lists four characteristics of non-formal education:

- relevance to the needs of disadvantaged groups
- concern with specific categories of person
- a focus on a clearly defined purpose
- flexibility in organisation and methods.

Table 1 contrasts formal and adult/non-formal education. During this study, the researcher needed to adapt a non-formal approach to effectively achieve the project goals in Tonga. Both non-formal and adult education programmes are developed in the promotion of education for all and life-long learning (ASPBAE, 2008). The content of the non-formal education and adult education courses is based on the capacities of the learners where activities are practically oriented to fulfil the clearly defined purposes (Tight, 1996). The courses are also designed to advance the right of all to learn as well as promoting the needs and interests especially of the most marginal groups (ASPBAE, 2008). Non-formal education delivery is closely related to the community (Fordham, 1993). Its teaching and learning activities are flexible and are designed to lead the participants forward. Often it involves sharing experiences with other learning groups (ASPBAE, 2008).

Non-formal education is owned and controlled by the learning group within the community. The learners participate in making decisions about learning-teaching processes because the bottom up approach is enforced to help the learners' articulate their understanding of the social structure around them. By way of contrast, the formal education system is controlled by a board or a ministry in a hierarchical organisation. The teacher and the students work together to achieve an externally developed syllabus that may be externally assessed.

Table 1. *Comparison between formal, non-formal and adult education*

	<b>Formal Education</b>	<b>Non-formal &amp; Adult Education</b>
<b>Purpose</b>	Long term & general	Short term & specific
	Credential based	Non credential based
<b>Learning places</b>	Primary schools, secondary schools - universities	Outside the established formal system
<b>Timing</b>	Long cycle/preparatory/full time	Short cycle/recurrent / part time
<b>Content</b>	Standardised/input centred	Individualised/output centred
	Academic	Practical
<b>Delivery system</b>	Institution based, isolated from environment	Community related
	Rigidly structured, teacher and student centred and resource intensive	Flexible, learner centred and resource saving
<b>Control</b>	External/hierarchical	Self governing/democratic

### **Rural development projects**

The special context of these forms of education programmes demands some considerations. Rural development activities are aimed at improving the standard of living in rural areas and outer islands (Ecowoman, 2000). Rural development projects have been designed to address the needs of the local communities but the perspectives were of those who introduced them. The rural and outer island communities should therefore be integrated as partners into such projects (Pelesikoti, 2003; GEF/UNDP/SPREP/IWP/DoE-Tonga, 2002 & 2003).

The participation of local communities in projects can build on the many innovative ideas that people offer once they are convinced that their voices will be considered (Pelesikoti, 2003). A number of Pacific countries have however, attempted to reverse the levels of urbanisation by developing decentralisation schemes and placing increasing emphasis on rural development.

### **Non-Government Organizations (NGO)**

Such community and rural development projects are often lead by NGOs. Non-Government Organisations (NGOs) are non-profit and charitable organisations set up to supplement the role of the government in serving the needs of groups and communities which are not fully catered for by public institutions (TCDT/FSP, 1998a & b). NGOs operate many projects such as cement tanks for families' water catchment, kitchen and cooking charcoal stoves projects, beautification projects, lagoon watch, domestic waste management, planting of multi-purpose trees, arts and crafts, weaving and tapa making, etcetera., to promote sustainable development in Tonga (Pelesikoti, 2003; PASA- TCDT/FSP, 1998 & 2002).

The Tonga Community Development Trust (TCDT) was established in 1984 as an indigenous, autonomous organisation which serves the communities of Tonga by promoting sustainable local development especially in the rural areas. TCDT promotes local development by assisting in the identification, planning, and implementation of village-based development projects in the outer islands and rural areas of Tonga.

### **Conclusion**

Efforts by such groups would benefit from being informed by both educational theory and PRA in their efforts to educate communities and overcome poor farming practices, including over-ploughing, improper application of agro-chemicals, and clearance of trees on steeper slopes which may cause agricultural runoff of chemicals from pesticides to wash into the aquatic systems and affect coastal fisheries' resources and marine

life. Therefore it is important to raise public awareness and change to ecologically sustainable development practices. This paper argues that this can be better achieved by using approaches such as Participatory Rural Appraisal (PRA) to promote self-sufficiency and minimise the detrimental impacts of negative farming practices on the environment and resources of Tonga.

Positive practices, such as proper use of agrochemicals, use of alternatives for sustainable ecological agriculture, including home gardens, mixed cropping and legumes, will maintain soil fertility and appropriate sustainable ecological development practices for Tonga through the use of the PRA approach. This study has the potential to support such practices through encouraging the judicious application of supporting educational theory to the use of PRA in order to maximise the outcomes. As such, these woven approaches not only have the potential to benefit Tonga but may also benefit other nations in the South Pacific.

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## Symbolic manulua as the ultimate aim of ako; 'ilo, potu, fonua and 'ofa as pathways

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### Abstract

This paper shares some critiques of Western thought including the debate on unformulated and embodied knowledge in education. This paper therefore provides a platform for a proposal for an education system, represented by the *manulua*, that has more holistic, connected and spiritual goals. It integrates the Tongan concepts of *ako*, *potu*, 'ilo, 'ofa, *fatongia* and *fonua* to form *founga ako* a pedagogical framework that can be used in classrooms to channel teaching and learning to meet the goals mentioned previously.

### Introduction

This paper proposes an aim for Pacific education in the direction of developing a more holistic being that honours connectedness, spirituality and culture, and can be represented by the *manulua*. It also integrates the Tongan (and to some extent pan-Pacific) concepts of *ako*, *potu*, 'ilo, 'ofa, *fatongia* and *fonua* to construct a framework that will assist teaching and learning in students' journeys to achieving authentic and holistic being. I call this framework *founga ako*.

### On 'being' – From the European to indigenous Enlightenment

Education, at least in the Pacific region continues to be dominated by rationality and liberalism, developed from the philosophical thoughts of Descartes and others of the European Enlightenment. This is even in spite of the disasters that grew out of these very same thought systems.

Eagleton (1983) shared that at the end of WW1, capitalism had been shaken to its roots by the war's carnage and its turbulent aftermath, Europe lay in ruins and that:

...the ideologies on which order had depended, the values by which it ruled, were in deep turmoil. Science...dwindled to a sterile positivism, a myopic obsession with the categorizing facts;... and an indefensible subjectivism;... bewildering loss of bearings. (p. 54)

In this ideological crisis, philosophers sought new methods to lend certainty to a disintegrating civilization. Husserl argued against Descartes's dualism and disconnectedness. Heidegger expanded this argument, claiming that we cannot separate ourselves as subjects learning about objects because we are part of that object; if one is conscious, s/he must be conscious of something (object) (Dreyfus, 1999). In applying Heidegger's perspective to learners, their world is here, and now, and it is everywhere around them. They are totally immersed within it, and after all, how could they be anywhere 'else'?

This highlights the centrality of context for education, which includes the intangibles and tangibles of people, culture and values, highlighted as *fonua* by the eminent anthropologist, activist and Tongan philosopher, Epeli Hau'ofa (*talanoa*, May, 2004). Heidegger articulated this learner entrenchment in context, through the composite "in-der-welt-sein" or simply "dasein" that is 'being-in-the-world' or the meaning of 'being' (Steiner, 1978).

Later Merleau-Ponty suggested that while Heidegger was right, like Husserl, he focused on consciousness and ignored the role of the body in developing being (Dreyfus, 1999) and in education. Merleau-Ponty's position is closer to the holistic nature of Pacific learning. This paper joins the search for an ideal Pacific education in the same way that the "Tongan Draft Policy Framework 2004-2019" (Tonga MOE, 2004) does.

## Ultimate aim of education (*ako*)

Neti Cook stated that: "... our desired outcome for education is ... harmony with each other, our community and our God" (Vaioleti, 2011, p. 226). Cowling (2005) reinforced this, stating that: "In every Pacific society, ...there is an emphasis on harmonious living...". Tongans achieve *fe'ofa'ofani* through *fatongia*, and observed:

...most Tongans strive to...feel at peace (*melino*) with themselves and with others. They aim to maintain harmonious relationship... and ...express love to others through helpfulness (*fe'ofa'ofani*) and sharing. A state of equilibrium and therefore happiness is achieved. (pp. 142 – 143)

At a Pacific regional meeting in Samoa in 1999 (Vaioleti, 2011, p. 226), enthusiastic dialogue led to consensus on three over-arching principles for Pacific education which were:

- i) we believe in the harmony and unity of family. In Samoan, it is *fealofani*. In Tonga, it is *fe'ofa'ofani* (loving, respecting one another). In Maori, it is *whanau*.
- ii) we believe in respect for proper roles and relationships. In Samoan, it is *fa'aaloalo*. In Tongan, it is *faka'apa'apa*. In Fijian, it is *vakarokoroko*.
- iii) we believe in the rendering of service. In Samoan, it is *tuatua*. In Tongan, it is *fatongia*.

The carrying out of proper roles is *fatongia* (cultural duty, obligations) and this is the foundation which most Polynesian societies are built on (Vaioleti, 2011). *Ako*, *'ilo* and *poto* underscore the Tongan education processes and ensure that the roles played and the quality of service given by individuals in their communities, all results in achieving collective harmony.

## Symbolism for ultimate aim of education (*ako*) and being

In years of reflection on the role that education, culture and politics play in the lives of Tongan people, the triangle (*tapa tolu*) and the number three, frequently come to mind. It is a reminder of great leaders, such as Taufa'ahau Tupou 1st, the wise architect of modern Tonga. He was blessed with physical strength, high spirit and intellect. The number three has metaphoric significance for *fonua* too. The Tongan cosmological worlds consist of the *langi* (heavens), realm of God/s, *fonua* where the living reside, and the *lalofonua* (underworld or *pulotu*) the realm of the ancestors.

Over many centuries, Tonga has been led by three dynasties that descended from the God *Tangaroa*. They are represented in the Tongan crest by three swords whose handles are based in the *fonua* but bound at the tips signifying common ancestry and forming a shape that resembles a triangular pyramid pointing to the *langi* – the place of origin and return.

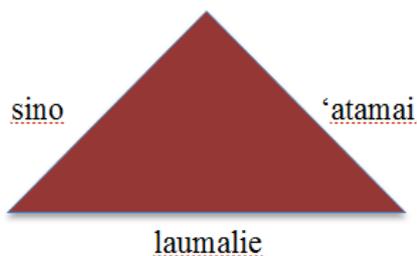
Three is also a feature of Tongan human development, vital for planning and administering curriculum and pedagogies. Dr 'Ana Koloto (cited in Drewery and Bird, 2006, p. 62), stated that:

Tongans view life as a holistic process, the purpose of which is the development of the *tangata kakato* (total person) ... three main aspects of development emphasised in *tangata kakato*: *mo'ui fakasino* (body or physical well being) *mo'ui faka'atamai* (mind or intellectual well being), *mo'ui fakalaumalie* (soul or spiritual well being). Inherent in this ... is the belief that the individual is born to perform certain *fatongia* ... and to become 'aonga (useful) to her *famili* (family), *siasi* (church), and *fonua* (country).

## Development of the holistic individual (*tangata kakato*)

I will now represent Koloto's "*tangata kakato*" using the *tapa tolu* and substitute her *mo'ui fakalaumalie* with *laumalie*, *mo'ui fakasino* with *sino* and *mo'ui faka'atamai* with *'atamai*.

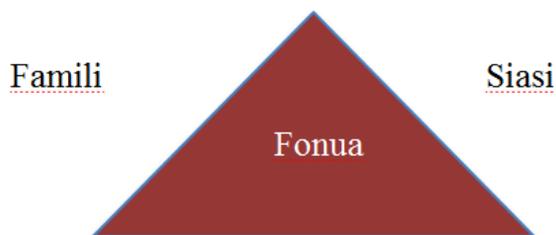
Figure 1. *Tapa tolu*: graphical interpretation of Koloto's *tangata kakato* - *sino*, *'atamai* and *laumalie*.



### Development of the holistic community (*fonua kakato*)

Moving from the individual to the collective (Community *fonua*), I again draw from Koloto's works. The following *tapa tolu* shows how connections between *famili*, *siasi* and *fonua* can be symbolized.

Figure 2. *Tapa tolu*: graphical interpretation of Koloto's community - *famili*, *siasi* and *fonua*.

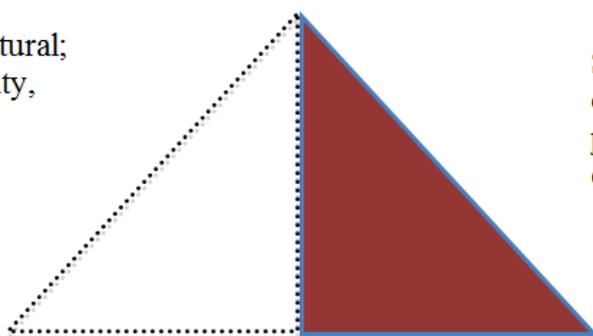


### A revised representation of Tongan holistic being

Tongan people are holistic and spiritual (Kavaliku, 1977; Thaman, 1988). This paper proposes a symbolism that brings spirituality to the fore in developmental and educational discussions. This is how it might work. Imagine if a *tapa tolu* that stands for a being was halved. Imagine further, if one half was seen and the other was unseen or transparent. The transparent half symbolically represents spirituality and clarity.

Figure 3. *The two aspects of tapa tolu a symbolism for being*

Laumalie, the supernatural;  
vaa, wairua, Spirituality,  
intangibles



Seen, empirical,  
observables,  
physical, tangibles  
culture

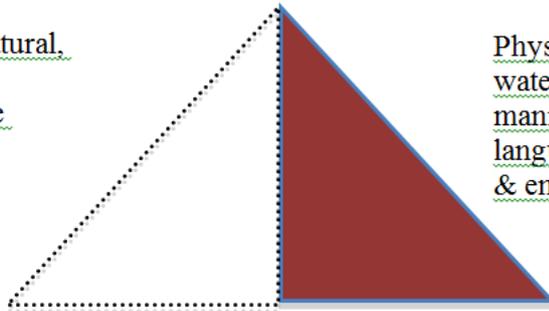
I will now further develop Koloto's dimensions of *sino*, *atamai*, *laumalie* as well as *famili*, *siasi* and *fonua* using the *tapa tolu* approach above to arrive at a guide and symbolism for *ako*.

### Revised combined *tangata* and *fonua kakato*

To propose a new representation for *tangata* and *fonua kakato*, I suggest four revised *tapa tolu* of *fonua*, *sino*, *kainga*, *atamai/loto*. I will address each briefly.

Figure 4. *Fonua*.

Laumalie, the supernatural, god/s, spirit, wairua, ancestors, religion, the unseen.

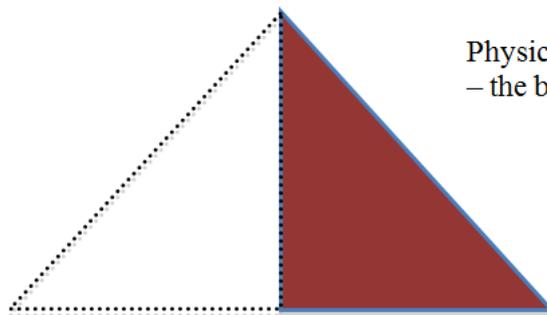


Physical fonua, including waters, skies, and physical manifestation of culture such as language, arts, etc. Community & environment.

*Fonua* is the base for many Pacific cultures and being. Nabobo (2003, p. 87) stated that “the vanua (fonua) is the source of nearly everything in a Fijian life; it belongs collectively to ... not only the living, but also those who have passed on.” *Fonua* is nature, the common denominator for people, animals, plants, the seas the heavens, the animated and inanimate.

Figure 5. *Sino/tinana/physical body*

Laumalie, ancestors, senses, muscle memory, essence, presence

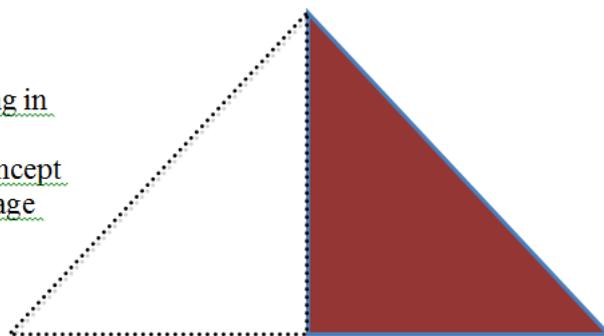


Physical and seen body – the biological

*Sino* is concerned with the physical aspects of a person. *Sino* is the physical manifestation of ancestors and integral to sense of belong. *Sino* facilitates a sense upon which cognition is reliant (Begg, 2000). *Sino* is vital for learning through the senses (Dewey,1944).

Figure 6. *Kainga*

Laumalie, family reputation and standing in community; unseen extended kinfolks; concept of home nation & village etc.



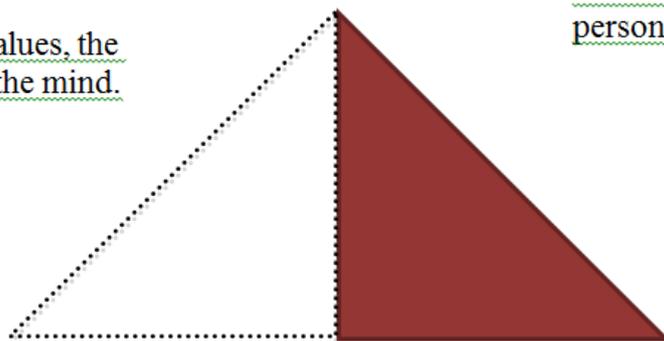
Observable kainga, whanau, extended kinfolks, etc.

The strength of *kainga* can be a reflection of the spiritual half of the *tapa tolu*. Educators need to respond to what is happening in the community by learning local languages, studying students’ backgrounds and taking part in community activities so they understand students’ realities. Case studies from those experiences can be future lessons.

Figure 7. *Atamai/loto/finangalo/hingangaro*

Laumalie, unseen psychological/mental, values, the non-physical aspects of the mind.

Visible/overt behaviour, personality, etc.



*Atamai* and *loto* are associated with thinking (Manu'atu, 2002). *Loto* is inner feelings or thoughts that are associated with intuitions. The Tongan way of asking for one's sincere thought is, "*koe ha ho loto?*" (What is your heart (feeling?)). Manu'atu goes further by saying that the mind collects information and considers arguments, the *loto* however makes the decisions (*talanoa*, May, 2009).

Begg (2000) raised concerns about a lack of attention given to the intuitive and emotional knowing. Davis (2003) suggests that much of what we do and how we learn is unformulated. Similarly, Heidegger (1962) suggests that much of learning is unconscious and our actions are often guided by unconscious thoughts. 'Ilo a pivotal Tonga educational concept was described by Rev. Sami Veikoso (*talanoa*, Feb, 2000) as spiritual knowledge, and can be regarded as intuitive too.

### ***Laumalie/wairua/spirit/soul***

*Laumalie* can mean spirit or truth. Sione Vaioleti (*talanoa*, May, 2008) described *laumalie* as divinity, Godhood or pure spirit, the immaterial facet of humanity. If this is the case, then it is *laumalie* that links each to the divinity. In this paper, I will use *Laumalie* to mean the divinity, pure spirit, and *laumalie* as more the soul, the essence of humanness, consisting of both material and immaterial. Achieving *laumalie* is the ultimate aim of education advocated for in this paper. This may be aligned with what Marsden (2003) referred to as excellence of being and authentic existence. He stated that:

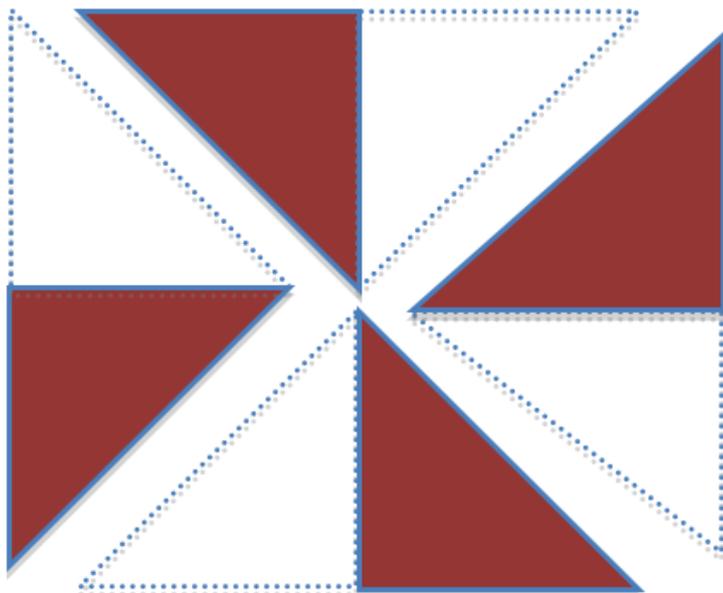
... towards excellence all things strive ... 'kia eke ki tona taumata' - that it may attain to the excellence of being; or, to the authentic existence ... the goal of human endeavour is to achieve 'atuatanga' - divinity, ... meaning and purpose of life. (p. 44)

Education should be a part of the journey to "*atuatanga*" then. Sione Vaioleti strongly advocated for morality and spirituality to be factored formally into teaching (*talanoa*, May, 2008) and Davis (2003) suggests that ethics and morals should be taught as part of maths, science and any other subjects. These can contribute to achieving *tangata kakato*, harmony and oneness with the world.

### **Construction of symbolism for the aim of *ako***

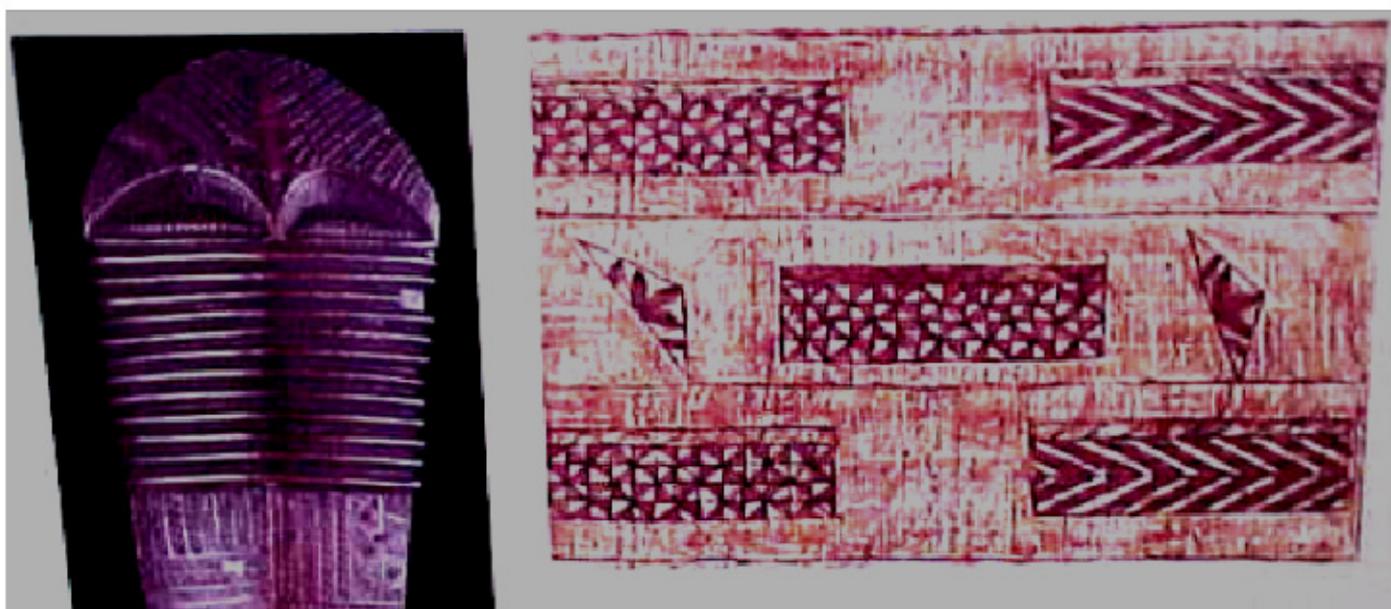
I will now bring the dimensions of *fonua*, *kainga*, *sino* and *atamai* together in the following manner. The four *tapa tolu* are placed on one plane and the crests are drawn equally into each other, cautiously, until they merge at a centre and along their sides as shown in the following figure.

Figure 8. Clustering of the dimensions of fonua, kainga, sino and atamai



What will emerge from the above fusion is the ancient motif of *manulua* seen in pottery, ancient tattoo and ngatu as below.

Figure 9. Examples of the ancient Manulua motif (Source: Royal Tongan Museum, Havelu, Tongatapu)

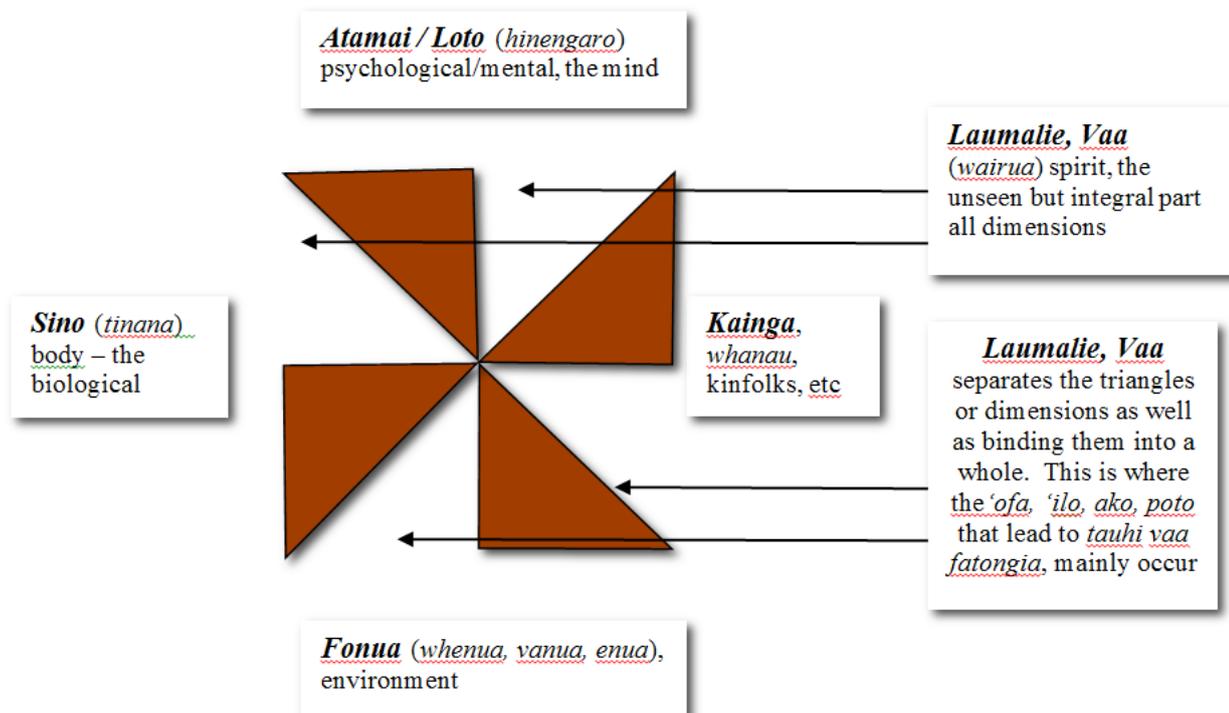


### Manulua – symbolism for Atamai, Sino, Kainga, Fonua and Laumalie

*Manulua* brings together two words - *manu* is bird and *lua* is two. *Manu* metaphorically means a person or people, therefore *manulua* can stand for unity in purpose, connectedness, partnership and a collective approach to living.

The fusion of the dimensions at the centre and along the sides, merges the *fonua*, *kainga*, *sino* and *atamai*, making each a part of every other, but still enabling each to maintain its integrity, as shown in the following Figure.

Figure 10. *Fusion of the dimensions of Manulua*



*Manulua* conveys symmetry, balance and harmony in self, the community, environment and oneness with divinity; Marsden's (2003) *ahuatanga* and authentic existence. I now propose a pedagogical framework to guide the classroom holistic learning and journey towards achieving *laumalie* 'o e (of) *ako* represented by the *Manulua*.

To stay consistent with Bishop (2008), Dewey (1978) and Thaman (2004) who insisted that the tools of learning must be from the students' world, 'ofa, 'ilo, poto, fatongia and fonua are used to construct a pedagogical framework to assist teachers and learners in their educational journey to achieving the *laumalie* of *ako*. I call this framework, 'founga ako'; the way or path of *ako*.

### **Founga Ako (FA)**

*Founga Ako* is inspired by Sheets' Diversity Pedagogy Theory (DPT), as FA "links culture, cognition and schooling in a single unit" (2005, p. 1). It acknowledges the vital role that teachers play in making the *ako* happen. *Founga Ako* makes explicit the importance of *fatongia* for students, as it puts a significant role in classroom learning back onto the students.

In FA, *ako* loosely guides the knowledge and pedagogy, 'ofa provides a sense of compassion, spirituality and regard between students and with the teacher. 'ilo provides moral directions to facilitate relationships and *poto* guides the application of *ilo* into the classroom to ensure positive outcomes. *Fatongia* charters the obligations between students, and from students to teachers; teachers to students, professional bodies and the community. Finally, *fonua* guides learning that preserves and grows local knowledge, cultures, values and language/s.

Teacher Pedagogical Behaviours (TPB) are about 'how teachers think and act in the classroom' and the Student Cultural Displays (SCD) are behaviours (how students show who they are) which are directly influenced by TPB. This is the FA for guiding the learning journey towards achieving the *laumalie* of *ako* represented by the *Manulua*.

Table 1. *Founga Ako*

	<b>Ako</b>	<b>'Ofa</b>	<b>'Ilo</b>	<b>Poto</b>	<b>Fatongia</b>	<b>Fonua</b>
TPB Diversity	Western, Pacific knowledge, pedagogies & others are normal day to day class discourses. <i>Learn with a sense of belong, deeper meaning and clearer goals.</i> <i>Ownership of pedagogy &amp; curriculum.</i>	Show compassion for - ages, gender, health, social, religion & their manifestations. <i>Compassion for other students, community, teachers &amp; others, 'ofa for all things.</i>	Show global & local issues awareness, ethical in professional and cultural matters. <i>Learn about self &amp; others' identity, culture, politics, religion, history, share own.</i>	Use 'ilo to guide application of scientific & cultural concepts in teaching. <i>'Ilo guides interactions, take part in social, spiritual activities respectfully.</i>	Provision of sound content and pedagogies that suit mainstream & other learners. <i>Fulfil fatongia to school &amp; community.</i> <i>Contribute to class culture, support peers.</i>	Tongan or Pacific values & knowledge take for granted in classroom discourses. <i>Practice own culture, encourage others to do same, support community.</i>
TPD Identity	Teach inclusive knowledge holistically guided by 'ilo, poto, fatongia & fonua underpinned by 'ofa. <i>Support school &amp; class patriotic endeavours, Pacific cultures and language &amp; involve parents.</i>	Show 'ofa for students as cultural beings, cater for uniqueness of each student. <i>Practices own culture, show love, encourage others to practice their own cultures.</i>	Know students' academic, socio economic, sports, family & spiritual background. <i>Show positive disposition towards self, others &amp; life.</i> <i>Active class &amp; team member.</i>	Use background of students to inform content, pedagogy & to build class relationships. <i>Celebrate others' interest, school success, religious occasions etc. appropriately.</i>	Follow official & moral obligations; constantly update students' information. <i>Discuss common matters openly &amp; celebrate diversity respectfully.</i>	Practise Tongan & different cultures. Use local case studies for lessons. <i>Engage in activities that preserve languages &amp; cultures that support identity.</i>
SCD						

<p>Social interaction TPB</p>	<p>Use English, Pacific &amp; other languages respectfully; use students' social, religious examples for lessons. <i>Group &amp; individual interactions are positive, respectful; learn and relate to others with a sense of purpose &amp; hope.</i></p>	<p>Communicate 'ofa in all activities to build &amp; maintain good relationships. <i>Relationships underpinned by care for learning of each other as, the whole person.</i></p>	<p>Considers social, political &amp; spiritual worlds of student; support them. <i>All academic, social, moral, cultural &amp; spiritual matters are considered in learning.</i></p>	<p>Communicate authentically, promote reciprocity, trust, support &amp; companionship <i>Interactions are respectful, supportive, allow humour, deep learning &amp; trust in class.</i></p>	<p>Uses 'iilo to guide relations, communication, movements &amp; maintenance of vaa, etc. <i>Authentic communication &amp; compassion are shown for each other &amp; their learning.</i></p>	<p>Involve families in lessons, encourage open communication with experts in community. <i>Interact with community. Acknowledge &amp; join rituals &amp; activities in the community.</i></p>
<p>Culturally safe classroom SCD TPB</p>	<p>Explore different aspects, negotiate curriculum with students &amp; include community in planning. <i>Involve authentically in academic &amp; social learning. Encourage parents to attend school activities.</i></p>	<p>Create warm &amp; caring ambience for students, parents, others Cultures &amp; religions. <i>Share culture, support class &amp; individual endeavours. Feels accepted in class.</i></p>	<p>Know students' cultural, spiritual, academic background &amp; relate to them. <i>Understand spiritual &amp; social matter for others readily. Treats class as a home.</i></p>	<p>Show respect, generosity, clear tauhi vaa expectations. Show sense of responsibility <i>Work with a sense of fanau towards each other &amp; teachers. Shows trust.</i></p>	<p>Meet official &amp; professional obligations for safety. Promote culturally safe classroom ideal. <i>Thrive in a safe classroom. Contribute to class unity. Gives &amp; accept support.</i></p>	<p>Encourage Community to help set goals. Respect their systems &amp; their own structures. <i>Support religious &amp; cultural events. Mark events with rituals if appropriate.</i></p>

<p>Language SCD TPD</p>	<p>Uses English, Tongan, Māori &amp; others as necessary to enrich cognitive development &amp; communications. <i>English, Tongan, Māori &amp; other local language used in instructions exchanges &amp; assessment</i></p>	<p>Use <u>respectful</u> dialect when appropriate. Teach spiritual aspects of concepts &amp; languages. <i>Displays a sense of empathy &amp; tolerance. Enjoyment of learning is felt in classrooms.</i></p>	<p>Learn &amp; use Indigenous &amp; other languages to enrich social and spiritual development. <i>Cognitive and social value of own language are valued. Concepts are grasped easily.</i></p>	<p>Learn &amp; use transformative language to effect positive change in the classroom <i>Own language and others are used with transformative power to make thing better.</i></p>	<p>Preserves local languages as professional obligation and vital for identity. <i>Local, others as well as professional languages are normal discourses.</i></p>	<p>Prioritise local &amp; other Pacific language/s to grow and preserve them as treasures. <i>Desire to learn languages. Multilingualism, &amp; own language continuity assured.</i></p>
<p>Culturally inclusive content SCD TPB</p>	<p>Teach scientific &amp; local knowledge. Uses <i>talanoa, founga ako, malie</i> &amp; other pedagogies to enrich learning. <i>Learn different knowledge &amp; familiar with range of pedagogies &amp; feel legitimated, co-running classroom.</i></p>	<p>Accept prior knowledge (PK) as legitimated as well as those valued by the school. <i>Share PK freely. engage in <u>ako</u> meaningfully. Share kindness, respect, humour with others.</i></p>	<p>Knowledge of politics, religions &amp; their impact on classroom relationships, <i>Explore varies perspectives with confidence, engage in deep thinking and planning.</i></p>	<p>Use <u>‘ilo</u> of politics, religions etc. to encourage inclusiveness in the classroom. <i>Practise social, political &amp; spiritual skills Work through difficulties to develop self</i></p>	<p>Discuss with parents &amp; Develops Individual learning plan for each student. <i>Show clarity about <u>fatongia</u> to others &amp; community. Pride, in one’s culture/s.</i></p>	<p>Attend community activities &amp; includes issues in classroom discourses. <i>Share histories, knowledge &amp; other stories to preserve them for future generations.</i></p>

<p>Assessment TPB</p>	<p>Ensures assessments are manageable reliable, valid, multi-cultural, diagnostic, summative but chiefly formative.</p>	<p>Show <i>tauhi vaa</i> 'ofa, spiritual, social &amp; moral qualities are reflected in assessment.</p>	<p>Integrate cultural assessments with Blooms taxonomy innovatively.</p>	<p>Use 'ilo of theories to guide a range of assessments to support &amp; assess learning.</p>	<p>Keeping up self-development to assess fairly as well as culturally appropriate.</p>	<p>Use community to assess cultural &amp; academic assessments e.g. <i>talanoa</i>, etc.</p>
<p>SCD</p>	<p><i>Involved in designing and carrying out peer assessment. Give &amp; use feedback academic help.</i></p>	<p><i>Care for others' learning. Give &amp; receive empathetic &amp; effective, scaffolding.</i></p>	<p><i>Testing out new fun but effective assessment idea, creating enjoyment of learning.</i></p>	<p><i>Using multiple assessments to assess and support a wide variety of learning.</i></p>	<p><i>Meet assessment responsibilities, to teacher &amp; class taking on self &amp; peer assessment.</i></p>	<p><i>Uses assessment that recognises academic, socio and moral strengths of students.</i></p>

## Uses assessment that recognises academic, socio and moral strengths of students.

The FA framework shares how Tongan educational concepts can be applied in the classroom. In *Aotearoa*, most Tongan students are in mainstream education therefore some encouragements may be needed for teachers to use FA. For this, I will draw on the Culturally Responsive Pedagogy of Relationships approach (Bishop, 2008). In this, Bishop encourages teachers to be caring, ensure oversights that respect specialness of the treasures from ancestors (*taonga tuku iho*) as the aspirations Māori hold for their children. For Pacific and Tongan people, their *taonga tuku iho* include *laumalie*, *melino*, *ako*, *poto*, *'ilo*, *'ofa*, *fatongia* and *fonua*.

## Conclusion

At the beginning of this paper I referred to opposing critiques in Western thought, including the place of unformulated and bodily knowledge in education. These provided a platform for the argument for inclusion of spirituality and indigenous values in education. I note however, that “dasein”, in the 21st century education for the Pacific and other indigenous communities, must include cyber space, peace and conflicts, climate change issues, justice and particularly neo-liberal discourses and its progress, the primacy of such is the individual.

Marsden (2003, p. 44) commented that “...there is always a gap between ideals and practice; between becoming and being; but towards excellence all things strive”. Holistic teaching to achieve harmony within self, each other and with one's God using *'ofa*, *ako*, *poto*, *'ilo*, *fatongia* and *fonua* is offered in this paper as “*founga ako*”. It should utilize conscious, non-conscious knowledge, the tangible and intangible, scientific and indigenous knowledge in processes of co-emerging, re-symbolising, reflecting and redefining, an ongoing process to achieving *mo'oni*, authentic existence, *laumalie* - the aim of Pacific education; represented in this paper by *manulua*.

The more detailed studies from which this paper was drawn are available from: <http://researchcommons.waikato.ac.nz/handle/10289/5179>.

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# Rethinking Challenge for Tertiary Institutions in Aotearoa/New Zealand: A *Kaiviti* (Fijian) Inspired Framework

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## Abstract

This paper presents an Indigenous *Kaiviti* (Fijian) metaphor for understanding Pasifika transition into tertiary education in New Zealand. The framework addresses critical factors such as identity, environment, community and the various other complexities that potentially impact upon a student's tertiary achievement. The framework "*Na Qawa ni Cina*" will allow educators and support services to better understand how they can support Pasifika students to achieve academic success.

## Introduction

In this paper I explore the context of transition at The Victoria University of Wellington (Victoria), with a focus on first year post-secondary education for Pasifika students. Transition at Victoria is currently viewed as a preparation to tertiary studies. My rethinking of transition is divided into four sections. First, I foreground transition through a personal narrative of my early childhood years in Fiji. Second, I propose the rationale for my rethinking based on my role as Pasifika support coordinator at Victoria. Third, I present *Na Qawa ni cina/* To ignite the light, which is proposed as a metaphor to understand the complex nature of Pasifika students on entry into tertiary studies. Fourth, is the background to the symbolism of the metaphor detailing the eight ascribed elements.

## Foregrounding transition from a personal perspective

In order to understand my rethinking, knowing the context it belongs to is critical. As Chu (2011) notes, storytelling is integral to practices in the Pacific Islands. This is how people teach one another. It is also how specific learning on certain principles and values takes place. Therefore, to provide the context for my rethinking, I begin with a personal narrative.

My story here begins when I moved to New Zealand from Fiji at the age of six. I did not know a word of English. In hindsight I realise I must have spent about five years in transition learning the language, culture, and ways of being in a Western and foreign environment. I was a resilient student at school and tried to make sense of the knowledge I was being taught. Some days I felt successful in my learning while other days I felt as if I was "back to square one" from the frustrating attempts to understand what was being taught in English by translating it into Fijian and then drawing out some kind of a Fijian-English understanding from this toing and froing. This recall of being caught between two cultures is where my story of transition in education began.

Once I felt I was just getting used to primary school, I progressed to intermediate, then on to secondary school. Secondary school was an interesting educational experience as I came to realise toward my senior years that my parents' knowledge about education ended at secondary school level. University was rarely discussed as my parents had not studied at this level (at the time my mother graduated from Victoria in 2004 inspiring me to do the same) and did not know much about tertiary education. They stressed to me, "*vuli vakaukaua me rawa dua na nomu job vinaka*" (school well so that you can get one good job). University was deemed by our family as something which was only for the very intelligent and those who were predominantly European. I took a gap year after college and then began university study. Again, I was completely in a foreign environment. To manage the transition, I internalised how I was feeling. I knew the odds were against me and I was too embarrassed to ask for help. But at the same I did not know how to express what help I needed or who I would ask. Therefore, it was no surprise when I started skipping classes. I attempted doing my assignments but only got as far as

a plan. I could not bring myself to say to someone that I did not understand because I felt I would be judged. Familiar emotions of disconnectedness, being out of place, and embarrassment at my lack of knowledge resurfaced as they were emotions that I felt when I first arrived in New Zealand from Fiji. Being at university felt like I had to learn another language, and a way of being which was foreign all over again. As I reflect on my journey I realise that the theme of transition has been a continual feature of my education.

Thus, my proposal for rethinking transition for Pasifika students at Victoria stems from my own personal experience of education and that of an *iTaukei* – owner/indigenous to the Fiji Islands. I share my story as a way of relating to the importance of transition for a student and more specifically, the Pasifika students I work with towards their educational journey. This paper first provides general points about first year transition for university students and then moves towards the particular focus of rethinking transition for Pasifika students at The Victoria University of Wellington.

### **Rationale for rethinking Pasifika Transition at Victoria**

The rationale for rethinking transition at Victoria is to establish a positive Pasifika approach which encompasses the student, family, learning, and development opportunities at Victoria. To understand the reasons for my points of rationale I first provide a context of what transition-focused programmes already exist at Victoria for Pasifika students. The Outreach Programme recruits prospective secondary students in the Wellington region and provides academic and non-academic support for transition into the first year at Victoria. A programme called *Ave Mamao* (a Samoan term for Aim High), facilitated by my role in collaboration with other key support staff, has been set up by the university to support students who do not gain the necessary Guaranteed Entry Score (GES) of 150 NCEA points. The conditions of the “transition” programme follow a deficit approach as it is set up to support only Pasifika students who did not achieve GES and are thus tagged as “non-GES” students by the university. Contents of the letter these students receive are below.

Congratulations on your acceptance to study at Victoria University of Wellington. Because you did not meet the Guaranteed Entry Score (GES) of 150 points you are required to engage in the Ave Mamao programme, which will support you through your first trimester at Victoria. You are highly recommended to engage in the following:

- Participate in a Talanoa session with the Pacific support coordinators
- Attend the Ave Mamao welcome session during Pasifika orientation
- Attend ALL four Ave Mamao meetings during the semester
- Schedule two assignment sessions with Student Learning Support Service
- Attend the end of trimester Ave Mamao celebration.

The above contexts of the Ave Mamao and Outreach programmes which are currently being implemented as transition programmes are an example of Gramsci’s definition of hegemony as noted in Femia (1975). Hegemony is a way of thinking; it occurs when oppressed groups take on dominant group thinking and ideas uncritically and as accept these as “common-sense” even though those ideas may in fact be contributing to their own oppression (Smith, 2003). This is precisely how I felt when I read the university letter that would be distributed to Ave Mamao Students in 2012. As frontline staff, I did not feel that I had the capacity to critique the letter contents or give feedback to upper management as I was more concerned with the interests of the university and getting the institutional message across to Pasifika students. As the key facilitator for the Ave Mamao programme I did not have a say in how the programme would be carried out. Instead I mentally battled between my indigenous cultural knowledge and that of a Western institution. As Smith (2003) stated, the struggle of minds is the need to free the indigenous mind from the grip of a dominant hegemony. Hence the aim for my rationale in rethinking transition is: to free my mind from Western ideologies, and validate Pasifika knowledge for and by Pasifika. Thus I offer the metaphor of Na qawa ni cina.

### ***Na Qawa ni Cina ni veivakavulici* [To ignite the light to learn]**

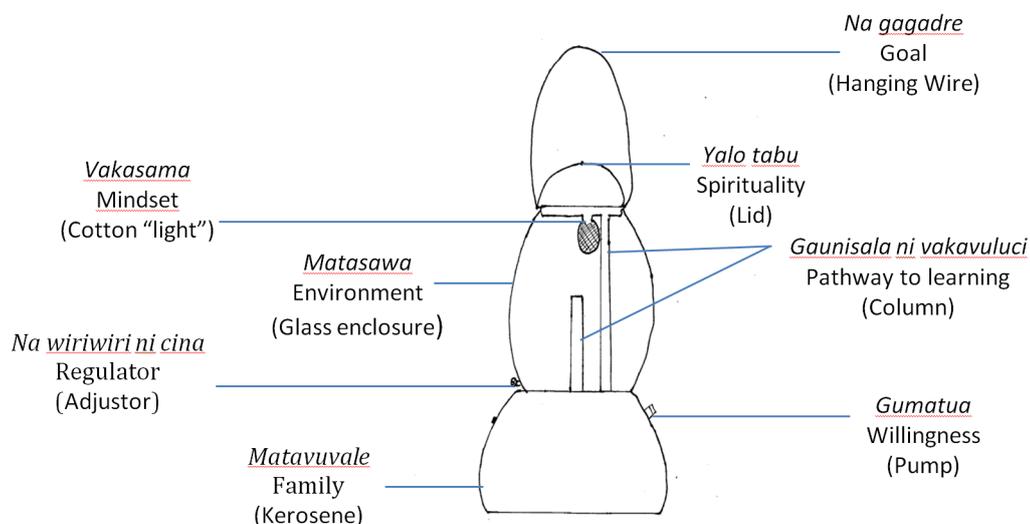
As Thaman (2003) emphasised in her plea for Indigenous peoples, our Pasifika peoples’ voices must be heard

and our perspectives should count in matters that concern us and our environment. I attempt to do this by my representation of a cina (lantern) metaphor; it is a symbolic memory of a humble, simple, and subsistent village life during my early childhood years in Fiji. Thaman's (2003) words resonate with the heart as she poses this challenge:

as Pasifika peoples we reflect on the past and help shape the future, we, particularly those of us whose identities are closely linked to Oceania, need to interrogate the images and the representations that we have inherited or are creating. (Thaman, 2003, p. 122)

Thus I have created a lantern metaphor (Figure 1), as “the very act of using indigenous metaphors legitimizes people's local contexts and the knowledge derived from such contexts. More so it gives dignity to indigenous Pacific Islanders” (Sanga, 2013, p. 48). Fijian values are ascribed to represent a Pasifika student at Victoria; this is my rethinking.

Figure 1. *The Na Qawa ni Cina ni veivakavuluci model lantern*



### Background and parts of the metaphor

*Na Qawa ni cina* (To ignite the light) is a symbolic feature of my early childhood. Our village did not have access to electricity until the late 1990s. Each evening before we sat down for the village rosary, before dark, I would observe my aunty or uncle prepare to “turn the light on”. I observed as they filled up the lantern with kerosene then gently tied the *vauvau* (cotton) to the lantern. I remember holding my breath and not moving as this was a delicate procedure. Any tear in the *vauvau*, would mean that we had to replace it, or have minimal light that evening. After that, the glass would be removed, to a match put to the *vauvau*. Once the match caught the *vauvau*, the glass would be promptly placed back over the lantern, and the lantern would be pumped to allow for the kerosene to circulate up into the *vauvau*. Balance of pressure and kerosene flow from the base of the lantern is pivotal in order to ignite the *vauvau*. The glass cover held this balance together, not allowing any wind to get through as it would blow the light out.

The *cina* (lantern) is a metaphor for understanding a Pasifika student who is new to the required balance of academic and cultural values. The metaphor is interwoven with external influences such as family, environment, and church and the internal intrinsic influences of a student such as willingness, mindset, and their capacity to balance the interconnectedness of the two. The *cina* is metaphorically a Pasifika student. There are eight elements ascribed to the *cina*.

- Base – this is where the kerosene (family) is funnelled into. Without family the lantern cannot function.
- Pump – Continuous positive reinforcement and encouragement is essential to keep the Pasifika student alight.
- Columns – Pasifika methodologies of learning must be applied.

- Glass Enclosure – where family, willingness, pathway to learning, and spirituality are balanced in the environment.
- Adjuster – Regulator of the environment
- *Vauvau* – The Pasifika student's mindset
- Lid – Spirituality as a healer, comforter, and motivator which holds everything together.
- Hanging Wire – The goal of doing things the Pasifika way holds us up.

#### ***Matavuvale/Family – Kerosene***

Pasifika families place a great deal of importance on education. This was demonstrated in an interview conducted in 1969 by Furneaux which reported that most (82.5%) of the students reported “a great deal of interest” shown by their family in their university work (Anae, Anderson, Benseman, & Coxon, 2006). Bourdieu's (1984) cultural capital theory advocates that students who have values and attitudes that concur with those of their institution are more likely to succeed than those whose cultural dispositions differ. Therefore, tertiary institutions must actively engage and support families as this strongly influences a Pasifika student's academic outcome.

#### ***Gumatua/Willingness – Pump***

Willingness to learn and willingness to teach is the binary which encompasses both students and institution. Both are equally responsible and interrelated. What I have experienced in my role as Pasifika support coordinator is that students are willing to learn. However, the need to positively reinforce their learning and understanding within the institution is vital to their self-esteem. This enables a self-validation of being at a tertiary institution. Self-esteem and self-awareness are the foundation building blocks of student's dispositional composition (Fletcher, Parkill, Fa'aoi, & O'Regan, 2009). There is a need for institutions to support students to become motivated and self-regulated learners (Alderman, 2013). In other words, institutions should encourage students to commit themselves to meaningful educational goals, strive to benefit from their educational experiences, monitor their progress toward their goals, make adjustments in their goal when necessary, and establish new, more demanding goals as they accomplish earlier ones (Miller & Brickman, 2004). Institutions ought to adapt their teaching in order for the student to gain in confidence, self-esteem, and awareness before teaching subject and course matters. The metaphor captures this relationship by its association to the pump function of the cina. A willingness to learn and teach along with family support, are elements that need to be continuously “pumped” around the student and the institution throughout their tertiary transition.

#### ***Gaunisala ni veivakavulici / Pathway to learning – Columns***

Pasifika peoples are a distinct population of groups with both overlapping and unique educational priorities. The two columns represent the fusion of learning and familial support within a cultural capital environment that will ignite an intrinsic capacity to learn. Once family are in support and there is a willingness from the student and institution, then there is a flow in the learning of the student (Fletcher et al, 2009). To teach to a broad section of students, tertiary providers must understand their students in relation to how they learn. For example Pasifika students are susceptible to qualitative methods of teaching to inspire interactive and contextual ways of learning (Biggs, 1989).

#### ***Matasawa / Environment – Glass enclosure***

The glass enclosure of the cina provides a balanced environment of cultural and learning aspects, which ignites a Pasifika student's propensity to learn. It is the environment that is suitable for students that is of main focus. It may not be sufficient to introduce ideas to make the subject seem more relevant or interesting if the interest or the relevance is perceived by the lecturer but not by the students (Trigwell & Prosser, 1991). Hence, viewing things from the student's point of view and adapting various ways of teaching is essential to overcome the doubts associated with transition.

#### ***Na wiriwiri ni cina / Regulator – Adjuster***

The importance of this aspect is the ability to control the environment. This is regulated by the student. An accurate balance of the environment is needed to keep the willingness of the student ignited. The ability to moderate and to sustain a cohesive environment is ongoing and an important factor of Pasifika students.

### *Vakasama / Mindset – vauvau (cotton “light”)*

This is the aspect which ignites the student. The mindset is ignited once all other variables of family, learning, and environment are regulated. A change in mindset is required as Pasifika students are inclined to “self-sabotage” (Martin, 2002) their potential to learn by blaming the system because it does not take into account their cultural difference. Once the mindset is ignited it is essential to keep it ignited.

### *Yalo tabu / Spirituality – Lid*

Spirituality is the lid that keeps Pasifika student together. At the heart of education and motivational pursuit is God. God is an important source of hope, wisdom, and courage. These character virtues equip students to overcome the inevitable challenges of the academic journey allowing them to persevere in order to successfully complete their studies (Havea, 2011, p. 126). The need to relate to their teachers at a personal level is essential, as Pasifika peoples make relational connectedness. Hence, teachers in higher education are called to appreciate the centrality of lotu within Pasifika cultures, and, to find ways of applying it in engaging with Pasifika tertiary students.

### *Na gagadre / Goal – Hanging Wire*

Pasifika students’ own goals are influenced by their perceptions of their parents’ attitudes, extended families, and goals for tertiary education. In most cases a communal goal is set and an individual is charged with keeping the goal in mind and achieving it. Clear goal setting is necessary to enable motivation towards achieving the goal. Success in this context translates to a Pasifika student self-determining their transition through cultural and academic challenges. Self-determination is education’s ultimate goal (Wehmeyer, et al., 2000). In this metaphor, the goal is what holds the student up.

## **Conclusion**

This Pasifika student metaphor is still in its early development stages of thought. The metaphor is applicable to the complex nature of Pasifika students and their learning in a tertiary setting. The heart of my vision is to accommodate the voice of Pasifika peoples, rather than Pasifika peoples continuing with their institutional hegemony.

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# Exploring effective teaching and learning approaches for good citizenship in the Solomon Islands

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## Abstract

This paper explores the approaches and strategies used by teachers at school for teaching values for good citizenship in the Solomon Islands (SI). It reports on the findings of a study conducted with teachers in two case study secondary schools in the Solomon Islands. The study used qualitative methods including focus group interviews and one-on-one interviews, observations, document analyses and content analyses. From the research findings, it was revealed that the rote learning issue in schools (which is present because of external factors such as examinations, timing, and education goals) had become a barrier to effective teaching and learning for good citizenship outcomes. This study highlighted teachers' perceptions of the teaching approaches and strategies used in class and the impact these have had on the teaching of values for good citizenship. The findings provide useful conceptual insights into Solomon Islands teaching approaches and strategies that are currently relatively unexplored. Through the identification of effective approaches, recommendations were made regarding the teaching and learning strategies that are relevant and appropriate for the teaching of the citizenship values in the Solomon Islands.

## Introduction

The effectiveness and relevance of Citizenship Education (CE) depends very much on the varying pedagogies that are adopted by the national education systems of specific nation-states. This application of relevant pedagogies is expected to drive the goals of education, by inculcating knowledge, values and skills for achieving good citizenship. Such an expectation is premised upon leveraging national goals and outcomes that are prescribed in national curriculum statements and policies for developing good citizens.

This paper reports on the findings of the study of the pedagogical approaches and strategies commonly used at the formal national curriculum level, and how these affect the teaching of citizenship education in the Solomon Islands. The discussion focuses on the passive and active nature of the teaching and learning of citizenship education in the school system. It also examines activities and approaches that form passive and active engagement for people, including the teaching approaches and strategies. This paper ends with recommendations and a short summary.

## Theoretical orientation

Citizenship Education is a programme formally proposed or enacted and sanctioned by certain recognized governmental or professional organisations which aims towards the expressed purpose of “good”, “active” “effective”, or “democratic” citizenship (Ross 2006). It encompasses a whole range of educational processes, formal and informal, that encourage and inform participation by citizens in community activities and public affairs (cited in Jennings, 2003). It is a subject matter that focuses on “preparing individuals to participate as active and responsible citizens in a democracy” (Herbert and Sears, n.d, p. 1). It encompasses the preparation of young people for their roles as responsible citizens and harnesses the “role of education (through schooling, teaching and learning) in the preparatory process” (White and Openshaw, 2005 p. 198).

There are many debates concerning Citizenship Education, most of which are related to what is to be taught (knowledge, values, skills), how it is to be taught (approaches and strategies), and whether the curriculum (and pedagogies) ought to be remain unchanged (Lee, 2008; Cleaver 2006; Gilbert, cited in Mutch, 2005). It is a topic with many facets (Zarrillo, 2004). These facets include the teaching of rights (entitlement) and re-

sponsibility (duties and obligations) as basic components of CE. The concept has been the subject of numerous ongoing disputes among educationists and philosophers since the early period of its origin. Debate most often arises because the term is defined contextually (Heater, 1999).

### **The study**

This study used an Interpretative/ Constructivist paradigm to gather data that informed the study. Interpretivism/Constructivism is aimed at producing and reconstructing understandings of the social world (Lincoln and Guba, cited in Denzin and Lincoln, 2008). Such a perspective holds that “meaning is constructed by human beings as they engage in the world they are interpreting and make sense of it based on their historical and social perspective” (Creswell, 2003, p. 9). In this approach, people’s knowledge, views, interpretations, and interactions are meaningful properties for the researcher and are viewed by Mason (1996) as a “legitimate way to collect the data on ontological properties, to interact with people, to talk to them and to gain access to their accounts and articulations (p. 39).” Face-to-face discussions and listening to people’s views and perceptions enables the collection of richer and broader data.

The study used a multiple case study approach to conduct the actual field work. Multiple case studies fit the context and the phenomenon being studied well, and they enable the gathering of “information rich data” (Patton, 2002) and the “thick description” of data portrayed by Geertz (cited in Rubin and Rubin 2005). The use of multiple case studies, as suggested by Yin (2003), helps researchers to understand a complex social phenomenon such as Citizenship Education. This is significant, as a case study is intended to obtain differing perspectives according to the geographical locations of the case sites and the varying opinions of the different cultural viewpoints.

The study used purposeful sampling to select the sites and the study participants. The value of purposeful sampling lies in selecting information-rich cases to create an in-depth study (Patton, 1987). Two schools, one urban and one rural, were selected for the study and from the two schools, 21 students were randomly selected to participate in the interviews. The data were analyzed using preliminary and post data analyses techniques. Preliminary data analysis involved checking of the data to find themes that formed the base of the analysis and gave the researcher clear direction. As Grbich (2007), states, the focus at this point is to highlight and identify emerging issues important for the study.

In doing so, the researcher went through the interview recordings soon after the interviews were completed, and coded them under themes. The data were then processed in the analysis, using a coding process. The process identified themes and concepts in the data through certain comparisons, categorisations, interpretations, descriptions and synthesis (Ezzy, 2002). This is an inductive process of narrowing data into a few themes (Creswell, 2001 cited in Creswell 2008).

### **Citizenship Education Approaches**

The contention relating to Citizenship Education emerges particularly from the approaches and strategies used in teaching CE values. There are two approaches that are dominant in the discussion, the minimal and the maximal versions of Citizenship Education (Kerr, 2002).

#### ***Minimal version***

The minimal version focuses on particular exclusive interests that include the narrow formal approach to citizenship, which is labeled “Civic Education” (Kerr, 2002). This approach is “largely content and knowledge led” (Kerr, 2002 p.21). It concerns the teaching of knowledge based on governance, rights and responsibilities (Deuchar, 2007), and promotion of a “good citizen” who is law-abiding, works hard, and possesses a good character. The implication is for people to recognize and acknowledge basic rights and freedom among citizens as ideal unifying themes (Deuchar, 2007). The minimal version of Citizenship Education produces passive/functional citizenship. This passive learning is produced through Citizenship Education which stresses knowledge of the legal system, state, elections, functions of central and state government, and state welfare matters

(Mamat & Singh, 2008 p.89). Much of the barriers found in CE concern the minimal version. The knowledge and content base are then translated into passive pedagogies. The passive pedagogies and approaches in the curriculum refer to the methods of teaching and learning in formal and informal contexts. Two dimensions were noted by Print (2008), to classify pedagogical activities with passive learning and the active learning.

### *The passive teaching and learning strategy*

Passive learning is referred to as teacher-centred strategy, where students are perceived as passive learners. Students in this regard, Print (2008) argues, are “sponge-like” and are “fed” with the information provided by the teacher. This is common in the teaching of social studies in the Solomon Islands – where the Citizenship Education topic has been placed. The teaching of social studies in the Solomon Islands is predominantly teacher-centred. The teachers talk, while the students listen and take notes.

This study found that teachers and students are heavily reliant on the method of teaching where the teacher talks and explains and students listen and take notes. Therefore, any change to the strategy is always seen as a hurdle, because such approaches are believed to help students in their examinations. Teachers claimed that the approach was not time consuming, helped students in national examinations by having large amounts of facts to ready in preparation for examinations, and it was easier for teachers’ planning. Teachers are aware of the weaknesses in the teacher-centred strategy, however they cannot do much about it because it is a commonly used strategy and teachers, students and parents are comfortable with it. However, teachers pointed out that this approach dominates classroom teaching and learning because of its efficiency in covering each topic. They claim that if hands-on or practical approaches were used, these would take all the teaching time available, and therefore hinder the completion of teaching topics before the national examinations.

The dominant exam-oriented education system has created a situation where the teaching and learning of content has become passive for students. Most of the concepts of citizenship were taught theoretically, for content and knowledge. Teaching on content and knowledge is believed to help students to pass examinations. It also raises the status of teachers, as their credibility is recognized through the performance of their students in examination outputs. Teachers who produce higher pass rates in national examinations are rated as “good teachers”.

### *Maximal Version*

The maximal version of Citizenship Education encourages “active engagement in ways in which knowledge, values and skills are determined and carried out” (Kerr, 2002 p. 215, cited in Mutch, 2005). The approach encourages more of the sense of obligation which involves the responsibility entrusted to the individual and the duties expected by society, and concerns the willingness to undertake change on a local, national, or even a global scale (Osley and Starley 2002, cited in Deuchar, 2007). It encourages pupils to become agents for social change, developing enquiring minds and skills for participation.

### *Model of active learning/community participation*

Citizenship is often referred to as a model of active learning. It is a model of learning that occurs through active engagement in public affairs and obligations in societies. Active learning is interpreted as preparing to see beyond one’s “own interest and commitments and take a wider, more impartial view” (Miller, cited in Pearce and Hallgarten, 1988, p. 28). Active citizenship involves the affairs of the community, responding promptly to needs, and requiring strategic actions to improve certain areas in the society. This statement means that those who have knowledge of how the government functions and have skills in organising activities, engaging in protest, and taking leadership roles in communities, are good citizens. In the literature, the term given to such people is “active participatory citizens” (Scoott & Cogan, 2008).

### **Active Learning in citizenship**

In the Solomon Islands, active participation is found to be common amongst people. It is part of peoples’ way of life as members of a community. Activeness for Solomon Islanders is accompanied by certain kin obligations and responsibilities that cannot go unfulfilled, and one is freed from these only by death (Gegeo, 2001). Such

responsibility includes contributing to the bride price or bride wealth payments in marriage. The practice is especially obvious in traditional societies where the communal model is common. In the traditional setting, any person who does not actively participate in the affairs of the community is always subjected to community or family condemnation. It is seen as a disgrace not only to the person only but also to their entire family. Members of the family receive the blame for the actions that their family members display, and many assume that the child had not been properly taught and nurtured by the family into the cultural norms and values of their society.

Secondly, in a community, a person who actively demonstrates the values of care for oneself and others is believed to have practiced the most important values of society. The values of care are interrelated with and aligned to obligations and responsibilities. In addition, to demonstrate obligatory and participatory values reflects people's concern for culture.

Thirdly, the value of obligation and responsibility has to be demonstrated openly in order to show clearly the results of the teaching received from the family. People often showcase their activeness and distinct abilities in arranging ceremonies, such as feasts, contributing to the bride price, arranging and actively engaging with communal works, and rendering support to help people with disabilities. Such active participation is displayed with great respect. In the modern contemporary interpretation, this is an active citizen. This study favours the idea of using learning models that develop students into active citizens. This study has highlighted the need for teaching children to be active, and their citizenship learning to be promoted at each school level.

### **Active citizenship**

In the modern context, active citizenship is the ability to participate in the affairs of the community and the state (Sears and Hughes, 1996). This includes participation in national institution programmes, national events such as elections, national sports, and taking an active role in organizing activities for people locally and nationally. Currently, the values to actively participate in the affairs of the society are acquired and derived from the knowledge, values and skills obtained from the teaching of citizenship in the formal curriculum system. In a contemporary Solomon Islands context, the understanding of the rights and responsibilities which foster the active participation of people in society is missing.

The findings support and favour an education system that promotes active citizenship for Solomon Islanders. However, this can only occur if active approaches and strategies are utilized. From this finding, the citizens who took up active roles in communities were those who were taught using active approaches and strategies during formal education. Therefore, this study suggests that Education should include the knowledge and values that benefit all people and not the selected few. It has to take into account how people live and work. It should include what people consider to be active and relevant and utilize teaching pedagogies that are active.

### **Summary**

In summary, the study indicated that Citizenship Education includes a variety of perspectives, because the aims, goals and objectives of these various approaches are similar to some extent. However it is the delivery method that matters in formal education institutions. Students become informed, active and good citizens, able to make a difference in their own society, when they are given activities that produce active engagement. This paper affirms that the effective delivery of citizenship education programmes can only be facilitated if pedagogies, approaches and strategies that are adopted are practical in nature. The planned activities have to be practical in order to facilitate learning that influences students' behaviour, attitudes and knowledge. This study found that citizenship themes and values are currently prescribed in some of the syllabi in the curriculum system of the Solomon Islands, however, it is the way in which they were delivered that was the challenge. Further, the clear articulation of outcomes, goals and objectives may seem convincing, but if approaches and strategies are not reflective of these goals and of society, it will not produce effective learning. Finally, the citizenship model of active learning is seen as an important next step for the Solomon Islands towards the effective teaching of citizenship values to the next generation.

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# Physical Education Teaching Experiences and Pre-service Teachers' Dilemma: A Case Study of Fiji Primary Schools

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## Abstract

The current paper focuses on pre-service teachers' perceptions of the status of physical education in Fiji primary schools. Previous studies have revealed that physical education has suffered relegated status in many primary schools in Fiji. Other subjects were accorded with greater prestige because physical education was not examinable. Recently, many physical education teachers expressed positive reactions when the Ministry of Education introduced the Fiji National Curriculum Framework where physical education was re-enforced through the implementation of all the Key Learning Areas in schools. The paradigm shift of the implementation of the Fiji National Curriculum and Assessment Framework module in 2013 emphasized the importance of teaching physical education regularly in schools. This research explores some preliminary findings regarding the status of physical education as a consequence of the current emphasis now accorded to physical education. The findings are based on the primary pre-service teachers' experiences during their eight weeks of practicum in primary schools around Fiji. The Findings from this study will reveal the significance of the introduction of the Fiji National Curriculum Framework on the status of physical education in schools.

## Introduction

Physical education in schools is an essential learning area for the growth and development of students' well-being, from physical, social, mental, emotional and spiritual perspectives. In essence, physical education makes a valuable contribution to the human condition and experience, and can play an important educative and social role in the development and maintenance of the well-being of active and healthy communities. During the Forum Education Ministers meeting in Papua New Guinea, 2010, it was discussed that as an essential learning area, physical education must be given appropriate priority in terms of curriculum time in order for students to maximize and achieve their educative and social potential. However, despite having a valuable impact on the lives of children, physical education continues to experience relegated status in the region and particularly in many Fiji primary schools. This study explores some preliminary findings on the status of physical education as a consequence of new focus re-accorded to physical education. The findings are based on the primary pre-service teachers' experiences during their eight weeks of practicum in Fiji primary schools.

## Background

A perceived decline in the position and presence of physical education in school curricula worldwide was also apparent in Fiji. Similarly, Hardman & Marshall (2001) contended that the status of the PE is much lower than the more academic subjects. The Fiji Islands Education Commission Report 2000 highlighted factors that encroach on the time given to physical education, such as directives from head teachers, forthcoming examinations, coverage of lost curriculum time, and teachers' attitudes, lack of teacher confidence, weather, lack of resources and poor facilities. Many teachers fail to teach physical education classes due to one or more of these factors, even if it is timetabled. Despite the Ministry of Education's documentation of the National Curriculum Framework, numerous researchers have found that many schools have not fulfilled the core requirements. They claim that what actually takes place during PE lessons does not resemble what is purported to be happening. Bennet et al. (1983) and Whippy (2005) suggest various reasons for the non-occurrence of PE lessons include: lack of teachers, facilities, and equipment, supervision timetables, academic minded head teachers, budget constraints and negative attitudes towards PE. Other contributing factors include religious constraints, climatic limitations, and parents' and teachers' lack of acceptance of PE as a core subject.

The report stated that denying young people opportunities in these areas may drastically affect their future involvement in any physical activity, and is also a denial of human rights. Article 1.1 of the UNESCO Charter of Physical Education and Sport (1978) declares that:

Every human being has the fundamental right to access to physical education and sport, which are essential for the full development of the personality. The freedom to develop physical, intellectual and moral powers through PE and sport must be guaranteed within the education system and in other aspects of social life.

In promoting the UNESCO Charter, the Fiji Ministry of Education recently announced the introduction of the reinvigorated Fiji National Curriculum Framework, which saw the strengthening of physical education through its recognition as one of the key learning areas in the primary school curriculum. This announcement was welcomed by physical education advocates who saw this initiative as an approach towards improving the status of physical education in schools. Included in this group are the teacher educators who found this an opportunity for the strengthening of the teaching of physical education in schools. With the initiative announced by the Ministry of Education, many physical education teacher educators send pre-service teachers to practicum experiences with the confidence that opportunities will be given to teach physical education in schools.

This paper reports on the experiences of the second year pre-service primary education students who were sent on teaching practicum in Trimester 3, after having completed the physical education unit offered under the primary Bachelor of Education program. Full of enthusiasm and vigor, the students were all excited to teach physical education in their respective schools. However, to their disappointment, many schools used the physical education time for coverage of time lost in other curriculum areas, hence teacher trainees were deprived of opportunities to practice teaching physical education.

### **Aim of the Study and Research Questions**

The purpose of this study reported in this paper was to explore final year pre-service students' experiences of Physical Education during their practicum in primary schools around Fiji.

The following research questions were distributed to students to establish the students' experiences of physical education during the practicum.

1. What were your experiences of physical education in your practicum schools?
2. How has the introduction of the new National Curriculum Framework impacted the status of physical education in schools?
3. How is physical education time utilized in your school?
4. How can you rate the quality and quantity of equipment and resources in the school?
5. What are some of the current challenges of teaching physical education in the schools?

### **Methodology**

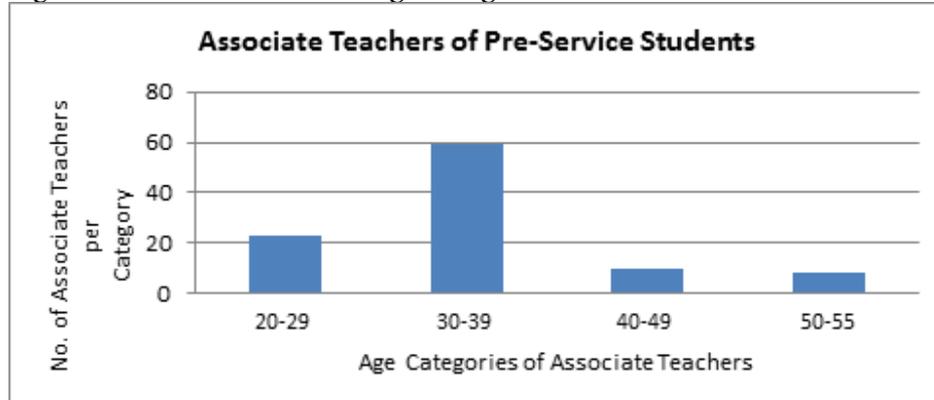
This study employed qualitative and quantitative methods. The quantitative study involved surveying a sample of one hundred pre-service teachers selected from a population of second year pre-service teachers at the only government owned teacher education institution in the western part of Fiji. Self-administered questionnaires were distributed to the pre-service teachers upon returning from practicum.

The qualitative study employed the 'Purposive sampling' method. In this sampling technique the sample was purposely chosen by the researcher. The process of sampling in this case involved the identification of the informants through representation such as ethnicity and gender. All the selected pre-service teachers were residential students. Twenty pre-service teachers were selected and took part in the talanoa session. According to Vaioleti (2003), talanoa methodology is a more culturally appropriate tool of investigation for Pacific Island people. It is regarded as the best way to gain pre-service teachers' insights into the research questions.

## Findings

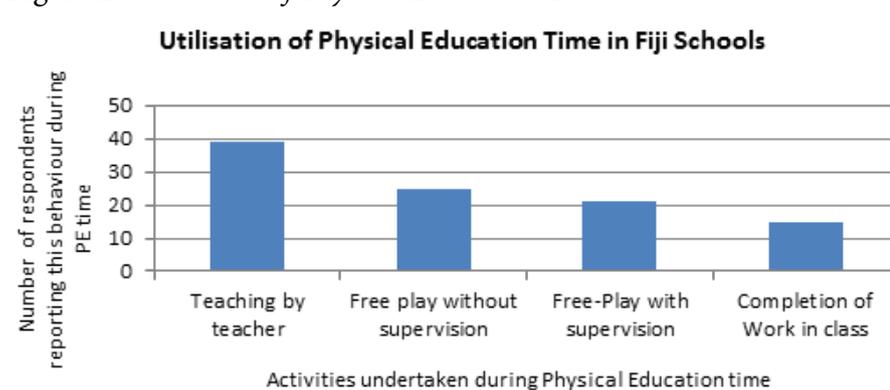
The results of this study revealed that PE was given low priority in the Fiji schools despite the reintroduction of its importance in the Fiji National Curriculum Framework. Most of the pre-service teachers shared that opportunities for teaching physical education were not provided in schools during their practicum, although they were timetabled.

Figure 1. *Associate Teachers' Age Categories*



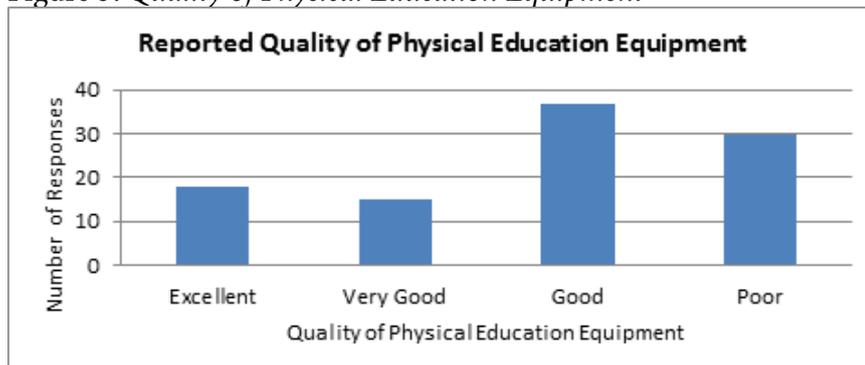
Results also indicated that most of the Associate Teachers were young, with ages ranging from 30 to 39 years old. This indicates that school teachers' age may not be one of the determining factors for the marginalization of physical education in schools, as may have been predicted.

Figure 2. *Utilization of Physical Education Time*



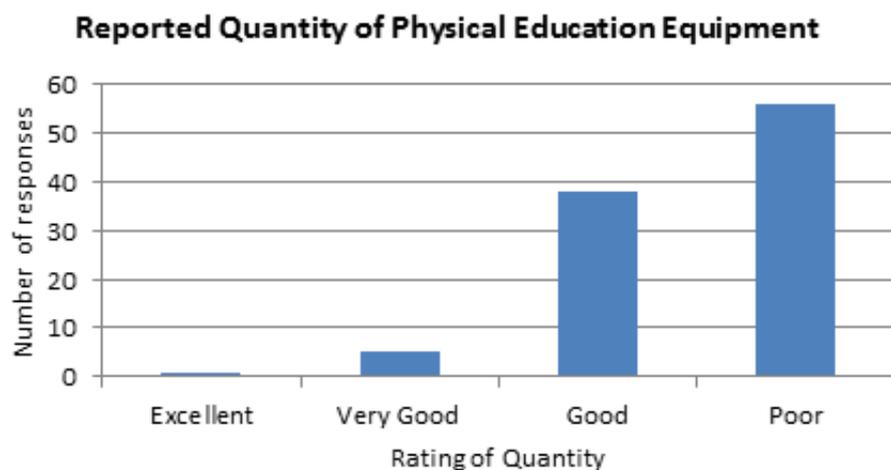
Approximately 79% of the pre-service teachers indicated that the primary schools they were assigned had allocated 1 x 30 minutes of physical education per week, however 38% of the Associate Teachers used the time to teach physical education, while 47% used the time for free play, while 15% used the time to cover incomplete work in class.

Figure 3. *Quality of Physical Education Equipment*



This study also found that although the quality of physical education equipment was good, the quantity was poor. See Figure 4 below.

Figure 4. *Quantity of Physical Education Equipment*



## Discussion

This study has found that the re-introduction of the status of Physical Education in the National Curriculum Framework has not immensely changed the status of physical education in schools. Many teachers continue to substitute physical education time for coverage of other curriculum areas or for free play. Reasons for this may be threefold. Firstly teachers may lack the confidence to teach physical education. Research by Russell-Bowie (2010) indicates that background in a subject influences the confidence and effectiveness of teachers in these subjects. He added that when pre-service teachers felt confident as students of a subject they were more apt to be comfortable teaching that subject. Secondly, the high workload teachers' encounter through the introduction of internal assessment may have caused teachers to allocate physical education time for free play while they complete incomplete records. Thirdly, it may point to the negative attitude of teachers towards physical education.

The quantity of physical education equipment may also be a cause of the ineffective use of physical education curriculum time. Williams and Taylor (2000), cited in the Report of the Fiji Islands Education Commission/ Panel, stated that one of the shortcomings regarding physical education and sports is the "lack of appropriate facilities, grounds and sorting equipment". It may be concluded that school management has failed to see the importance of physical education, and hence has not seen the need for the provision of adequate equipment to facilitate learning through physical education.

## Conclusion

These findings about the continued poor status of physical education in Fiji primary schools are worrying. Reports have indicated that our children are becoming obese due to inactive lifestyles. For many, this is the only opportunity to take part in any physical pursuit. There is a need to change the mindset of school administrators and teachers if positive changes are to occur. Teachers are agents of change hence teacher education institutions have the responsibility to ensure that all teacher graduates are adequately prepared and competent in all areas of the curriculum. In-service physical education programs need to be provided by teacher education institutions to enhance teachers' content and pedagogical knowledge for effective delivery.

Effective assessment, evaluation and monitoring systems need to be put in place to ensure that teachers are effectively and efficiently delivering all curriculum areas in schools. Provision of government scholarships to students aspiring to become physical educators also need to be considered. Moreover, provision for government funding for improvement in the quality and quantity of sports equipment and facilities is also crucial. Unless these issues are addressed, physical education may continue to suffer a slow death in schools.

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