



# Pacific Voices

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Pacific Voices: Abstracts for the Pacific Postgraduate Symposium

## FOREWORD

Research is the heart of academic activity at this University. Not only does the University community learn by doing research but the outcomes also contribute in significant ways to the building of the world's knowledge base and to the betterment of society.

The role of the University's graduate research students should not be underestimated in our efforts to develop and maintain thriving research cultures in departments and schools. Without the talent, energy, vibrancy and new ideas of research Masters' and PhD candidates, the University's overall research effort would simply not succeed in the way it should.

The *Pacific Voices* symposium, which celebrates the research endeavours of graduate students with Pacific Islands linkages, is an admirable and worthy contribution in this regard. This is clearly illustrated by even just a cursory glance at the interesting variety of topics presented in this collection of abstracts. A closer look reveals fascinating and valuable research on aspects as diverse as tourism, religion, education, medicine, sport, finance and psychology.

Congratulations must go to Nina Kirifi-Alai, the Manager of the University's Pacific Islands Centre, whose idea this symposium and collection of abstracts is. For research to be successful, it needs to be shared and discussed, and Nina has provided a wonderful opportunity for this to occur. I hope that it will become a regular event.

The intriguing research that the University's students carry out each year never ceases to amaze me. The enthusiastic endeavours of the students participating in *Pacific Voices* are no exception.



**Dr Charles Tustin**

Director, Research Higher Degrees & Scholarships

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### J. TUALAGI AH-YEK

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A Methodist Church of Samoa scholar, Tualagi has recently moved to Dunedin from Samoa with his wife Ila and their three children. He is currently studying for his Masters degree in Theology and is an ordained Methodist minister.

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O LE MAU A LE TUSI O LE FAAALIGA  
MO LE EKALEZIA METOTISI I SAMOA:  
THE BOOK OF REVELATION AND  
ITS MESSAGE FOR THE METHODIST  
CHURCH OF SAMOA

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**J. Tualagi Ah-Yek**

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The thesis presents a hermeneutical study of Revelation 2:2-7. It brings on board the historical, theological and contextual factors that gave rise to the problem experienced within the church in Ephesus. Hence, this study is not only biblical in its nature but it also focuses on a contextual interpretation of the problem in the light of the ministry of the Methodist Church in Samoa (MCS). The problem evident in the church in Ephesus is the loss of the original or first love that shaped the spiritual lives of the Christians in Ephesus. This study aims to draw parallels between the church in Ephesus and the MCS.

First, we discuss the historical background of the city of Ephesus before Christianity. This gives us a clear understanding of the city socially, politically and economically. Then we will see how the founders of the Church in Ephesus approach the evil situations of that very moment.

Second, we look at the exegetical study of the selected text (Rev 2:1-7). It will bring forth some very interesting approaches on how Jesus evaluates the Church in Ephesus. There will be a lot to commend for their faith, perseverance, steadfast endurance and other good works with which they pleased the Lord.

Third, we provide an overview of the present situation of the MCS. Emphasis is given to investigating the origin of MCS, then to looking at its situation in this contemporary period, together with a critical analysis of the present situation.

Finally, recommendations are presented to realise further the significance of this thesis and to draw parallels between the church in Ephesus and the ministry of the MCS.

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**Key words:** Ephesus, Christian ministry, hermeneutical, Methodist, Samoa



### LUCILLE APIS - OVERHOFF

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Lucille comes from Pohnpei State in the Federated States of Micronesia. She is a PhD student in her final year. Prior to undertaking this degree, she was a Programme Officer for nearly eight years, at the South Pacific Environmental Programme (SPREP)<sup>1</sup>, which is the Headquarters for environmental matters in the Pacific region.

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<sup>1</sup> SPREP has 22 member countries and territories from the Pacific sub-regions of Melanesia, Micronesia and Polynesia.

# ACCESS PROTOCOLS FOR FIELD WORK IN TRADITIONAL SETTINGS

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## Lucille Apis-Overhoff

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The primary proposition of my PhD thesis is that selection from and adaptation of external and local environmental knowledge systems<sup>2</sup> will result in more acceptable and more effective approaches to environmental resource management on the local scale. My goal is to examine the potential for, and to identify the barriers to, involvement of local environmental knowledge systems and external management<sup>3</sup> in Micronesia.

The case study (U Chiefdom in Pohnpei, Federated States of Micronesia) provided the empirical core of my thesis, so it was important that I gain access to the knowledge systems of the area and its people. However, that proved more difficult and more complicated than I had expected because there are distinctive access protocols that operate at different levels: national government, state government and chiefdom. While I could contact and organise meeting dates with members of the state and national governments, it was completely different at the Chiefdom level where a traditional system is in place. Indeed, one has to understand the intricate U traditional hierarchy, how the people fit into it, how I would fit myself into that system, and the unique protocols for accessing people at the various levels in the hierarchy. Gaining access to the study area and its residents for information about their knowledge systems proved complicated, time-consuming and demanding, yet the most rewarding part of my research.

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**Key words:** local environmental knowledge systems, environmental resource management, adaptation, access protocols, and Federated States of Micronesia

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2 The term "local environmental knowledge systems" is used interchangeably with "indigenous environmental knowledge systems" as both refer to the endogenous environmental knowledge systems of a country or area within a country.

3 "External management" refers to management systems originating from overseas.





RAJNI K. CHAND

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Since 1998 Rajni has worked as a Foundation Studies English tutor at USP, an editor for the University's Distance Education Course Development Unit and as a lecturer teaching the study skills course by distance and face-to-face mode. She is currently enrolled as a PhD student.

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## THE LISTENING SKILLS NEEDS OF DISTANCE LEARNERS

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**Rajni K. Chand**

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This study proposes to look at the listening components of the study skills course offered in distance mode at the University of the South Pacific (USP).<sup>1</sup> Its purpose is to explore the listening needs as perceived by the learners against the expectations of the stakeholders at USP and against the views of past learners of the course.<sup>2</sup> The study will be conducted using both qualitative and quantitative research methods.

First, the listening needs as perceived by the learners of the study skills course will be collected through questionnaires. As this study focuses on a particular mode of course delivery, only those learners enrolled for the distance mode of the course will be included.

Second, stakeholders at USP (for example, course teachers, distance education providers, and other subject teachers) will be interviewed for their views on the listening needs of the learners and what the course offers. Finally, past learners of the study skills course will be interviewed for their views on the listening skills imparted by the course. These people will provide feedback on the listening skill they acquired and whether it fulfilled their listening needs for other courses and their present career.

Since this study is first of its kind for the region, it will provide those involved in the field of study skills information on what Pacific Island learners need. The main emphasis here is the listening skills needed at tertiary level.

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**Key words:** listening skills, study skills, distance learning, needs analysis, University of the South Pacific

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<sup>1</sup> USP is a regional university owned by Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu. It has three campuses: Laucala in Suva, Fiji; Alafua in Apia, Samoa; Ermaus in Port Vila, Vanuatu. There are USP Centres in all 12 member countries.

<sup>2</sup> EL001 is a one-semester course introduced in 2002 for students who fail ELSA, the diagnostic test administered by USP. Students must pass EL001 in order to qualify for entry to 200-level courses.



### DAVID FA'ATAFA

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David is of Samoan descent. He was born in Wellington and attended Tawa College. He completed his Bachelor of Physical Education in 2003 and is currently studying for a Masters degree. He has a special interest in the health benefits of exercise, especially for Polynesians.

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## IS AEROBIC OR RESISTANCE EXERCISE MORE EFFECTIVE IN DECREASING HEART DISEASE AND DIABETES RISKS IN POLYNESIANS?

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**David Fa'atafa**

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New Zealanders of Polynesian descent have one of the highest rates of obesity, diabetes and heart disease in the world. Regular aerobic exercise can assist in the prevention and control of these sedentary diseases; however, this population is also one of least physically active.

While traditional exercise programming tends to have a heavy emphasis on aerobic-based activity, this type of activity may not be suitable for all individuals. As Polynesians are thought to have predominantly more Type II than Type I muscle fibres, it is hypothesised that resistance exercise will have a greater impact on disease risk factors than aerobic exercise.

Twelve (12) overweight, sedentary, male Polynesians will be randomly assigned to one of two groups. For a period of 20 weeks, one group will be assigned a weight training exercise programme whilst the other will undertake an aerobic-based exercise programme of walking and cycling. Muscle biopsies and blood samples will be taken prior to and following the 20-week intervention to compare the metabolic changes between the two groups.

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**Key words:** Polynesian, exercise, heart disease, diabetes, obesity, muscle fibre



## VINCENT HASSAN

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Vincent was born in Fiji. He is of Rotuman descent on his mother's side and Pakistan/Indian on his father's. Currently a Senior Teaching Fellow and coordinator of MART 102, Vincent is undertaking a PhD.

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# ROLE OF RISK AND FOREIGN MARKET ENTRY STRATEGIES

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**Vincent Hassan**

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As the business world becomes more global and the level of international competition continues to increase, firms find themselves facing increasingly complex strategic decisions. Perhaps the foremost amongst the decisions are the decisions relating to methods of expanding the firms' international operations. Selection of overseas markets and entry modes selection lies at the very heart of any international strategy. However, despite some extensive work carried out on linking external and internal characteristics to entry mode strategies so far, these studies have not looked at the role of risk in internationalisation strategy.

The aim of my doctoral research is to fill the important void in the internationalisation strategy literature. The study seeks to expand the existing international risk-strategy literature and explore:

- how risk characteristics of the decision maker influence the implementation of strategies and structure to support foreign market decision making and the selection of foreign market entry strategies;
- and how the risk characteristics of an organisation influence the implementation of strategies and structure to support foreign market decision making and the selection of foreign market entry strategies.

In order to investigate this, the research was conducted in two phases. These included in-depth interviews and mail survey questionnaires with top managers. The firms included in the sample were drawn from the KompassNZ database by simple random sampling of selected firms which had entered two or more foreign markets. Thirty face-to-face interviews were carried out in phase I, and further useable replies were received from 212 companies, representing an effective response of around 23 per cent in the second survey-questionnaire phase.

The elements of risk attached to the characteristics of top manager or the principal decision maker involved with decisions to internationalise have significant influence on implementation of strategy and structure to support foreign market entry decisions and the selection of foreign market entry strategies. Elements of risk attached to organisation have some significant influence on the implementation of strategy and structure to support foreign market entry decisions and the selection of foreign market entry strategies.

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**Key words:** risk, management, organisation, decision making, entry mode strategy



### MARIE KAY I N D E R

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Marie is a New Zealand European on her father's side (Robert George Inder) and Samoan on her mother's side (To'alepai Louella Thomsen-Inder). She commenced her PhD in Microbiology in October 2004. Marie is a recipient of a Health Research Council (HRC) Pacific Career Development Award.

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# FUNCTIONAL ANALYSIS OF A UNIQUE VIRAL VASCULAR ENDOTHELIAL GROWTH FACTOR

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## Marie Inder

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Orf virus (ov) lesions are characterised by dramatic vascularisation, caused by the vascular endothelial growth factor (VEGF) encoded by this virus. The VEGF family of proteins have emerged as major regulators of new blood vessel formation in both disease and health. The most common cause of death in the Western world is failure of blood supply due to stroke or heart attack. Inhibition of VEGF-induced pathological angiogenesis is being investigated as a new therapy in, for example, the controlling of tumour growth. The ovVEGF recognises only one of the VEGF receptors (VEGFR-2), and thus has a receptor-recognition profile that is unique within the VEGF family.

The primary aim of this project is to determine the structural basis and significance of this unique receptor-binding profile. The work will contribute to the important understanding of a unique viral virulence factor and, in addition, form part of a broad investigation into virus-host interactions.

The research involves:

- analysis of determinants of VEGFR-1 and -2 binding by constructing mutants focusing on regions with differences between viral and mammalian VEGFs. These mutants are tested in receptor specificity and activation assays to measure different facets of the VEGF-VEGFR interaction;
- investigation of why it may not be advantageous for ovVEGF to bind VEGFR-1 by comparison to mammalian VEGF in assays that test VEGFR-1 activation.

To date, my work has shown that the C-terminal region of the ovVEGF has a role in preventing interaction with VEGFR-1. Further experiments will focus on the role of the C-terminal region and other unique regions in determining receptor binding.

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**Key words:** microbiology, virus, VEGF





### RON MANULEVU

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Ron is originally from Suva, Fiji. His immediate family now resides in Wellington. He completed his secondary school education at Wanganui Collegiate School and ventured to Dunedin after completing his Bursary Examinations. Ron aims to complete his Masters degree at the end of 2004 and then plans to travel for a few years.

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A MUTAGENESIS STUDY OF C-TERMINAL RESIDUES OF THE PsbA PROTEIN AND THE PsbO, PsbU, PsbV AND PsbQ EXTRINSIC PROTEINS OF PHOTOSYSTEM II AND THEIR EFFECTS ON PHOTOAUTOTROPHIC GROWTH IN THE CYANOBACTERIUM, *SYNECHOCYSTIS* sp. PCC 6803

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**Ron Manulevu**

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Photosystem II (PSII) is one of two reaction centres that are important for oxygenic photosynthesis. This process requires the splitting of water to produce molecular oxygen (O<sub>2</sub>) using light energy to drive the formation of O<sub>2</sub>. Energetically, extracting electrons from water is thermodynamically unfavourable and the unknown mechanism that PSII uses to perform this task, using a tetra-manganese (Mn) cluster, has generated much interest.<sup>1</sup>

Photosystem II is a dimeric super-complex *in vivo* with two-fold rotational symmetry.<sup>2</sup> Each dimer contains two monomers of a PsbA-PsbD reaction centre heterodimer and, in total, PSII consists of about 30 different polypeptides. The Mn cluster is part of the oxygen-evolving complex (OEC) and is the enzymatic unit responsible for the splitting of water residing on the luminal side of PSII.

A C-terminal segment deletion mutant, PsbA:(Δ(F302-S305)), was created in a previous study, and it was concluded that one of the four amino acid residues in this segment of the PsbA protein (Phe-302, Asn-303, Gln-304 and Ser-305) was responsible for the obligate photoheterotrophic phenotype of this mutant.<sup>3</sup> Also of interest in this project are the roles of the extrinsic PsbO, PsbU, PsbV and PsbQ extrinsic proteins. The aims of this thesis include: introducing targeted amino acid substitutions at the specified residues in PsbA to investigate their role in the structure and function of the overall complex; and the removal of the extrinsic proteins to analyse the combined effect on photoautotrophic growth.

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<sup>1</sup> Tommas, C. and Babcock, G.T. (1998) Oxygen production in nature: A light-driven metalloradical enzyme process. *Accounts of Chemical Research*, 31, 18-25.

<sup>2</sup> Debus, R.J. (2001) Amino acid residues that modulate the properties of tyrosine Y(Z) and the manganese cluster in the water oxidizing complex of photosystem II. *Biochim. Biophys. Acta*, 1503, 164-186.

<sup>3</sup> Nicoll W. and Eaton-Rye J.J. (2001) Deletions in the luminal domains of the D1 protein that prevent the assembly of photosystem II in *Synechocystis* sp. PCC 6803. PS2001 Proceedings 12<sup>th</sup> International Congress on Photosynthesis, <http://www.publish.csiro.au/ps2001>. CSIRO Publishing, S13-028: 1-4.



### LOSA MOATA'ANE

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Losa is Tongan, the youngest of three children in the family of Mele and 'Akolo Moata'ane. The family now lives in Auckland. Losa was a Health Research Council (HRC) scholarship recipient for her Masters degree and now holds an HRC scholarship for her PhD. She loves sport and especially rugby.

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# INEQUALITIES AND HEALTH IN PACIFIC COMMUNITIES: POLICY IMPLICATIONS

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**Losa Moata'ane**

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The aim of this study is to describe the process that decision makers go through when making decisions that impact on Pacific peoples' health in New Zealand. Results from this study will inform recommendations to guide decision makers in the future when planning health policy for Pacific peoples.

District Health Boards (DHBs) with high populations of Pacific peoples were approached to be part of this study. Pacific providers and some mainstream providers were also approached to participate. The study methodology included textual analysis of formal documents such as Strategic Plans and Annual Plans, interviews with Chief Executive Officers and General Managers, and also a three-week placement with each of these District Health Boards and providers.

Results that will be discussed in the presentation include:

- relationship and communications between DHBs, Ministry and providers
- experience as a Pacific researcher with Pacific providers, Pacific teams (DHBs)
- unseen and unspoken challenges for Pacific health
- capacity and capability issues for Pacific health
- resource allocation.

Pacific Health has been recognised at a political and policy level. This has been reflected in increased funding in the past 10 years, but health status does not reflect that as yet. As results for this study have yet to be completed, I would like audience to take that into account during the presentation.

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**Key words:** Pacific health, health policy, Pacific providers, policy implementation



### SHIVA NAIR

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Shiva was born and brought up in Suva, Fiji. He started his tertiary education at the University of the South Pacific, enrolled in a Bachelor of Science programme. He has been at the University of Otago since 2000 and has established well, particularly with regard to Pacific Island affairs on campus. Shiva is currently enrolled in the MBChB/BMedSci(Hons) programme and holds a Medical Research Council (MRC) scholarship.

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# THE MECHANISM OF THE NEUROPROTECTIVE EFFECTS OF MELATONIN IN HYPOXIA ISCHAEMIA-INDUCED BRAIN DAMAGE.

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**Shiva Nair, Rosanna Rahman and Ian Appleton**

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Post-stroke neurodegeneration can occur. At present we can limit the incidence of a further stroke but cannot treat the resultant neurodegeneration. Melatonin is a hormone synthesized by the pineal body, which has been implicated in numerous physiological processes.<sup>1</sup> There is also evidence to show that melatonin protects against focal cerebral ischaemia.<sup>2</sup> In addition, it has been proposed to act as a neuroprotective agent by functioning as a free radical scavenger.<sup>3</sup> To date, however, the mechanisms of these neuroprotective effects have not been determined.

The aim of this project, therefore, is to explore the mechanism(s) by which melatonin acts as a neuroprotective agent post-stroke. It is intended to use the 'gold standard' of stroke research: namely, the middle cerebral artery occlusion model (MCAO). Based on previous observations, rats will be injected (for three days) with 50mg/kg melatonin.<sup>4</sup> Brain damage will be assessed histologically by measuring the area of infarct. Preliminary results have already shown a significant decrease in infarct size.

To determine possible mechanisms, we will measure the activity and protein levels of a number of enzymes involved in inflammation. In particular we will focus on nitric oxide synthase, cyclooxygenase and arginase. We believe that the relative levels of these enzymes are crucial factors which can predict neurological outcome.

In parallel to these studies, we will also investigate the cellular, temporal and spatial distribution of melatonin and its receptors following a stroke. It is hoped that these studies will help determine the post-stroke role of melatonin.

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**Key words:** stroke, melatonin, inflammation

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<sup>1</sup> Kondoh, T., Nishino, H., Torii, K. et al (2002), *Life Sciences* 72: 583-590.

<sup>2</sup> Cheung, R.T., Pang, S. F., Pei, Z. (2003), *Stroke* 34(3): 770-775.

<sup>3</sup> Cervantes, M., Gonzales-Burgos, I., Letechipia-Vallejo, G. (2001), *Arch. Med. Res.* 32: 186-192.

<sup>4</sup> Langone, F., de Nucci, G., Oliveira, A. L. R. et al (2002), *Brain Res.* 926: 33-41.



## JANET PEREIRA

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Janet is a researcher and primary teacher. She lived and taught for many years in Samoa. Janet is presently working on a doctorate relating to primary education in Samoa. In 2002 she was awarded an Otago University Postgraduate Award and a Winston Churchill Fellowship. She has presented a range of papers relating to her Masters and Doctorate research.

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# HIGH STAKES ASSESSMENT IN SAMOA: WHY LOCALS VALUE THE YEAR 8 NATIONAL EXAM

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**Janet Pereira**

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This paper summarises some findings from a qualitative study on the Year 8 National Exam in Samoa. The exam is described as `high stakes` in that students and schools consequently compete for limited places in prestigious secondary schools. The exam also has huge impact on students' post-school opportunities and life experience.

In earlier papers, I looked at the impact of the Year 8 National Exam on teaching, students' learning and life chances and compared this to international research on problems associated with high stakes assessment. However, this approach did not explain why exams are so entrenched in Samoa and why the majority of parents, teachers and students support their continuation. In this paper, I argue that exams are entrenched in Samoa because they have a high level of pedagogical and cultural `fit` and appeal.

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**Key words:** assessment, culture and education, formal exams, education in Samoa





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### ROSALINE MICHELLE SAISOA'A

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Michelle is of Samoan and Tongan descent. She is a lecturer in Te Tumu/School of Māori, Pacific and Indigenous Studies. She is currently completing a PhD entitled: 'Sport, Culture, Race and Gender' with particular reference to Polynesian women.

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# PACIFIC ISLAND WOMEN, BODY IMAGE AND SPORT

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## R. Michelle Saisoa'a

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This research analyses the representation of Pacific women from an Orientalist theoretical framework.<sup>1</sup> It also discusses the fantasy of Western men of the 'easy' Pacific women, "beautiful Polynesian girls... wearing flowers and grass skirts, innocently practis[ing] free love on silver beaches beside a turquoise sea under swaying palms,"<sup>2</sup> and the reality of Pacific female body shape in Pacific culture as more akin to being bigger:

*[t]he perfect women must be fat – that is most imperative: her neck must be short... She must have no waist, and if Nature has cursed her with that defect she must disguise it with draperies... her bust and hips and thighs must be colossal. The woman who possesses all these perfections will be esteemed chief-like and elegant.*<sup>3</sup>

The research discusses that the melding of the two is nonsensical, where the actual skinniness fantasy of Western men actually depicts neglect in Pacific Island culture. Case studies will be used to determine the impact of Orientalist-like representations of Pacific women in the sport of netball.

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**Key words:** Pacific women, sport, culture, race, gender

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<sup>1</sup> A generic term to describe the Western approach to the Orient.

<sup>2</sup> M. Meleisea and P. Schoeffel, 'Discovering outsiders', In D. Denoon with S. Firth, J. Linnekin, M. Meleisea and K. Nero (eds.), *The Cambridge History of The Pacific Islanders* (Cambridge: Cambridge University Press 1997): 147.

<sup>3</sup> B. Danielsson, *Love in the South Seas* (London: Allen and Unwin 1956): 70.



## MATANI SCHAAF

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Matani is of Tongan descent. His presentation is based on his BA(Hons) dissertation which he completed in 2003. He is currently working on his MA in Motivation and Burnout in Elite Polynesian Sportsmen and the interface between Tangata Pasifika and New Zealand sports.

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# POLYNESIAN RUGBY PLAYERS' PERCEPTIONS AND EXPERIENCES OF PROFESSIONAL RUGBY

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## Matani Schaaf

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The primary purpose of the present research was to investigate the participation motivation of elite Pacific rugby players. Since the introduction of professionalism into rugby in 1995, increasingly Pacific Island players have viewed rugby as a site where they can achieve success and monetary reward within a mainstream New Zealand context. Indeed, Pacific Island players now dominate.

The present research thus stemmed from one main purpose: essentially, to find out why Pacific Island players were playing rugby or, in more scientific parlance, what was/is the participation motivation of elite Pacific Island rugby players. While there is considerable research in sport psychology on motivation, and some on motivation of elite athletes, there appears to be no research on participation motivation of elite Pacific sports people. Sport participation research has been dominated by Western theories and models and has predominantly focused on North American athletes. There is no research that has incorporated a theory or model that encompasses those values that are significant to Pacific peoples. The lack of research in this area suggests that there is, at least, little scientific knowledge, about this phenomenon, and that research is needed to identify what specific cultural factors exist that motivate so many Pacific Islanders to play sport. The research is, therefore, based on the assumption that different cultures have variant versions of success and failure, different values, motivations, histories, and attitudes, as opposed to a mono-cultural outlook and, thus, these factors are important to investigate in separation from other cultures.

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**Key words:** Pacific sportsmen, professional rugby, participation, motivation, culture



### MELE MA'ATA TAUMOEPEAU

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Mele is of both Tongan and Scottish descent. She and her family moved to New Zealand in 1984. She did her first degree in Linguistics and Psychology at Victoria University, Wellington. She later trained as a Speech and Language Therapist in Edinburgh, Scotland. She is currently doing her PhD in Child Development at the Psychology Department, University of Otago. Mele is a recipient of a Health Research Council (HRC) Pacific Career Development Award.

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# MATERNAL INPUT, VOCABULARY AND STATISTICAL LANGUAGE LEARNING IN 15-MONTH-OLDS

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## Mele Ma'ata Taumoepeau

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There is a considerable amount of evidence to suggest that maternal input facilitates word learning in children. This study investigated the direct relation between children's vocabulary, their statistical learning ability and maternal use of repetitions. My hypotheses were (i) that mothers structure their input in ways that compensate when children have poor statistical learning, and (ii) that mothers will introduce new words in repeating utterances which support word learning. Mothers described picture stimuli to their children and I identified consecutively repeating utterances of maternal speech in which mothers mentioned target words (for example, words that referred to the pictures). These consecutively repeating utterances were classified into three types of units: exact repetitions, partial repetitions and non-repeating utterances. A statistical learning word-boundary task was administered, and mothers completed a McArthur Communicative Developmental Inventory questionnaire.

Results indicated that although there was no relation between a child's vocabulary development and statistical learning ability, there was a relation between repeating utterances mothers used and children's statistical learning ability: that is, children with better statistical learning tended to receive a greater amount of input from mothers. Moreover, new words tended to be introduced in non-repeating utterances. The data suggest that mothers are sensitive to a child's level of attention and language ability and that this is reflected in the tendency to introduce words in non-repeating contexts.

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**Key words:** vocabulary acquisition, maternal input, repetitions, statistical learning, language development



### AUE TE AVA

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# THE USE OF METAPHOR AS AN EDUCATION PRACTICE

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## Aue Te Ava

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Prior to the arrival of the London Missionary Society (LMS) in the South Pacific in the early 19th and late 18th centuries, rhetorical language was the predominant medium of education among indigenous people. Rhetoric is the art of using language to persuade and influence the learning of others.<sup>1</sup> Rhetorical language is an umbrella term where the use of metaphors, similes, figurative speech and analogies play a significant part of teaching and learning of all ceremonial activities.

Rhetorical language illustrates the history and qualities of various chiefly clans and affirmed the authority and others.<sup>2</sup> What is more interesting, Coxon et al (1994) claim that many indigenous cultures throughout the Pacific use rhetorical tools for teaching and learning of genealogy and tribal history.

One form of rhetoric which I am going to draw from this discussion is the use of metaphor as an educational practice. The use of metaphor is an expression of one thing in terms of another and can provide insight into a learning situation of cultural practice such as dance, music, art and crafts, tattoo, legends, and poetry. Also, it links a variety of assumptions and beliefs.<sup>3</sup>

The purpose of the paper is to discuss why metaphors are important tools for the teaching and learning of indigenous cultures and how they would benefit the learner. I provide one particular metaphor *Kia Toa* that could be used as a teaching and learning tool articulated into terms relating to the Cook Islands view of educational practice in contemporary society.

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**Key words:** rhetoric, metaphor, Pacific, teaching, Kia Toa

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<sup>1</sup> Simpson, J. and Weiner, E., *Oxford English Dictionary*, Oxford University Press, 1989.

<sup>2</sup> Coxon, E., Jenkins, K., and Marshall, J. (eds), *The Politics of Learning and Teaching in Aotearoa*, Palmerston North: Dunmore Press, 1994.

<sup>3</sup> Grasha, A., *Teaching with Style*, Pittsburgh PA: Alliance, 2000.





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### FILIPO TOKALAU

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## MANAGING GLOBAL FINANCE AND TOURISM SUSTAINABILITY IN FIJI: A CASE STUDY OF THE KOROTOGO BYPASS ROAD, KOROTOGO, FIJI ISLANDS

### Filipo Tokalau

The present face of globalisation coincides with intra-firm trade and across boundaries. Although the trend is deeply entrenched in developed economies, nonetheless the repercussion is worldwide and so the pressure of globalisation is having a major impact on tourism particularly in small island economies.<sup>1</sup> Fiji and other Pacific Island countries (PICs) are increasingly becoming economically dependent on tourism,<sup>2</sup> and so a need for effective tourism policies arises.

Using the problem-centered approach, this paper attempts to show the extent to which global finance<sup>3</sup> and tourism have affected the ecological and socio-economic environment of a local community on the coastline of Southwest Viti Levu under the guise of development. Anecdotal evidence shows the profound deleterious effects of globalisation on the ecological and social dysfunctional impact<sup>4</sup> associated with tourism following the recent expansion of an internationally owned hotel in Korotogo, Fiji.<sup>5</sup>

The greatest challenge that Fiji's Tourism Industry faces today is how to channel the forces of globalisation for eliminating poverty and empowering its people so that they have a meaningful life. The challenge calls for greater emphasis on community involvement, social capital formation and good governance.<sup>6</sup> For development to be sustainable, it is well understood that it must be people-oriented. Good governance and meaningful community involvement are suggested as integral measures to ensure that PICs attain some degree of sustainability and cope with globalisation.

**Key words:** globalisation, ecological deterioration, accountability, community involvement, sustainable tourism

<sup>1</sup> Mathieson, A. and Wall, G. 1982. *Tourism: Economic, Physical and Social Impacts*, Longman Scientific and Technical, Essex, England.

<sup>2</sup> Britton, S. G. 1983. *Tourism and Underdevelopment in Fiji*, Development Studies Centre, The Australian National University, Canberra.

<sup>3</sup> Singh, K. 1999. *The Globalisation of Finance: A Citizen's Guide*, Zed Books, London.

<sup>4</sup> Thaman, R. R. 1994. 'Ethnobotany of Pacific Island Coastal Plants' in John, M., Paul, G. and Linda C., (eds) *Fauna, Flora, Food and Medicine*, Institute of Pacific Studies, The University of the South Pacific, Suva, Fiji.

<sup>5</sup> *Environment Consultants (Fiji) Limited. 1992. 'Korotogo Bypass Environmental Impact Assessment' Prepared for Public Works Department, Ministry of Infrastructure, Public Utilities and Maritime, Fiji Government.*

<sup>6</sup> Ravuvu, A. 1988. *Development or Dependence: The Pattern of Change in a Fijian Village*, Institute of Pacific Studies, The University of the South Pacific, Suva, Fiji.

## FAAFETAI TELE LAVA

The Pacific Postgraduate Reference Group was established in late 2002 to support our research students via monthly seminars and meetings – a place where they could bring their frustrations and ideas, seek support from one another, and offer support, too. This concept led on to the idea of an annual symposium and the birth of ‘Pacific Voices’.

‘Pacific Voices’ has come together due to the kindness of many people who gave their time, intellect and experience to ensure that our students’ voices are heard. I would like to thank: the editorial team – our chief editor, Dr Claire Matthewson, and her able assistant, Mele Ma’ata Taumoepeau – for making this dream come true; David Fa’atafa for being our photographer; the Director of Student Services, David Richardson, for his continued support; Dr Charles Tustin for his words of wisdom; Associate Professor Rex Ahdar for his time and interest; Dr Phil Meade for the keynote address and, most of all, the stars – our students. Thank you.

I am sure that the beautiful aria and tenor of ‘Pacific Voices’ will resonate for many moons to come, a poem in their own right: a gift to be cherished.

*Sing*  
*Sing louder*  
*Pese leo tele*  
*Pese ma le loto*  
*Sing with passion*  
*Listen*  
*Can you hear them?*  
*Oka tai manaia*  
*Oh what beauty*  
*Sa o fa’alalelei*  
*Well done*

Nina Kirifi-Alai  
 Manager  
 Pacific Islands Centre



Editorial Team  
Mele Taumoepeau, Nina and Dr Claire Matthewson.





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