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The motif on the cover is based on a nineteenth century carving of a ship's prow from Choiseul, Solomon Islands. To *Directions: Journal of Education Studies,* it signifies a forward movement.

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RESEARCH ARTICLES

Practicing Secondary Mathematics Teachers' Beliefs about Mathematics

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Abstract

Teachers' beliefs are important because they shape the way teachers see an educational phenomenon. In this study, we explored Fijian secondary school mathematics teachers' beliefs about the following four themes: mathematics and its creation, school mathematics and its usefulness, learning mathematics, and, teaching mathematics. An analysis of thirteen teachers' interviews revealed that teachers either held mixed beliefs about each theme, or beliefs that could be classified at any particular end on the beliefs continuum. While there was no clear-cut uniformity in the way teachers' beliefs were organised across the four categories, there were glimpses of consistency.

Keywords: beliefs, mathematics, secondary, teachers

Introduction

Philipp defines beliefs as "lenses that affect one's view of some aspect of the world" (Philipp, 2007, p. 259). Two opposing beliefs about mathematics can be distinguished. A new tradition in the philosophy of mathematics has emerged, challenging the older philosophy of absolutism where mathematics is considered a strict discipline. Absolutists see mathematics as a subject that deals with preciseness. Such beliefs have often led to mathematics being taught in a way that resembles strictness and inhumanness. This style of presentation has made mathematics meaningless for some teachers and learners (Jardine, 1994). On the contrary, the contemporary belief of fallibilism represents the 'human face of mathematics' (Hersh, 1994, p.2), and helps teachers and children conceptualise mathematics as a man-made subject that is right in front of us, in our everyday lives (Jardine, 1994).

The role that teachers' beliefs play in their instructional practice has been well documented in mathematics education literature. As early as 1973, Thom stated that "all mathematical pedagogy, even if scarcely coherent, rests on a philosophy of mathematics." (Thom, 1973, p.204). There are important issues that derive from this statement - the first deals with the nature of mathematics, and the second is how different beliefs of mathematics affects the teaching and learning of mathematics. According to Hersh (1979), the first issue concerning teaching of mathematics is defining what mathematics is all about rather than asking what is the best way to teach mathematics. In other words, all teaching and learning of mathematics rests on implicit epistemologies or philosophies of mathematics and, personal philosophies of mathematics also have powerful pedagogical consequences. This idea is fully supported by Thompson's seminal study where she noted that teachers' professed conceptions of mathematics had a direct connection to the way the teachers typically presented their mathematics lessons (Thompson, 1984). Cooney (1999) supports Thompson's findings that teachers' conceptions make a difference in how mathematics is taught.

In light of the existence of differing beliefs about mathematics and the relative importance of fallibilist beliefs in teachers' classroom practice (Beswick, 2012; Philipp, 2007), this study set to explore a small sample of Fijian secondary mathematics teachers' beliefs about the nature of mathematics in general and school mathematics in particular. A second aim of this study was to explore beliefs related to mathematics teaching and learning. The study reported here was part of a larger study that aimed to explore if and how secondary mathematics teachers would accept and enact the idea of formative assessment in their Year 9 mathematics classrooms through a focus on their use of portfolios. In order to investigate this, it was deemed important to explore teachers' beliefs about mathematics, and mathematics teaching and learning. Pursuing our research aims, we used the following research questions: What are secondary mathematics teachers' espoused beliefs about mathematics, and mathematics teaching and learning? Are teachers' beliefs related in a uniform way?

After a brief review of literature on beliefs, the theoretical perspectives used in this study is presented. This is followed by methods, results and discussion of the findings. The final section contains some implications and conclusions.

Literature

Ernest (1994) argues that there are two issues central to the philosophy of mathematics. The first is the nature of mathematics itself. The second deals with how the philosophy affects teaching and learning. The former will be covered in this review, under two categories: beliefs about mathematics, and, beliefs about teaching mathematics.

Beliefs about Mathematics

One perspective of mathematics derived from the philosophy of mathematics is *absolutist*. *Absolutist* philosophies of mathematics include views such as Euclidean (Lakatos, 1978), Absolutist (Lerman, 1983), Platonist (Ernest, 1988) and Traditional (Raymond, 1997). Underpinning the *Absolutist* philosophies of mathematics is the belief that mathematics is a body of absolute and certain knowledge (Thompson, 1992). That is, mathematical truths are held to be universal, absolute, value free and culture free, and independent of humankind. Absolutists argue that mathematics was discovered, not invented. Mathematical knowledge is seen as timeless, superhuman, ahistorical, value-free and culture-free (Ernest, 2000). According to Jacquette (2002), many Platonists accept mathematics as ontology of real abstract mathematical entities, mind-independent truths that are discovered and exist outside of space and time (Balaguer, 1998, p.3). Ernest (1994) defines an abstract object as something that is neither physical nor mental. An example of such an object is numbers (Ernest, 1994).

Hersh (1994) argues that it is not sufficient to define the existence of things in the world using physical and mental categories only. He adds a third category, which he calls 'socio-cultural-historical' entities. He then asks this important question: Is mathematics socio-cultural-historical? Hersh answers 'yes' to his question and gives the following explanation. Firstly, mathematics is historical. It has a long history dating back at least to the time of the Babylonians. Mathematics can be seen as a social entity because mathematicians work with other mathematicians. Finally, mathematics is a cultural product because it is responsive to the needs of the society. Therefore, mathematics is a special kind of "socially shared idea" (Hersh, 1994, p.17). From this perspective, mathematics can be seen as an applied field that is constantly

evolving (Chambers & Timlin, 2013). Hersh (1994) argues that a new way of viewing mathematics is imperative. This understanding of mathematics has generally been classified as the *fallibilist* view. The *fallibilist* philosophies propose a conception of mathematics as "human, corrigible, historical, value-laden and changing" (Ernest, 2004; Almeida & Ernest, 1996, p.2). This view is in line with the "problem solving view" (Ernest, 1988) or the "non-traditional view" (Raymond, 1997) of mathematics and challenges the dominant *absolutist* philosophies. *Fallibilism*, by construing mathematics as an outcome of social processes, acknowledges that it has a human face (Almeida & Ernest, 1996). Ernest (1988) argues that mathematics developed as a result of human creation. This view provides a more realistic and practical account of mathematics, including the practices of mathematicians, its history and applications. Chambers and Timlin (2013) call this the utilitarian view of mathematics.

In summary, we can view mathematics by using two different lenses. On the one hand, we see mathematics as a body of abstract knowledge which is available to be rediscovered and improved upon by an individual. This view sees mathematics as a set of truths and value free facts. On the other hand, we see mathematics as arising from the needs of the people at a particular time. This latter view is a more recent one, and in this case, mathematics is not seen as a static product but as an ongoing activity of people. It is possible that teachers' beliefs fall into one or the other (Nisbet & Warren, 2000) or overlap between these two categories. Indeed, Raymond's (1997) categorisation of teacher beliefs found elements of both categories as a "mix" of traditional and non-traditional beliefs. According to Beswick (2012), relatively few research studies have focused on secondary mathematics teachers' beliefs about the nature of mathematics. The majority of research in this area has focused on pre-service or primary teachers. A further important issue regarding teacher beliefs is raised by Beswick (2012); she claims that studies involving teachers' beliefs of the nature of mathematics must consider exploring beliefs about mathematics as a school subject and mathematics as a discipline. This study is designed to look at teachers' beliefs about mathematics as a school subject.

Beliefs about Teaching Mathematics

Beliefs that teachers hold are a significant influence on their teaching practice (Speer, 2005, p.364). Two types of research are common in the area of beliefs about teaching mathematics. One category of research has mainly focused on a descriptive analysis of mathematics teachers' beliefs about teaching and learning, and their beliefs about mathematics as a subject. A second category of research has focused on exploring the relationship between teachers' beliefs about mathematics, teaching mathematics and their classroom practice (Boz, 2008). We discuss some of the descriptive studies relating to teachers' beliefs about teaching mathematics in this section.

According to Nisbet and Warren (2000), two schemes for classifying mathematics teaching are prevalent: a 'transmission' approach and a 'constructivist' approach (p. 36). The transmission view "reflects a classroom environment that is dominated by timed tests, with little hands on experience and little consideration of the relationship between mathematics and the real world" (Nisbet & Warren, 2000, p. 40). The constructivist view (Nisbet & Warren, 2000) or non-traditional view (Raymond, 1997) means teaching mathematics with plenty of hands-on experience, lots of interaction between students, and students experiencing mathematical problems that belong to the real world (Nisbet & Warren, 2000).

The Nisbet and Warren's (2000) study found that Australian primary mathematics teachers are either "traditionalists with a transmission approach" or they "have been convinced of the merits of the contemporary (constructivist) approach" (p.43). Their study noted that more teachers held a contemporary view of teaching mathematics. Their study also noted that factors such as years of experience in teaching mathematics and levels of qualifications in mathematics had no relationship with teacher beliefs. In another study, Ly and Brew (2010) compared Vietnamese pre-service secondary mathematics teachers' beliefs with their Australian counterparts. The study noted that both the groups of pre-service teachers held the view that "mathematics was a creative endeavor" (p. 82) but at the same time, both groups failed to show significantly strong views against the traditional teaching approaches.

Boz (2008) found that many pre-service Turkish secondary mathematics teachers hold the belief that "mathematics teaching meant transferring the correct information to students" (p.67). Hence, despite some recent studies showing mathematics teachers holding more constructivist beliefs about teaching mathematics, it seems that many mathematics teachers have maintained a traditional view toward teaching mathematics.

Research also informs us about the existence of 'constructivist' beliefs about teaching mathematics (Boz, 2008; Beswick, 2006, Ly & Brew, 2010; Nisbet & Warren, 2000; Thompson 1984). Boz (2008) reports findings from a study involving 46 Turkish pre-service secondary mathematics teachers. This study explored pre-service teachers' beliefs about teaching mathematics by asking the pre-service teachers to respond to the four aspects of teaching. These included: teachers' instructional approach, role of the teacher, interaction between student and the teacher during the class, and interaction between students during the class. The study found that the dominant belief about instruction in mathematics was the non-traditional belief which dictated that teachers must avoid memorization of formulas and instead place more emphasis on student-centred teaching. With reference to the second criterion regarding teachers' roles, the majority of the pre-service teachers again held non-traditional beliefs. In other words, the pre-service teachers perceived the role of the mathematics teacher as a "guide and coach" for the students (Boz, 2008, p. 73). The majority of the pre-service teachers also agreed that there should be interaction between the student and the teacher as well as between peers. There seems to be a paucity of research on teacher beliefs involving full-time secondary mathematics teachers. This is because most of the studies in this area seem to have focused on either pre-service or primary teachers' beliefs. This study sheds some light on secondary teachers' beliefs.

A Theoretical Framework for Understanding Teacher Beliefs

We drew on the findings of previous studies in the field of teacher beliefs, and benefitting from previous frameworks such as that of Ernest's (1991) personal philosophies of mathematics, values and classroom images, and Ernest's (1991) mathematical curriculum ideologies, the following framework was deemed useful for analysing and understanding teachers' beliefs. This proposed framework links the relationship between teachers' beliefs about mathematics to other belief domains – beliefs about school mathematics, beliefs about teaching, and beliefs about learning. Unlike Ernest (1988) or Raymond (1997) who offer three or more categories of teacher beliefs, we used only two broad categories of beliefs about mathematics – absolutist and fallibilist. The absolutist category can be aligned to behaviorist ideas while the fallibilist category aligns to contemporary theories of learning, including sociocultural theories that see mathematics as part of human culture. There are two reasons for this. First, teacher beliefs formed just a subset of this study and a fuller study would be necessary to give a detailed analysis of teacher

beliefs, given their complex nature. Second, instead of using a structured survey to gather information about teacher beliefs, this study made use of individual interviews. We were of the view that the two rather broad categories of beliefs would be sufficient for understanding teachers' beliefs from the interview data.

Theoretical Framework of Teacher Beliefs

Nature of Mathematics	Teaching	Learning
Absolutist/ Authoritarian	Content-focused with an emphasis on performance, teaching of facts with a transmission view of teaching.	Skill mastery, passive reception of knowledge, individual learning
Fallibilist/Humanistic	Learner-focused Active construction of knowledge	Autonomous exploration of own interest, questioning, discussing, and negotiating to aid student construction of knowledge.

The proposed framework assumes that teacher beliefs may or may not have an explicit parallel relationship. Teachers may hold one type of belief about one domain and may cross the box when it comes to beliefs about another domain.

Methods

Research Participants

The participants in this study were thirteen (13) mathematics teachers from the two case study schools: *Marau College* and *Kaivata College*. *Marau College* had nine (9) teachers in the Mathematics Department, *Kaivata College* only four (4). The mathematics teachers had taught for an average of 9 years, ranging from 20 years to only three years. For the five male and eight female teachers, real names are replaced by pseudonyms beginning with the letters A to M, the letters indicating the order in which the interviews were carried out. A summary of research participants is given in Table 2.

Table 2

Research Participants

School: Pseudonyms	Name: Pseudonyms	Gender	Years of teaching	Qualifications
Marau College	Ana	Female	12	Bachelor of Education Post Graduate Diploma (Mathematics)
	Bhim	Male	11	Bachelor of Science, Post Graduate Certificate in Education, Post Graduate Diploma (Mathematics)
	Cathy	Female	5	Bachelor of Commerce (Mathematics/Economics). Enrolled in Graduate Certificate in Education
	Dan	Male	13	Diploma in Education (Mathematics/Science)
	Ella	Female	4	Bachelor of Science (Mathematics/Chemistry), Graduate Certificate in Education
	Fran	Female	7	Bachelor of Science (Mathematics/Chemistry), Graduate Certificate in Education
	Gavin	Male	20	Diploma in Education (Mathematics/Science)
	Haris	Male	6	Bachelor of Science (Mathematics/Physics), Graduate Certificate in Education, Post Graduate Diploma in Renewable Energy.
	Isha	Female	8	Bachelor of Science (Mathematics/Chemistry), Graduate Certificate in Education
Kaivata College	Jenny	Female	6	Bachelor of Science (Mathematics/Chemistry), Graduate Certificate in Education. Post-Graduate Diploma in Mathematics
	Kumar	Female	3	Bachelor of Science (Computer/Information) Enrolled in Graduate Certificate in Education
	Ledua	Male	16	Bachelor of Science
	Mere	Female	5	Diploma in Education (Mathematics/Science)

Instrument and Procedures

In an attempt to explore teachers' beliefs pertaining to the two research questions, each of the thirteen teachers was interviewed at a time convenient to the teacher and each interview lasted for approximately a third of an hour. For ease of administration and understanding, the interview was divided into three parts. The first part dealt with the nature of mathematics. We used the first item here to categorise teachers' beliefs about mathematics in general. The other three items focused on school mathematics in particular – mathematics that teachers worked with on a daily basis. The second part of the interview was on beliefs related to learning mathematics, while the final part was on teaching beliefs. Once again, we

tried to confine discussions to the learning and teaching of school mathematics. Interview items are summarized in table 3.

Table 3

Questions on Teachers' Beliefs

Interview part	Main Theme	Sample items
One	What is (school) mathematics?	1. Comment on the statement – *Mathematics is like gold: It can be discovered but cannot be created.* 2. Think about school mathematics. What comes to your mind when you hear the term *mathematics*? 3. How would you define the term *mathematics*? 4. Is mathematics useful (think about school mathematics)? Why?
Two	Learning mathematics.	1. How did you learn mathematics? 2. In your view, what are some of the (best) ways in which students learn mathematics? 3. Is mathematics only for the best and brightest? Defend your view.
Three	Teaching mathematics	1. What does effective mathematics teaching mean to you? 2. In your view, which of the following is important? Defend one view! Understanding that 5 x 23 = (4 x 23) + (1 x 23), or Understanding that finding the cost of 5 apples at 23 cents each involves calculating 5 x 23, and knowing a way of doing it.

All the interviews were audio recorded and transcribed. Data analysis was undertaken using the framework to classify beliefs into two different categories. The interview items in each part of the interview schedule were used as a guide in categorising data. The findings of the study are presented next.

Results and Discussion

The results are presented using the following sub-sections: beliefs about the origins of mathematics; beliefs about school mathematics; beliefs about learning mathematics, and beliefs about teaching mathematics.

Beliefs about the Origins of Mathematics

In order to explore teachers' beliefs about how mathematics came into existence, teachers were asked to respond to the following statement: *Mathematics is like gold – It can be discovered but cannot be created.* Eight of the participants said that God created mathematics. These participants believed that mathematics was existing before the arrival of mankind. In fact, as Ana pointed out, it was 'there during God's time', and 'humans only discovered' mathematics. Cathy echoed similar sentiments as she

explained, 'Whatever knowledge is there, it is God given, so we just find it through experiments.' Gavin also argued that 'things were already there but men just put some language to it.' Isha and Ledua had similar views with regard to the origins of mathematics. They quickly linked gold with God, and agreed to the statement.

Three other teachers (Dan, Ella and Kumar) had similar views but they believed that God was the creator of mathematical knowledge and all other knowledge as well. They argued that it was through His ideas that man was able to discover mathematics. Dan suggested that 'God gave humans the mind to discover mathematics'. While Dan was explicit in his belief, the other two (Ella and Kumar) had some difficulties in explaining the creation/discovery of mathematics. Kumar emphasized that 'it was a product of humans' – 'but humans discovered.' Kumar seemed to have some difficulty in pointing out the differences between creating and discovering. This difference was also a bit sketchy in Ella's views. She claimed that mathematics was 'the idea of God' but 'made by people.' She espoused this further by saying 'man made maths so that they can understand what is going on around them.' She used the term 'made' but had pointed out earlier that the idea of any creation was from God.

Given the cultural and religious context of Fijian teachers, it is not surprising that eight of the 13 participants attributed to God the responsibility for the creation of knowledge in general, and of mathematical knowledge in particular. Fijians in general are considered highly religious. Teachers did at times mention their religion in the interviews. For example, Ana gave insights into Hinduism and how one of the Hindu Gods was learning from His spiritual teachers or *guru*. Dan also mentioned in his interview that 'as he was a Christian', he believed that 'all things come from Christ.'

In summary, this group of teachers espoused absolutist beliefs in regard to the origins of mathematical knowledge. As argued by Ernest, (2000) absolutists are of the view that knowledge is value free and culture free, and independent of humankind. Absolutists argue that mathematics was discovered, not invented. Eight of the participants saw mathematical knowledge as superhuman in the sense that the mathematical knowledge came from God. The interview item was specifically targeted at eliciting whether teachers viewed the origins of mathematics in an absolutist or fallibilist way. The use of the term "gold" may have prompted some of the teachers to point directly to God's creation. However, teachers were generally able to provide reasons to defend their view that mathematics was discovered and the interview item could be considered a reasonable item. One teacher had some difficulty in realising the fine difference between creation and discovery.

The five other participants, however, believed that mathematics was created by people, rejecting the notion of the discovery of some previously created matter. Bhim said, 'maths is created, not by God, but by man. Look at some of the theorems in maths.' Fran added similar beliefs: 'look at the theorem (Pythagoras theorem) created by Pythagoras.' Haris said: 'look at zero. It was made by the Indians.' Mere had this to say: 'mathematics was created by man through their experiences and observations. Man created maths to simplify our world.' Jenny said: 'It was man who made mathematics.' Teachers in this group had explicitly stated that mathematics is not like gold – it was created by man. This meant that teachers gave humankind full credit for creation of knowledge. These teachers saw humankind as capable of creating abstract "theorems" and numbers (zero). Such an argument is in line with the fallibilist beliefs that see mathematics as a product of human civilization.

None of the participants had "mixed" views regarding the origins of mathematical knowledge. The next section sets out teacher beliefs about school mathematics and relates these to their views of the origins

of mathematics. Theorists such as Ernest (1991) would argue that if teachers held strong absolutists views, they would espouse parallel views regarding school mathematics, in which mathematics would be seen as a collection of things to be learned, with the learning of mathematics as simply mastery of facts and procedures. On the contrary, teachers holding fallibilist beliefs would take a child-centred approach toward school mathematics and its teaching and learning. This probable link was explored in the sections to follow, using the proposed theoretical framework.

Beliefs about School Mathematics

In order to explore teachers' beliefs about school mathematics, teachers were asked to respond to the following items during the interview:

> *Think about school mathematics. What comes to your mind when you hear the term mathematics? How would you define the term mathematics? Is mathematics useful (think about school mathematics)? Why?*

The overall aim of these prompts was to see how the teachers would define the subject they teach, and what feelings and emotions would they attach to mathematics as a school subject. Furthermore, a related aim was to understand teachers' perspectives on the usefulness of school mathematics. In other words, teachers reflected on the school mathematics curriculum.

All 13 teachers in this study defined mathematics as a subject involving sub-sections such as numbers and shapes. Examples of such responses include: 'mathematics means numbers' (Gavin); 'mathematics is about numbers, variables and measurement' (Ana); 'it's about numbers and shapes' (Cathy); and 'it is about solving, numbers and calculations' (Jenny). It is interesting to note that secondary school teachers would define mathematics using common mathematical words like numbers and shapes, although in the classroom they are dealing with more complex mathematics such as algebra and calculus. None of the teachers actually used high school mathematical topics such as "probability", "algebra" or "geometry" to describe mathematics in their responses.

All the teachers also talked about simple processes that mathematicians or people studying the subject would use. Examples included calculating, following rules or algorithms, simplifying or solving problems. For example, Dan mentioned that 'it is just calculating, solving and simplifying' and 'some application in upper level.' Ana described it as 'numbers, calculations and measuring.' The teachers used simple mathematical processes such as calculations or simplifying to describe mathematics. None of the teachers used any higher order mathematical processes such as "communicating" or "exploring" in their explanations about mathematics. Although the majority of the teachers gave a limited description of mathematics, comments by three teachers implied they held a utilitarian or humanistic view of school mathematics. Under the utilitarian view, mathematics is usually perceived as a tool for solving everyday problems (Chambers & Timlin, 2013). Haris had this to say: 'It deals with numbers and variables, which we use in our everyday lives and it also forms the basis of all technology we use.' For Fran, mathematics was 'about solving problems related to day-to-day living,' whereas Jenny believed 'it was about solving problems using addition, subtraction, multiplication and division.' When asked to give examples, these teachers resorted to simple applications related to numeracy, such as shopping, giving bus fares or cooking food. In other words, while the teachers were able to provide applications, they did not detail higher-level thinking application examples of mathematics in use. In summary, teachers described content elements of their subject with limited examples of higher-order mathematical content and processes.

In their response to the final question, all the teachers agreed that school mathematics is useful. However, the usefulness was again seen in terms of its simple applications such as giving change while doing shopping. Three teachers did provide some other insights. Mere mentioned that mathematics is useful in future career paths and employment. For Cathy, mathematics is "everything" as without mathematics, 'everything will be in chaos – like architects will not be able to the build the structure if they are unable to do the right calculations.' According to Isha, apart from mathematics being used in everyday activities, mathematics is useful because it keeps 'our minds active.' Two teachers, Gavin and Bhim, while agreeing that mathematics was generally useful, commented that some parts of school mathematics were not useful to some students. They gave examples such as 'lawyers don't need calculus' (Gavin) and 'algebra is part of real life, but we don't usually use it when we go out there' (Bhim).

Comparing the findings of this section to the previous section on the origins of mathematics, no parallel connection was found. Teachers who held different views about the origins of mathematics seemed to define mathematics in the same way. All teachers perceived school mathematics as generally useful. For example, teacher Cathy who held that mathematics was 'made by God', defined mathematics in a narrow manner saying that 'it's about numbers and shapes.' However, Cathy did point out that mathematics was very useful subject, as without it, "everything will be in chaos". Teachers (Bhim, Fran, Haris and Mere) who saw mathematics as a product of human creation also defined school mathematics in simple and narrow terms. But these four teachers also emphasised that mathematics was a tool for solving everyday problems. These teachers generally regarded mathematics as a useful subject. The findings from this analysis point out varying degrees of consistency between the origins of mathematics and what mathematics is. Despite their different views on the origins of mathematics, teachers generally shared similar definitions of school mathematics. All the teachers saw mathematics as a useful subject to learn. Teachers' beliefs about learning and teaching are discussed next.

Beliefs about Learning Mathematics

The main aim of the component of the interview reported here was to explore teachers' beliefs about learning. Although teachers' beliefs about teaching and learning were generally related, the interview sought to explore teachers' beliefs about learning first before touching on their beliefs about teaching. The idea was to explore how teachers learnt mathematics and what methods they found useful. The following questions were posed: *How did you learn mathematics? In your view, what are some of the (best) ways in which students learn mathematics? Is mathematics only for the best and brightest? Defend your view. What is effective mathematics teaching?*

Eight of the thirteen participants reported learning mathematics using traditional (Boz, 2008) or transmission (Nisbet & Warren, 2000) approaches. These participants were Fran, Dan, Ella, Kumar, Ana, Cathy, Jenny and Isha. For this group learning mathematics meant doing a lot of questions related to the examples the teacher had provided. These examples included textbook questions, homework exercises, worksheets and past year examination questions. Responses of individual teachers included: 'I practised past year exam papers and gave it to my teacher for marking' (Cathy); 'first doing the examples, and then following the examples, when doing other problems, try to relate to the examples' (Ana); 'solving as many questions as possible' (Kumar); 'revising daily, cramming at times' (Ella); 'just doing more exercises' (Dan); 'doing short notes and formulas' (Jenny); and 'doing more questions' (Fran). When asked why they thought this type of learning was effective for them, some of the teachers responded that following steps was the best way to learn, and that doing of past year examination questions helped them pass

mathematics. Ella expressed this very clearly when she said, 'doing the examination questions was important because at the end of the day, it's FSLC (referring to the external examination at Year 12), and we had to be familiar.' When asked about best ways of learning mathematics, the participants reiterated what they had already stated. The following conversation is with Ella, who believed that mathematics was made by men (using God's ideas) and whose definition of mathematics included 'daily life calculations':

> *Researcher: How did you learn mathematics?*
>
> *Ella: Revising daily and attempting worksheets.*
>
> *Researcher: Any other methods you found useful?*
>
> *Ella: Doing exercises and cramming at the last minute.*
>
> *Researcher: that's all?*
>
> *Ella: Practising a lot.*
>
> *Researcher: In your view, what is the best way to teach mathematics?*
>
> *Ella: I think the best way… it depends on the teacher, it should be clear … given worksheets and made to practise.*
>
> *Researcher: Yes, similar to how you learned?*
>
> *Ella: Yes… like we are here for exams. In exam forms, we use FSLC questions (referring to external examination at Year 12)… normally we teach a topic and we give all questions (referring to past year examination) as worksheets for homework.*
>
> *Researcher: Why FSLC questions?*
>
> *Ella: Because mostly in the end, it is the FSLC and they need to know what type of questions gonna come.*

This set of seven teachers' views of learning are in line with findings from Ly and Brew (2010) who reported that mathematics teachers in their research study do not reject the traditional views of learning and teaching. Such findings are also in line with assessment studies such as that by Hui and Brown (2010) who found that teachers valued the examination conception of assessment.

Five of the participants showed a mixed view about learning mathematics. Their view included elements of both traditional and non-traditional teaching and learning approaches. This group included: Haris, Mere, Bhim, Isha, and Ledua. These teachers reported they learnt mathematics using the traditional approaches identified above but also used other strategies such as 'understanding the concepts' (Ledua); 'visualizing maths', 'enjoying maths', 'not learning maths only to pass the exams' (Isha); 'not blindly following the rules' (Haris); and, 'using concrete examples' (Mere). The following excerpt from Mere's interview shows how this group of teachers favoured both traditional and contemporary approaches.

> *Researcher: How did you learn mathematics during your school days?*

Mere: I learnt mathematics through doing examples and exercises. Also through studying the concepts and trends.

Researcher: What do you mean by trends?

Mere: By making links with maths which I learnt in past year(s).

Researcher: What methods were useful?

Mere: For me, learning mathematics was doing a lot of similar exercises.

Researcher: What didn't work?

Mere: Textbook terms and methods were complicated at times. This didn't help.

Researcher: Why?

Mere: I preferred terms or concepts that relate to everyday life.

Researcher: What is effective teaching for you?

Mere: Students should be able to apply the knowledge and concepts to their everyday life. Teacher should relate to previous knowledge, simplify the terms in local language, and use everyday examples.

Only one participant, Gavin, reported learning mathematics using practices that could be classified as solely "non-traditional" (Raymond, 1997) or "constructivist" (Nisbet & Warren, 2000). Hands on experiences, interaction, and relating mathematics to daily life are some of the elements of such teaching or learning. For Gavin, who happened to be the most experienced of all the participants, learning mathematics was meaningful because, 'we had hands on activities involving maths, for example, we had to do a buy and sell when learning money, or we had cups of water when learning volume.' Teachers' beliefs about teaching are presented next.

Beliefs about Teaching Mathematics

In order to explore their teaching beliefs, teachers were asked to respond to two teaching and learning scenarios involving numbers and multiplication. The scenario was taken from Ernest (1991, cited in Chambers & Timlin, 2013, p. 7). Although Ernest (1991) had used the scenario to elicit teachers' beliefs about the nature of mathematics, distinguishing between "mathematics as a useful subject" and "mathematics as a subject in its own right," this study utilized Ernest's scenarios to tap into teachers' beliefs about teaching and learning. Teachers were asked to choose which scenario was more important in mathematics teaching and learning:

- View 1 – Understanding that 5 x 23 = (4 x 23) + (1 x 23), or
- View 2 – Understanding that finding the cost of 5 apples at 23 cents each involves calculating 5 x 23, and knowing a way of doing it.

All the participants explicitly expressed that view 2 was more important than view 1. Participants saw view 2 as more relevant for their learners as it represented an application of a mathematical idea in a real-life context. According to Gavin, view 1 was 'quite abstract as it was not dealing with anything real, so if students are introduced to view 2, they can then relate to view 1.' According to Ernest (1989), this would be expected of a teacher like Gavin, who had consistently argued in favour of making mathematics as real as possible for the learners.

Other teachers in the group who had expressed teaching and learning beliefs consistent with the traditional approaches to teaching (Fran, Dan, Ella, Kumar, Ana, Cathy, and Jenny) also agreed that the second view was more important. Their responses supported the use of real-life examples so that slow learners could make a link with what they do every day. Some of the responses included:

> *People find difficulty working with numbers. If it is working with real (eating) stuff like apples, they will get it quickly. (Fran)*

> *Basically, we should have application type teaching so they (students) can relate it to real life situation. (Cathy)*

The same teachers had, however, favoured a transmission style of teaching, both during their days as students and now in their mathematics classrooms as well. For example, for Cathy, effective teaching meant a focus on teaching using examples and exercises, including following the rules or steps, and making use of examination questions. This example clearly points to the inconsistencies in teacher beliefs. Furthermore, it informs us that teacher beliefs are fallible and teachers would usually like the idea of the application of mathematics to support students' understanding, although they may not explicitly state this unless asked in scenarios like this one. However, this view may not easily translate into their classroom practice. Although both the views began with the term "understanding," all the participants saw view two as more relevant in building "understanding" of mathematics in the learners. This finding supports the claim that teacher beliefs are held in clusters (Green, 1971), and these clusters can be isolated from other set of beliefs. It can, therefore, be argued that teachers can hold many beliefs about teaching and learning at one point in time. In this study, the majority of the teachers explicitly argued in favour of transmission teaching, representing their dominant beliefs about teaching. Their peripheral beliefs (Green, 1971) may represent ideas that they do support, but not as strongly as their central beliefs. In this study, only teacher Gavin's beliefs about teaching and learning were consistent. For other teachers, it again seemed that the nature and context of their practice had dominated their beliefs about teaching and learning. It is likely that those teachers who chose view 2 would not fully support the use of such teaching for understanding in their everyday classroom practice, given their strongly held traditional or transmission beliefs about teaching and learning.

Conclusion and Implications

The main aim of this study was to explore teacher beliefs of a small group of secondary mathematics teachers. We presented beliefs in four areas – origins of mathematics, school mathematics, learning, and teaching. Beliefs about the nature of mathematics was explored using a question that was aimed at identifying the origins of mathematics. The majority of the teachers explicitly stated that mathematics was God's creation. Only four teachers said that mathematics was created by people. With respect to teachers' beliefs about the origins of mathematics, the sociocultural theoretical perspective helps in

explaining beliefs about the nature of mathematics. From this perspective, it can be argued that teachers are embedded in a social context and this may influence their beliefs. Eight out of 13 the teachers in this study viewed the creation of mathematical knowledge from a religious point of view. While the sociocultural views help provide some explanation that the teachers' beliefs are closely embedded within "established cultural practices" (Cobb, 2007), the teacher participants' beliefs related to origins of mathematics in this study are religiously inclined. The researchers note that culturally inclined practices are different from religiously oriented ones, although this distinction may be blurry given the close connotations of the two. An interesting point is that the teachers in this study were from different ethnic as well as religious backgrounds. The findings reveal that the eight teachers who attributed the creation of mathematics to God were from two ethnicities and religious backgrounds. Ashton (2015) claims that belief systems could at times rely on entities such as God, especially when discussing issues related to existence or nonexistence of certain conceptual entities. This is one area which needs to be further explored.

When it came to defining school mathematics, all the teachers used specific content and uses to discuss and define mathematics. Some referred to real-life applications in defining mathematics. Teachers' beliefs about the origins of mathematics and their definitions of school mathematics appear not to be directly related, although there was some evidence that for eight teachers, beliefs about absolutist or godly origins showed a relationship with a narrow definition of mathematics.

All teachers (except Gavin) described their personal experiences as dominated by traditional or transmission approaches to learning. All of these teachers furthermore held transmission teaching views of teaching for their own classroom practices. Only five teachers mentioned mixed views regarding learning. While all the teachers generally saw school mathematics as useful, except for some areas of the school curriculum that were not relevant for different careers or everyday life applications, all of them tended to support a teaching scenario that demonstrated greater applicability of mathematics in real-life, rather than just some understanding of the procedural aspects of teaching mathematics.

In terms of relationships between different belief areas, some degree of consistency is noted between Gavin's personal experiences and his views on teaching and learning. Further, a lot more inconsistencies are evident when teachers responded to two teaching and learning scenarios: one focused on understanding a rule; the second on understanding using applications. All teachers favoured the second view – learning by applying mathematics with an understanding.

As might be expected, the teacher views relating to learning and teaching could not be separated. Analysis of interview data revealed that most of the teachers' beliefs about learning are influenced by their own experiences of mathematics. The teachers continued to hold similar beliefs about teaching as well. Teachers' beliefs about effective mathematics teaching seemed clouded by their personal experiences as well as the context in which they did their work. As evident from the interview narratives of the three teachers in the preceding section, the examination-oriented climate and other constraints like large class sizes tend to affect instructional practices more than teachers' beliefs about what mathematics is. The analysis of teacher interviews revealed that there is a strong relationship between teachers' espoused beliefs about learning and teaching. However, this relationship seems not to be shaped by beliefs alone; rather, personal experiences to a greater extent seem to impact on the formation of these beliefs.

Analysis of data also reveal that there is no alignment between teachers' espoused beliefs about the subject and their beliefs about ideas surrounding the teaching and learning of that subject. As evident in

the case of Gavin, who believed that mathematics was made by God, and only discovered by people. Gavin's interview transcript revealed a strong alignment with his personal experiences of learning and his teaching of the subject matter. The same is true for other participants. Gavin's greater number of years of teaching experience could be one of the factors affecting his belief as well. Findings from this study, however, do not strongly suggest this. The findings are contrary to studies like that of Ernest (1988) which claim that teachers' views regarding the nature of mathematics directly influence teachers' beliefs about teaching and learning, including their classroom practice. This could be because in the current study, only one item was used to judge teachers' beliefs about the nature of mathematics.

The findings agree more with Thompson (1992) who argued that teachers' beliefs can have varying degrees of consistency. This is true in Gavin's case, for example. He described mathematics as made by God. He initially defined mathematics as numbers. This definition of mathematics was consistent with a 'God's creation' view. This can be said because of his reference to numbers. Numbers point to the abstractness of mathematics. Then he gave a broader perspective by saying that mathematics was 'everything around us.' His beliefs about teaching involved strong recommendations for student-centred teaching and learning. He believed that almost all mathematics can be demonstrated. He gave examples such as 'buying and selling' and 'using cups for teaching volume'. Thompson's argument of varying degrees of consistencies would mean that teachers' beliefs can indicate some inconsistencies as well. Examples from this study support such claims to some extent. This is reflected in the cases of teachers Bhim, Haris, and Mere. All three had claimed that mathematics was man-made. Only Haris and Mere gave a utilitarian view of school mathematics. All three gave mixed-views on teaching and learning. Findings from this analysis strongly suggest that teachers' beliefs about the nature of mathematics and mathematics teaching are not aligned in a uniform manner. Evidence suggests that practice and experiences influence teacher beliefs; there is no evidence in support of the inverse of this relationship.

The authors conjecture that it is difficult to map out any connections between beliefs using interviews alone. It would be worthwhile to work with a smaller number of teachers in observing their classroom practices to note whether or not the teachers implement their espoused beliefs in their classroom practice. We followed two teachers from our study: *Gavin* and *Jenny* in a series of classroom observations, reported elsewhere.

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School Curriculum Issues and Challenges in Small Island States: The Case of Solomon Islands

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Abstract

This article analyses the issues and challenges faced by the curriculum offered in the Secondary Education system in the Solomon Islands. It focuses on the argument from Pacific islands academics and educationists who claimed that the curriculum offered in small Pacific island countries are irrelevant and non-contextual. The curriculum, it is assumed, does not equip pupils with appropriate skills, values, and attitudes to enable them to contribute effectively to their nation or to the productivity and stability of their communities. This qualitative study, through interviews, has supported the argument by affirming that what was offered in the curriculum of Solomon Islands was un-contextual and irrelevant compared to current needs of the Solomon Islands society. These include the out of date curriculum, the irrelevances of the exam-oriented system, limited human and material resources and passive curriculum pedagogies. The study suggests possible review to the curriculum to include attention to the issues of social, economic, political, physical and environment needs, teachers' welfare, review of the examination system and the promotion of hands on activities for curriculum teaching and learning delivery.

Introduction

Many leaders, commentators, academics and practitioners in small island developing states have expressed disappointment to the curriculum offered in Pacific island countries, claiming they are contextually irrelevant (Thaman, 2009; Sanga, 2009). The content and pedagogical approaches were found to be culturally irrelevant and non-contextual (ibid). Education, according to literature, is the art of empowering children for the future (Gilbert 2005). It is a process that children undertake to change their behaviours in order to change their world for the betterment of their life in the future (Ross 2006). However, the goals of education and the curriculum system that are expected to connect students to their real-life situation has not done so. The expectation of education to empower children and develop them in preparation for their future has appeared otherwise in the Solomon Islands.

The expectation of learning, as earlier conceptualised, is to put a child in complete possession of all their powers. The power to determine their own future and to empower them with knowledge, skills, and values that can sustain their own livelihood. However, that has not emerged for small Pacific island developing nations. The complexity of the education and curriculum process, which involves the interaction of teachers and significant others, was found to be challenging. Particularly, the systematic interactive teaching and learning process between teachers and other stakeholders as parents, referring to it as culturally and contextually inconsistent, hence causing education to be seen as a complex process in Pacific island countries. Education, which is the process that is expected to make students change their behaviours in preparation to change their own world for the betterment of their own life, has not done so for Pacific Island people. The education and curriculum, as seen from the education experts, have to

change along with the changes and needs found in societies. This is significant to heed, so that it responds appropriately to the increasing understanding of education processes and the curriculum (Ross, 2006).

The school curriculum of Solomon Islands is centrally managed, and its design is intended to convey knowledge of academic subjects like Mathematics, English, Science, and Social Studies. Other subjects that are also included but are taught optionally are Business Studies, Agriculture, Industrial Arts, Home Economics, and New Testament Studies. At the time of political independence, the purpose of the curriculum was initially to provide staff for the public service which self-governance, and later, independence required. A second purpose was the provision of a workforce with appropriate skills to take on the new development paradigms created by the newly created state (Coxon & Tolley, 2005). The goals of the curriculum at that time were purposely to prepare students for formal employment. This goal is still retained and continues to dominate much of the national education and curriculum system and policies today. The curriculum is employment driven, and highly academic and exam orientated. All students who go through the education system have been selected through a process of periodic assessment at various stages through the sitting of national examinations. Consequently, only a few able students can manage to get to the final stages of formal school. Such a system overtly displaces a huge proportion of school "dropouts". In a country where more than 80% of the people are still living in rural areas, the system is extremely concerning, especially when the intention of students is to obtain formal employment. The effects of that has resulted in lawlessness found common among youths in the Solomon Islands.

The other concern is the current population growth rate of 2.7% for the Solomon Islands, among the highest in the Pacific (Pollard, 2005). The challenge this brings is that the educational facilities and resources cannot keep up with the population pressure (Dorovolomo, 2005). In addition, the overly academic-centric curriculum, which is geared towards the requirements of formal employment, had caused problems such as urban drift of "dropouts". People move to the city (Honiara) to find formal employment for which they are mostly unqualified and uncompetitive, and consequently, most end up hanging around town. Unfortunately, those who end up back in the villages do not have the skills and confidence to help themselves or to contribute meaningfully to their communities (Ministry of Education Human Research Development, 2005).

Realistically, the curriculum of the Solomon Islands does not seem to provide pupils with appropriate skills, values, and attitudes to enable them to contribute effectively to the nation or to the productivity and stability of their communities as required. It only gives rise to false hopes in pupils. Clearly, what is needed is for students to be exposed to knowledge that simulates meaningful learning and provides them with appropriate skills and values so that they do not emerge deconceptualised or handicapped when they leave schools.

This article provides a critical description of the curriculum offered in the Solomon Islands in alignment with the needs of the society. It seeks to describe the connection of what people of the Solomon Islands considers valuable with what is currently offered at the formal and informal learning context. Such connection is assumed to be imperative as that it would put the child in complete possession of their powers so that they become active and productive citizens who can help themselves.

Theoretical Orientation of Curriculum

A curriculum is a "selection from our cultures and the values of our cultures are central to understanding and participating in it" (Gilbert & Hoepper, 2004. p. 93). It is "everything that goes on in the school, planned, sustained and regular learning, which is taken seriously, which has distinct and structured content, and which proceeds via some kind of stage of learning," (Winch and Gingell 1999. p.52). It is a document that contains planned activities for implementation of the educational aims. The planned "activities are designed to implement a particular educational aim or set of aims of what is to be taught, and the knowledge, skills and attitudes which are to be deliberately fostered," (ibid).

The goals of curriculum are many but are purposefully arranged to transfer the stock of knowledge, whether academically or behaviourally, to the next generation. It is a text, usually a document, which "outlines the aims, goals and objectives of the school, presents a summary of the subject areas to be covered and the content of the teaching, and points out ways in which teachers and pupils can work with the various subjects and themes to be covered," (OECD, 1991. p. 43). It is also recognised as a framework and constitutes guidelines or direction for school actions (ibid).

The curriculum can be seen in three ways:

> "First, as it is now (the determined curriculum). Second, as it ought to be to meet the contemporary social needs as generally defined (the adaptive curriculum). Third, as it ought to be to bring about some desired changes in the existing social structure (the determining curriculum)." (Winch and Gingell, 1999, p.1)

Considering the above conceptualisation, converse arguments see curriculum not as a uniform trend towards a comprehensive guideline, but rather as a document for advancing state priorities according to the frameworks that are believed important to meet the economic and social goals of each particular country (OECD, 1991).

In terms of planning the curriculum, Lawton (cited in Kelly, 1989) points out that the selection of objectives has to be related to the nature of the child, the nature of the society in which he/she lives and the nature of the knowledge itself, and thus effectively, it advertently makes decisions about the content prior to those concerning purpose. The content of the model has to acknowledge the set of values which will direct the choices and underpin the planning, and these need not only to be stated clearly but also justified (Kelly, 1989, p.28). The issue of content then must remain central to the curriculum even if it must not be permitted to dominate it. The primary issue is often about what knowledge must be included in the curriculum (ibid). Conversely, Kelly (1989), looks beyond a consideration of content alone and recognises that questions or reasons for decisions are logically made prior to those about the substance or what knowledge, skills, and values are deemed necessary to be promoted. He advocates that curriculum planning begins with a statement about the purpose that is hoped to be attained or the principles upon which the practice is to be based. He argues for decisions about the content of the curriculum to be subsidiary to that prior choice. Ralph Tyler, cited in Kelly (1989), argues that such decisions will answer the question, "what educational experience can be provided that is likely to attain those purposes?" (Kelly 1989, p. 26). This question requires planning of curriculum to focus on the experience and real-life situations that needs to be addressed.

The debates about curriculum have shown that the model, framework, approach and domain developed and used by any one country is likely to differ from the purpose, aims and objectives of curriculum planning and development of another. Therefore, it is important to understand curriculum, not as a static entity, but as a document that is dynamic and able to change according to changes in content of education and in teaching and learning processes following the needs of the social environment and government decree (OECD, 1991). Some debates for curriculum change have focused on social differences. Demaine (2004), for example, argues that any curriculum construction should first consider the factors that marginalise groups and individuals from the society, and other forms of differences. However, such arguments indicate a very narrow conceptualisation. There needs to be teaching that provides the understanding to see clearly the impacts of these differences if not addressed properly. Moreover, if curriculum is to effectively deliver, the approach, domains, and models that provide effective learning to students need careful scrutiny.

Some argue that curriculum is the foundation of any education system. Therefore, to meet the demands of the society, any change to the education system must be based on a corresponding modification to the curriculum (Adeyemi, et. al 2003, p. 2). Without curriculum change, modifications to the structure of the system make no sense and have little point. However, if educational change is to keep pace with and match changes in society, and at the same time maintain the standards and values in a particular society, it must be deliberately managed rather than merely left to change (ibid). Further, the knowledge source and curriculum construction is important in planning and constructing the curriculum, therefore, it has to be properly managed. In contrast, if the development of the curriculum is just a matter of general listing of details of information content to be taught, or just about the order and method or, the teaching for facts then this is inadequate (Gilbert & Vick, 2004). Three important reasons are provided. First, "knowing how to use the knowledge and knowing how to test and justify knowledge claims," (ibid p.81). Second, "knowledge changes and what is seen to be important changes and different perspectives give different priorities to knowledge," (ibid). This is reaffirmed by Gilbert who stated that there is no one way of specifying what must be taught as a detailed list of information. Third "…identifying content is always a process of construction and interpretation that must constantly be scrutinized and reflected upon. Such arguments hold that curriculum content cannot be determined once and for all" (ibid).

Curriculum Debate from Pacific Islanders

The contributions by Pacific Islanders to the debates concerning curriculum have highlighted contradictions to western beliefs. Lawton describes curriculum as the "selection of the best of culture" (Manu, 2009, p.49). In this debate, Manu describes Pacific curricula as being explicitly geared towards university study and not so much on the best of culture which reflects the interest of Pacific societies. Further, Pacific islands' academics and educationists claim that the formal education system is alien and foreign to Pacific islanders (Thaman, 2009; Sanga 2004; Taufe'ulungaki 2009). Thaman, (2001) defines education as an "introduction to worthwhile learning" (p.1). What she referred to as worthwhile in this regard is the culture of Pacific peoples. Culture, in her definition, is a way of life of a group of people which includes their store of important knowledge, skills, and values. For Thaman "education and culture are interwoven" (Thaman, 2001, p.1). In an epistemological and ontological debate, Sanga (2004) argued that peoples of the Pacific have their own world that they influence and control. He explains reality as subjective to the context of people, which includes the social, cultural, and spiritual world. Sanga (2004) assumes knowledge as relativist and inseparable from the context and the social realities of Pacific people.

In another debate, Taufe'ulungaki (2009) states that curriculum is the heart of any education system but that has not translated in Pacific island countries. She argues that the policies of the curriculum that should direct the country's initiative for its formal education system are missing. She advocates that curriculum policies should include values, knowledge, and skills that each country wishes to transmit to its future generations. Taufe'ulungaki (2009) further states that:

> *The policies identify the goals, key principles and priorities of the system. Moreover, curriculum policies emphasize the content areas, levels, delivery mechanisms and expected outcomes. As well, the policies determine the frameworks through which curriculum is processed, delivered and measured. The values underpinning official policy documents, where these exist in the Pacific region, are more often than not covert, rather than explicitly stated (p.127).*

Such an omission is felt to be a flaw in Pacific Education systems. The curriculum reviews or changes must ensure that the ways of life of indigenous peoples of the Pacific Islands are considered seriously (Taufe'ulungaki, 2009). According to Sanga, (2009), curriculum as a process, demands different pedagogical approaches to actually transmit and draw out knowledge, skills and values that are contextually and culturally appropriate. In his explanation of an indigenous knowledge system, he draws out insights about curriculum that focuses on indigenous ways of life and its pedagogies to actually achieve outcomes that are beneficial to people in society. This is an indication that any curriculum, designed and developed for Pacific island countries can work well only if it considers pedagogies that are appropriate to the context.

The Study

This study investigates the extent to which the Solomon Islands curriculum is adequately preparing students for life after school. The study draws upon the qualitative research paradigm to seek and obtain answers to the research question. The rationale for using such an approach includes the following: samples are smaller and manageable, and analyses are informed by narrative descriptions and interpretations (Conrad & Serlin, 2006, p. 407). Although, time consuming, it is not complicated for analysis, not demanding for research resources and easier to complete (Creswell, 1994). Additionally, it involves conversations between the researcher and the researched, whereby rich data is believed to be forthcoming for the study.

Denzin and Lincoln summarised the definition of qualitative research as "a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible," (2008, p.4). Furthermore "qualitative research is rooted in phenomenology," (Ary et al 2006). Such phenomena could be issues that affect people in their everyday life. In this theoretical view, the substance, the social reality is unique; the individual and the world are viewed as interconnected and cannot be separated or function without each other (ibid). Ary, et. al. (2006) further explain that the researcher can only understand human behaviour through the meanings of events that people are involved in. The constructivist researcher does not only consider people but considers how people think and feel and the experiences that have happened to them (ibid). These practices, as Denzin and Lincoln (2008) point out, have transformed the world from the positivist position. Constructivism has turned the positivist world into representations such as field notes, interviews, conversations, recordings and memos.

There are different merits to qualitative research, which this study considered as vital. First, it examines a phenomenon in rich detail and not as a comparison of relationship as in quantitative approaches (Ary, et. al., 2006). Second, the design of qualitative research evolves during the study and not prior to the study. Third, the study is approached inductively, to generate the theory and not deductively whereby tests are done to generate a theory. Fourth, the tools used require face to face interaction without standardised instruments. Finally, samples are small and manageable, and analyses are informed by narrative descriptions and interpretations.

This research was conducted with four case study schools in order to obtain data. The use of multiple case studies can be more compelling and more robust with the ability for direct replications (Yin 2003 p.47). Yin (2003) further points out that conclusions can independently arise from two cases as two experiments are particularly powerful. In addition, the contexts of three cases are likely to differ to some extent. In the case of this study, this aspect was significant as the particular piece of research was intended to obtain differing perspectives according to the geographical locations of the case study sites and the varying opinions from different cultural views. This study used purposeful sampling to select the sites and study participants. The significance in purposeful sampling lies in selecting information rich cases to have an in-depth study (Patton, 1987). The information rich cases are information about the Solomon Islands curriculum and its development and practices.

In this study, the researcher selected samples from case studies drawn from secondary schools who are offering secondary education in the Solomon Islands. The secondary schools hold the status of national secondary schools, provincial secondary schools and community high schools. Several characteristics have attracted this study selection which notably helps the researcher to generate a specific concept within the theory (Creswell, 2008). The geographical variations of schools include urban schools and rural schools. Generally, secondary schools in the Solomon Islands are located in both rural and urban areas and are either day schools or boarding schools. Such institutional arrangements, as suggested by Bouma, (1997) must be taken into consideration when selecting the best sites, people or groups to study. For example, if a typical rural school is selected, it will be generalised to represent the whole of rural schools in the country. The four case study schools in this study include two which are boarding schools and two which are day schools. One of the boarding schools is located in Honiara, the capital city of the Solomon Islands, and the other is in a rural setting in Malaita Province. Similarly, the selection of case study sites was also done with day secondary schools. One is located in the rural setting on Malaita Province and the other in Honiara in Guadalcanal Province. The schools were assumed to satisfy the criteria for obtaining rich information of central importance to the study. It is assumed that rural and urban populations in boarding and day schools will greatly inform the study. The richness of the perspective is based on varying influences that students have in both urban and rural schools.

Interviews were used to collect data from the cases with one-on-one interviews and group discussions. The interview method is not an easy option, because it involves a conversation between two people, however, the vital aspect for it is the way it obtains information about a topic or subject. Further, while other instruments focus on the surface of the elements of what is happening, interviews have the potential to give the researcher more insights into the meaning and significance of what is happening (Wilkinson and Birmingham, 2003). Interview is, however, a useful tool in qualitative research. It is a method of collecting data employed both by quantitative and qualitative methodologies. In qualitative interviews the importance is in the depth, detail, and richness expected to be gained from the conversations. Geertz, 1973, calls this "thick description" (p.312). The process requires the researcher to

pay attention to the important information that the study wants to gain from the interview (Gillham, 2000).

Findings and Discussion

The themes that follow provide a description of the findings. This includes challenges or issues that were associated with the ineffectiveness of the teaching of curriculum knowledge, values, and skills in the Solomon Islands' secondary education curriculum. The focus is on what causes the challenges, and also the importance of adequately covering the relevant knowledge and values that are necessary for Solomon Islands. The findings of the study also provide claims that portray the curriculum as outlasting its usefulness, the practicing teachers' attitudes toward work, the domination of the examination system in education, the overloaded nature of the curriculum, the limited teaching resources available, and the curriculum pedagogies currently used, and finally, and future directions.

Irrelevant and Outdated Curriculum

Concerning the current curriculum of the Solomon Islands, participants found it be irrelevant to today's situations. The information was perceived to be out of date compared to the social, political, economic, and environmental changes that are occurring in the current Solomon Islands society. According to the study, the topics, themes, and the content in the curriculum were either out of date or irrelevant. This was evident from the period in which most subjects of the curriculum were developed, particularly in the late 1980s for Forms One to Three, and the mid-1990s for Forms Four and Five. For example, a review of the Social Studies curriculum found that the knowledge and values taught were influenced by the situations and challenges of a much earlier period (Ministry of Education Human Resources Development Solomon Islands Social Studies Syllabus Form 15, 1988). The perspective that education is to provide manpower to fill the gaps left by colonial masters is now over. There is no such formal employment for current generations and therefore, curriculum should not target white collar jobs.

In today's Solomon Islands, the curriculum has little relevance with current situations. This can be confirmed from the study respondent who made references to the social study curriculum:

> *'I think if we consider our social environment, the currently used Social Studies curriculum has outlived its usefulness. Considering what is happening in society, some of the topics and teaching content no longer relate to current social realities. Worse still, there is no proper teaching of relevant values that are needed.' (UBST 3)*

The above statement contradicts the curriculum which was conceptualised as selection from culture of society and the values of the culture (Gilbert & Hoepper, 2004). Apparently, in education, what is transferred as knowledge, values, and skills is fundamental to learning. However, effective teaching and learning in the Solomon Islands does not evidently occur because the curriculum and teachers who teach on values have not done so, as asserted in the following contribution:

> *'Education stakeholders are blaming each other for not doing enough to solve behavioural problems commonly found in schools. Some say it should be addressed by the government through dictating rights policies. Nowadays, the government is throwing it back to schools and assuming that the schools will solve the problems (UBST2).'*

Stakeholders blamed each other without considering the effects caused by the irrelevant and outdated curriculum, as was obvious from what was demonstrated by those who left formal education. There is a rise of social challenges among youths who left school. They do not possess an attitude of care towards each other, the state or the environment. That has affected the peaceful co-existence and harmonious living of citizens. Teacher participants of the study claimed that teaching of the curriculum was dominated by things from outside and therefore provide suggestions for teachers to be aware of the issues of their immediate societies with societal values and how students can solve the issues. As pointed out:

> *'We are so engrossed with the pedagogy and engrossed in the content in the syllabus, without looking at the effects of the current issues and devising strategies to solve the problems.' (RDST, 1)*

Such sentiments provided information that would allow for reconsideration of contents in the curriculum from each subject that is taught in secondary school.

Teachers

The second barrier comes from teachers themselves. In order for curriculum knowledge and values to be covered, the teachers should do their part in teaching important values and also performing the role of parents. Much of the concern about curriculum delivery was focussed on the argument that school students were no longer in a village setting whereby grandparents and parents can be responsible for child rearing. The environment has changed, and parents rely very much on schools, and in particular the teachers to teach, care for, and nurture the students. Such expectation has not been addressed in schools by serving teachers. Significantly, teachers are living curriculum who have important values that need to be displayed for students to follow. In other words, teachers replace parents because of the number of days they spend with students. As expressed by one teacher, 'the everyday life of students, for the 280 days they are in school, they are outside of their parents' control' (RBTS 1). Respondents strongly argued that the role of a teacher is to ensure that topics are adequately covered. However, teachers often fail to move beyond normal teaching strategies whereby they can further advance their teaching to cover values that change students' behaviours.

Conversely, teachers in the study acknowledged that the good values that which students display have been developed and acquired from home. The curriculum which should have relevant values from its stock of knowledge were not there for teachers to teach. In contrast, teachers were often blamed for their unprofessional attitude inside and outside of school. As expressed by a responding teacher: 'You sometimes cannot distinguish a teacher from a "masta liu" (unemployed youth on the streets),' (RBST 2). This is devastating to the ideal of developing students to be role models. What participants saw was that teachers should be role models. They are not restricted only to teaching knowledge from the curriculum but should set a standard that students can follow. However, teachers on the other hand lamented that they have very limited time to teach all the topics in the curriculum. In other words, there is no time to teach important values besides those that have already been included in the curriculum. A respondent teacher claimed, "If we assign extra time for additional themes or values in teaching, it will disrupt teachers' timetables,' (RDST 1).

According to the study, there are lots of complaints from the Solomon Islands public about student behavior at schools nowadays, and people have blamed teachers for not doing enough to develop and improve students' behaviours. A teacher, in response to the blame made this statement:

'I am sad to say that although we teachers have done our best, it is the system and the situation that has failed the students, with the implication being that many students in the Solomon Islands believe that academic subjects and knowledge are central to education.' (UDST3)

Examination System and the Curriculum

The third challenge for the secondary school curriculum is the examination system. Examination in the Solomon Islands involves a system of selective periodic advancement, involving both internal and external assessment of selected students. It is a dominant factor in "developing countries" like the Solomon Islands where the education system is based on the periodic examination. This study found it to be a distorting factor that hinders the teaching of good values from the syllabus. Further, the teaching of moral values, while seeming important, is deliberately ignored by teachers who choose to teach the content required for examination only. According to Gilbert & Vick (2004), this phenomenon is a great failure because if the development of the curriculum is just a matter of general listing of details of informative content to be taught, or just about the order and method or, the teaching for facts then, this is inadequate. This study found it to be a huge problem, because of the kind of misbehaviour commonly found in schools certainly indicates a need to teach the quality of knowledge and values to improve life and behaviours of students. In many ways, the examination system undermines the acquisition of useful knowledge and values that are necessary for life after school.

The study also found that the examination system was seen as a catalyst to the teaching appropriate values. For instance, the curriculum may seem attractive and appropriate, however, the examination system determines the knowledge and values that can be transmitted to students. A teacher pointed out that:

'the outcome of what has been taught in classrooms was reaped because of examination,' (RBST 2).

The study further discovered that there is no proper teaching of good values, although some are included in the curriculum. Those such as the study of family, community, relationship and care in the social studies curriculum. For example, in the teaching of social studies, the inclusion of historical wars and conflict only focuses on the content, and not inflicting a kind of knowledge that shows a devastating end. Teaching of topics on issues and events should show both sides. As illustrated by a rural teacher:

'Teaching about retaliation as commonly found from historical wars can influence students to do likewise.' (RDST 3)

If there is any change to the examination system, a new monitoring and assessment system has to be put in place. There needs to be a system that would assess students' moral values and behaviour in schools and should take similar weight as academic assessment. The assessment of student behaviours, as found from the study, would encourage teachers to adequately cover values that are important for good citizenship. Students also need to know how different cultures and ethnicities came to live together. As claimed by an urban boarding school teacher:

'How can we live together and how can we respect each other's culture and differences when we see ourselves differently.' (UBST 2)

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The study reveals significant blame of the constraints of the examination system for the failure of the education system to effectively teach values that positively influence behavior.

Overloaded Curriculum

A further issue revealed was the overloaded state of the curriculum. There is almost no room for additional important values to be added to the topics currently dominating the subject. Taking social studies as an example, the current social studies curriculum is a combination of many disciplines, including history, sociology, geography, anthropology, social sciences, and citizenship, and it appears that the subject is already overloaded. According to respondents a teacher argued:

> *'We cannot adequately cover themes and appropriate values in the Social Studies curriculum because there are too many other teaching topics and themes.' (RDST 1)*

The study also found that the teaching of values was present, but was less evident in terms of expected outcomes as stated in the syllabus. The problem was found that teaching about the environment, family relationships and community awareness is there, but the knowledge was for different purposes and not to develop students to become good citizens. For instance, students learn about good values such as relationship, respect, care, and responsibility through topics such as family community and nations, however, this is simply to complete the syllabus in preparation for final examination in order to progress to that next level.

An important point was raised by a teacher who asserted that he taught the concepts, but he is unable to fully utilise the teaching methods to achieve the aims of the topic because of the very limited time with too many things to cover. He further stated:

> *'What I have in mind for given topics is stirred by different objectives. My deliberate goal is for students to understand the concepts for examination purposes and not so much on what will become of students in their future. …we pick only topics that we consider appropriate from among the many topics given.' (UBST 4)*

The study acknowledges that teaching useful knowledge is achievable, but considering the time constraints, and the quantity of knowledge that has to be covered, it was unrealistic for students, given their priority need to prepare for external assessment. Furthermore, teaching about social realities was an important aspect, however, relating the problems encountered in the society by those to whom the curriculum was taught was another hurdle. How to teach about social realities when the government doesn't recognise its value is the challenge. According to a rural teacher' from teachers' discussion:

> *'There has been no indication and reflection from students that teaching relevant values and the knowledge underpinning a good citizen have been covered. All we know was that good values demonstrated by students are learned from home. If some good values are demonstrated at school or outside the school, it is not from what they learn at school. It is from what is learned from home and the knowledge and values received from the teaching of culture and Christian religion. The values are covered but not as*

adequately as what the aims and goals of the syllabus expect. Much of the teaching is done on content only for what is expected to be assessed.' (RDST 2)

Curriculum Resources

Another daunting challenge is that of school resources, as indicated by the following response:

'Here in rural schools, we only have one copy of the student textbook and one copy of a teacher's guide book. All of the time is spent writing notes on the blackboard for students to copy.' (RDST 3)

In such situations, teachers cannot do much but focus on content required for internal assessment. The other challenge was shortage of human resources. The issue here was that teachers from different subject areas teach other subjects which are not of their specialty because of lack of specialist teachers. This was one major hindrance to teaching relevant values from the curriculum. From the findings, the study shows that curriculum values were adequately covered. However, a teacher from a different discipline or even an untrained teacher may not do much for the students because they are incapable of delivering appropriate teaching approaches that influence students' understanding and behaviours.

The lack of resources is a major problem in Solomon Islands. Schools do not have resources to cater for effective teaching and learning. Worse still, the examination system which is the predominant driver for the assessment and evaluation of student's work, has extended the gap of teaching values. There ought to be a system put in place that assesses students' values and behaviour in schools and gives a similar weighting to academic assessment. This would then encourage teachers to adequately cover values that are important for good citizenship.

Curriculum Pedagogy

Pedagogy in the curriculum refers to the methods of teaching and learning in formal and informal contexts. In the curriculum, it is fundamental for the effective dissemination of knowledge, skills and values. The technique which one applies in curriculum teaching to achieve the goals and objectives is fundamental for effective learning. There are two related dimensions as noted by Print (2008): conceptualisation and the classification pedagogical activities. These are the passive learning and the active learning strategy. However, the active learning is mostly favoured as it requires students to construct answers for themselves rather than the teacher bombarding them with information.

The study noted that the proper coverage of curriculum values is required and has to be approached in a practical way. Firstly, teaching and learning has to be done concretely. It must be transferred concretely through dramatisation, field works, student excursions and more emphasis on demonstration. The teaching of real-life situations is fundamental to effective teaching and learning because what students see and experience is reality to them. The study noted that teaching by demonstration is a useful method for Solomon Islands as it was how people were trained to acquire important knowledge and skills. The study also found that when conventional education approaches were used, this affects students learning. A respondent of the study asserted:

'If we try to promote useful curriculum concepts and values, we have to involve concrete approaches… it should be promoted through the media and public

campaigns. In schools it should be transmitted in class through demonstration, dramatisation, fieldwork projects, excursions and guest speakers.' (UBST 1)

It was also claimed by a participant that that students taking note in class, which is the dominant approach in the Solomon Islands, is detrimental to students learning and that is the reason why students are passive in class. The learning is presently more teacher centered rather than student centered.

Recommendation and Conclusion

To conclude, the responsibility of the school is more than just teaching for the memorisation of facts. Rather, there is an obligation for ensuring that students are embedded with values that can support and empower them when they exit into the world beyond. While learning is not a one-dimensional process, much of what is practiced in Pacific islands education is a one way process. The education systems are only committed to content in the curriculum. Whether or not the content is irrelevant does not matter to people, as what is deemed important is the knowledge to get into universities and later have a job. It involves the transfer of knowledge through content and various mediums of instruction. Although, realistically, people know that there are not sufficient numbers of jobs to be had, the assumption that education is for white collar jobs still exists in the minds of people.

Further, students learn from actions seen in classrooms and the school environment, from what their teachers and others do. The teachers or school leaders' attitudes can be very influential to school students. The behaviours and attitudes displayed by teachers have significant bearing on students' behaviours. Teachers often believe in this, saying 'do what I say but not what I do'. This study found that current curriculum values do not provide appropriate qualities to enhance good and active citizens. Based on this study, the current teaching content is now inadequate to meet the challenges and social changes found in the Solomon Islands society today. To compare values of a good citizen with the current behaviours, it is apparent that actions demonstrated by people have no relevance to the knowledge taught in the current curriculum. According to this study, the teaching about human and physical environment, healthy people and communities has in fact resulted in the opposite occurring. The study noted that there are family, community, tribal and ethnic divisions among people, a lack of cooperation and tolerance towards one another, and a lack of respect to people, the environment, and state institutions.

It was also found that the important values and knowledge that should influence students to be good and active citizens were not included in the curriculum. Much of what is learnt in the curriculum are pure theories and content, while learning is only for the memorising facts for examination purposes. Even if curriculum values, knowledge and skills are included, the effective learning and understanding of concepts to change children's behaviour may never be achieved because of the irrelevance and non-contextual goals and purpose of the current school curriculum. Much of the content of the curriculum is for examination purposes and for students to know how to read, write and count using numbers. The concern over the weakening content, goals, and purpose of the curriculum is worrying.

Improvement of the curriculum would occur only if the following are addressed: Firstly, a review of the curriculum to include contents that relate to current political, social, economic, and environmental needs. The literature from Pacific islands academics has asserted that much of the knowledge of the Pacific island curriculum content is irrelevant and un-contextual. The second recommendation is a review to the examination system. There are strong arguments for a change or review to the examination system to

cater for a system that would also consider and accommodate the monitoring of behaviours at school. Furthermore, the assessment should also cover behaviours of students. Importantly, parents should also be involved in the assessment process so that they keep track of students' progress academically and behaviourally. A third recommended change is to cover teaching pedagogies. Currently, in the Solomon Islands, the most commonly used approach is teacher–centred; in most of the secondary school curriculum subjects, the teacher talks and writes notes on the blackboard while students listen and copy the notes in their exercise books. The students are only passive recipients of important knowledge and skills from the curriculum. The curriculum must emphasise active learning pedagogies so that students become active citizens.

The fourth recommendation is for a review to the national curriculum policy to accommodate new teaching and learning content, themes, and topics that are relevant and contextual to the Solomon Islands. The review of the curriculum must include knowledge and values that reflect the social, political, economic, cultural, and religious and environmental concerns of the society. This includes values that caters for national identity and pride, respect for environment, ethnic, religious and cultural tolerances and healthy living. The inclusion of these in the curriculum would develop students to be good and active citizens.

Finally, students are accustomed to the traditional teaching and learning method and it has become part of their everyday teaching and learning strategy. Obviously, teachers are victims of the adopted system and therefore may not do much to make any change. It is also seen as unnecessary to them because it does not help students in their examinations. They are comfortable with the status quo because it is not time consuming; It helps students in their national examination by having large amounts of facts to study in preparation for examination, and it is cheap for schools and the government to manage. In this case, Solomon Islands, will always remain as it was until such time as national development can cater for the change to the curriculum system before expected changes to behaviors can emerge.

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Beliefs about Learning, Teaching and Knowledge: The Case of Solomon Islands Primary Teachers

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Abstract

This article reports a study of primary teachers' beliefs about learning, teaching and knowledge. The cultural compatibility theory was used as the theoretical framework. A semi-structured interview based on the principles of dialogism was used to gather data from a group of 38 Solomon Islands primary teachers participating voluntarily in the study. The findings illustrate a mixture of conceptions based on an amalgamation of western and indigenous beliefs about learning, teaching and knowledge, with an emphasis on learning-centred and subjectivist perspectives of knowledge. Interestingly, there is evidence that views are changing, and that hybrid beliefs of learning, teaching and knowledge are also emerging. Information communications technology appears to be a driving force behind this hybrid epistemology. The implications of these findings are important to all with a vested interest in improving educational practices, especially in relation to teachers' professional knowledge and skills, in the interests of facilitating more effective learning and teaching in different cultural contexts.

Key words: Solomon Islands, beliefs, learning teaching, knowledge, culture

Introduction

What teachers think and believe about the nature of knowledge, teaching and learning plays a crucial part in the way they conduct their day to day professional work. Many educationists insist that better understanding of teachers' notions about these areas is an essential foundation for improving the quality of the educational experience schools provide for their pupils (Beswick, 2006; Boz, 2008; Burton, 1992; Ernest, 2004; Schraw & Olafson, 2015; Speer, 2005; Thompson, 1992). Another area to receive considerable attention in recent years is teachers' beliefs in teaching, learning and assessment (Barnes, Fives & Dacey, 2015; Vandeyer & Killen, 2007). Teachers' ideas about these elements – learning, teaching, knowledge and assessment – underlie the educational endeavour and can be influenced not only by the background, education and training of the teachers but also by other factors as wide-ranging as the social environment and ecology of the school and its community, as well as teachers' and students' own cultures. Teachers' understanding of children's home background culture and their ways of knowing and learning are important in providing a strong foundation upon which the best and most appropriate teaching decisions can be made, thereby supporting children's success in school work. In particular, teaching can then be well aligned to children's cultural ways of learning and knowing, with the specific intention of developing their understanding and helping increase their learning outcomes (Taufe'ulungaki, 2014; Thaman, 2014; Thaman, 1995). Conversely, teachers' lack of understanding of children's ways of knowing and learning, especially in multicultural settings, can adversely affect children's performance in school work. In recent decades, the forces of modernisation and globalisation – which include western epistemologies, especially through formal education – have brought about myriad changes in people's

cultures and traditions. These will certainly persist and gather momentum as we move further into the 21st century (Burnett & Lingam, 2013; Thaman, 2014; Thaman, 1995; Tuinamuana, 2007). Probably the most pervasive force is information communications technology, which has reached into and begun revolutionising most of the world's traditional societies, not excluding the indigenous populations of the small island states of the Pacific (Blurton, 1999). Not only has this changed communication within and beyond the societies in significant ways, but it appears also to be a driving force towards changing indigenous epistemologies, that is, views of culture, learning, teaching and knowledge. This has a decided impact not only on learning and teaching processes but also on the professional preparation of teachers for their specialised work. For children's success in formal education, teachers' beliefs on learning, teaching and knowing must be recognised as being of utmost importance (Taufe'ulungaki, 2014; Thaman, 2014; Thaman, 1995).

In light of the significance of teachers' beliefs of learning, teaching and knowledge, the exploration of these in all contexts, and especially in developing contexts such as those in small island states of the Pacific, is more than justified. This study, which is part of a larger study, explores Solomon Islands primary teachers' beliefs of learning, teaching and knowledge. Several definitions of the term beliefs abound in the literature. For the purpose of this study, Philipp's (2007: 259) definition is adopted: "lenses that affect one's view of some aspect of the world". The term is important for teachers because it guides them in carrying out their daily professional work (Fives & Gill, 2015). For example, Fives, Lacatena & Gerard (2015: 249) aptly state that:

> "…beliefs about teaching and learning may be at the forefront of teachers' work and
> as such serve as filters, frames, and guides for teacher practice including: engagement
> in professional learning experiences, instructional planning, and classroom
> interactions."

Based on the above explanation, the term beliefs have been used because it aligns well with the nature of the present study.

Theoretical Framework

This study is based on cultural compatibility theory. Culture is defined as "a shared way of living of a group of people, which includes their accumulated knowledge and understandings, [beliefs], skills and values, and which is perceived by them to be unique and meaningful" (Thaman, 2003: 3). The core ideas of the theory emphasise cultural perspective and consideration, that is, "the basis of education[al practices] is best built on the experiences, values, and knowledge of the students and their families, both personal and community-based" (Demmert & Towner, 2003: 7). In other words, if learning, teaching, and knowledge are to be meaningfully improved, they must be aligned to the cultural context. On the basis of a socio-cultural perspective, learning is seen as participation rather than as a purely cognitive activity, and our understandings of what counts as evidence of learning must also change (Klenowski, 2002; Willis & Cowie, 2014). Instead of trying to see 'inside' a student's head to find out what that student is thinking, teachers should try to understand what it is that students do and do not do with opportunities and resources available to them (Willis & Cowie, 2014). In this regard, teachers must use the socio-cultural lens to help themselves better understand what the student is doing. Teachers need to value the social and cultural capital children bring to school and they are supposed to "harness such capital" and in turn make teaching and learning more meaningful to the children (Wyatt-Smith, Klenowski & Colbert, 2014: 4).

The cultural compatibility theory is a useful guide in this study because it emphasises cultural perspective based on the evidence that culture influences and also acts as a critical mediator and moderator of beliefs about learning, teaching and knowledge. Therefore, differences in societal culture can lead to different belief systems about learning, teaching and knowledge as these aspects are embedded in respective cultures. It is imperative to expand an understanding of beliefs about educational practices such as learning, teaching and knowledge to a more global perspective, knowing what they mean in a given cultural context and the role of culture in the discourse.

Leads from the Literature

The limited but growing stock of literature available suggests marked differences in styles of learning when comparisons are made between Pacific and western cultures and contexts (Nabobo, 2001; Nabobo-Baba, 2006; Thaman, 2014; Thaman, 1995). These studies indicate that students in the Pacific are more likely to be adept at learning by doing, seeing, collaborating and experiencing in a concrete environment. As early as the 1970s, Thomas's (1975) research findings illustrated that students in the Pacific do well in learning when they work in groups rather than individually. This is also consistent with the findings of a recent study on ways of knowing that Lingam and his colleagues (2013) conducted with pre-service indigenous Fijian teachers, who claim that they do well in group work. Their culture and tradition could easily be a reason for this, as most activities are carried out communally in indigenous Pacific societies. Reporting on the situation in Tonga, Thaman (1995) for example, points out that traditional Tongan education was, and to some extent still is informal, provided within the household and the wider community through myths, legends, dance, poetry, proverbs and rituals, as opposed to book and school learning. The emphasis for these learners is on the 'here and now' as opposed to 'there and then' or the abstract approach which underpins education in the Western context. It is furthermore group-oriented rather than individual-oriented. In the Fijian context, similar ways of learning have been identified in indigenous Fijian culture (Nabobo-Baba, 2006). She states that Fijian indigenous epistemology involves belonging, relationships, connections between the three worlds of earth–heaven–afterlife; cooperation, and; boundaries (hierarchy within the clan). She adds that while critical reflection is the key to indigenous ways of knowing (e.g., analysing clan ceremonies through planning for provisions), it is not culturally appropriate to critique something that does "not belong to them" (Nabobo-Baba, 2006: 130). She also describes Fijian ways of knowing as involving silence and respect for elders, which has an impact on beliefs about learning. Truth is absolute and 'divine' and, therefore elders and teachers are to be revered and not questioned. Religious and community leadership and authority are crucial influences on how teaching and learning are perceived. In the same vein, Phan (2010) argues that alongside such absolutist ways of knowing exists a communal and social approach to knowledge and knowing such as is evident in discussion during group work.

In a review of conceptions of teaching and learning, Boulton-Lewis (2004) found that there is usually a strong relationship between conceptions of learning and teaching, and the approaches that lecturers and students adopt. For instance, a teacher with a quantitative conception of learning is more likely to adopt a transmissive approach to teaching whilst a teacher with qualitative conceptions will want to facilitate understanding. In western epistemology, conceptions of learning and teaching have been shown to be influenced by ways of knowing, sometimes referred to as personal epistemology (Chan & Elliott, 2004). Personal epistemological beliefs are those that individuals hold about the nature of knowing and knowledge (Hofer & Pintrich, 1997). According to Kuhn and Weinstock (2002), individuals first hold

absolutist beliefs about knowing, meaning that knowledge is viewed as 'right or wrong'; it does not change and does not need to be examined because the 'right' information is transmitted from a source to the individual. Next, those individuals with multiplist epistemological beliefs consider knowledge to be based on personal opinions because they view it simply as absolute and transferable. From this perspective, they believe knowledge can be constructed but that it is not necessary to base it on evidence. Knowledge for a person with such beliefs is considered to be personal, intuitive and unexamined. Finally, individuals with evaluativistic beliefs acknowledge that knowledge is personally constructed. However, an evaluativist weighs up evidence to construct meaningful understanding. For a person with this perspective, knowledge is evolving, tentative and evidence-based. This individual approach to epistemology stands in contrast to the collective, communal epistemology of the Pacific people. The area of personal epistemology research has also demonstrated that core beliefs about knowing and knowledge influence learning. Brownlee (2001) found that student teachers with evaluativistic beliefs were more likely to use effective approaches to learning that were focused on meaning-making. Relationships also exist between personal epistemology and teachers' beliefs about children's learning.

The foregoing discussion could offer an explanation as to why students in the Pacific are more likely to receive information from teachers passively, rather than questioning authorities or experts. In the same vein, teachers may perceive that their responsibility is to spoon-feed the students with information and facts without taking a critical stance in using a teaching approach and its long-term negative impact on students' learning. This may be indicative of teacher preparation programmes that encourage and support traditional notions of teaching and learning such as of passing knowledge to learners through transmissive modes.

In developing contexts, higher education institutions responsible for teacher education need to use instructional strategies that will better prepare prospective teachers who can later empower their learners in the classroom. A well-prepared teaching workforce with positive conceptions of learning, teaching and knowledge together with suitable competencies and dispositions would surely continue further enrichment not only of their own professional learning experiences but also of children's learning experiences. As noted previously, insofar as the quality of teachers in developing contexts, such as in the small island states of the Pacific, is often judged as being low, this could be a result of the way they have been prepared, which goes back to approaches to teaching developed and emphasised in initial teacher education programmes. Also, the cultural input may be a factor towards the low quality of teachers. In this regard, Bacchus's (2008: 142) dictum – though unlikely to be palatable to the more conservative – is indeed worthy of consideration:

> *"…the instructional methodologies used and the content of the education offered are both crucial since they can assist in fostering creativity, stimulating the imagination of the students, encouraging them to challenge orthodoxy by treating as problematic what is usually taken as 'given'."*

Without using suitable pedagogies, teachers are unlikely to improve the capability of learners in any context. What Bacchus (2008: 144) went on to suggest applies equally to teacher education and training in higher education institutions:

> *"Teachers will need to view their task primarily as one of developing the various abilities or multiple intelligences of all their students and making the educational*

experiences they provide, challenging and enjoyable both for their pupils and for themselves. They should continuously strive to convert their schools into real learning communities. Finally, they should also be equipped to inquire regularly and systematically into their own practice as teachers in an effort constantly to improve their levels of professional competence." [emphasis added]

There are potential benefits for developing contexts if classroom teachers are able to facilitate better learning; this depends on the epistemological development offered by professional preparation that encourages them to inquire, think out of the box and participate creatively themselves in their learning process.

Since the Pacific people's view of the world is that people are an integral part of the environment, as opposed to being the masters of it, this presents a conflict between the ways of knowing evident in the students' culture and in the formal work in schools. To enhance the learning in traditional societies, Nabobo-Baba (2006) and Thaman (1995) argue that we need to analyse indigenous ways of knowing that underlie learning in traditional societies, to achieve a synthesis of the best of Pacific and western cultures for the sake of learners. Even though the difference between modern schooling and Pacific cultures is great, it is not inherently nor inevitably an unbridgeable gap. Thaman proposed that the main bridge must be fostered through the preparation of teachers, especially with the inclusion of critical reflection in their education and training.

Purpose and Context of the Study

With such theoretical considerations in mind, the purpose of this investigation was to make a preliminary inquiry into teachers' beliefs about learning, teaching and knowledge. As such, it was considered appropriate to concentrate the exploration on one particular area with the central research question as: *How can the beliefs about learning, teaching and knowledge of practising primary teachers from the Solomon Islands be described?*

Solomon Islands is a small developing nation in the South Pacific, located between 5 and 12 degrees south latitude and 155 and 170 degrees east longitude, adjacent to Papua New Guinea and about 1,860 kilometres north-east of Australia (Stanley, 1993). The 922 islands are scattered across a vast area of ocean (about 1.34 million square kilometres) with a total land area of 28,369 square kilometres.

It has a remarkable diversity of cultures and traditions. The total population is about 500,000 (Moore, 2004) most of whom live in rural areas (ESCAP, 2004); and the rapid population growth calls for the establishment of more schools and a greater supply of teachers to cater for the increase in enrolment (Maebuta & Phan, 2011). Almost one-third of the teachers at the primary school level are untrained. At the time of the study, some provinces had plans in place for the training of untrained teachers. Despite the scatter of the islands, the efforts of government and various religious denominations have established schools in even the most distant settlements to enable children easy access to education. Apart from teachers, no other public servants are found serving in such remote and isolated communities.

Overall, Solomon Islands is not a rich country in economic terms, depending on overseas aid for most of its educational development projects for instance, and this poses considerable difficulties in providing funds to support improvements in various spheres of education. Prodded by global education priorities to recognise the importance of training and upgrading teacher qualifications, the Ministry of Education

and Human Resource Development (MoEHRD) has sought to obtain funding assistance from development partners such as NZAID (Sanga & Houma, 2004).

Significance of the Study

In the contemporary ethos, education systems in most contexts, including the Pacific region, are faced with dramatic changes in education. Yet, research and local empirical literature on various aspects of education, including teachers' work practices, curriculum, leadership, and assessment issues, is limited in the small island states of the Pacific (Sanga, 2012). In particular, there is so far a paucity of locally generated studies focusing on the area of teachers' epistemologies with an emphasis on teachers' beliefs about learning, teaching, and knowledge. Consequently, informing or influencing policy and practice in certain areas of education is difficult. In light of the dearth of empirical research literature in the area of teachers' epistemological beliefs, this preliminary study is designed to add valuable information to the small existing body of literature relating to broad epistemological trends in education in the Pacific region and beyond. Also, the findings of the study may help provide an alternative understanding on beliefs about learning, teaching and knowledge based on cultural perspectives rather than continuing to rely on ideologies, assumptions, beliefs and value systems which are foreign.

Additionally, the findings from such a study could help various stakeholders, for example, the education ministry and providers of teacher education, toward a critical re-examination of their position on teacher quality and educational practices at the classroom level. For the teacher education institution, the findings could be used to strengthen as well as improve future education and training of teachers, as well as feeding useful information for the benefit of teacher education providers about adjusting and at the same time strengthening their programmes. Potentially, also, the findings could help teacher education providers to revisit their programmes in order to incorporate significant indigenous views and also to change views about learning, teaching and knowledge.

Furthermore, despite its smallness of scale, this study has, potentially, both local and international imperatives as there is immense pressure on education systems for well-prepared teachers in the provision of high-quality education. It is envisaged that what comes to light may act as a springboard for other *insider* scholars to undertake further research within and beyond Solomon Islands relating to teachers' epistemological beliefs.

Methodology

Participants

For the purpose of this preliminary study, the researchers considered it methodologically sound to target a specific group of participants, and in this case, those were teachers who were enrolled in a University of the South Pacific leadership course. This course was offered during the summer flexi-school in January 2014, which was the seventh in a series of courses in the Diploma in Educational Leadership programme for the cohort, providing an ideal participant base for the study. The 38 teachers were experienced professionals with an average teaching experience of 20 years. Most of them were in the age range of 45 to 50 years. In terms of gender, there were seven females and the rest were males who took part in the study. All the participants had completed an initial two-year Teachers' Certificate from Solomon Islands College of Higher Education (SICHE) in the 1990s. These teachers had entered the teacher training programme when the entry qualification was, by contemporary standards, quite low – Form 3 (Grade 9)

or Form 4 (Grade 10). These teachers provided a convenience sample, which nevertheless provided participants from a variety of different schools and provinces from across Solomon Islands.

Instrument

Based on the preliminary and 'sounding out' nature of the study, to conduct interviews with a small sample of Solomon Islands teachers was seen as the most suitable means of gathering data. For phenomenographic interviews, Sandberg (2000) has asserted that after 20 or so interviews, the number of conceptions reaches saturation; Douglas "estimated that in-depth interviews with twenty-five people were necessary before it reached the saturation point" (1985 cited in Maykut & Morehouse, 1994, p. 63); and Lincoln and Guba (1985) suggested that a carefully selected sample of 12 would be sufficient for phenomenographic interviews. Guided by these suggestions, the sample of 38 teachers for this preliminary study was felt to be more than sufficient to gauge at least the outlines of teachers' epistemologies.

The interview questions were guided by the theoretical framework presented for the study. Each interview lasted for about 30 minutes. The open-ended questions for the semi-structured interviews were used following the principles of dialogism (Linell, 1998; Markova, 2003). The questions were:

1. How do you think children learn? Can you think of a time when you noticed a child had really learned something? Tell me about the best ways of learning for you? Is this how people generally learn in your culture?
2. What is good teaching? How does a good teacher want the students to learn? How can you help your students to achieve good learning outcomes?
3. What is knowledge? Why does that represent knowledge?
4. How do these beliefs influence your teaching?

Lingam and his colleagues, who had employed some of these interview questions in a similar study (2013) conducted in Fiji to determine primary teachers' conceptions of learning, teaching and knowledge, had found them a useful 'way in' to their respondents' ideas because they were not excessively condescending, intimidating or threatening.

Ethics

In accord with the research ethics protocols, permission was sought from the MoEHRD to conduct the study. Teachers who participated in the study were assured that the data collected were only for the purpose of research and their confidentiality was fully safeguarded (Bogdan & Bilken, 2007). They could withdraw from the study if they so wished and could refuse to respond to any question with which they felt uneasy, and their consent to have the interview recorded was solicited.

Analysis Technique

The recorded interviews were transcribed and analysed inductively using a thematic approach to explore teachers' perceptions of culture, learning, teaching, and knowledge. The study employed the idea of a within-case thematic analysis (Miles & Huberman, 1994). In addition, peer debriefing, in particular, dialogic reliability checking, was employed to ensure credibility of the data analysis by randomly selecting the interviews for detailed cross-checking. Dialogic reliability checking took place as the researchers checked through the codes for each of the interviews, and then discussed any disagreements that existed

(Akerlind, 2005). Some of the themes which emerged from the analysis of the data are cultural and personal learning, children's learning, and beliefs about knowledge. Furthermore, in reporting the findings, relevant quotations from the interview are presented as they give the most vibrant illustration of the teachers' perceptions of learning, teaching and knowledge. In deciding to do this, the researchers were adopting Ruddock's (1993: 19) assurance that "some statements carry a rich density of meaning in a few words". Each transcribed interview was assigned a number and this is reflected beside the extracts used.

Findings

In this section, the findings of the study are presented using each of the major categories of the interview questions to include: cultural and personal learning, children's learning, teaching, and beliefs about knowledge.

How Children Learn

Asked about how children learn, teachers' most frequent responses were mainly, 'by doing things such as learning by touching and observing'. Some of the typical comments are:

> *'Children learn easily when they are able to do things for themselves by touching things, looking at things and doing things the way we do things . . . using their hands and their movement.'* (Interview # 5)

> *'Children learn by what they see, what they touch and what they hear . . . they learn by concrete materials.'* (Interview # 13)

> *'They learn by observing their parents, friends and teachers. They learn by reading and watching TV. They learn by playing with the computer, but they learn especially well by doing things.'* (Interview # 31)

How do you identify that children have learned something?

Teachers provided a variety of responses about how they discern that children have learned something, such as seeing that they become interested in what you teach, you can see in the expression on their faces, they become quick to respond, and their behaviour changes. For example, some of their typical comments are:

> *'. . . the bell goes and they say oh teacher we still need to do some more . . . they seem not to care about time.'* (Interview # 16)

> *'By looking at the way they behave, that's one, and quick to acquire what I am teaching.'* (Interview # 24)

> *'They are able to relate and explain and that's how I know that they get something; and they contribute a lot so that's how I assume the student has learnt something.'* (Interview # 21)

'The child gets very talkative in class and the child finishes his/her work fast while the rest of the students are still writing.' *(Interview #20)*

Personal Learning

The teachers offered a range of responses about their own personal ways of learning. In descending order of frequency, they mentioned cooperative learning approaches, discussions, asking questions, doing things, and independent learning such as by reading.

'I really learn a lot from group work . . . appreciate group work.' *(Interview # 18)*

'Working in groups works well for me. Others will help me to learn.' *(Interview # 21)*

'The best way of learning for me is by doing things myself rather than listening because I have to do what I need to learn then I can remember and know how to do it.' *(Interview # 28)*

'The best way of learning for me is by interacting with people, through research and through extensive reading and also access to other information and also through training [sessions].' *(Interview # 30)*

'I learn better by asking questions . . . I always ask so that I can learn, share ideas.' *(Interview # 34)*

Cultural Learning

Within their own cultural context for learning, the majority of the teachers emphasised cooperative learning methods. Another feature noted was the practicality of the teaching and learning, the effectiveness of the 'learning by doing' or 'hands on' approach:

'In my culture it is more communal kind of organisation where it is very important for the people to support each other in terms of learning.' *(Interview # 26)*

'In my culture most things are learnt practically.' *(Interview # 29)*

'Group work is good and that is our cultural way of learning.' *(Interview # 31)*

'My people learn better through group work . . . this is common in local cultures.' *(Interview # 18)*

Good Teaching

Comments on what constitutes good teaching were mixed, some of them suggesting that the quality of the teaching lies in the approaches used to teach and others seeing it in the achievement of objectives. For example, some of their typical comments are:

'. . . when you get the objectives achieved.' *(Interview # 2)*

'The teaching approach is simple and easy to understand.' *(Interview # 5)*

'The quality of teaching . . . how the teacher presents the lessons.' *(Interview # 7)*

'. . . able to produce a good pass rate.' *(Interview # 14)*

'Good teaching to me is to be well prepared, honest, kind and to be loyal to children and also to the community and to parents as well.' *(Interview # 22)*

'Child centred learning and not spoon feeding them.' *(Interview # 30)*

'When children learn the most and also we teachers give what is best for the children.' *(Interview # 33)*

'Teaching that guides students to acquire knowledge themselves.' *(Interview # 2)*

How does a good teacher want children to learn?

A majority of the teachers' feedback focused on learning not only from the teacher but from other sources. What follows are some of their typical comments:

'We need to introduce a lot of new learning techniques. Let's not only concentrate on formal learning but in other ways too.' *(Interview # 37)*

'Finding out for themselves . . . I think that is the best way to learn.' *(Interview # 35)*

'I want them not only to learn from the teacher but also from other people too. . . back at home they can learn from their parents, teachers in Sunday school, or from church elders.' *(Interview # 30)*

How to Improve Children's Learning Outcomes

The following were some reasons teachers gave as to how they can achieve good learning outcomes, listed in descending order of frequency: change the method of teaching, such as use group work, provide additional support, make children participate actively in lessons, encourage them; better planning of lessons, and; more resources. Some of the comments relating to improving children's learning outcomes include:

'I will separate the slow ones, I need to have more time with them and give them extra work to do.' *(Interview # 2)*

'I put them into groups – slow learners, average, and fast learners – and give activities according to their abilities.' *(Interview # 4).*

'Group work rather than teacher talk and students listen and take notes . . . divide them into groups according to their learning ability.' *(Interview # 13)*

Beliefs about Knowledge

The majority of the teachers held the opinion that knowledge is all that people know and is something that they have in their brains. Their understanding of it is very common-sense, not so much abstract as almost objectified. These are some of their comments:

> *'Knowledge is what we know.' (Interview # 6)*

> *'What is in the mind or all that is in the brain.' (Interview # 32)*

> *'Getting to know something and understand it.' (Interview # 16)*

Why does that represent knowledge?

To explain why that represents knowledge, a majority of the teachers indicated a utilitarian understanding, that it (i. e. 'stuff in the mind or brain') is something useful for them. For example:

> *'Because it is something one needs to have in order to help in future.' (Interview # 26)*

> *'It is what should be used to improve one's life or to sustain life.' (Interview # 30)*

> *'It is stored in mind to help in the future for some benefit.' (Interview # 37)*

How do beliefs about learning, teaching and knowledge influence your teaching?

In responding to this question, a majority of the teachers considered that their cultural ways of learning influence the way they teach. Importantly, though, they stated that modern ways affect and influence their teaching too: they are not unaware of change, and perhaps neither of its inevitability. Some of the comments reflecting these observations include:

> *'Culture influences my teaching . . . we use group work and working together as in our homes.' (Interview # 12)*

> *'Group work as an effective approach for learning is a good way for learning as practised in my culture.' (Interview # 27)*

> *'I now see influences especially in modern days where technology has affected everything including teaching.' (Interview # 37)*

Table 1: Summary of Responses

INTERVIEW QUESTION	RESPONSES FROM TEACHERS (most to least frequent)
Learning i) How do you think children learn? ii) Can you think of a time when you noticed a child had really learned something? iii) Tell me about the best ways of learning for you. iv) Is this how people generally learn in your culture?	Group work, social interactions, doing things, practical work, discussion, observing, surrounding environment, imitation Change in behaviour, active in class, answer correctly, facial expression, excited, able to do it, able to explain, show lot of interest, confident. Group participation, practical activities, self-learning, observation, listening and reading research. Culture and communal where people learn and support each other through group work. Some people work independently.
Teaching i) What is good teaching? ii) How does a good teacher want the students to learn? iii) How can you help your students to achieve good learning outcomes?	 Children learn, acquire information, concrete and hands on activities, student centred, children understanding, have the heart to teach, clear explanation Self-discovery learning, group discussion, use style of teaching that will produce learning. Use practical approaches, assist slow ones, prepare relevant materials to suit their ability.
Knowledge i) What is knowledge? ii) Why does that represent knowledge?	Mental ability, acquiring information and skills, information that produces good outcomes, information in the brain. Improves people's lives, progress in life, helps sustain life.
Beliefs i) How do these beliefs influence your teaching?	Make children learn in groups, work together.

Discussion

This study begins investigating Solomon Islands primary school teachers' beliefs about learning, teaching and knowledge. With respect to culture and personal learning, the feedback from the teachers demonstrates that learning in groups is preferred over learning individually. This is to be expected as most of these teachers are over forty years of age and were brought up in a more traditional way. The society at that point in time was closely connected to the traditional culture. The culture was more intact, and

learning was mostly through direct transmission. This is consistent with the views expressed by Nabobo-Baba (2006b) who claims that such learning styles were the norm in traditional epistemologies. This is the case not only in the Solomon Islands context but also in other societies such as in Fiji as reported by Lingam and his colleagues (2013). Apart from culture influencing learning style, there is also evidence of other sources children use to learn and teachers are encouraging them to use these sources. Since these teachers are teaching at the primary school level, it is important for them to connect learning to children's cultural background, that is, their early experiences, in order to facilitate learning (Demmert & Towner, 2003; Willis & Cowie, 2014; Wyatt-Smith et al., 2014). Thus, culturally inclusive learning and teaching styles employed by teachers can better facilitate learning. Teachers need to value indigenous epistemologies in order for them to strengthen and support this epistemological bridge between western and indigenous epistemologies.

The majority of the teachers' descriptions of teaching fell under the constructivist approach and some under the transmissive approach. Those holding to the constructivist paradigm favoured child-centred learning and teaching approaches. This is what is encouraged in western epistemology and is described as learner-centred (O'Sullivan, 2004). But this study found many teachers who focused on a transmissive perspective, which is described as learning-centred with an emphasis on directed and active approaches such as collaborative learning (O'Sullivan, 2004). In indigenous epistemologies, such as those found in Solomon Islands, collaborative learning is regarded as a culturally-connected perspective of learning and teaching (Hahambu, Brownlee & Petriwskyj, 2012). A few who held mixed conceptions about teaching were also identified, seeming to represent a hybrid epistemology that combines western and traditional epistemologies (Lingam et al., 2013).

Additionally, teachers mentioned the influence of technology in learning and teaching. This can encourage and promote independent learning for both children and teachers, provided they know how to use ICT effectively. With the passage of time, the increased intensity of globalisation is likely to lead to further advances in the use of ICT as a common tool for learning and teaching, even in remote schools. This calls for teachers to take the lead in their efforts to keep abreast with the latest in ICT. One of the ways to achieve this is to include ICT in teacher preparation programmes. This would then help teachers become more confident with e-technology, for using it in their teaching. Also, they could encourage children to explore for themselves what e-technology can offer in the way of appealing learning experiences.

The majority of the teachers described knowledge in terms of absolutist or subjectivist perspectives (Kuhn & Weinstock, 2002). Absolutists regard knowledge as given and those with a subjectivist perspective think of knowledge in terms of information and skills. In this study, a majority of the teachers held the subjectivist perspective of knowledge. Also, there was some evidence of evaluativistic epistemology. Teachers would be giving opportunities to the children themselves to construct their own understanding of something. It is interesting to note that in this study there was greater emphasis on knowledge as it relates to survival. This is to be expected in Pacific epistemology. As Phan (2010: 420) pointed out, in the Pacific there is "a compelling need to develop and to master skills for preservation and life-long survival". This is consistent with the views of Thaman (2014; 1995) who refers to this as cultural survival.

Furthermore, as regards knowledge, one cultural knowledge can be regarded as another cultures' beliefs. Generally speaking, the tendency of the western world asserts its own knowledge and disregard the knowledge generated by in other cultural contexts. The western world seems to be correct and superior in most cases, so it imposes or seeks to impose its beliefs and concepts at the expense of those of other

cultures and contexts. Other cultures and contexts tend to rely on learning, teaching and knowledge based on western epistemologies, and these do not appear to yield better outcomes for locals. In the case of teacher practice, teacher beliefs about learning, teaching and knowledge derived from people's respective cultures would do more good in terms of increasing student learning outcomes rather than relying on the classroom practices advocated and promoted by Anglo-American, English-speaking and western perspectives.

There is therefore an urgent need to question theories and assumptions of the western world and their relevance to the Pacific context, and in this case, the Solomon Islands context. In the words of a Pacific educator, Professor Konai Helu-Thaman, "...look towards the source – our cultures – for some answers to impact the effectiveness of [our] education system" (Thaman, 1992: 98). She stresses that making teachers' value cultural knowledge and skills and incorporating cultural literacy in teacher education programmes would help them to be better armed in carrying out their professional work. However, viewing teaching, learning and knowledge the way industrialised nations view them may not really help Pacific teachers in their professional work and in turn children may struggle in their school work. Perhaps more importantly, effectively weaving appropriate aspects of indigenous cultures into teacher education programmes, in order for it to become an integral part of learning and teaching, would be a positive way forward. Thus, teacher education programmes should be well grounded and nourished in thought and knowledge of cultures of the people (Teaero, 2003). As far back as the 1990s, Stephen Harris (1991) made a similar comment in relation to the Abroriginal children. This is because the essence of teachers' work and in particular, learning and teaching is guided by the beliefs teachers hold which may emanate from their respective cultures. Therefore, what it means to learn and teach in Solomon Islands is different from a developed context such as Australia or New Zealand.

On the basis of the findings of the study, it is important that cultural compatibility theory is given due attention in all teacher education programmes. This will help improve teacher professional practices and in turn increase student learning outcomes. Questions about teaching and learning in a particular context deserve critical attention in teacher education programmes. Knowing about the cultural influences on learning and teaching would help educational practitioners to better facilitate children's learning.

Conclusion and Implications

This study explored Solomon Islands primary teachers' ideas about learning, teaching and knowledge. It is worth noting, that the findings disclosed and presented here are not dissimilar to those of studies carried out in other Melanesian contexts such as Papua New Guinea (Hahambu et al., 2012) and Fiji (Lingam et al., 2013). Since teacher education and training is one of the most critical areas in education, it deserves considerable attention, especially in terms of having teachers hold positive and constructive beliefs about learning, teaching and knowledge. It is self-evident that the beliefs a teacher holds with respect to learning, teaching and knowledge do considerably affect their classroom practices, since the relationship between the teachers' beliefs and the way they are likely to approach their day to day classroom work is strong. Because their beliefs will determine how they are going to relate to what takes place in the classroom, it is important that the beliefs they hold about learning, teaching and knowledge are constructive ones that will influence them to carry out learning and teaching in a more meaningful way. Cultivating constructive beliefs in teacher education programmes would allow teachers to have a better understanding of themselves, their professional work and those they serve. In this regard, incorporation of cultural literacy, especially consideration for contextual and cultural aspects underlying

specific educational practices, would be a positive way forward. It goes without saying that teachers might consciously take into account the cultural beliefs they hold about learning, teaching and knowledge in carrying out their professional work. Although there is strong evidence of cultural influence on learning and teaching, there is ample evidence also to suggest the changing views of teachers on culture, learning, teaching and knowledge. The breakneck speed of ICT in a rapidly globalising world is a contributing factor towards such changing views.

Given the importance and influence of teachers' beliefs about learning, teaching and knowledge, and the implications for their teaching practice, it is essential that further research in this area be conducted within other small island states which will contribute to the further development of needed literature that can serve as a basis for making informed decisions about addressing dissonances in teacher education programmes. The inclusion of a component on ICT to help teachers cope well with learning and teaching in 21st century classrooms is an obvious example. Also, future inquiry could explore the correlation between teachers' beliefs on learning, teaching and knowledge on one hand and student achievement on the other. In addition, follow-up study could investigate teachers' classroom practices and the beliefs they hold. Embarking on such studies would yield useful information about the potential, or lack of thereof, for transforming existing educational practices such as teacher practices.

There were some limitations to this study to acknowledge**.** The sample was small, although it was representative of the Solomon Islands school teachers' community. Despite this being a small-scale study based solely on qualitative research design, comparable small island developing states in the Pacific region and beyond may find this study of Solomon Islands teachers' beliefs about learning, teaching and knowledge useful and relevant. Since this is an exploratory study, much work remains to be done, especially to understand teachers' classrooms practices in relation to the beliefs they hold of learning, teaching and knowledge.

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Teaching Literacy in Fiji Classrooms: Curriculum Innovation at Levuka Public Primary School

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Abstract

Literacy is the ability to read, write, think critically and make wise decisions. Although education is free in Fiji, more than 50% of primary schools in Fiji scored below average in the Literacy Assessment in 2013. This article explores the main literacy problems in Levuka Public Primary School and highlights the school approach implemented to address the literacy issues. Using the qualitative approach, data was collected through *Talanoa* (an indigenous Fijians' culturally acceptable way of collecting information through oral communication) and lesson observation. This article discovers that the main literacy problems are speech sounds (phonology), spelling (orthography) and the lack of relevant reading materials. Students who cannot sound letters are not able to pronounce, spell and read. To address these issues, a school based approach was taken by first teaching students in infant classes' vernacular phonics before bridging this skill to English phonics. Then, in situations where students still find difficulties in understanding English vocabulary, teachers code switch to vernacular and English to explain. Finally, fundraising was held by the school for the purchase of relevant reading materials to broaden students' vocabulary and improve their literacy skills. All in all, this approach can be replicated in schools that have similar problems. If this is done, the literacy skills of children in Fiji will be improved and so their academic performance and critical thinking skills.

Introduction

Literacy refers to the ability to read for understanding, write comprehensibly and think analytically about the written word. It is a process of acquiring meaning from an analytical understanding of written or printed text. To be able to do this, one has to be able to recognise symbols and interpret sounds in letters which make up words that convey a meaning. If a child is not able to do this, achieving literacy will be a challenge.

This study was designed as an effort to better understand the language learning needs of School of Education students at the University of the South Pacific (USP). Some students who are admitted to the Bachelor of Education (Primary) program score below 60% in English in their Form Seven Examination. As such, their English language competency affects their modelling of the use of the English language and teaching pedagogy. Therefore, students' English language competency and academic performance are affected. One of the issues addressed in education courses at USP is the importance of language in the transmission of knowledge, and in particular the community language, which is the first language used by the learner to socialise in his or her community. Born out of a personal interest in this area of student learning, the researcher carried out a small-scale study in a primary school on Ovalau to find out more about the main literacy problems faced by students and the ways in which teachers try to address these problems. It is worth noting that the researchers' personal teaching philosophy emphasises the

significance of vernacular education and code switching to enable students to understand difficult western concepts.

The study found that the main literacy problems experienced by students are phonology (speech sounds) and orthography (spelling patterns). To address these problems, the school implemented a school-based curriculum initiative where vernacular phonics are taught in the early years (classes 1 and 2) and where teachers code switch to explain new concepts and concepts that students have difficulty in understanding. This chapter discusses the literacy problems prevalent in this school and highlights ways by which whole school approaches are used to address these problems, and also how teacher training institutions, especially the University of the South Pacific, can better prepare its teacher trainees. In addressing the students' literacy skills, it is hoped that the students will perform well academically as well as be better prepared for teacher training. These approaches maybe replicated in other schools in Fiji and the region to ensure that students who apply to the School of Education are well equipped with language skills that will enable them to do well academically, and consequently become effective teachers.

Background of School

The school where this research was conducted is situated in Levuka, on Ovalau an island located east of Viti Levu, the first capital of Fiji and a semi urban centre comprising of a multicultural population. The total student roll of the school is 345 students and there are 12 teachers, 9 of whom are iTaukei (indigenous), 2 Indo-Fijians and 1 Chinese. The average class size at this school is 28 and the school is financed by Government grants and students' school fees. The school is managed by a committee consisting of parents of students.

The school has a school-based literacy curriculum that includes the DEAR (Drop Everything and Read) Program, the teaching of vernacular phonics in infant classes and the use of code switching to assist in the explanation of difficult concepts. This program has assisted in improving literacy levels of students.

The Purpose of the Study

The study is premised on the idea that to improve literacy, vernacular skills should be taught in the first five years of a child's life. It is argued that children who have developed vernacular skills before reaching formal schooling years will better acquire a second language (Taufe'ulungaki, 2009). In Fiji's context, the second language is English, which is the official language and language of instruction in schools. In order for the child to be able to learn effectively and perform well academically, acquiring English as a second language is crucial.

Key Questions

1. What are the main literacy problems in the school?
2. How did the teachers, school and committee address the literacy problems?
3. How has the school-based program assisted the students?

This work is significant since the answers to the recurring problems in literacy will be valuable in the review of the appropriate education courses at the University of the South Pacific. It will also deepen our understanding of literacy issues and enable reflections on how best we may address them. This reflection

will assist both school curriculum developers as well as policy makers at the national level in designing and implementing appropriate policies and programs to improve literacy levels in Fiji.

Literature Review

Literacy

Literacy is a complex and dynamic concept defined in multiple ways. Inglis and Aers (2008) define it as the ability to read and write, White and McCloskey (2003) gave a more functional definition of literacy as the ability to use printed and written information to function in society. The National Literacy Trust of the United Kingdom (2017), shares the same sentiment by defining it as the ability to read, write, speak, and listen well, understand written information and communicate effectively with others. UNESCO (2004) also shares a functional definition of literacy stating it to be involved in a continuum of learning that enables a person to achieve their goals in developing their knowledge and potential so that they can participate effectively in their society. Bailey (2004) describes literacy as an action, a discourse, being knowledgeable about social conventions and being able to use basic literacy skills to study and understand situations, plan, reflect, develop, critique and negotiate meaning and as a tool in developing an individual's social and cognitive skills. The Education for All Global Monitoring Report on Understandings of Literacy (UNESCO 2006) explained literacy in four ways: literacy as an autonomous set of skills; literacy as applied, practiced and situated; literacy as a learning process, and; literacy as text. Blake and Hanley (1995) define it as the ability to read and write to an appropriate level of proficiency. But this begs the questions: what is the appropriate level of proficiency, and how is the appropriate level of proficiency measured?

The Fiji National Curriculum Framework (Ministry of Education 2013) defines literacy as having a reasonable level of language ability to be productive members of society. Again, this raises a number of questions: What is the reasonable level of language ability? How is this reasonable level of language ability measured? Is it passing the Year 8 or Year 10 or Year 12 or Year 13 English Exam? Or is it passing the Literacy and Numeracy Assessment (LANA)? If there is no universal standard of literacy as claimed by Lawton and Gordon (1996), then are the literacy assessments valid? The challenges of identifying a universal definition for literacy is one factor that contributes to the difficulty in assessing literacy and explaining the issues surrounding it.

This study defines literacy as having the ability to read and write comprehensibly and to think analytically about the written text. This definition focuses on the ability to make meaning out of written texts and to use information acquired appropriately, hence providing a more functional definition. To have this ability, as stated earlier, one must possess basic language learning skills which have been acquired from learning one's mother tongue.

Literacy Problems

Fiji's adult literacy rate is 94% (CIA World Factbook, 2015). Though this figure is high, there remain issues related to learning. Fiji is not alone in this as many developed countries are also facing the same problem. One of the common causes of illiteracy is parental lack of involvement in their children's literacy learning (Oludipe, 2009; Nayak, 2014; Cree et.al, 2012). Children whose parents are involved in their learning tend to achieve well in literacy and vice versa. Another cause of illiteracy is parents with little schooling themselves (Literacy Foundation, 2016; Cree et.al, 2012). Parents with low literacy cannot assist their

children in reading and with homework. Other factors that can contribute to illiteracy include: difficult living conditions, including poverty where parents cannot provide basic needs and books that will enhance learning; children having learning disabilities such as dyslexia and dysorthographia which prevent children from recognising alphabets and pronouncing them accordingly (Literacy Foundation, 2016; Cree et.al, 2012). Inadequate educational facilities also affect literacy (Literacy Foundation, 2016; Cree et.al, 2012, Nayak, 2014).   In the Pacific, though the government gives high priority to literacy, it fails to provide reading materials to assist students in their reading literacy skills (Bidwell, 2011). Hence, though the Fiji's adult literacy rate is 94%, only 33.6% of primary schools in Fiji scored above national average in the national primary schools Literacy Assessment (Education for All Assessment Report, UNESCO 2014). This signifies that the teaching of literacy in schools needs improving. Education in Fiji is free, and the Ministry of Education provides free textbooks to schools to enhance learning, but are the textbooks appropriate? Though the Fiji Ministry of Education is supplying free textbooks, these textbooks were produced as a resource for the subjects taught in schools (Bole, 2010). However, what is lacking, and needs to be provided to enhance literacy, are reading materials for school libraries that students can read for leisure and also which teachers can use in their lessons. Poor literacy affects students' success in school and in life. Students' understanding of other subjects may also be limited. Their proficiency in other subjects is affected, and consequently, students do not do well in school and are eventually 'kicked out' of school whereby the illiteracy cycle continues: the 'kicked out' students settle for a low paid job, then cannot provide basic needs and books for their children, and then their children have low literacy, and the cycle continues.

Addressing Literacy Problems

Literacy problems can be curbed. First, children should have access to relevant reading books (First Book, 2016). Second, there must be a paradigm shift in literacy teaching and learning. Literacy must be taught in the child's vernacular and cultural practices and epistemologies. This will form the foundation of the students' learning and assist in learning other languages that may be used as the language of instruction in school (Taufaga, 2007). Third, curriculum developers and teachers must know the significance of the child's mother tongue and culture in literacy learning and encourage its use in the classroom (Thaman, 2009). More so, the curriculum developers and the Ministry of Education should differentiate English and literacy and provide relevant frameworks and pedagogy for teaching them. In practice, English is taught as a subject in Fiji classrooms, but literacy is assumed to be developed in learning English and other subjects. Literacy is assessed in the LANA test that is sat by Years 3 and 5, and in practice, children would revise literacy using papers from past years. In doing this, teachers assume that students will do well in literacy. The purpose of literacy should be made clear to the curriculum developers and teachers so that this skill is not attained for exam purposes only.

Methodology

The study drew from two main research paradigms: qualitative as well as indigenous research. Methods included questionnaires, interview/*Talano*a and observation. A set of questionnaires was distributed to eight teachers at the school and results were used as a guide in semi-structured interviews and *Talanoa* story telling. *Talanoa* is similar to narrative. It is an indigenous Fijian culturally accepted way of collecting information. The conversation usually consists of more than two people so that the participants can validate each other's information. Multiple research methods were employed in this way to ensure triangulation of data which is important for reliability and validity of research data.

The research-participant approach was used in the observation of class 1 students. This was done to observe students' behaviour in response to the literacy pedagogy used in the infant classes. Class 1 students were observed for a week, during their classes. A *Talanoa* story telling session was also conducted with the interviewees outside of official hours to assess the teachers' views on the literacy program carried out by the school.

Results and Discussion

The results showed that there are a number of issues that require research and curriculum reflection in order to improve the teaching and learning of literacy skills at the primary school level in this school. These are summarised in the following categories.

1. Basic language gaps
2. Remedial and reinforced teaching and learning strategies
3. Teacher preparedness
4. Outcomes-based education and classroom-based assessment
5. Contextual reading materials

Basic Language Gaps

The main literacy problems identified by this small-scale study were phonology (speech sounds) and orthography (spelling patterns). These problems are related. When students cannot recognise the letters and sound of the alphabets they cannot spell words correctly and vice versa. To assist students in recognising letters and their sounds, the school has developed a school-based curriculum for the infant classes. The infant classes were first taught the vernacular phonics. The students then transfer their vernacular phonics in learning the English phonics. This assists the students in learning to read and comprehend in English, which further assists them in their learning as a whole since English is the official language in Fiji and the main language of instruction. This pedagogy is recommended by Taufaga (2007); Thaman (2009) and Taufe'ulungaki (2009) who argue that when children can master their mother tongue, learning any other language will be easier. In Fiji's case, English is the language of instruction. Hence, when students in this school master their vernacular they are able to learn English and learn in English better, and thereby to improve their overall academic performance.

Remedial and Reinforced Teaching and Learning Strategies

When a student's literacy level is detected, 12% of the teachers conducted a special tutorial for students who need assistance, 38% of the teachers conducted individual face to face teaching to address individual student's literacy needs and 50% of the teachers immersed the students in a normal class setting to assist the students to improve their literacy skills. For students who are identified in the higher primary level to be having difficulties in literacy, their teachers take them on special tutorial and begin teaching them the vernacular phonics again before scaffolding them to learning the English phonics. In some instances, students are immersed into the normal classroom lessons so that they can learn from their peers.

Furthermore, in instances where students do not understand complicated English words or concepts, teachers code switch by using vernacular and English to explain the difficult word or concept. For instance, in one of the writing classes the teacher was explaining the different styles of writing. Many of the students did not understand what the word 'style' means, so the teacher used the *vosa Vaka-Viti*

indigenous Fijian word *iwalewale* to clarify the meaning of the word style. In doing this, the students better understood what the teacher was explaining to them.

Teacher Preparedness: Implications for Teacher Training and Professional Development

The teaching strategies being employed were either learnt in teachers college, university or learnt during professional development workshops conducted by their colleagues who have had training in literacy teaching. Of the teachers interviewed, 75% of them stated that they learnt their teaching strategies from the teachers college they attended, 12.5% stated that they learnt their teaching strategies from the University of the South Pacific and the other 12.5% stated that they learnt their teaching strategy from the professional development sessions held in their school. This showed collaboration amongst colleagues using a team-teaching approach which is an advantage for their students' learning.

Outcomes-based Education and Classroom-based Assessment

Tests are the main method of assessing students' literacy rate followed by class exercise and exams; 63% of the teachers use tests as their assessment strategy, 25% use class exercises and 12% use examinations. The literacy skills of students in this school are assessed through classroom activities in English such as individual reading or class reading and in the LANA. While to some extent these assessment methods are relevant, they may not be valid, for they may not assess all the literacy skills. With reference to Gardner's Multiple Intelligence Theory (1993), students have varying intelligence: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, musical intelligence, bodily-kinesthetic intelligence, naturalistic intelligence, interpersonal intelligence, and intrapersonal intelligence. It is therefore vital that teachers are trained in using varying pedagogy and assessment methods to address the differing intelligences possessed by students in this school.

In addition, most of the teachers commented that they do not use a variety of assessment methods. This questions the validity of the assessment, and at the same time the amount of knowledge students will have accumulated by the end of their schooling years.

Contextual Reading Materials: Libraries, Vernacular Books and the Development of Reading Resources

Another issue highlighted by the teachers is the lack of contextualised vernacular texts or reading resources to assist them in teaching vernacular and English. Finding resources to assist them in teaching vernacular lessons and English is an issue. In addition, there is no vernacular phonics teachers' guide or resource to assist them in teaching vernacular phonics. Therefore, the teachers compiled a vernacular phonics teaching aide to assist themselves as well as the new teachers who are transferred to the school. To address the lack of vernacular text issue, the school librarian is organising a fundraising campaign where funds collected will go towards the purchase of new vernacular reading materials. Inadequate learning and reading resources are some of the factors contributing to low literacy as highlighted by Literacy Foundation (2016); Cree et.al; (2012); Nayak (2014) and Bidwell (2011). This school's school-based curriculum innovation has contributed to the development of relevant resources that teachers can use to improve students' literacy and their academic performance as well.

Conclusion

In conclusion, it is found that the main literacy problems in this school are phonics and spelling, and in order to address these problems, the school has adopted a school-based curriculum whereby infant classes are first taught vernacular phonics before teaching them the English phonics. In doing this, it is found that students read and speak English well, which contributes to their overall academic performance. Therefore, it can be seen that it is vital that students learn their vernacular phonics first before they are taught any second language phonics, or in the case of Fiji, the English phonics. If the vernacular phonics is taught first, it is found that students acquire the English language phonics well and comprehend and perform well academically. Additionally, more vernacular books should be published, and primary school libraries should be furnished with these in order to assist the teachers in preparing their lessons and so that students are exposed to vernacular reading resources. Hence, it can be recommended that the teaching of vernacular phonics be incorporated into the Fiji National curriculum so that schools in Fiji can be given the option to implement this method of learning literacy, thereby assisting in developing students' literacy level.   Furthermore, more vernacular books should be published. Primary school libraries should be furnished with these in order to assist the teachers in preparing their lessons and for students to be exposed to vernacular reading resources. Finally, the curriculum development unit should conduct more workshops on the different literacy assessment and evaluation methods to assist teachers in assessing students' literacy skills effectively. In taking these steps, students' academic achievement will improve. and assessment methods implemented will be inclusive and valid.

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Transfer of Training from Practitioners' Perspectives – A Samoan Case Study

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Abstract

This research sets out to highlight factors that have facilitated and hindered teachers' transfer of ideas to the classroom. It is important that we address this, for it affects students' learning in the classroom. Anecdotal evidence indicates that in Samoa, a number of teachers are having problems transferring ideas they have learned from training into classroom practice, which in turn could affect students' learning. Although set in the Samoan context, this study will be of interest to other teachers outside Samoa, who may be struggling with similar implementation issues. The literature indicates that factors pertaining to the training design, teacher characteristics, and work environment can affect transfer of ideas. In this qualitative study, open-ended survey questionnaires were used to ascertain views of 51 primary and secondary practising teachers about factors that influence transfer of training. The research findings indicate that, as well as teacher characteristics, factors which affect the implementation of learned ideas in the classroom include those related to the training institution, work environment, and Ministry of Education. This research contributes to our growing understanding of factors that affect teacher's implementation of ideas into the classroom. More importantly, it highlights some strategies that teacher educators and teachers could draw upon to manage this problem.

Introduction

All training is conducted with the expectation that learned skills and knowledge will be transferred to the workplace; however, one of the major issues in organisational training is the lack of transfer of skills and knowledge learned to the work setting (Ford & Weinssbein, 1997, Saks, 2002). While increasingly extensive research has been conducted in the area of transfer of training internationally, scant research has been conducted in the Samoan context. In the Pacific, Tufue's (1998) investigation based on Pacific Island educators in New Zealand and McDonald's (2001) research in the Cook Islands have initiated enquiries in this area and identified a range of transfer strategies important for these settings. Within Samoa, Tufue-Dolgoy and McDonald (2017) conducted a study which targeted teacher educators' views on transfer strategies; however, perspectives of practitioners themselves were not included. It is important to investigate the views of practitioners given the crucial role they play in children's learning.

The impetus of this study emerged from anecdotal data, including conversations between the Faculty of Education (FOE) at the National University of Samoa (NUS) and Ministry of Education (MESC) (MESC meeting held in Dec 2014). It was reported that a number of teachers are having problems applying ideas learned from their training into their classroom practice. This information is a cause of major concern to teacher educators, hence the need to examine teachers' perceptions concerning the factors that may facilitate and/or inhibit transfer of ideas to the classroom, and additionally consider strategies to enhance transfer of ideas for teachers.

This paper is organised in the following manner. It first describes the situation in Samoa concerning teacher training and transfer. Next is the discussion on theory and transfer strategies, followed by an

explanation of the methodological approach. This is followed by a presentation of findings. The final section presents the discussion, conclusions, and some implications.

Samoan Context and Transfer of Training

In Samoa, training for teachers is carried out at the National University of Samoa (NUS) and the majority of teachers are sponsored by MESC. For example, in semester 2, 2014, alone, $399,290 WST was invested into sponsoring individuals who were enrolled in various education programmes at FOE (NUS administration records, 2015). Teacher trainers themselves invest much into developing teachers' pedagogical skills and knowledge with the intention that skills will be transferred to their workplace. Despite the amount of dollars and effort invested in teacher training and development, however, it appears that the ideas and skills learned are often not transferred to the classroom, which raises a number of questions: Why are learned skills and knowledge not transferred? Who is responsible for transfer and/or failure of transfer? What strategies should be employed for transfer to occur? How can transfer be ensured? This research addresses some of these issues, but specifically investigates strategies and/or behaviours that influence transfer of training to the work setting.

Towards a Definition of Training Transfer

Both the terms "transfer of training" and "transfer of learning" have been used in the literature to describe the process of transfer of skills and/or knowledge in different settings. While Baldwin and Ford (1988) define transfer of training as the degree to which trainees use the knowledge, skills, and attitudes learned in training to improve job performance, Nolan (1998) regards the transfer of learning as the ability of students to utilise knowledge acquired in the classroom to the "real world." Some overlap between the two definitions can be found. In their review of the learning transfer literature, Cordeiro, Kraus, Hastings, and Binkowski (1997) cite Baldwin and Ford's use of the term transfer of training as an example of "learning transfer". This general discussion suggests that the two are very similar, if not the same, and that they are differentiated only by institutional setting and the type of education being taught.

Cordeiro et al. (1997) also note that the term "transfer of learning" is used in discussion of specific training programmes such as staff development. In other fields such as anthropology, learning transfer is described in other ways, such as learning transmission (Cordeiro et al., 1997, p. 4). Accordingly, as this study is concerned with teacher professional development training, the term transfer of training would appear to be the most appropriate. Broad and Newstrom (1992) have provided a general definition of transfer of training that can be used for classroom settings, viz., "Transfer of training is the effective and continuing application by trainees to their jobs of the knowledge and skills gained in training-both on and off the job" (p. 6). Thus, implied in these definitions, it is one thing to have examined the question of knowledge and skills in a formalised situation, another to retain it after the learning experience is over, and still another to apply the skills to the practical situation consistently over time.

Empirical Research to the Transfer of Training

It has been suggested that directions for improvement of the transfer of skills through training has been hampered by a lack of extensive systematic consideration of the problems involved in training transfer. Baldwin and Ford (1988) noted that "although concern about transfer of training has grown enormously during recent years, the transfer problem has been addressed for more than 30 years". The transfer issue has been influenced by a number of factors; thus, understanding these factors is crucial (Baldwin & Ford,

1988; Holton, 2005; Salas & Cannon-Bowers, 2001). Factors that influence transfer to the workplace are many (Balwin & Ford, 1988; Broad & Newstrom, 1992; Georgenson, 1982, Kelly, 1982; Parry, 1990, Tufue, 1998), and generally the literature identifies three key factors. These include 1) trainee characteristics (cognitive ability, self-efficacy, motivation, perceived utility of training); 2) training design (behavioural modelling, error management, realistic training environment); and 3) work environment (transfer climate, support, opportunity to perform, follow-up). Grossman and Salas's (2011) review argues that consideration of these factors is valuable for transfer.

Concerning trainee characteristics, Parry (1990) notes personal factors such as motivation, ability, and personal needs. Georgenson (1982) argues that transfer is achieved if the learners are highly motivated toward the training. On the other hand, lack of motivation can be reflected in the individual who is not interested in searching for previously effective strategies and applying these in the new tasks (Misko, 1995). There is also a notable connection between confidence and transfer (ibid) and Kopp (1988) argues that the trainees will be more motivated to partake in the learning and unlikely to be bored if they enter the training session with confidence and a feeling of commitment. The notion of personal commitment to a new operation is also crucial as it increases the possibility of the new operation being utilised (Ishler, Johnson, & Johnson, 1998).

In examining specific concerns such as trainer credibility, instructional strategies and methods, course relevance, and practicality, Trost (1985) found that transfer is inhibited if:

- there is lack of mutual understanding between trainees and their managers concerning the positive results of the training
- managers do not understand their own role in reinforcing and supporting newly learned behaviour; and;
- managers have limited knowledge about the skills being taught and are not able to identify and reinforce these skills on the job.

Berry (2015) acknowledges the importance of the trainer's role; however, he also notes that limited knowledge of transfer affects transfer. While Georgenson (1982) highlights the essential connection between a "flairful" and "prestigious" trainer and transfer, Garavaglia (1993) argues that transfer is inhibited if the course is irrelevant to trainees' jobs.

Another important consideration for transfer is the work environment. For example, by speculating that employee behaviour will be positively influenced by manager's positive approach, Garavaglia (1993) suggests several ways which indicate managers' participation and support:

- ensuring that supervisors know the training requirements
- supervisors' input on the training content
- supervisors' awareness of the benefits and expected outcomes of the training
- reinforcing desired behaviours on the job.

Strategies for Improving Transfer Factors

While earlier researchers have described factors that may enhance the transfer process, a systematic way of dealing with these factors has been found only in some recent literature. With respect to training design, Kopp (1988) suggests that if learners are to be encouraged to want to learn, then trainers should

look at instilling instructional design with motivational strategies and trainees must be convinced early of the effectiveness of the training. King (1996) notes that if training has little or no meaning to the organisation, the likelihood of transferring the skills to the job is minimal. It is also vital for trainers to design and teach for transfer (Machin & Fogarty, 2004) and draw from numerous instructional strategies and methods to facilitate transfer (Russ-Eft, 2002). For example, use of "active learning" via constructed activities (Silberman & Auerbach, 2006) as opposed to passive instructional methods such as lecture. Use of behavioural modelling, feedback, and dialogue (Burke et al., 2006) and imitation (Kopp, 1988), drilling, and incorporation of effective activities are important considerations. Generally, it would be expected that the more effective the techniques utilised by the trainer, the higher will be the level of implementation of new ideas in the workplace or in the classroom.

Methodology of the Study

This exploratory study examined the views of 50 practising teachers (40 females and 10 males) from primary and secondary level, about factors that may facilitate and/or hinder their transfer of ideas gained from training to the classroom. The participants were purposively selected given that they had completed a diploma qualification and then worked in the classroom for more than five years. At the time of data collection in 2016, they were involved in the Bachelor of Education (BEd) training programme at NUS. To gather data, open-ended questionnaires were developed and distributed to teachers (at the training institution) to complete and return after one week. The data was analysed using a qualitative thematic technique by Miles, Huberman, & Saldana (2013). Anonymity, confidentiality, right to withdraw, and agreement for publication were outlined in the ethics procedure adopted for the study.

Findings

The study was concerned with practising teachers' perceptions of facilitating and inhibiting factors to transfer of training. After data analysis, several categories emerged which were related to facilitating and inhibiting factors for transfer of training. These were positioned under four major themes: 1) Trainer and training institution, 2) Work environment, 3) Ministry of Education, and 4) Teacher-related factors. Under each theme several categories and sub-categories were identified (Table 1).

There were two categories under training institution – course content and trainer characteristics. For the work environment theme, two categories were identified – moral support and technical support. The theme related to the Ministry of Education identified one category – policy issues. The fourth theme concerning teacher-related factors has a single category – teacher characteristics.

Table 1: Facilitating and inhibiting factors identified by teachers

Themes	Categories	Facilitating factors	Inhibiting factors
Training institution factors	Course content	✓ Relevant course	➢ Irrelevant course ➢ Obsolete course ➢ Complex terminology
	Trainer characteristics	✓ Helpful, Supportive	➢ Unhelpful, Unsupportive ➢ Instructional strategies Ineffective delivery-complex language
Work environment factors	Moral Support	✓ Supportive ✓ Principal ✓ Colleagues	➢ Unsupportive - Principal - Colleagues
	Technical Support	✓ Adequate resources	➢ High class number ➢ Lack of Resources ➢ Poor Facilities ➢ Submitting to the school program
Ministry of Education factors	Policy issue		➢ Child's Right ➢ Children's behaviour ➢ Curriculum Changes
Teacher-related factors	Teacher characteristics	✓ Passionate/Committed ✓ Love for children (selfless) ✓ Aspiration for personal professional growth	➢ Uninspired ➢ Laziness ➢ Self-esteem

Institution and Trainer-related Factors

Factors pertaining to the institution include course content and characteristics of the trainers. In relation to the content, a number of participants stated that some course content appears irrelevant to their learners' needs. The following is an example of statements made by some participants in relation to relevance of course as a motivating transfer factor:

> 'There needs to be relevance in courses taught at NUS and what is taught to students in the classroom.' (T37)

Some teachers indicated that if they perceive the course as neither relevant nor applicable, the likelihood of their using these ideas is minimal. This view seems to support this:

> 'Some topics covered in class are not applicable to the level of students I teach.' (T47)

Another institutional factor that participants viewed as affecting their learning and application of ideas relates to the trainer. Almost half of participants mentioned the importance of having support from tutors and lecturers for them to succeed. Support can be seen in various forms, one being the instructional methods used by lecturer. The following comments highlight this view:

> 'Also, a lot of practical is needed … FOE also needs to consider technology like using power point and DVDs in teaching techniques that students mostly prefer nowadays.' (T44)

> 'Good support from lecturers and tutors helps me understand the course content.' (T5)

Work Environment Factors

The second theme that emerged from the data as influencing transfer concerns the work environment. Two categories under this theme relate to moral and technical support factors. A number of participants indicated the importance of having good support from their colleagues as this can be a motivating factor. For example, one teacher stated that some teachers from her school are not so positive and show unfavourable attitudes towards them (teachers who have come back for further training). For her, this attitude can discourage one from implementing newly learned ideas:

> 'Disagreement between teachers, especially us who are studying and the ones that are not.' (T17)

> 'Poor support from other teachers and principal.' (T6)

It was also indicated that support, or lack thereof, from school leaders can affect teachers' implementation of ideas. One participant, when asked about barriers to her implementation of new ideas, simply responded:

> 'Unsupportive leadership' (T35)

Another participant, on the other hand, praised her principal for his support:

> 'I love my principal. He pushed me for my course to let me have more learning and understanding to help my classes.' (T34)

These comments indicate that support is an essential factor for transfer to occur. The notion of support as one significant factor for transfer is also noted in the literature (McDonald, 2001, Tufue, 1998).

Ministry of Education Factors

Another emerging theme which seems to hinder teachers' transfer of ideas, concerns the Ministry of Education. It was noted that many expectations by MESC seem to have a detrimental effect on teachers. The many educational reforms require teachers to work beyond their capacity, thus leading to teacher burn out:

> 'Too much workload at MESC when they have too much requirements from the teacher, thus less time is spent with children.' (T6)

> *'When there are new changes that are brought in by MESC (overload) which makes me*
> *not too willing to do everything well, like in preparations or planning.' (T29)*

From my own observations, teachers seem to be under much stress due to the many changes that are imposed by the Ministry. For example, many teachers seem overwhelmed and complain about the current outcome-based curriculum. MESC needs to give good consideration to teachers' needs.

Teacher-related Factors

The characteristics of the teacher were perceived to affect transfer. More than half of the participants stressed that their motivation stems from their desire to help and support the learners under their charge as indicated by the following:

> *'I would implement what I've learned in my classroom so that there would be a change*
> *in children's learning …to help them think outside the box.' (T22)*

> *'I would use these ideas to solve some of the problem in my school. There are many*
> *slow learners. I need ideas to solve these problems.' (T18)*

> *'Every teacher should be honest in doing his or her best … because we are the change*
> *agents who will help mold our future leaders.' (T1)*

There were also participants whose motivation for training and applying new ideas is driven by the desire to develop professionally and become more effective. The comment made by this individual supports this view:

> *'To increase the knowledge and skills to teach students and also how to promote*
> *learning in the classroom.' (T45)*

A few participants were driven by the idea of being a good role model and to leave behind a good legacy, as noted in this comment:

> *'So that I will be remembered fondly by my ex-students and knowing that the ideas I*
> *have learned are useful for my students.' (T36)*

One of the barriers, however, as indicated by this participant was due to teacher fear which could come from lack of confidence:

> *'Sometimes trying something new makes me nervous.' (T17)*

Although not many participants indicated fear or lack of confidence as an inhibitor to transfer, this is important to note. Based on observation, I speculate that embarrassment and fear of failure seems to hinder students' questioning the lecturer in class. Misko (1995) highlighted a connection between confidence and transfer. This is connected to Kopp's (1988) view that the trainees are more motivated to learn and are unlikely to be bored if they enter a training session with confidence and a sense of commitment. It is important to develop teachers' self-confidence, thus people within the teachers' environment (family, training institution, school, MESC) play a significant role in this respect.

Discussion, Conclusions, and Implications

This research was concerned with practitioners' perceptions of facilitating and inhibiting factors for transfer. Findings from this study provide some information on how practising teachers in Samoa perceive the concept of transfer of training as well as factors that may have affected the transfer of ideas they have learned from training into the classroom. Overall, the findings indicate four key influential factors to transfer of training: trainer and training institution, work environment, Ministry of Education, and teacher-related factors.

In relation to the training, findings highlight the importance of trainers being effective in their instructional method. There was an indication that complex terminology used by some trainers affects learners understanding and, thus, impacts on transfer. To be effective, trainers need to examine and improve their instructional strategies. Given that we are teaching in the 21st century, learners may have a preferable learning style hence the importance for trainers to re-examine and enhance their instructional methods if learning and transfer are to occur. Georgenson (1982) notes, that trainees are more likely to pay attention if the trainer is effective. It is also crucial for trainers to continually review the courses they offer so they are aligned with the needs of the community and nation. Findings indicate that some course contents seem out-dated which may not be encouraging for transfer – that is, learners may not be highly motivated to learn and transfer ideas they may have known already. As Yamnill & MacLean (2005) argue, content relevance is an indication for successful transfer.

Work environment factors such as colleague and principal support were also highlighted as effective indicators for transfer. For example, the role of the principal is crucial for transfer; that is, if a principal is encouraging and willing to listen to new ideas. Lim and Johnson (2002) note that trainees are keen to transfer learning when supervisors are interested in discussing new ideas, being involved in training, and provide positive feedback. Clarke (2002) points to a crucial relationship between work environment and transfer if trainees are encouraged to utilise newly-learned ideas and knowledge. Tufue and McDonald (2017) argue that one of the notable barriers to ideas transfer can emerge from the school environment. It is clear that the value of support within the teachers' work environment cannot be overstated, thus needs strengthening.

The findings also indicate teacher's characteristic as an influential factor for transfer. While the impetus for transfer for some participants was their desire to develop professionally, the majority were motivated by the notion of making a change in their students' lives. The concept of helping another individual is a very powerful motivating factor – an idea grounded in the Samoan biblical and cultural values of love and reciprocity. This intrinsic type of motivation can act as a powerful impetus for transfer, thus needs to be strengthened.

Findings also identified the Ministry of Education as influencing transfer. It was indicated that the many educational reforms seem to cause teacher confusion, thus affecting transfer. Fullan (2003) notes that teachers may resist change if they are not happy or are dissatisfied with the status quo. An important consideration is for the Ministry to be more aware of and address teachers' needs. Teachers need to be well supported and mentored so they are motivated to use ideas effectively.

Several implications arise from this study. The importance of strengthening the relationship between the Ministry of Education and the training institution cannot be overstated. There seems to be a continual blame game concerning the issue of teacher ineffectiveness. Thus, an important consideration is for MESC

and FOE to develop effective communication so that the training programme designed for teachers aligns with MESC goals. It is also crucial for the Ministry to constantly perform needs analysis for teachers to get a clearer understanding about what may have affected teachers' performance. Professional development is important; and Guskey (2000) notes that effective professional development occurs when teachers feel valued. The latter can exude from the Ministry, trainers, and teachers' colleague who play a vital role in developing teachers' professionally.

An important consideration for the trainers is to upgrade their instructional methods so they conform to the instructional strategies required in a modern-day classroom. Based on their study, Tufue-Dolgoy and McDonald (2017) called for "teacher educators to have a broader and refined approach to build upon their expertise" (p. 44). It is also crucial that courses offered by the training institution undergo continuous review for relevancy to teachers' needs.

This study is concerned with Samoan teachers' views about transfer of training strategies. Although limited in scope and number of participants, a tentative conclusion is that practitioners are aware of factors that not only encourage but impede their transfer of ideas to the classroom. The notion of support is a vital consideration for transfer from trainers, teachers, work environment, and the Ministry of Education, hence the need for close collaboration between these groups. These findings could be strengthened by including views of principals and the Ministry of Education on transfer, which could be the focus of a future study.

This study, although set within the Samoan context, has global relevancy given that practising teachers elsewhere appear to be struggling with the transfer phenomenon. The study therefore not only contributes to the local and international literature on training and knowledge transfer, but also informs practice at both the national and international level.

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CRITICAL ESSAYS

Navigating the Compass: Tapasā and Pacific Education in Aotearoa New Zealand

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Abstract

Pacific (or Pasifika) education, the education in Aotearoa New Zealand of students who have links to the Pacific region, is an area of national priority. Tapasā (Ministry of Education, 2018) is a document intended to support teachers of Pacific students to re-view their understanding and practice in order to meet the needs and goals of Pacific students, families and communities. This article offers a discussion of two aspects of Pacific education with the intent of supporting the effective implementation of Tapasā. The first is a focus on relationality – understanding Pacific education through a relational lens in which an ecological perspective offers advantages. The second pays attention to conceptualisation, a lens which suggests that concepts of Pacific origin possess inherent power to disturb existing thinking of European origin. The importance of this discussion is that progress in the field is most likely when teachers think about themselves and their understandings of context in tandem with changes in practice. For this optimal situation to occur, clear theorisation is valuable.

Introduction

In Aotearoa New Zealand, culturally responsive pedagogies have been gaining significance. In Māori education, in response to commitments under the Treaty of Waitangi and in recognition of the fact that Māori students have been 'poorly served' in education (e.g.,Treasury, 2012), a good deal of grey literature has been produced. This includes documents such as Tātaiako (Ministry of Education, 2011a), designed as a tool to assist teachers to think through ideas of Māori origin in their interactions with Māori students and whānau or extended family.

Pacific education (also called Pasifika education (Airini et al., 2010)), the education of students with connections to various Pacific Island nations living in Aotearoa New Zealand, another poorly served group (e.g., Ministry of Education, 2011b), has received less attention than Māori education. Given the fact that Māori are the Indigenous peoples of Aotearoa New Zealand, this is understandable. However, the need to improve educational provision for Pacific students remains. A recent document offered in draft form in June 2017 for consultation, (Ministry of Education, 2017) and subsequently published in a final form (Ministry of Education, 2018), Tapasā, is a positive step in central government formally offering classroom level guidance for all teachers of Pacific students. Tapasā's ambition includes to 'support teachers and leaders to engage, challenge, shift and transform their way of thinking and practice, and understandings of Pacific success' (p. 5). A national programme of workshops has been instigated through the leadership of a 'Panel of Expert Teachers', a group which I was privileged to join. Undoubtedly, the Tapasā initiative is a positive step for Pacific education. The wisdom contained in the documentation and its implementation strategy makes it a gift worthy of honour to teachers of Pacific students. However, it is important to apply a critical lens to any initiative in pursuit of optimal benefits. When implemented in

ways which embrace contextually relevant theorisation, the vaka, or canoe, of Pacific education may well journey swiftly and more smoothly guided by Tapasā.

Tapasā is a Samoan term which means 'compass' (Ministry of Education, 2018, p. 5). My interest in an effective compass for teachers of Pacific students is the result of being a Palagi (European) teacher (of British origin) of Pacific students, a researcher in the field of Pacific education, and a Specialist Classroom Teacher. In this role I am asked to support implementation of the Tapasā framework at a local level with teachers who may or may not welcome the initiative. It is from this position that I offer a critical contribution to discussions around Tapasā, seeking to foreground areas likely to require development and clarification 'on the ground'.

The Tapasā Compass

Tapasā (Ministry of Education, 2018) outlines a range of explicit assumptions about what effective teachers of Pacific students will know, and proposes three turu, each a competency represented as a support or brace (p. 33), to develop understanding and practice. These are complemented by case studies intended as examples of effective practice, and a set of statements describing what teachers need to do to demonstrate competencies within the proposed framework. The conceptualisation of competency in Tapasā employs a stage-theory model of knowledge development to imagine advancement in skills and knowledge. Tapasā also offers a summary of a number of well-known Pacific research models including Talanoa (Vaioleti, 2006) and Kakala (Helu-Thaman, 1988).

Some of the aspects of Pacific education with which Tapasā engages exhibit longevity and are fundamental to the field. These include: the relational nature of Pacific education which includes the articulation between student/teacher interactions and education as an institution; and the significance of concepts of Pacific origin to support relationships between teachers and Pacific education. In offering an initial critique of Tapasā, the approach I take is multi-dimensional, seeking to understand Pacific education through a relational analysis, a va lens which honours the Samoan ethical reference of teu le va (Airini et al., 2010; Anae, 2010a; Mara, 2013) and its Tongan relation, tauhi vā (Airini et al., 2010; Ka'ili, 2005). A va lens extends an ecological view of society to include an integration of physical, social and spiritual dimensions, recognising associated ethical obligations.

Pacific Education as Relational

Like all education, Pacific education is a relational activity. Pacific students do not participate in education on their own, but are supported by families and communities with allegiances to one (or more) Pacific Island people(s). In addition, Pacific students are often taught by Palagi teachers – teachers with a background rooted in Europe, operating in an education system with similar origins. Migration and colonialism in the Pacific region generally, and in Aotearoa New Zealand specifically, intersect in Pacific education. Thus, the cultural and relational dynamics of Pacific education are complex.

Tapasā (Ministry of Education, 2018) is concerned with these dynamics. Cross or inter-cultural aspects of Pacific education feature in two main ways. Firstly, teachers are expected to be aware of their own cultural background in order to understand their place in relational activity between cultures in school. Secondly, teachers are expected to avoid aggregation of Pacific students by respecting ethnic and individual differences. Both concerns are valid, and a document such as Tapasā is wise to pay attention to them. However, given the longstanding Ministry of Education-sponsored use of Pasifika (e.g., Ministry of

Education, 2013) and Pacific (Ministry of Education, 2018) as ways of discussing the field through aggregation, the fluidity of identity in diaspora (Gilroy, 1991; Teaiwa, 2005), and the contextual nature of identity in general, an explicit, robust, relational articulation of identity is valuable in Pacific education. Developing such an articulation is a task for those implementing Tapasā, perhaps based on existing models.

The Cube model developed by Sasao and Sue (1993) is an example of 'a culturally anchored, ecological-contextualist' (p. 705) way of looking at the intersection of identity and social space in Pacific education. It illustrates how people's multiple and shifting identities can be understood through 'cultural complexity' (p. 705), where particular sets of relationships inform salient aspects of identity in a specific context. An ecological understanding can encompass and relate aspects of life as experienced within the Pacific diaspora such as: the impact of multiple ethnic allegiances (Tupuola, 2004); generational change (Mila-Schaaf, 2011) in what it might mean to be a 'real' Samoan (Macpherson, 1999) (or Tongan, Tokelauan etc.) in Aotearoa New Zealand; potential Pacific ethnogenesis (Spoonley, 1988); and, by extension, the way relationships in a particular space contribute to how one identifies oneself and who one wishes to be. A classroom is one such space, and a school is another. Each social space has its own relational space(s) or va. Context structures social ecology.

An ecological model focusses on context as a way of understanding identity and recognises that Pacific students, their schools and classrooms are seldom alike. It offers a fluidity between total individuality as the core of Pacific education and the imposition of essentialised or historically-sourced ethnic/cultural understandings. A totally individual way of understanding Pacific education removes Pacific communality from the field; the imposition of essentialising ideas attached to an ethnic group or a unitary Pacific/Pasifika umbrella (Samu, 2006) removes the life story of the individual. An effective implementation of Tapasā requires careful contextual negotiation in the space between these approaches.

Under-theorisation of identity may be problematic where the aim is to support teachers to improve their understanding of, and response to, Pacific students and Pacific education. A framework which seeks to approach such a complex relational field should be able to respond through context. Statements such as 'pan-Pasifika approaches are not as effective as personalised, ethnic specific approaches' (Ministry of Education, 2017, p. 9) in the draft version of Tapasā illustrate the way context can be erased and appeal made to fixed understandings of ethnicity. Here there is a lack of theoretical clarity about the relationship of the individual to their group; a fixed and predetermined relationship is implied as an 'effective' way forward. Although this claim was removed for the final version, its appearance in draft illustrates that it is possible for people to think in reductionist ways with regard to Pacific education. Those charged with implementing Tapasā would do well to be mindful of this possibility.

Hau'ofa's (1994) depiction of a sea of islands in which contextual advantages are identifiable in both Pacific ethnic connection and separation offers a helpful theorisation of Pacific education. This gives teachers space for strategic thought about individual/ethnic/pan-ethnic identity by drawing attention to context. Hau'ofa's approach directs the focus to the specific va present in any social/spiritual/physical space. Ecological theorisation places onus on teachers to understand a student in the context of their classroom, acknowledging relationships to peers, family and wider community rather than to any specific ethnic reference point(s), although these may also be helpful. Through va, the complex dynamics of migration and diaspora can be contextually accommodated.

An associated issue in Pacific education is the way relationships between Palagi teachers and Pacific students are theorised. A key relational aspect of Pacific education is its cross-cultural nature. Tapasā (Ministry of Education, 2018) pays attention to this by expecting teachers to be aware of their own identity. This is appropriate because self-awareness can reveal to teachers the operation of European-based cultural norms where these are hard to see due to ubiquity. However, ideas exist not only in individuals but also in institutions and systems. An ecological view of Pacific education suggests that teachers do not operate in a vacuum; formal education rests on cultural assumptions regarding success, knowledge and so on. Tapasā expects teachers to show Pacific cultural competence through understanding 'the socioeconomic, demographic, historical as well as contemporary profile' (p. 10) of Pacific learners and communities. A relational understanding suggests that teachers should also demonstrate contextual cultural competence through an understanding of the socioeconomic, demographic, historical and contemporary profile of education in Aotearoa New Zealand. Such competence might reveal aspects of education such as pedagogy, curriculum organisation, grouping of students and concepts of success to be cultural and therefore contestable.

A relational view of education in Aotearoa New Zealand illuminates the operation of power as part of a history of assimilation (Stephenson, 2009), an aspect of colonialism. The development of relationally-focussed critical competence offers teachers of Pacific students an opportunity to move beyond the study of the Other and the self, and towards an understanding of context from which systemic change can follow. It also offers a path towards supporting corresponding criticality in Pacific students. This is a further area of importance for those seeking to implement Tapasā.

Constructing Pacific Education

A second fundamental relational issue in Pacific education concerns the origin of constructs used to understand the field. The intent of Tapasā (Ministry of Education, 2018) is to support teachers to 'transform their way of thinking and practice, and understandings of Pacific success' (p. 5). 'Equivalencing' (Ferris-Leary, 2013, p. 31) can render dishonouring simplifications of complex ideas (Heaton, 2018). Thus, there may be issues in using English words to describe concepts which in Pacific contexts have different parameters and configurations to Eurocentric equivalents. The draft version of Tapasā (Ministry of Education, 2017) understood this, providing example questions for teachers to ask themselves such as 'What do "reciprocal" and "respectful" relationships mean in a Pasifika context? Are they the same for me?' (p. 9). Effective implementation of Tapasā may require taking the conversation further than self-reflection and towards explicit negotiation with Pacific-origin concepts.

The literature of Pacific education offers several relevant constructs expressed in Moanan languages. These include va (e.g., Airini et al., 2010; Mara, 2013; Reynolds, 2016; Tuagalu, 2008), referenced by Tapasā (Ministry of Education, 2018, p.12), and poto (Helu-Thaman, 1988; Māhina, 2008; Tu'itahi, 2014). These can be roughly translated to English from the Samoan/Tongan and Tongan respectively as relationships/relationality/relational space (Anae, 2010b; Poltorak, 2007) and wisdom/skilful/clever (Churchward, 1959; Helu-Thaman, 1988). Given the relational nature of education and its aim to develop understanding and ethical action in the young, a consideration of constructs such as these may be helpful for Palagi teachers seeking to re-view Pacific education. Other areas which may deserve extended culturally-focussed discussion include Pacific views of success (e.g., Alkema, 2014), respect (Spiller, 2012) and time (Māhina, 2004).

Palagi teachers need to know the nature of Pacific education in order to deepen their relationship with it. Placing challenging concepts into the va between teachers and Pacific education is an act to teu le va/tauhi vā. Without conceptual challenge, research suggests that traction for deep change may not be optimised (e.g., Frengley-Vaipuna, Kupu-MacIntyre, & Riley, 2011; Reynolds, 2017). Research also indicates the dangers of teachers using equivalencing to support their existing (perhaps deficit) theorisation of Pacific education (Spiller, 2012). Disturbance (Peck, Gallucci, Sloan, & Lippincott, 2009) of teachers' European-based thought can make space for a nuanced understanding of intercultural teaching and learning in which interactions are relationally framed.

The Crux of the Matter

This article has discussed Pacific education in relational terms. Documents which help educators to arrive at contextually useful and challenging descriptions of Pacific education can teu le va/tauhi vā between the field and professionals. An ecological, relational approach honours the wisdom inherent in the concept of va. In the end, positive change in Pacific education is most likely if the discussion recognises that negotiation between Pacific and European ideas requires the negation of histories of power which affect the present unsatisfactory situation. An under-theorised approach is unlikely to offer the clarity of support required by the key moment of Pacific education – the quality of day-to-day relationality between Pacific students and their teachers. Tapasā (Ministry of Education, 2018) is a treasure which has the potential to guide teachers towards increasing their positive contribution to Pacific education. When implemented in ways which embrace contextually relevant theorisation, the vaka of Pacific education may well journey swiftly and smoothly under the Southern Cross. This, after all, is the crux of the matter.

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50 years of the University of the South Pacific's languages: Who will take them forward?

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Abstract

This paper provides an update to Lynch and Mugler's (2002) article on Pacific languages at the University of the South Pacific (USP). I begin with a brief overview of how Pacific languages have been incorporated within the curriculum and research priorities of USP during its first 50 years, highlighting a number of recent initiatives that we have implemented to bolster the institutional visibility and status of the languages of this region.

I then turn to the question in the subtitle: Who will take them forward? This is a deliberately ambiguous question with at least three potential interpretations: It is, firstly, an academic question about whether the languages of the region are being passed on to future generations, and how worried we should be about their sustainability. It is, secondly, a speculative question about how USP can work together with partners across member countries and beyond to build and sustain our teaching and research in and about so many languages. It is, thirdly, a slightly awkward question about who gets to talk and teach and do research about Pacific languages, addressing issues such as insider/outsider claims to knowledge as well as institutional constraints that may be serving to silence certain voices. I write as the discipline coordinator for Linguistics and Languages, but also as an outsider to the region.

Pacific Languages and Linguistics in USP's First 50 Years: 1968-2018

When USP was founded in 1968, the only language offered as a subject of study was English. This enabled the university to create a supply of qualified English teachers for the region. Given USP's original focus on manpower training (Aikman, 1988; Kaye, 1985), there was an obvious need to produce teachers of school subjects, but there was no such demand for linguists, translators, dictionary makers or teachers of other languages, and thus no perceived place for Pacific languages within the institution. As a result, even though the South Pacific now had its own university, all research about the languages of its region continued to be done at universities elsewhere.

In the 1980s, things started to change. Rich discussions had begun around the question of what USP was for, and what type of institution it ought to be (Brosnahan, 1988; Crocombe & Meleisea, 1988; Crocombe & Neemia, 1985; Kaye, 1985). A commitment was made "to promote a more distinctly Pacific atmosphere within itself and in its public face" (Brosnahan, 1988, p. 56, citing USP's second vice chancellor, James Maraj), and an effort was made to establish institutes in countries outside Fiji. One such development was the Pacific Languages Unit (PLU), which was established in Vanuatu in 1983. It was founded to promote the research and study of the region's indigenous languages, supported by extension centres in member countries who also put on film festivals, oratory contests and writing projects in local languages (Hermann & Wasuka, 1988). The first course to be taught entirely in and about a language of the region was

Introdaksen long Stadi blong Bislama, for which entire course books and accompanying reference materials were created in Bislama (Crowley, 1996). A similar course was subsequently developed for Fijian, *Vakadidike Vosa Vakaviti*, taught at Laucala (Lynch & Mugler, 2002). The bulk of the PLU's courses were taught through the medium of English but required students to work with their own languages. They covered practical topics such as adult literacy, lexicography and translation, as well as the theoretical study of Pacific languages (Crowley, 1996). In other words, USP began to offer the discipline of linguistics for the first time, and, during this era, it began setting itself up as a world leader in the study of the world's most linguistically diverse region. The quality of the materials produced by the PLU during the 1980s and 1990s was outstanding, as I learnt from personal experience when I completed a diploma in Pacific Language Studies as a distance student in the mid-2000s, while working in rural Vanuatu.

By the mid-1980s, USP was, quite rightly, offering two completely distinct disciplines: the theoretical discipline of linguistics, which refers to the scientific study of language and languages; and the applied discipline of English language teacher training, which makes use of knowledge about language to train professionals to enter a very specialised field. At most universities, these two disciplines are housed in different departments, led by specialists with very different backgrounds. However, what appeared to happen at USP was that two conceptually distinct sections (the PLU and the School of Education) that had previously offered these two different disciplines became merged within a single Department of Literature and Language in 1985, without a clear enough understanding of what was now captured by the phrase 'language'. As a result, the Laucala-based staff began to plug the linguistic gaps in the teacher-oriented courses by increasing the amount of content about Pacific languages, while the PLU continued to offer Pacific-oriented linguistics, leaving it unclear to non-specialists what the difference was (Willans, 2016).

Somewhat understandably, when USP went through a major restructure in 2006 (during which the School of Language, Arts and Media was created from the Department of Literature and Language), administrators struggled to see why two sets of staff in different locations were offering different sets of courses that nobody could explain the difference between (ibid.). We should be rather less forgiving, however, about the solution they came up with: the cutting of almost all PLU courses, thereby curtailing USP's rise as a leader in the field of Pacific linguistics and attempting to satisfy the requirements of programmes for both linguists and English teachers with a single set of courses. Due to scholarship priorities, the market demand was there for the training of English teachers, but the supply (in terms of the expertise that USP kept hiring) was there for the training of linguists. Linguists don't take kindly to being hired on the basis of their expertise in one field (linguistics) and then being asked to teach or do research in a field in which they have no experience or particular interest (English teaching), so the resultant compromise continued under the radar for the next decade. As a result, all teaching and research and promotion of the study of Pacific languages appeared to be seen as something of a sabotage of English, as evidenced by frequent criticisms raised in internal meetings at Faculty and University level that the School of Language, Arts and Media has not done enough to focus on English. Since 2016, we have realigned the linguistics programmes in order to be more explicit about the difference between the two disciplines, so we can now revisit the question of how we can foster the study and research of more of the region's languages while also continuing to take the training of English teachers seriously.

Sixteen years ago, Lynch and Mugler (2002, p. 79) explained that USP's "long-term objective had always been to establish majors in a number of Pacific languages" and that, while this option was only initially offered in Fijian and Hindi Studies, the intention had always been to expand to other languages, using the same generic programme template that had been approved in 2000. This vision was curtailed by the

restructure a few years later and all talk of adding new majors appeared to cease. Members of Council had raised frequent concerns about the need to do more for Pacific languages and cultures, but with limited impact on matters of curriculum.

However, in March 2016, I received an email from Tricia Thompson of the Cook Islands Māori Language and Culture committee, enquiring into possibilities for offering tertiary level language and culture courses for speakers of Cook Islands Māori. I contained my excitement for about half an hour before replying to say that, providing we could overcome three specific challenges, we would love to facilitate this. The first challenge was funding, since USP had recently announced that a minimum of 100 students would need to register for a 100-level course in order for it to be deemed viable, and therefore eligible for staffing costs to be met by the institution. This was clearly an unrealistic goal for courses targeting only one of our (smaller) member countries. The second challenge was language-specific expertise, since the courses would need to be developed, delivered and assessed by fluent speakers of the language who had the necessary experience and knowledge to do so. While our linguists could advise on certain matters, we didn't have the language-specific expertise to actually prepare or teach such courses. The third challenge was how to host any new courses within the current programme structures of the university. Nobody seemed daunted by the first two challenges, since the Cook Islands Ministry of Education was already offering financial support for students as well as both consultancy time and resources for course development, and we agreed that we should return to the third challenge in due course.

Campus director Rod Dixon sought start-up money, and we arranged a planning week at the Cook Islands campus in August 2016 at which we could draft out a proposal. Being in Rarotonga was also an opportunity for me to hear some of the background to the initiative, and to remind me that I was only there to fill in the paperwork. Marjorie Crocombe related the story over the first day's lunch at Joan Graggs's house of how their committee had accosted the Prime Minister at an event to mark the opening of the new Confucius classroom at the campus, demanding an appointment to discuss how Cook Islands Māori could be included in the USP curriculum if Chinese was going to be there. It was also fortuitous that the Prime Minister was currently the USP Chancellor, an opportunity that we would be remiss to ignore. During the planning week, Ngavaevae Papatua, Rod Dixon and I had a very productive time at the white board, sketching out programme outcomes, and quickly realising that we had enough courses to form a major. The paperwork was inevitably more complex than envisaged, but we eventually received the good news in mid-2017 that our proposal to introduce a diploma, a BA major and a teaching subject for trainee secondary teachers in Cook Islands Māori had been approved.

The momentum grew from this point forwards, spurred on by the support and enthusiasm of our Dean, Akanisi Kedrayate. At the end of August 2017, I spent a few days in Port Vila with colleague Robert Early, having fruitful discussions with staff and advisors at the Vanuatu Curriculum Development Unit about possibilities for a programme in Vanuatu Language Studies. Meanwhile, Rod Dixon, had put me in touch with the Tonga campus director, Seuʻula Johansson-Fua, who then brought together ʻAna Taufeʻulungaki, ʻAna Koloto and Heti Veikune in September to help us create a proposal for six new courses, focusing on both the Tongan and Niuafoʻou languages. At the planning workshop for the new Strategic Plan the following month, the Vice President for regional campuses highlighted the need for USP to embed opportunities for local languages to be taught and sustained across the Pacific, and then ensured that I had met all other campus directors who might initiate further proposals. Thanks to meeting Maryanne Tulagi, I found myself in Niue the following month planning a programme of six courses in Vagahau Niue. Finally, spurred on by the handing over of the USP chancellorship from the Cook Islands Prime Minister to

the Rotuman-born President of Fiji, a group of Laucala-based staff began to explore possibilities for Rotuman.

At the time of writing, the first Cook Islands Māori course has been taught to a cohort of 22 students and the second is about to begin; Senate has recently approved the introduction of new programmes in Tongan and Niuafoʼou, Vagahau Niue, Vanuatu Language Studies, and Rotuman; social classes in Rotuman have begun on Saturdays to drum up interest in next year's credit programme; the Tonga Campus have officially launched their programme as part of the 50th anniversary celebrations; and curriculum development is well underway for the 2019 courses. Spirits are currently high, and we appear to be witnessing a coming together of hard work initiated by local committees in member countries, expertise sourced from the communities of speakers and linguists, institutional support for the practicalities, and some strategic visioning of how we collectively see ourselves as a university of and for the Pacific.

Pacific Languages and Linguistics for the Next 50 Years: 2018-2068

Once the euphoria of the golden jubilee has died down, the key question is what will happen next. At our centenary in 2068, what will we have to say about the state of Pacific languages, and USP's role in their plight? The remainder of this paper considers the question 'Who will take Pacific languages forward?' from three perspectives: Are speakers passing their languages on to the next generation? Who needs to work together to ensure these languages remain useful? And whose expertise on Pacific languages is valued?

Who is passing Pacific languages on? How worried should we be?

The first way of answering 'Who will take Pacific languages forward?' is to consider who is speaking them. Readers of this journal are well aware of the immense linguistic diversity of the Pacific. The statistic we like to use is that approximately a quarter of the world's languages are spoken here by fewer than one percent of the world's population (Lynch, 1998). This means that the populations of each language are tiny by global standards, particularly in Melanesia, where Papua New Guinea has the highest number of languages out of any country in the world, while Vanuatu has the highest per capita. Along with ecological and cultural diversity, there is grave concern that this linguistic diversity is under serious threat.

Some such concern focuses on shift towards English (Tryon, 2006), while others have focused on the influence of lingua franca such as Solomon Islands Pijin (e.g. Hicks, 2017, with reference to the Baemawz community of Santa Cruz), or neighbouring vernacular languages (e.g. Schneider & Gray, 2015 with reference to the languages of Pentecost; Sumbuk, 2006, with reference to Tench and Malkolkol being replaced by the neighbouring languages of Musau and Nakanai respectively). Others focus on the shift towards the dominant dialect of a language, such as towards the variety of Fijian known variously as 'Bauan', 'Colloquial Fijian' or 'Standard Fijian' (Mangubhai & Mugler, 2003).

However, contrary to claims frequently promoted by global media (Strochlic, 2018), and also by linguists, most notably Krauss (1992), small languages are not necessarily doomed. As has repeatedly been argued by linguists in the Pacific (Crowley, 1994; François, Franjieh, Lacrampe, & Schnell, 2015; Mangubhai & Mugler, 2003; Siegel, 1997; Sumbuk, 2006; Tryon, 2006), many such languages have continued to be passed from generation to generation, remaining relatively stable despite populations of often only a few hundred speakers. While acknowledging that some languages have disappeared over the past decades, François et al. (2015) estimate that, of the 138 languages of Vanuatu, only 18 (with fewer than 15

speakers) are certain to be lost, and perhaps another 13 that have fewer than 100 speakers. Although it is noted that more and more urban families are beginning to rely on Bislama as the main language of the home, the authors provide evidence of the strong vitality of most of the country's languages, as parents are generally continuing to pass on their languages to their children.

Such inter-generational transmission is the key to a language's survival. Given that bilingualism and multilingualism have always been the norm, there is no reason that 'big' languages such as Melanesian Pidgin or English should eradicate any other language, and there is no a priori reason that a dominant variety of a language should swallow up other varieties. If parents speak the vernacular(s) as the main languages of home communication, then they will survive. Other languages can easily be added to the repertoire, through either informal learning outside school or formal learning inside school. The immense linguistic diversity of the region necessitates the normalisation of multilingualism, rather than the promotion of one or two languages only, and learning new languages does not pose a threat, provided that these languages are adopted for use in slightly different contexts or for slightly different purposes than those already fulfilled by the vernacular. It is only when the new languages start to become used in exactly the same domains as the vernacular, such as in the home or at traditional ceremonies, that the vernacular may be displaced.

This is one reason that migration is considered to pose one of the major threats to language survival in this region (Tryon, 2006). If speakers of one language relocate to a community in which another language is dominant, then a shift towards the latter will start to occur in some of the domains in which the former was previously used. If the migration is permanent, subsequent generations are likely to grow up with their heritage language as the norm in fewer and fewer domains unless there is an active enough community of its speakers in the new location. Vagahau Niue is a particularly clear example of a language threatened by migration, given that approximately 95% of people who identify as being from Niue reside elsewhere, predominantly in New Zealand (Statistics Niue, 2012). However, the language has a much stronger chance of survival amongst the population resident in Niue, given the continued strength of the community. So it is not so much the size of the population that determines language loss, but the strength of the community within which inter-generational transmission continues (cf. Willans & Jukes, 2017 on the relative vitality of Tokelauan in Tokelau and Hawaiˈi).

In summary, we should be worried about the vitality of Pacific languages, but we should consider the next 50 years to be critical in determining their long-term future. These next 50 years are critical precisely because this period is no longer about achieving independence or being directly controlled by other countries or belief systems. This next period is about individuals and governments making strong and informed decisions about what is best. Individual citizens are becoming more critically engaged in socio-political affairs, particularly through new technologies and social media, and they enjoy greater voluntary mobility than ever before. Individual choices about where to live, which languages to speak at home, and which communities to affiliate with will have enormous impact on language vitality in this region. Meanwhile, the decisions that national governments make about which languages to use in the education system, which languages to use in their own communication with the public, and which languages to make prominent on street signs and official notices will provide the structure within which individual citizens act.

Who is part of this conversation? How do we work together?

The second way of answering 'Who will take Pacific languages forward?' is to consider which institutions and groups can best work together to ensure the sustainability of Pacific languages.

The school system is a good place to start. Given that most countries in the USP region have language-in-education policies that support initial education through the vernacular (Willans, 2018), teacher training institutions need to ensure that Early Childhood Care and Education (ECCE) and primary teachers are trained to teach initial literacy, numeracy and all other subjects through this language, while curriculum and assessment units need to provide quality materials in the relevant languages for these teachers to use. At later levels, where English (or French) is usually used as the medium of instruction for at least some subjects, almost all USP countries also offer the vernacular language as a subject (ibid.). High-quality materials, assessments and teacher training programmes therefore need to be in place to ensure that this subject is delivered well. In Fiji, children are also required to learn the language of the other dominant ethnic group in a subject referred to as 'conversational language', so the resources and methodology need to be tailored to provide a different experience from that in the vernacular classroom (Government of Fiji, 2013). Schools are not responsible for ensuring that people keep speaking their languages but, if the school system prioritises other languages like English to such an extent that parents stop speaking their own languages with their children, then language shift is inevitable. Once good policies are in place that have the objectives of quality education *and* the learning of important national and international languages, then it is in all of our interests that these policies are well supported.

Another group who will be key to the success of endeavours within the region is the ever-expanding diaspora population of Pacific language speakers living outside it. Within this group are a large pool of potential students who may wish to enrol in our programmes by distance, or join flexi schools in the home country or in cities such as Auckland. However, there is also a significant wealth of knowledge and skill within these diaspora populations, which we might think of as untapped expertise to support and grow our programmes. As USP becomes better at thinking flexibly about its teaching and community engagement, it becomes easier to imagine different study options that might enable Pacific islanders to enrol for Massive Open Online Courses (MOOCs), short courses and taster sessions, as well as full degree programmes, from wherever they are located. At the same time, we need to keep investigating appropriate technologies that can enable us to offer more interactive language resources and apps than we currently have access to, again collaborating with industry partners as appropriate.

USP can clearly play a vital role. We train many of the region's teachers, we are able to offer advanced study of a range of Pacific languages, we have access to up-to-date research, and we have never been afraid to push boundaries when it comes to distance and flexible learning. However, USP cannot and should not work alone or in competition with other institutions. Where national universities and teacher training institutions offer related courses, we need to discuss possibilities for credit transfers, pathways and joint programmes, in order to avoid duplication. Such duplication is damaging for two reasons. If a relatively small pool of students is divided between institutions, this will endanger the financial viability of offerings at each; similarly, if a small pool of teaching expertise is spread across different programmes, it may damage the quality of what can be delivered. For this reason, we have decided not to develop a new USP programme in Samoan, since the National University of Samoa already meets this need. Where USP identifies a gap in provision, any new offerings must be done as part of national human resource plans, so that we know that our programmes will align with national priorities. National institutions

outside the education sector are also key, such as museums, archives, cultural centres, indigenous affairs boards and language bureaus, who can provide vast amounts of expertise and resources, as well as employment opportunities for graduates. It should not be about USP competing with others, but about ensuring, through collaboration, that as many people as possible have the opportunity to learn, study and research Pacific languages.

It is also clear that we need to maximise the cooperation between different elements of our own institution. The collaborative effort that has gone into the planning and implementation of our new language programmes has cemented the importance of multiple groups and individuals working together, with the decentralisation of expertise. Discussions about Pacific languages have been raised at the level of Council for years, and references have been made to the fact that "Pacific cultures and societies are central to the USP mission, vision and values" (University of the South Pacific, 2013, p. 21) within website copy and strategic planning documents. However, such top-down rhetoric alone is not enough, as evidenced by the fact that it took 16 years from the Council resolution of 2000 to develop programmes in further languages (Lynch & Mugler, 2002) before the next programme was finally introduced. What has finally worked well has been the coming together of local committees from outside USP, regional campuses, and an academic department who can find a practical way to house courses within the existing programme structure. The increased visibility has now led to a commitment to Pacific languages and cultures being integrated within the new strategic plan for regional campuses, in other words feeding back up to the top and back into the centre. This should act as a good model for USP, as it draws on our strength as a multi-sited and multi-competent institution with a huge and diverse range of expertise and knowledge connected by a common vision.

Who is really part of the conversation? Whose expertise is valued?

The third way of answering 'Who will take Pacific languages forward?' is to consider who is positioned as expert and who gets to influence what happens next with Pacific languages at USP. As an outsider to the region myself, and as the coordinator for linguistics and languages, these are questions of great concern to me.

The first 50 years at USP have achieved many things in linguistics, through the impressive work of many scholars. We do, collectively, know more about Pacific languages than we did 50 years ago, and USP has been a part of that, particularly through the establishment of the PLU. But the first 50 years have not produced a generation of graduates who are now claiming their own expertise about Pacific languages: conducting linguistic research, talking confidently about the structure and diversity of Pacific languages, or even teaching them as first and second languages. Since the restructure of 2006, no Pacific islander has held a position in linguistics or a Pacific language at the level of lecturer or above, with all such positions held either by naturalised citizens or expatriates.

It could be argued that expertise is valuable, regardless of who has devoted the time to establishing it, as is the perspective put forward in the following passage with respect to linguistic research in Vanuatu:

> *The early years of independence were followed by a moratorium on research, from 1985 to 1994 (Taylor & Thieberger, 2011, p.xxviii). In 1995, encouraged by Ralph Regenvanu the new director of the Vanuatu Cultural Centre, the country opened up to foreign academics again. Many people were then aware of the useful role linguists*

could play in documenting the linguistic wealth of the archipelago, while its many languages were still being actively spoken. The following two decades have seen a sustained effort to describe and document the languages of Vanuatu, by an ever-increasing number of linguists. Many regions of Vanuatu, little explored until recently, are now being better known, improving our collective knowledge of Oceanic languages (François et al., 2015, p. 2).

It may be unfortunate wording that presents 'foreign academics' and 'linguists' as synonyms here, suggesting that linguists cannot be local (cf. Taylor & Thieberger, 2011, who paint a more positive picture of collaborative research in Vanuatu, thanks to the work of the Vanuatu Cultural Centre's fieldworkers), but there is a serious lack of criticality about who gets to play the role of linguist.

Scholarship priorities and graduate employment prospects create one side of the issue, as the brightest students tend to be recruited in areas of scholarship priority (cf. Crocombe, Baba, & Meleisea, 1988, on the reasons why early governments of Vanuatu and Cook Islands comprised theologians and medical doctors, respectively). The language-related sector with the most tangible opportunities remains the field of English teaching, and many of our students have drifted into a teacher training degree without real passion for the study of language. It is encouraging that many of our undergraduates do then develop this passion through our programme, but the challenge is to enable them to continue to postgraduate degrees when there are so few scholarships to do descriptive linguistic research. Most postgraduates are obliged to study around a full-time job, while also fulfilling the family and life obligations that might have been waived during undergraduate days, and it is extremely hard to complete independent research in this environment. To date, USP has produced only two PhDs in descriptive linguistics by Pacific islanders, Apolonia Tamata from Fiji (Tamata, 2007) and Hannah Vari-Bogiri from Vanuatu (Vari-Bogiri, 2011).

However, there are also institutional constraints that are serving to squeeze Pacific islanders out of the discipline, or to prevent our best graduates getting a foot in the door. We are struggling to create a full-time teaching assistant position in the discipline that can give an MA graduate job security or realistic progression opportunities, and the minimum qualification for an assistant lecturer is now a PhD. We have advertised for a new lecturer twice since I arrived at USP in 2015, and on neither occasion was a single Pacific islander deemed eligible for the shortlist. The Quality of Research measure by which applicants are evaluated requires a PhD and two publications that are recognised by the institution's ranking system (based on the ERA model previously used in Australia), in addition to tertiary teaching experience. These criteria privilege those who have done their PhD research full-time, and who have had sufficient time and support to be able to write publications and teach at the same time. We have therefore passed up more than one opportunity to hire a recent PhD graduate from a member country because they had not yet published any outputs that we recognised, one of whom was almost immediately hired by a good university in New Zealand. Meanwhile, we were messed around by two non-regional linguists that we hired on the strength of their publication and teaching records, and their research on related languages spoken in Indonesia. One lasted nine months and the other lasted two weeks. The three of us currently in post are deeply committed to tackling this issue of sustainability and capacity building, but we are all from outside the region.

We also need to ask bigger questions about what linguistics is or should be as a field in the Pacific. The new Pacific language programmes enable students to study one particular language in depth, using that language as the medium of instruction and assessment, while the linguistics programme enables students

to study language and communication in general, using English as the medium of instruction and assessment. Both types of programme fall within the discipline of linguistics but, since the former is grounded in particular cultures and ways of knowing, there is a danger that the latter becomes seen as non-Pacific, rooted in Western ways of knowing about language. Recent requests from students for postgraduate diplomas to be established in languages other than English have led to some interesting conversations on our *Language Matters in the Pacific* facebook group about whether a graduate from a Pacific language programme has to "go back to the English world" in order to study postgraduate linguistics. This is a topic that deserves rich discussion, which will only become possible once there are higher numbers of Pacific islanders involved in the field.

At present, our strategy is twofold: to demonstrate to students the importance of linguistic knowledge and train them in the field, but also to raise their critical awareness of the exclusion of Pacific islander expertise from the field of Pacific linguistics, in the hope of sparking change from within. For example, when we ask students to search linguistic archives for data recorded in their own languages, we prompt them to notice who is doing the recording and uploading of this data, and to reflect on how many times they see a Pacific islander named as the linguist or researcher, rather than as the informant providing the data. When we discuss international studies, we ask how applicable they think the findings might be in Pacific communities and ask them to suggest potential research projects that could be carried out in this region. We don't want to play into superficial binaries of Pacific versus Western, indigenous versus imposed, but we do want our students to notice, question, critique and disrupt the status quo. Whether this is in the spirit of achieving the graduate outcome of Pacific consciousness, of decolonising the linguistics discipline, or of simply provoking new conversations, we need to start asking uncomfortable questions as we move into the second half of USP's first century.

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English Language Proficiency at USP: A Story of 5 Decades

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Abstract

This article is an effort to trace the literature on English Language Proficiency (ELP) issues at the University of the South Pacific (USP) since the 1970s. In the process, it reveals that ELP issues have persisted for 50 years now. It also implicates that while a number of steps have been taken to address these issues, there has been little impact towards improving the ELP situation. A major reason for this is that these mechanisms tend to be 'one size fit all' which do not systematically assess students' needs and support them accordingly. Another reason is that support sections are viewed more as remedial centres rather than as scaffolds which aid in the development of language proficiency. The article recommends strong collaborations between academic staff members and learning support sections in creating awareness on academic proficiency. It also calls for widespread institutional culture where everyone assumes responsibility for improving ELP at USP.

Introduction

The University of the South Pacific (USP) is a regional tertiary institution comprising twelve member countries, namely: Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu. The language in education policy for most of these island countries clearly stipulates English as the medium of instruction from the middle of primary school onwards. The only exceptions are vernacular and culture classes where vernacular languages remain the tool for instruction. Despite learning through the English language, USP students' proficiency levels in the language have been a matter of concern over the 50 years of the institution's existence. At this point, I would like to stress that it is not in the scope of this paper to debate pre-tertiary pedagogies or their impacts on students' language proficiency levels. Rather, the paper outlines the nature of English language problems manifested through incoming students to USP and the implications for academic studies.

English Language Proficiency (ELP) refers to the general ability to use the English language. There are however two components to its definition that are necessary for understanding ELP issues at tertiary institutes such as USP. According to Cummins (2008), ELP constitutes both *basic interpersonal communication skills* (BICS) which marks conversational ability, and *cognitive academic language proficiency* (CALP), which is the ability to use language appropriately and effectively in academic contexts. According to this description, interpersonal and academic functions of language are separate, but students' conversational fluency tends to be conflated with the ability to perform on academic tasks (Sebolai, 2016; Wingate, 2015). This distinction between conversational and academic language proficiencies leads to the understanding that language is context dependent and variances in language

form are likely to exist between contexts. As such, the ability to engage with language in one domain cannot be assumed for proficiency in others. In the course of their academic programmes, students are exposed to various academic text types. They need to know that communicative purposes and grammatical structures vary between disciplines (Coffin, 2006). But this awareness is not always clearly articulated or disseminated (Lea & Street, 1998; Wingate, 2012). It is usually this knowledge gap with which incoming students at a tertiary institute struggle. Thus, in order to perform successfully in academic contexts, students need to be socialised into academic language use (Toumu`a, 2014) specific to their areas of study. At USP, this role is relegated to the English for Academic Purposes (EAP) and the Student Learning Support units. Both support systems have existed at USP, however, students' ELP issues continue to persist. In order to identify the nature of ELP issues at USP, considerable studies have been conducted. In this article, I attempt to trace the literature documenting ELP issues at USP from the late 1970s to 2015 which just about covers the university's 50 years of existence. By doing so, I hope to describe the various language proficiency related concerns that have been brought to attention during this period and USP's efforts to manage them.

Background

The medium of instruction at USP is English. There are a number of reasons for this and the order in which they are listed here is arbitrary. Firstly, English is the stipulated medium of instruction in mid primary and secondary school learning contexts in all member countries. The only exception is Vanuatu, where French is used at Francophone schools. The English language also provides a common means of communication between speakers of the various Pacific languages in the classroom. There are about 200 indigenous languages that are spoken within the USP region (Lynch, 1998).

As a global language, English connects the region to the world beyond and is therefore associated with advancement in society. Knowledge of the English language implies access to progress, and consequently, parents often prefer to send their children to schools where English is the medium of instruction (Taufe`ulungaki, 1994; Lameta, 2005). The idea is also very clearly entrenched within the USP member countries' education curriculum objectives on knowledge of the English language. It is implied that knowing English would enable students to participate in their wider community. Evidently, the English language forms a significant part of a USP student's formative years. However, when the same student embarks upon tertiary education, concerns are raised regarding proficiency levels and competency in using the language in order to cope successfully, as studies conducted at USP (Deverell, 1989; McPherson, 2000; Khan, 2000; Khan & Mugler, 2001) have suggested.

These studies also seem to indicate two areas of inadequacy. First, there is a poor command of grammar, punctuation, and sentence structure (IOE Report, 1981, Fitzcharles, 1983, 1984; Z. Chand, 2015) in the English language. Second, there is an inability to use the English language for academic purposes (Elley & Thompson, 1978; Fitzcharles, 1983, 1984; Faerua, 2004, Penefold, 2014). Thus, not only are students grappling with the grammatical aspects of the English language but also with its application in academic contexts. With such an understanding, I now attempt to describe the nature of ELP investigations that have taken place during USP's 50 years of operation.

Empirical Studies on ELP at USP

Early studies on USP students' English language knowledge and use for academic purposes were motivated by the need to determine whether incoming students' proficiency levels in the English language would impact their academic performance at USP. Three quantitative studies that deserve mention tested the proficiency of large numbers of students at the foundation level. These used the *Progressive Achievement Test (*Elley & Thompson, 1979), *Proficiency in English Measure (PEM)* (Fitzcharles, 1983; 1984; Deverell, 1989), and a comparison between the New Zealand University Entrance scores with those of USP's foundation Communication and Study Skills course (Low, 1982). Of particular interest are the findings from Fitzcharles and Deverell which seem to suggest that academic success depends on language proficiency.

Fitzcharles (1983; 1984) compared results from the PEM administered in 1983 with those of overall z-scores of academic courses for semester 1 of the same year. The results indicated significant correlations between the two sets of scores suggesting that low PEM scores were a factor in poor academic performance.

Similar intentions were apparent in Deverell's (1989) use of a Proficiency in English Measure (PEM) that determined the number of courses incoming students into the Foundation level would pass. The PEM comprised both general vocabulary and comprehension components as well as discipline-oriented vocabulary and comprehension items. During the years 1984 – 1987, 693 science students and 459 social science students were tested. Their PEM scores were classified according to five range points and the number of passes in their respective courses was counted.

Her investigation demonstrated that the PEM could predict the score students needed in order to have a 50% chance of passing a certain number of foundation courses. If their score was lower than a specified PEM mark, their chances of passing that number of courses would be less than 50%. In other words, they would be more likely to fail than to pass. The tested cohort comprised largely of Fiji students, thereby making it difficult to identify trends for students from other Pacific Island countries. However, it is unlikely that results would have been any different for those students.

The findings from Fitzcharles and Deverell, correlated well with the 1981 report from USP's Institute of Education (IOE) report. The IOE report summarised the range of English language errors made by students from nine South Pacific Island countries. According to the report, L1 (primary language) interference, together with poor teaching and learning experiences, were among the reasons attributed to students' ELP deficiencies. This finding was further supported by Moag and Allen (1978) in their assessment that faculty staff members were without clear guidelines on how to respond to student errors and correspondingly used their own discretions to treat them. Both studies demonstrated that students' English language requirements were not being addressed.

Extending on Moag and Allen's findings, some twenty years later, Griffen's (1997) small scale investigation analysed how USP lecturers from across the university awarded A and D grades to long answer responses in first year examinations. The study revealed that poor language skills (grammar and spelling, use of technical vocabulary, coherence and fluency, and presentation) were a factor in achieving a fail grade for a large number of first year students. The study also showed that lecturers varied in how they rated their expectations of a well written response. While the majority agreed on a satisfactory response to the

question as priority, others rated as just as important the ability to communicate that response according to markers such as cohesion, fluency, correct grammar and spelling, and discipline related vocabulary.

Griffen's study augured well for Khan and Mugler's (2001) survey which evaluated how well Fiji's Form Seven English prescription prepared first year USP students in English writing, reading, speaking and listening skills. Their survey showed that while the Seventh Form prescription targeted focal areas of language skills, university expectations were more extensive. Students remained underprepared for higher order application of listening, reading, speaking and writing requirements of their first year courses. Khan and Mugler (2001) noted that the EAP course at USP provided first year students with awareness of academic conventions and opportunities to practice language skills that they could apply in their courses.

Studies, such as those by R. Chand (2007) and Alifereti (2013), added to the literature by expanding on the areas of focus on ELP at USP. For instance, R. Chand's (2007) study demonstrated that USP distance learners faced numerous challenges in the development of their academic listening skills. Studying through the distance mode limited students' interaction with peers and tutors who could nurture the required listening skills for academic purposes. The participants of the study reported that teachers' accents impacted their ability to understand content. Due to limited contact there was little exposure to people with different accents and minimal opportunity to acclimatize to their style of speaking. Another issue hindering the development of listening skills was students not using the learning materials provided to them, which included a CD for listening activities.

An extensive study on students' academic writing proficiency was explored by Alifereti (2013) who used a corpus-based analysis to explore the lack of abstract and metaphorical concepts. These concepts refer to structures at the phrase and clause level and add to the semantic quality of the sentence. They are mostly salient in academic writing. Alifereti's study investigated lexical density in relational clauses. Data consisted of second and final year USP students' academic writing texts that had been graded A or B. She commented that it had not been easy for her to obtain A graded papers. Her findings revealed that USP students tended to generate structures that were quite basic and superficial, demonstrating the absence of the said structures. She also analysed academic writing texts from an American university by native speakers of English. These texts which had been graded A+ or A showed that higher level students' writing and those that are native speakers of English contained a marked nominalization of verb structures. USP students' academic writing, however, was inclined towards simpler structures where verbs were presented in transitive form. Alifereti's finding resonated with Khan and Mugler's (2001) observation of USP students' inability to pitch at a higher level of academic writing.

Areas pertaining to proficiency in academic writing are also drawn attention to in the studies by Green (2012) and Z. Chand (2015). Both corpus-based studies shed differing perspectives on understanding the nature of language errors which students commit in their academic writing. Green's study (2012), for instance, is a detailed analysis of various language-based errors (morphosyntactic, lexical and semantic) collated from two semesters' essays. These essays were generated during semester end exams for the university's generic English for Academic Purposes course. The data, which covers students from 11 USP regional countries, reflects common historical and English language learning experiences that have contributed to features that she perceives are typical of a Pacific variety of Standard English. While Green is charting the possibility of a Pacific variant of Standard English emerging, she alludes also to the concern

that such variants are not perceived positively by lecturers and subsequently, these perceptions may impact students' academic achievement and ensuing employability prospects (Green, 2012).

Whether language learning strategies impacted English language proficiency when undertaking academic writing activities was probed by Z. Chand (2015). Her study, which comprised 105 Fiji students, used the Strategy Inventory for Language Learning (SILL) questionnaire to derive data on students' use of their learning strategies. She found that students were medium frequency users of metacognitive strategies. Such strategies require learners to monitor and evaluate their learning process, and according to Z. Chand suggest that students were advanced and experienced learners of English language. Nevertheless, error analysis of students' academic writing showed that there was no significant correlation between strategy use and academic language proficiency. This finding has strong implications for the language learning approaches which students are exposed to, and Z. Chand recommends further research.

Other studies have focused on discipline specific aspects of language proficiency. For example, Penefold (2014) describes language and communication skills that are desirable in law students. She points out that law students must participate in academic settings and should be concurrently trained for professional settings. Both these situations demand various applications of the English language. Communicating confidently with lecturers from a range of backgrounds, participating in tutorials and assignments, and debating ideas are facets of academic language use. Professional training requires learning to speak in courtroom language as well as learning to interact cross-culturally with new clients. Penefold's study of USP's law students illustrates that language proficiency cannot be confined to grammar knowledge only and thus is not an issue that is dealt with only prior to admission at the institution. Students need to be equipped with the tools that enable them to develop discipline-specific communication skills, which Penefold reiterates is the responsibility of the subject teacher, a fact which tends to be masked by the prevalent attitude that students are ill-prepared to cope with tertiary studies.

The view that tertiary academic staff members are just as responsible for nurturing desired academic language also emerged through a vocabulary enrichment study at USP. Williamson (2004) presented about a hundred students of English Language skills with academic vocabulary required for a short writing task. She found that students remembered to use the target vocabulary in their task a week after being taught them, but they did not continue with this when tested six weeks later. She maintained that for a sustained application of learnt vocabulary to occur, students should be provided with opportunities to revisit them throughout their academic programmes. Williamson's study reflected strong implications for socialising students into discipline-specific content. Specialised vocabulary and content specific to the subject area can best be taught by the course lecturer through relevant pedagogical approaches. It seems, however, that USP course lecturers remain apprehensive about the teaching of language skills (Campbell, 2014) or assume their role as peripheral which leaves students with the responsibility to seek learning support (Khan & Mugler, 2001).

These studies are indeed noteworthy in the documentation of ELP issues at USP over the years. Foremost, that the majority of USP students do not speak English as their first language is not a negligible reality. The implications of this are somewhat evident in the studies described above. Second, incoming USP students lack knowledge of grammar and language befitting academic use. Students are deemed underprepared for expectations of tertiary level learning which tends to vary between disciplines. Finally, USP students struggle to acquire either the type of academic language used by proficient users of academic English or the discipline-specific language needed in their own subject areas. These findings

indicate that gaps exist between students' existing ELP levels and what USP expects from them. They also raise questions about whose responsibility it is to socialise students on ELP requirements.

Language Support Mechanisms at USP

USP had recognised the role of language support mechanisms quite early in its establishment and put in place the Centre for the Enhancement of Learning and Teaching (CELT), at some time in the 1970s (Khan, 2000). CELT also provided Tertiary teacher training qualifications, however the decentralization processes in 2008 led to it exclusively focusing on student support and so is currently referred to as Student Learning Support (SLS).

In an investigation of the way academic staff used this centre, Khan & Mugler (2001) found that workshops and one-on-one sessions were common. One lecturer stated that she invited a CELT staff member to conduct specific language and academic skills. Other lecturers interviewed in Khan and Mugler's (2001) study reported that due to time constraints they were not always able to conduct in class sessions so told students to seek language skills support in their own time but knew that students did not do so.

An English for Academic Purposes (EAP) course was first introduced to students in 1993 (R. Chand, 2007) to equip students with the language skills required for academic studies. When USP introduced four core courses into students' undergraduate programme during the 2010 – 2012 Strategic term (USP Strategic Plan, 2010), the EAP course LL114, retitled UU114, became a compulsory unit for all incoming students. UU114 is in fact designed to socialise students into academic English requirements at the tertiary level. A major component of the course focuses on the processes of academic writing and assesses students through tasks such as essay, report writing and seminar presentations. Nonetheless, these components remain generic and should be fine-tuned by course lecturers to discipline-specific requirements (Wingate, Andon & Cogo, 2011).

The early 2000s marked the advent of a language diagnostic test evaluating proficiency levels of incoming students to USP (McPherson, 2000). The English Language Skills Assessment (ELSA) comprised 3 sections which were grammar and vocabulary, academic reading and academic writing. There were 5 band scores with 1 being the lowest and 5 the highest. Students who scored bands 1 or 2 in the exam would have to undertake an English Language Skills course referred to as EL001. In the course, students were taught academic skills and language skills through the four modes of Listening, Speaking, Reading and Writing. Students undertaking EL001 would do so concurrently with their other semester courses.

As part of quality assurance, the ELSA exam and EL001 underwent three external reviews; conducted in 2005, 2009 and 2014. The outcomes of the reviews of ELSA and EL001 were similar in most areas. They all agreed that the university needed an ELP assessment of incoming students and that clear pathways for language support needed to be implemented to ensure that students would be able to meet the language expectations of academic studies. An aspect enabling this would be strong collaboration amongst all sections providing English courses and support, namely, the Foundation programme and the EAP course as well as the Student Learning Support sections. There was also a call for levelling support according to student proficiency needs. The existing programmes placed all students with varying listening, speaking, reading and writing proficiencies together. As such, students' diverse language proficiency needs were being overlooked, and a 'one size fits all' remedy was being applied to redress the situation. The 2014 review in particular recommended consultation with stakeholders such as sponsors and employment sectors in recognising and reinforcing USP's role as a regional leader in ELP development. Benchmarking

the ELSA exam and working closely with standardising bodies would also raise USP ELP standards. Finally, this review iterated that all teaching staff should assume some responsibility in improving ELP at USP.

These reviews led to the revision of the ELSA test in 2015 and its relaunch in 2018, with the inclusion of a listening section. As with the old ELSA, it is compulsory for all new students, but it is now conducted online, in unsupervised conditions. The test is complemented with a revised version of EL001 which allows students to self-access online material and work on the activities, rather than having to take an additional course at the same time as their regular course load. The ELSA-EL001 pathway has therefore been repositioned more as a support structure for students to use independently.

ELP as a Graduate Attribute

ELP is listed as a graduate attribute for USP, however, employers of its graduates' have repeatedly drawn attention to the levels of poor English (Green, 2012) in their recruits. Much furore was created when Fiji's Ministry of Education administered a Basic English proficiency test for all new non-English high school subject teachers in February 2018. The test, which comprised two components, namely, Part 1: English Proficiency and Part 2: Work Test (Bolatiki, 2017), assessed competency levels in oral and written English. About 50% of the 2000 plus teachers who sat the exam in 2018 were deemed unsuccessful (Turaga, 2018). According to the Permanent Secretary of Education in Fiji, the results demonstrated that graduate teachers were not competent in English (Turaga, 2018) and raised concerns about the quality of English language teaching in the schools and tertiary institutes (Talei, 2018a). Nonetheless, both the then Vice-Chancellor of USP and that of the Fiji National University (FNU) commented that while they had commendable teacher training programmes, ELP also needed to be part of professional development processes (Lacanivalu, 2018; Talei, 2018b) where graduates could be up skilled on specific work front requirements.

Conclusion

In its 50 years of operation, USP has identified and addressed many aspects pertaining to ELP concerns emerging during the period. From establishing a small language support centre to implementing a diagnostic test with ensuing online language support materials it has certainly been a feat for a regional university in the Pacific Islands. This achievement strongly reflects the 2013 – 2018 strategic goals (USP Strategic Plan 2013) of attaining excellence and equity.

However, literature reviewed in this paper shows an existing gap between incoming students' ELP levels and academic requirements of USP. USP has implemented measures to address language proficiency and academic skills through its EAP course, learning support and proficiency exam, but these solutions do not seem to be effective. A far more comprehensive approach may be needed since the majority of students are not native speakers of English and many need support with grammar knowledge and writing skills. Additionally, to expect a generic course to fulfil discipline-specific expectations is impractical. It is also glaringly true that many students remain ill prepared to use English proficiently in the work environments after completion of their respective programmes. This has huge implications for the institution in its aim to inculcate communicative effectiveness in its graduates.

Questions arise regarding who should assume responsibility for acculturating students into tertiary requirements and who should prepare them for the workplace. As reflected by the external review reports of ELSA and EL001, the sections which can provide support are already in place, but a shift in the

perception that ELP concerns remain the primary responsibility of one section or another would have a stronger impact. In fact, a systematic approach from all sections of the university would make a difference.

At the outset, this involves lecturers having to clarify the discipline-oriented language requirements of their courses. Deverell's (1989) findings suggest that academic language proficiency is a strong indicator for academic success for USP students and thus should be taken into account when considering approaches to support students. Lecturers, too, should collaborate with SLS in order to identify best how to support students in academic literacy. The scope of support required can be ascertained by lecturers and this would enable SLS to provide tailored assistance instead of students appearing at their doors without any clue as to why their lecturers have directed them there.

There needs to be consistency on the ground with how lecturers treat language-related errors. There is also a need for consistency with respect to how students are informed about discipline-related conventions. This requires a clear awareness regarding what is acceptable in the particular discipline and how it is distinct from others. Reliance on an EAP course, which nurtures generic skills, will not fully permit students to respond to specific academic language requirements of their courses. Finally, there is a need to consult workplace stakeholders about their language requirements. Many workplace sectors place very high demands on the ability to communicate effectively in the English language. These demands should be clarified as well, and students should be given opportunities to practice them. Thus, discipline-specific conventions in combination with academic skills and literacy support can provide the scaffolding that students require for a successful study programme. In other words, what is needed is an institutional culture across the whole university that takes on the responsibility of enhancing students' English language proficiency levels in USP's endeavour for excellence.

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Reading Constructive Alignment Against the Grain at the University of the South Pacific

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Abstract

Constructive alignment, as a way of framing curriculum, and by extension teaching and learning, has widespread appeal. At the University of the South Pacific (USP) generally, and within the School of Education (SOED) more specifically, it has been presented as an unquestioned means toward greater quality in the education programs the university offers. Although necessary at a certain level, its unquestioned embrace, however, raises the need for some critical reflection. In the spirit of opening up further discussion among colleagues and others, this article offers a critique of constructive alignment from a number of perspectives including: its seeming resistance to complex educational realities; its technical rationality in the face of non-linear and organic aspects of teaching and learning in the Pacific; its discursive potential to disempower learners; and the tensions it produces with beliefs about autonomous, agential learners in democratic relationships with teachers. This article suggests an alternative set of alignments that must at least preface the constructive alignment work being undertaken at USP. In so doing, the article raises deeper theoretical issues concerning the purpose of teaching and learning at USP and SOED in particular.

Introduction

I had never encountered constructive alignment (CA) until I recently arrived at the University of the South Pacific (USP) and its School of Education (SOED), which makes me wonder why the silence at my previous tertiary institutions concerning such a "canonised" set of curriculum ideas (Huxham, Hunter, McIntyre, Shilland & McArthur-Holmes, 2015, p. 1). At USP, not only have we been urged to explicitly demonstrate CA in our course and program planning, it is a key element in SOED's current external review and accompanying self review. Further to this, CA has been of sufficient importance to USP that it has required external consultancy to facilitate its uptake across the university's many academic divisions. In addition, I have found myself teaching CA in one form or another in one undergraduate and two postgraduate courses that I have inherited as a still new member of staff

At a certain level, it is clear that CA must address incoherence in SOED courses and programs where it exists. Over time: academic staff turnover; last minute semester-eve teaching allocations; re-design of teacher education programs and courses; change in leadership; and unplanned external influences, have led to elements of program fragmentation and a resulting incoherence. In this sense it is an imperative that the incoherence be addressed. On another level, CA has had the positive spin-off of nurturing greater collegial relationships among the SOED teaching team via several large curriculum workshops and retreats and many smaller team meetings. CA often produces collegiality and collaboration among teaching teams where individual teaching specialisms have tended to fragment staff relationships (Uchiyama & Radin,

2009). So far so good. However, something so pervasive and considered by many to be unquestionably beneficial as CA, demands a closer critical inspection. As educators working within a tradition of critical praxis within a broader Pacific system of education that is still labouring under exogenous influences and pressures we are obligated to do this. In the spirit of such critical reflection, what has now become very *familiar* at USP could do well to be made *strange*, thus the following against-the-grain reading of CA using the perspectives of a number of critical curriculum theorists.

Constructive Alignment's Hegemony

With its origins in the work of John Biggs in the late 1990s, CA in higher education generally is a "product/outcomes based model founded on the strategic alignment of three elements: learning outcomes, teaching and learning activities, and assessment strategies" (Donnison & Marshman, 2013, p.59) all linked to a "common element expressed as a verb" (Fransson & Friberg, 2015, p.4). In some contexts, CA extends beyond individual teaching to include "entire higher education systems - courses, modules, programmes etc" (Mihailova, 2014, p.34), which has been the case at USP and SOED. Alignment is being sought within individual courses in terms of learning outcomes, learning experiences and assessment but also with broader SOED teacher education program outcomes and wider USP graduate outcomes.

In the above sense, CA operates as an "unarguable good" (Kelly, 2012, p.89). Why would anyone want to study in a course *unaligned* with broader programs? Why would anyone want to study in a course where learning experiences and assessment procedures are *unaligned* with stated claims about what students will learn? (Kelly, 2014). CA must be implemented to protect USP students' rights to learn what USP says they are offering through their array of programs. It is on this assumption alone perhaps, that CA in SOED has been implemented, unproblematised without consultation, and as the only means of strengthening teaching and learning in SOED programs. CA thus occupies a "hegemonic position" (Wickstrom, 2014, p.1) and like all hegemonies dominates in subtle ways, winning adherents, but at the same time leading to possible disadvantage. Kelly (2014) argues the disadvantage lies chiefly in the rarely questioned claims of CA that "render invisible *other* aspects of curriculum, syllabus and assessment ... in particular the local, messy, risky, folkloric accumulation of individual and collective experiences that teaching academics draw upon to construct their narratives of professionalism" (p.89, emphasis added).

The work of alignment stands in contrast to SOED's significant institutional history of advocacy for change through Pacific pedagogies of cultural difference, that is, the very re-assertion of the "local, messy, risky, folkloric accumulation" (Kelly, 2014, p.89) of Pacific pedagogical common-sense (see, for example, Nabobo-Baba, 2012; Thaman, 2009; Teaero, 2007; Maka, Fua, & Pene, 2006; Sanga, 2003; and many others). CA appears to be uncritically displacing these cherished alternative perspectives. For several decades, SOED has collectively looked *outward* via its teaching, research and consultancy with the message that educational effectiveness within its own programs, as well as regionally through schools, is attainable through the decolonisation of externally imposed educational theory and practice and the reclaiming and celebration of Pacific epistemic difference.

CA however, quite apart from it being an example of an externally imposed theory, has tended to turn the school's collective efforts toward quality *inward* in the search for more explicit linkages in course outlines between textual expressions of institutional, program and course learning outcomes, learning activities and assessment. The many hours SOED have devoted to meetings and workshops over an 18-month

period have involved a very linguistically forensic analysis of how, on paper, the above elements link to certain verbs - as is standard CA practice (Fransson & Friberg, 2015). Outcomes have been revised; tables created to align outcomes with assessment and spread sheets drawn up to show where, within a program certain, outcomes are concentrated. At the conclusion to some meetings there has even been a collective pleasure in the productivity. However, what lies behind that pleasure is uncertain. Is it pleasure in working toward positive change, or like that of Kelly (2014) when engaged in CA - "the kind of pleasure that is also available to me in crossword puzzles: the bits fit together and make a correct answer"? (p.89).

The Denial of Complexity

CA reflects, "an instrumental (simplistic) curriculum [that] prescribes the kinds of knowledge learners should have, the kinds of people learners should become, and the kind of society learners (and the rest of us) should be participating in" (Gough, 2013, p.1224). CA is therefore reductive in that it seeks to dissolve or deny the natural complexity of teaching and learning. Gough (2013) likens the CA approach to curriculum to that of the natural sciences, for example, Newtonian physics that is based on a simple binary of causality and prediction, or in the case of CA, outcome and assessment. This denial or erasure of complexity reduces "the educational encounter to a two-dimensional exchange of goods and services" (Holmes, 2015, p.8) robbing it of both its transformational and critical potential. CA denies this natural complexity and reduces teaching and learning to something resembling "competency based training" (Jervis & Jervis, 2005, p.9).

Teaching and learning grounded rigidly in pre-determined outcomes also constitutes the world as fixed and certain and removes all "doubt" (Nelson 2017). To the contrary, Nelson (2017) argues that "doubt" historically, has always been at the centre of transformational learning - "the rich, creative and imaginative dimensions of doubt" (p.120), akin to dissonance, that motivates human curiosity and inquiry. The more generative approach then is an embrace of the complexity through "an emergent (complexivist) curriculum open to knowledge that interrupts and challenges our ideals, and challenges us to think differently about who we (individually and collectively) think we are becoming" (Gough, 2013, p.1224). A complexivist example, to illustrate here, is the part of teacher education programming that introduces teaching and learning theory to students, a crucial part of "becoming" a teacher. Rather than narrowly advocating for a singular set of teaching truths via pre-determined outcomes, teacher education curriculum might more usefully expose its students to multiple orientations to teaching and then encourage critical thought by saying to students, "If you teach like this what might happen? If you teach like that then what might happen?" then finally, "how then will you teach?" Making this post-structural concession to the multiple (Wodak, 2001) means accepting not just complexity but students who are agential in the decisions they need to make about their own teacher education.   Ultimately, in a complexivist curriculum teachers and their programs have little control over student choice concerning what they learn.

The Politics of Complexity Reduction

The reduction of complexity in any system is likely to have a political motive (Gough, 2013). Where curriculum is denied being "open, recursive, organic, non-linear and emergent" and instead framed as "mechanistic, linear, deterministic, predictable" (Ibid, p.1214) then there are possibly elements of control at its root. Deterministic curriculum functions as a tool that "leads, pushes or coaxes learners in one particular direction – with no choice" (Ibid, p.1223). Following Gough (2013) the question then needs to

be asked - "Who is reducing complexity for whom and in whose interests?" (p.1220). Educational pressures and trends in any education system do not happen in a social vacuum. They are facilitated or constrained by broader societal discourses. In terms of the pressure for SOED to embrace CA there are at least three possibilities.

Firstly, Fiji national curriculum rhetoric might emphasise social constructivism and learner empowerment, but a range of deeply conservative administrative and pedagogical practices suggest otherwise. Teachers in Fiji work according to: short term teaching contracts, renewable according to performance; increased appraisal processes; basic literacy/numeracy testing for employment; and pressure to increase qualifications for contract renewal among other conditions. Similarly, students in Fijian schools learn within a regime of standardised national exams after the recent scrapping of class-based assessment processes (Ministry of Education, Heritage and the Arts, 2015a). Such a move limits Fijian students to an age/grade lockstep and ignores democratic views of pedagogy that allow students and their teachers to work flexibly within individual zones of proximal development. USP, despite its regional ownership and affiliation, is beholden to narrower Fijian interests by warrant of its physical location in Fiji; its large Fijian student enrolment; and its predominantly Fijian academic and general staff, thus Fiji's larger financial investment in its operations compared to other regional countries. There is therefore a degree of wider educational "institutional validation" (Mihailova, 2014) for both USP and its largest partner the Fiji government over CA that privileges the hierarchy of both and marginalises soon-to-be teachers and those who already teach.

Secondly, CA tends to articulate with a number of Fijian cultural practices and values, which reinforce sanctioned hierarchies of various kinds, for example, the chiefly social system, the military, the church and the patriarchy generally. Curriculum designed on the basis of CA reflects existing social and cultural orders based on the social privilege of some and not others. CA ensures that students only learn what USP says they can learn as expressed in the assemblage of institutional, program and course outcomes. This approach, according to Gough (2013) is based on a conservative Tylerian view of curriculum design that hinges merely on curriculum as "guide" and as "given" and denies the "reconceptualist" and "post-reconceptualist" views of curriculum that links curriculum design with its wider social setting and the inclusions and exclusions of various groups in society (Pacheco, 2012, p.5, 7). Mihailova, (2014) goes further in suggesting CA really only "serves to evaluate institutional productivity [in meeting] the social and economic demands from policy makers, politicians and employers" (p.35).

There is also the possibility of a third set of relationships affirmed by CA, this being USP's relationship with Australia's Department of Foreign Affairs and Trade (DFAT) as the major aid donor to USP and who are putting pressure on SOED to meet strategic outcomes to ensure continuity of funding. A conservative approach to curriculum design via CA, with its simple process/product approach to teaching and learning, makes accountability to DFAT, as donor, visible and measurable. In this sense, Nelson (2015) notes CA as both "reactive and anxiety driven" (p.52), both of which are logics of a diminishing foreign aid budget in Australia (reactive) and an aid environment where Australia's "national interest and extension of influence" (DFAT, 2016) (anxiety) is given the same level of importance as "poverty alleviation and growth promotion" in recipient countries (ibid).

Contradictory Power Relations

Embedded in SOED's teacher education programs and the individual courses is a clear message that quality teaching and learning for the Pacific region needs to be socially-constructivist in orientation. Evidence for this can be found within its individual courses that stress child centredness, inclusion, professionalism, critical thinking, lifelong learning and research-based pedagogies (School of Education, 2018). The Ministry of Education in Fiji, who absorb the majority of its graduates for work as teachers, also emphasises, at least in terms of policy rhetoric, a similar set of socially-constructivist ideals. The Ministry's *Customer Service Charter 2015-2018* (Ministry of Education, Heritage and Arts, 2015b) emphasises "quality education for change", through "an empowering education system", that is "inclusive ... regardless of learning need", "contextualised" and "student centred in everything" (p.1). A socially constructivist approach to teaching implies a democratic set of relationships between teacher and learner where the learner is empowered to construct their own learning - in some parts of the Pacific described in terms of *ako* (Bishop & Glynn, 2003).

Where a curriculum has been designed based on learning outcomes that have been the sole prerogative of institutions and/or teachers; and where learning experiences are then logically designed to reflect those outcomes; and where assessment is only concerned with the attainment of the original outcomes, then teacher–learner relationships can hardly be constituted as democratic. Jervis & Jervis (2005) argue that assessment based on original outcomes where students are required to "enact verbs of understanding" (e.g. explain, classify, solve, analyse etc.) [is] frankly behaviourist in terms of stimulus and response" (p.9). CA, therefore, tends to constitute teachers and learners in asymmetrical terms. Teachers and institutions control the learning and the direction in which it takes - learners follow. Behaviourism as a basis for teaching and learning denies learner agency and invests power entirely within the teacher or the institution. The behaviourist CA influences, impacting SOEd programs and courses, sit in a very uneasy tension with the ways in which the School constitutes its students otherwise as agential and socially constructivist learners.

Conclusion

It is agreed that at a certain level there must be coherence in courses and programs but there also has to be a degree of slippage and flexibility. The *waka* in Pacific education is a widely embraced metaphor and can be invoked here also. A *waka* is built with sinnet so it can flex in the swell of the open ocean. A *waka* would never be made without that important capacity to flex lest it break apart. Curriculum needs similar flexibility. Forcing teaching and learning in the Pacific into a rigid CA framework is akin to a *waka* constructed with nails. In this way, curriculum as *waka* may also break apart, or more than likely just remain a paper-based exercise highlighting the desired alignments. Actual teaching and learning may just continue as it always has, embracing the messiness of the "open, recursive, organic, non-linear and emergent" (Gough, 2013, p.1214) elements in Pacific teaching and learning.

Additionally, effective curriculum is more than just the capacity to flex. The hard questions of who benefits from the complexity reduction need to be asked. This means examining curriculum as "story" and as "text" (Gough, 2013, p.1224), in other words, accepting curriculum as socially discursive rather than a Tylerian "given". The "story" and "text" of CA is linked to discourses of managerialism, intensification and performativity (Ball, 2003), all of which impact the work and study at USP. These dominant discourses further articulate with tertiary education market competition in Fiji and the rapid but often inadequate

development of SOED teaching programs to meet perceived need for further growth. It is also hard to separate CA from the further marketisation of learning, as evidenced by recent pressures over USP's institutional accreditation from the US and the pressure of obtaining individual program accreditations to stay ahead of other tertiary providers in Fiji. Further examples of Ball's (2003) performativity pressures on staff include performance tagged donor funding, program reviews, implementation of RSD frameworks, the use of an online portal for postgraduate supervisions, and the long standing staff contract renewal process based on narrow QoT and QoR criteria. Along with these pressures, CA compliancy feels like just another part of an overall "second order workload associated with accountability and the need to continually justify one's ongoing employment" (Clarke, 2013, p.231). John Biggs (2019) himself admits that CA has been wielded in this way, albeit erroneously, to serve a managerial agenda such as this[1].

In a SOED 200 level teaching and learning course there is an introductory unit on the ideas of John Biggs and constructive alignment. Within this unit's study guide someone has erred and typed "constrictive alignment" instead of "constructive alignment". Was this a mere typographical error or something deeper and Freudian in origin? Following Gough (2013) we must concede that like "entangled objects" crossing the liminal space of the Pacific beach (Thomas, 1991), the knowledge, values and skills that come embedded in curriculum similarly do not have their utility inscribed as they circulate within USP actual and electronic teaching and learning spaces (Burnett, 2012). Attempts to constrict are futile, as students will *always* construct their *own* learning from *our* teaching and in so doing, derail intentions. It might also be added that CA itself has also just recently crossed the Pacific beach. We as Pacific educators can and must exercise a similar agency as we meet with it. Unfortunately, the USP experience of CA so far has tended to be an unquestioned acceptance along with the managerialist values, to use John Biggs own terms, that have unfortunately attached themselves to it. As a teaching team we need to at least set aside our instrumental anxieties about the alignment of outcomes and assessment and first rethink courses and programs that more truly reflect our collective cherished teaching ideas - whatever they might be. We need to preface CA deliberation time with such a conversation. What might those ideas include? *Ako*? The socially critical? The unique Pacific pedagogies of cultural difference which we maintain exist? Rushing into CA alone has tended to turn us inward, signalling our own "epistemic drift" (Fransson & Friberg, 2015, p.142) away from a self-determined Pacific education, which has been expansive and outward looking by nature. Instead, we engage in increasing degrees of introspection, where in workshops and meetings we pour over course outlines and debate the relative merits of verbs (Fransson & Friberg, 2015).

If we must constructively align, we should first consider alignments along other axes. Some of these might include: relational alignments with students and being more accessible as teaching staff; social and cultural alignments with those most marginalised in the university community and beyond; research alignments with educational problems that matter; contextual teaching alignments that might mean being more multi-modal in our course offerings, instead of a simplistic online approach to everything. As Pacific educators, we need to re-embrace Pacific difference – re-locate our own *Pacific consciousness* and put it at the forefront of our praxis. Firstly, this process involves being "open to knowledge that interrupts and challenges our ideals, and challenges us to think differently about who we (individually and collectively) think we are becoming" (Gough, 2013, p.1224). After that, we think about CA.

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[1] Biggs notes that education, particularly in the US, has subverted CA to facilitate a managerialist agenda. I leave it to the readers of this article to make links if they will between CA at USP and the recent US accreditation that USP has obtained.

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Empowering Emerging Academics and Educators in Oceania: Why the Rethinking Pacific Education Initiative?

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Abstract

Today in the Postcolonial Pacific, early career academics and educators are often seeking to find their place within research and academia. This paper is a collective contribution by early career Moana academics and researchers linked to our positionalities within the Rethinking Pacific Education Initiative for and by Pacific People (RPEIPP). Our "positionalities" within the work that we do for people in Oceania is what drives our motivations and aspirations. Fundamental to the paper is how performativity through poetry and spoken word was utilised by ourselves at the 2018 Vaka Pasifiki Education Conference (VPEC) to conjure and bring forth, draw from, and evoke the intimacies inherent within our own experiences shaped within our collective families and communities. This paper is the physical embodiment of our performance at the VPEC conference. In light of RPEIPP, we position ourselves within the RPEIPP movement and utilise the critical space as a deliberate attempt to rethink Pacific education processes and activities that are linked to possibilities for future generations in the region. How then do we foresee Pacific education for the next generation? What is its purpose? What is our role? What types of valued knowledge are deemed worthy of passing down to the next generation? Such are the critical questions that drive the rethinking of our responsibilities as we navigate together and into the future.

Key words: RPEIPP, VPEC, postcolonial, positionality, performativity, poetry

Introduction

The title of our article, "Why RPEIPP?", highlights our growing concern that we are in a situation of dire need because what we know and how we understand knowledge to be is not of value, even amongst our own institutions in Oceania. RPEIPP stands for the "Rethinking Pacific Education Initiative by Pacific Peoples for Pacific Peoples", and is pronounced as REAP, meaning to harvest" (Taufe'ulungaki, 2015a, p. 2). For us, the interchangeable use of RPEIPP/REAP has not removed the core function of the initiative which has always been to empower our local people not only to rethink, but to actively seek out possible solutions for the educational challenges that we face within our region. This article collects the aspirations and voices of three emerging academics who are seeking to find ways to resolve the educational concerns within the Pacific.

During the Postcolonial era, decolonisation discourse has been a purposeful and fundamental move away from the dominance of Western thought in research and academia, thus taking on an appreciative approach of Pacific knowledge systems and practice (Smith, Maxwell, Puke, & Temara, 2016; Thaman, 2016). Despite the presence of "Pacific thought" in research and academia, it is not always valued and appreciated in higher education. Even within the Pacific, Western thought within regional institutions and

schooling seems to have more precedence. Pacific thought is described by Refiti as a "loose umbrella to categorise the thinking and writings" (Refiti, 2017, p. 268) of Māori and Pacific scholars (for example Durie, 2005; Helu, 1999; Hereniko, 2010; Ihimaera, 1998; Māhina, 2010; Taufe'ulungaki, 2015b; Thaman, 2014; Tui Atua Tupua Tamasese Ta'isi Efi, 2014; Wendt, 1999). Though the voices of Moana researchers are present in academia, they still continue to be ignored (Fa'avae, 2018b). This paper highlights the voices of three early career indigenous scholars from Oceania who are deeply invested in the educational success of students, teachers, and communities in the region.

Though our positionalities vary, we have adopted the "indigenous researcher/academic" descriptor because of our socio-political intentions to prioritise the needs of our own local people as opposed to those that are often imposed from outside of the region. In light of this, we have adopted the late 'Epeli Hau'ofa's (1998) thematic ideal through the notions of Moana/Oceania that embraces inclusivity and a sense of togetherness. Moana is a term that relates to the ocean and is regarded by Pacific people as a source of life. We utilise the "Moana researcher/academic" positionality, not to homogenise our local cultural knowledge and local people, but to develop a sense of "togetherness" as we work collectively to serve our diverse peoples in the region. As "Moana researchers", we adopt Ferris-Leary's (2013) critical stance through the purposeful use of our own indigenous concepts, language, and practice to disrupt the imposition of Western understandings on our own thoughts and practices.

Poetry and Spoken Word as Performativity

Soyini D. Madison eloquently articulated the dialogical nature of performance, for example, "in the ethnographic moment of dialogue and otherness is that communion with another that brings the self more fully into being and, in doing so, opens you to know others more fully" (p. 11, cited in Spry, Kanengieter, & Wildeson, 2014, p. 92). Poetry and performance are forms of expression that allow individuals to decipher, work through, and understand their struggles as well as aspirations within their social worlds (Alvarez & Mearns, 2014). Poetry and spoken word embrace performativity through language and emotion that leads to social support and action for performers and others around them(ibid).

Performativity is language symbolically expressed and captures both the *mālie* and *māfana*, Tongan ideas associated with heightened feelings of joy and inward emotions that embrace and touch the heart. Embodied in poetry, and expressed through performativity, are the aspirations and motivations of the individual authors in this paper. When individuals were asked to present collaboratively at the 2018 Vaka Pasifiki Education Conference (VPEC) in Suva to celebrate the University of the South Pacific's (USP) golden jubilee, the majority felt apprehensive. The group of five at the time raised several questions and comments: "nobody wants to hear my story"; "are my experiences of value in research?"; "I don't know how to write a poem, let alone recite it"; and "I cannot do the *lan* performance because it's not academic". These questions and comments were useful for individuals in that they helped reveal some fundamental dispositions inherent of the perceived value of Pacific thought and their own stories within academia, a space largely dominated by Western thought and practices including research. At the same time, the questions and comments by the group that performed their poems helped us negotiate the relevance of our experiences. Of real significance, the questions and comments related to writing and reciting poetry about our experiences were useful in that they helped the authors navigate and deliberate their sense of belonging and positionalities within the RPEIPP. The next section further unfolds the authors' positionalities.

Just as Marshallese people draw from the *lan* (pronounced lang), the weather/sky, as a source of strength and inspiration (personal communication, Yolanda Mackay, May 18, 2018), the performative session sought to do the same. The performative group presentation by academics/researchers utilised poetry and spoken word as a means and method of expression by highlighting each presenter's positionality and educational concerns in the postcolonial Pacific. Poetry is used as a way to express our aspirations for our children, our families, and our communities in Oceania. As oral forms of expression and storytelling, poetry and spoken word became vessels of hope and aspiration for us in the performance. To re-think Pacific education by and for Pacific people is a purposeful and deliberate act – a disruption of what counts as useful knowledge for us in Oceania (Fa'avae, 2018a; Rimoni, 2016; Tuia, 2013).

Diverse Representations of Pacific Words and Knowledge

Cross-cultural understanding and awareness is representative of a united and collective move to rethink Pacific education and its practicalities across Oceania. we are positioned in this paper as descendants of people from the Pacific region, this does not imply that our language is homogenous. In fact, as Tongans, Samoans, and Fijians, for example, we are diverse in terms of language fluency and cultural positionality. As such, not all the authors in this paper use the same word/s to attribute and identify with the region. Our positionality/ies, including language and cultural identity, are "dynamic" and shifting as we navigate through certain contexts (Adams & Jones, 2013).

Language, too, shifts within different contexts. For example, Fuaialii Tagataese Tupu Tuia, who is fluent in Samoan culture and language, and who still works and serves in Samoa, uses the term Pasifika because it necessarily fits within her positionality as Samoan-born and raised. In terms of language, the Samoan term for Pacific people is Pasifika. In contrast, Fuapepe Rimoni uses the term Pasifika predominantly from a New Zealand-born and raised Samoan view. The coining of the term Pasifika in the New Zealand context is linked to the Ministry of Education's attempt to classify all people of Pacific Island heritage into one group (Coxon, Mara, Wendt Samu, & Finau, 2002). However, beyond New Zealand and in the diaspora, the term Pasifika has very little meaning for Pacific people.

Below are our poems and discussions.

Poems and Discussions

I am a Nesian Warrior – by Fuapepe Rimoni

I am a Nesian Warrior. I navigate my way around the world by the stars; they create my pathway to new

destinations.

I carry my ancestors with me to help give me mana on a journey of new adventures and at times the

unknown.

Hoist my sail, ready my paopao, watch out world, here I come.

Just like our ancestors used the stars to map and guide their journey, that is what I must do for the

people of the Pacific. Strive for success, map the steps I must take to lead my own destination.

Our ancestors were fearless; they set out to the unknown. We have that mana within ourselves, to be fearless and to keep trying. I am the chief of my paopao, set my plan, follow through and reach for my dreams.

I am a Nesian Warrior,

Heartbeat Pasifika.

Discussion of Fuapepe's poem

This poem represents who I am and who I want to become. I am reminded of the journey that my family and ancestors took to access a better life, through a voyage of discovery; taking a risk with all they had to find new life, new land, and new environments. The imagery of the journey on the paopao (small Samoan outrigger canoe) is a symbol of a path not always free from hesitation and doubt. Are we making the right choices as they stare into the eyes of their young? Who said life would be better on the other side? The journey was a risk my ancestors took. Moving forward many years to now, I, too, have to navigate my pathway. My parents have completed their journey and give thanks for where they are today, but still they worry for their young. I am their young, you are their young; what are our choices? How will my choices impact the future of my family, my community, and who do I speak for and represent? I am not an individual; I am moved by the waves of the sea that my ancestors have sailed. I have to become a chief for my paopao, so that I can reach my dreams to honour my family, my community, and my ancestors.

Dream For Unification – by Fuaialii Tagataese Tupu Tuia

I dream a world where Pasifika rule

No other Pasifika will suffer

Where sharing and mutual respect will bless our Pasifika region

Respect accorded to others and reciprocity uniting us all

I dream a world where all

Will know that palagi (Western) education is a sweet freedom's way

Where Pasifika no longer yearns for palagi knowledge

To not be self-centred and selfish

But be united as one region, and work courageously like Pasifika warriors

A Pasifika where I dream of island nations

Wherever you and I are from

Will share the knowledge, skills, resources, technology and opportunities

And that we should all be free

To enjoy the fruits of our labour

Where education is our birthright, our purpose

Where I will always dream

Educating and sharing amongst our region

Firmly guided and realise that one day

We will finally be reunited as one

A fulfilment of my dream

Discussion of Tagataese's poem

This poem highlights my educational desires: warm friendship, Pasifika professional relationships, sharing indigenous knowledge, skills and wisdom, and for all Pacific educators to work together. As a Samoan educator, I feel that we should all be well informed of recent educational developments and projects that are in place to improve education in the region. My idea of unification is about togetherness, sharing the workload, and to have one mind, soul, and heart. I value working together to embrace educational ideas that best define and describe who we are as Pasifika educators. My hope is for us all to be unified and work collaboratively as indigenous peoples, rather than being segregated because of our different opinions. I encourage us to continue sharing our experiences and wisdom for the benefit of our children.

The Re-thinking Pacific Education Initiative for and by Pacific People (RPEIPP) aims to elevate educational strategies that best suit the region and support individual island nations with their own educational developments. Our collaborative presentation thus proclaims our hope of higher educational improvement within the Pacific. Our individual presentations also show the essence of our collaborative dream today. That is, to reconnect and rekindle our educational relationships and goals in striving together for quality education in our individual former colonised little nations. Our regional goals in education must always reflect our national interests for the greater good of our Pacific communities. It is the people that matter, not the funding agencies and their agendas.

Our little stories tell about love and pain, hurt and isolation, a depth of a life, the big things and the little things, how we live our lives through our relationships with our parents, relatives, and where we feel we fit in. Through our stories, we can share lost and unheard stories of our parents and ancestors. At the end of each story, education becomes the winner; highlighting hopes and aspirations of each individual educator to prosper and shine in his/her own academic right. In fact, acquiring higher education in the modern world enables us to tell our stories through island lenses imbued with our cultures and languages,

and through Pacific island cosmologies that remain with us while we strive to enrich ourselves with hybrid knowledge and wisdoms that we now see as our new enlightened world.

My place, Our place – by David Fa'avae

Where is my place?

Where is our place?

These questions highlight one's search for a place

Navigating, drifting, searching, seeking for

A place to belong

A place to feel strong

The late 'Epeli Hau'ofa talked about a place called Oceania

An envisioned place shaped by cultural traditions and globalisation

A place inclusive of all

A desired space committed by all

Is this my place? Is this where I belong?

As Oceanic people

We are challenged by outside forces

Forces that we can no longer control

Should we ignore?

Should we blindly and unwillingly move with such forces?

Like strong waves that have no remorse for people and objects in their path

Is this our place? Is this where we belong?

"Us" and "We" are words that often affirm our place

It is in "us" and "we" that our vaka can swiftly move forward

Working together

Both practitioners and academics

Relying on each other to help deal with the global challenges

This is Vaka Pasifiki's place in Oceania

Let us take heed my brothers and sisters

Let God's strength and might fill us with His Grace and Glory

Let us not forget history's lessons

For even history has its use

Even history has its place

Where is our place?

Our place is to drive Vaka Pasifiki for the benefit of our descendants

To benefit our children and grandchildren

To benefit our Oceania

Let us not just rethink

But take on an active role that requires us to design, implement, and act-on

Let us not prioritise our own selfish needs

Or the needs of one nation over our others

Let us not prioritise greed, nepotism, and vanity

Let us stand and work together in love, service, humility, and forgiveness

Through the RPEIPP/REAP initiative

We have been provided with a space

A "vaka/waka" to journey together

A vessel filled with hope and joy

Through RPEIPP

I have found my place.

Discussion of David's poem

In this poetic memento, I outline my reasons for serving in Oceania. I account my positionalities and my struggles to navigate the academic and cultural spaces that align with my own sense of service in the region.

In light of the Vaka Pasifiki Education Conference (VPEC), my poem highlights my journey to understanding my positioning within the RPEIPP movement. During my PhD viva (oral exam), I was challenged by my examiners who raised the question: "What is the place of your research work amongst existing and even future research concerning the lived experiences of Pacific people?" – a Pacific that was wider than South Auckland, where I grew up. After being placed in Tonga as a volunteer worker from 2014-2016, and now as a fellow for The University of the South Pacific's Institute of Education (IOE), a regional institution, learning to realise my position within the RPEIPP continues to shape my journey and regional responsibilities. As an RPEIPP product, Vaka Pasifiki has provided a space to collaborate and journey together with our elders, colleagues, and peers who are also searching to find their place within the RPEIPP. Vaka Pasifiki is our vessel, our vaka/waka and we must journey together, collaboratively, strengthening each other; not to drive our own selfish needs. For it is within "us" that we find the collective strength to deal with the often daunting and rapid changes that our education systems are facing in the region. It is within us that we find hope, love, and aspiration.

Our Closing Thoughts

Following the 2018 VPEC, we intentionally move our thoughts to how we felt as active participants in the rethinking of Pacific education. Our closing thoughts and feelings are articulated below.

As described by Soyini D. Madison (cited in Spry et al., 2014), we too embrace poetry and performativity as a dialogical expression, and through the collective communion, our "self/selves" have fully come into being. In other words, the sharing of our thoughts and aspirations within VPEC as a cultural space and forum strengthened our understanding of our positionality/positionalities not only within the region, but also to each other as early career indigenous academics who are striving to serve the educational needs and demands of our people in the Moana.

Fuapepe Rimoni notes that reflecting on RPEIPP has made her think carefully about what exactly this meant for her as a Pacific Islander and what it means to represent RPEIPP. Kabini Sanga, a Solomon Islander who argues for Indigenous Pacific Intellectual traditions, talks about the idea of RPEIPP being an opportunity for Pacific people to take leadership and responsibility for our own lives, and this includes education for our people:

> *'Our ancestors are navigators of the sea, they looked to the skies to seek their journey, I too must look above to seek my journey, to join in the journey and take part in the journey. My heart is one with the people of the Pacific. It is my choice to take that journey.' (personal communication, Sanga, January 2018)*

There are always opportunities, and pathways for choice. For Rimoni, the invitation to take part in the performative session was overwhelming, and she felt unprepared to present in this manner. She elaborates:

> *'Like my ancestors, this was a risk I needed to take; to take a step into the unknown, knowing that my colleagues from across the Pacific were by my side. I was at peace and very thankful to the backbone of my presentation, my family and ancestors – Fa'afetai fai tama lelei, o lou pule lea. We are Rethinking Pacific Education, we are the Pacific, and now it is our turn to take responsibility to navigate the seas and look into the skies.'*

According to Fuaialii Tagataese Tupu Tuia:

> *'We continue to encourage ourselves to persist with our Pasifika forums where we can have group discussions and provide thought-provoking recommendations on how to provide better education in our island countries. The Vaka Pasifiki conferences have taught me bravery, ideas of togetherness and Pacific solidarity in a wider world dominated by the other – the Western world. Taking part in VPEC provided opportunities to embrace educational change in our region. I never actually believed people truly cared about the importance of education until I heard individual indigenous presenters and how they were motivated to pursue higher education due to their experiences of family life. The presenters' perceptions of education also generated an understanding for me that education is the only way forward for us Pasifika people to change, uplift education, social and cultural standards within our own local island context and village or community settings.'*

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Bones of Education

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Abstract

Health professional education is complex for many reasons. The convergence of education and human health raises tensions in relation to funding and ethics, cultural heritage and religious traditions as well as the intimacy of learning about the human body and engaging with people at their most vulnerable. The use of skeletal models to teach anatomy may be seen as a relatively sterile and unemotional element of teaching health professionals but the provenance of skeletal models themselves brings many of the dilemmas of health professional education into sharp relief and requires pause for thought about our educational practice. This article presents a case study of our response to the discovery that a human skeleton was being used to educate health professionals. This situation required us to consider a number of educational issues as well as the cultural context of Aotearoa New Zealand.   The intense debates that ensued illuminated changes in values and educational practice over a period of three decades along with cultural and human considerations. Increasing emphasis on cultural considerations has coincided with the emergence of high-quality teaching resources that supplant the need for human remains to be used in the majority of settings. We present our learning from this journey in the hope that colleagues who find themselves in similar situations will benefit from our insights as we emerge from a time-warp in which decades ago the use of such 'resources' was state-of-the-art and is now widely considered to be disrespectful and, in many instances, unacceptable.

Our Experience

We had all been involved in higher education for many years, and while one of us was relatively new to health professional education itself, two of us had a long history of working together in different institutions and roles as well as a great deal of respect for one another's integrity.   A casual comment about a model skeleton used by a teaching team led to a question about whether or not it was real. The response that 'he' was real led to intense discussion, the two most contested points being that using a 'real skeleton' was the best resource for teaching anatomy and that within Aotearoa New Zealand such practice had been considered inappropriate in all but the most specialised and controlled settings for many years. The skeleton in question had been 'gifted' to the extended teaching team many years earlier and they treated 'him' with considerable respect in terms of storage, display and student access. A discussion paper was prepared for the staff involved. Following further discussions with members of the teaching and leadership team, including during formal meetings such as academic board, a decision was made to lay the skeleton to rest.

Discussion

The discussion paper presented information and referenced research relating to how practice had changed over time and our context as a Pacific nation with indigenous Māori. The paper also explored educational considerations and the essence of the individual. Key points are summarised below.

Practices across Time

The journey from seeing human bones and skeletons (and other human remains) as good teaching resources to appreciating the inappropriateness of them in many teaching situations involves many years and a good deal of international context. For centuries, human remains were viewed as relics or trophies, and this resulted in parts of dead people being acquired (including through trade and theft) and moved around the world. As a result, they found their way into museum, university and private collections. Graphic images of grave robbing for the purposes of profit, entertainment or the education of health professionals (Guerrini, 2004) haunt modern day attempts to explain how human remains are acquired. The right to gaze on human remains has been established in exhibitions of plasticised human bodies and presented as scientific artworks, despite international concern about cultural appropriateness and the ethics involved (Jones, 2016; Stone, 2011). Whether remains are stolen or donated (Hildebrandt, 2016); issues of consent are a major concern. While it is common for the identity of remains to be unknown, far from making them less human, it behoves those holding them to act with the utmost regard for them. The practice of establishing graves to unknown warriors is a good example of how those who are not named can be formally acknowledged and afforded the same status as their peers, even if in a far-off land.

The Pacific and Colonisation

Colonisation is closely linked to the acquisition of human remains (Huffer & Chappell, 2014) and given the geopolitical history of the Pacific, it is not surprising that many items from this part of the world can be found in collections in other lands (Geismar, 2008). Regardless of how they were acquired (expedition, conquest or gifts); by whom (missionaries, rulers or benevolent visitors); or why (as trophies, relics, models or curiosities), key questions about their humanness remain. Debate rages around cultural artefacts in general being removed to other parts of the world including historical practices that would be seen as morally or ethically questionable today (Foster, 2012). However, when these 'artefacts' are human remains the concerns are particularly spiritual as they raise questions about the human essence of the donor/person themselves, their ancestors and descendants. Walker (2008) notes "[H]uman skeletal remains are more than utilitarian objects of value for scientific research. For many people, they also are objects of religious veneration of great symbolic and cultural significance" (p3).

Despite the increasing appreciation of cultural and spiritual considerations, the trade in human remains and artefacts continues in this part of the world. Huffer and Chappell (2014) note that as recently as 2011 an auction house in Tāmaki-makau-rau (Auckland) is documented as having sold a human skull. This illustrates the continuing trade of human remains in the Pacific and reminds us to consider the humanness and cultural context of them. "Originally acquired under conditions of racial subordination, their recovery and reburial is one aspect of a demand for recognition, autonomy, and equality. Such attempts to insist upon the rights of the dead are inseparably linked with efforts to defend those of the living" (Walsham, 2010, p.30).

Aotearoa New Zealand

Māori are the indigenous tanagata whenua (people of the land) of Aotearoa New Zealand. They have strong connections with land (whenua) and ancestors (tūpuna) and appreciation of the concepts of tapu (sacred) and noa (ordinary) within cultural and religious traditions. These include caring for and respecting the human body in life and death. The geographical location of this island nation in the South Pacific means that cycles of life and responses to death and respecting remains are well understood. When whales beach on the coastline or people die at sea, tapu is established by the placing of a rāhui which limits access and the gathering of food from the area. Human remains emerge fairly frequently within Aotearoa as a result of erosion or development and when this occurs they are blessed and reburied.

Kōiwi tangata (human remains) of New Zealand Māori made their way to collections across the world. Hole (2007) explains "[A] significant amount of Māori human remains have also found their way into museum and university collections as a result of being discovered inadvertently through development activities" (p. 14). The Museum of New Zealand Te Papa Tongarewa (Te Papa) was established in part to represent Aotearoa New Zealand as a bicultural society. It has actively sought to locate and repatriate kōiwi tangata resulting in repatriations from the United Kingdom (Curtis, 2010) and other parts of the world. A report prepared for the British Museum by Besterman (2007) provides a summary of issues relating to the request by Te Papa to repatriate kōiwi tangata, allowing a glimpse into how international museums now view the history of acquisition and the repatriation of such taonga (treasures).

The primary position from which to consider cultural issues within Aotearoa New Zealand is Te Tiriti o Waitangi. Kōiwi tanagata are considered taonga and tapu and the responsibility for understanding and acting honourably rests firmly with the Pakeha/tauiwi treaty partner. While it is often appropriate to seek advice from elders (kaumātua) or Māori advisors, this does not diminish the responsibility for tauiwi to understand and act respectfully.

It is the responsibility of educators to ensure they appreciate the cultural context in which they design curricula and deliver learning experiences for students. This responsibility is particularly significant in the teaching of health professionals as they are being prepared to engage holistically with those they meet and treat. The value placed on human remains by Māori and the appropriate treatment of them was of particular importance in relation to this case study.

Educational Considerations

Many human remains were collected as relics for display but there is an equally strong tradition of using them in the education of health professionals. As a result, the use of human remains in teaching has long been associated with medical schools which use the dissection of human cadavers to teach anatomy (Flack & Nicholson, 2016). The value of the human body to educate fed a need for cadavers, which in the United States (Halperin, 2007) and the United Kingdom (Mitchell et al., 2011) resulted in grave robbing and a certain disregard for the dead themselves, often located in narratives about their worth, associating them with criminality, disease or being unwanted (unclaimed). It is now common for the use of cadavers to be tightly regulated and restricted to specialist settings, developments that have occurred alongside innovations that contest the need for human remains to teach anatomy.

The sourcing of skeletons for use in educational settings is particularly problematic as the removal of tissues from the bone is likely to limit the chances of identifying the donor. This indignity is exacerbated

by the very deep and hidden nature of the human skeleton meaning that the body has to be subjected to destructive processes (natural or imposed) to uncover the bones themselves.   For a long time, a trade in human bones and skeletons flourished from India where a law, passed in 1985, was believed to have resulted in a collapse in the international trade (Carney, 2007).

Despite these steps to address illicit trade in both cadavers and skeletons there is evidence that in some parts of the world a reliance on cadavers remains, to at least some degree, (Gangata, Ntaba, Klok & Louw, 2010) and that skeletons are still procured from India (Carney, 2007). Human remains have historically been procured during war (Aumüller & Grundmann, 2002) and continue to be so across the world (Gessat-Anstett & Dreyfus, 2015). In extreme cases, families have discovered that identifiable remains from loved-ones have been harvested and traded (Scheper-Hughes, 2006). The reduced demand for human remains for educational purposes has been supported by ethical considerations (as illustrated in the repatriation from museum collections) along with religious and cultural imperatives, at the same time as technological innovations, bringing the need for human remains in the teaching of anatomy into question.

The argument that human remains are essential for educating health professionals cannot prevail when it is not the norm (or even acceptable) in many parts of the world (McLachlan, Bligh, Bradley, & Searle, 2004). This is especially the case where religious beliefs and cultural practices make the use of human remains unacceptable (Biasutto et al., 2014; Riederer, 2016). The educational arguments for using human remains as teaching resources include the value of real tissue as opposed to substitutes, but this is not universally agreed. Estai and Bunt (2016) discuss 'living anatomy', which engages students with living bodies while ensuring the models have consented. The benefits include accurate textures and colours which are not present in cadavers.

The availability of electronic resources such as holograms (Rizzolo et al., 2006) and high-quality models (Zilverschoon, Vincken & Bleys, 2017) means that most students in the health professions do not need to come into contact with human remains in order to learn anatomy (McLachlan & Patten, 2006). A tension remains between the view that actual human remains are best for research and teaching and the availability of new technologies such as 3-D printing for synthetic copies of bones (Moxham & Plaisant, 2014). The use of human remains is appropriate in advanced medical dissection settings but unnecessary for the majority of undergraduate clinical programmes (Estai & Bunt, 2016). In fact, the argument that there is a need for specialist teaching to involve human remains has been used to defend questionable practices. In both Aotearoa New Zealand and the United Kingdom the practices of hospitals and medical museums holding human remains for educational purposes have come to light in recent 'scandals'. Within the United Kingdom enquiries into the retention of human remains, which became synonymous with 'Alder Hey' and 'Bristol hearts' (Seale, Cavers & Dixon-Woods, 2006; Sheach Leith, 2007), raised issues of consent, while the 'Greenlane Hearts' story from Aotearoa New Zealand (NZ Press Association, 2010) caused considerable anguish, especially for tangata whenua. These 'collections' had begun decades earlier, when, it was argued, legislative contexts and clinical conventions did not prioritise consent. Cases were also made that the remains were 'invaluable' for the education of health professionals. However, these arguments, and others like them, ignore the humanness of the 'donors' and appear defensive as they assume consent would not have been given if it had been sought either by the donor or their next of kin.

In any situation in which human remains are still held and used, cultural and religious rituals should be incorporated into the teaching and learning journey. Universities in Aotearoa New Zealand have practices

firmly in place (Kramer & Louw, 2017), including specific rituals such the lifting of tapu (Kaw, Jones & Zhang, 2016; Riederer, 2016) and Australian Universities are also considering the complexities involved in using human remains to teach anatomy (MacDonald, 2007). Key questions any institution must continually ask; relate to storage, display of (including images) and access to (including touch) (Cornwall, Callahan, & Wee, 2016; Kaw, Jones & Zhang, 2016; Jones, 2016) human remains. Within Aotearoa New Zealand, there is also a need for educators and students to have a sound appreciation of tapu, tikanga (cultural practices) and kaitiaki (guardianship).

The Essence of the Individual

The concept of consent is at the heart of considerations for museums holding human remains and also for educators and educational institutions. This is often confused with ideas about who 'owns' tissues (Mahomed, Nothling-Slabbert & Pepper, 2013). The modern emphasis on consent is clear in relation to research studies. Living participants in research and education may withdraw their consent, but knowing the wishes of the dead, and ensuring they are respected, is far more complex. As Winkelmann (2016) states "…the backbone of the ethics of anatomy is body donation based on informed consent of the donor during his or her lifetime, an approach that respects the personal autonomy of the donor and the dignity of the human body" (p. 76). If it can be established that the donor of the remains or those close to them agreed for them to be used for specific purposes it is reasonable for those wishes to be respected.

In any situation in which it is not clear who the individual donor is, or what they consented their remains to be used for, the appropriate course of action is to find out as much information as possible before repatriating the remains or respectfully laying them to rest. In recent years in both the United Kingdom and Aotearoa New Zealand, skeletons used in school classrooms have been found to be 'real', and the way in which each of these was treated should be seen as instructive. In the United Kingdom example, the community responded with a full burial for the skeleton which had been named 'Arthur' (Malloy, 2015). In New Zealand, recent news stories provide insights into how communities have responded when skeletons have been found in schools (NZ Press Association, 2011; Trevett, 2003) and the cultural consideration of their history.

The modern emphasis on acknowledging the human history of biological artefacts results in a desire to repatriate them to their original land even if their ancestors cannot be specifically identified. Once they have been repatriated, it is almost universal practice to (re)bury them (Walker, 2008).

As the three educators in this situation, we appreciated ourselves as tauiwi and understood (thanks to the historians, long-serving colleagues and anatomists in the team) that the skeleton had been in this place for a number of decades, had initially been gifted as a teaching resource and was the partial skeletal remains of an Indian male. This corresponded with the trade in skeletons from India to health and educational faculties and it also meant that we were unable to locate where 'he' came from. After much debate we arrived at a point of believing it was our responsibility to lay these remains to rest and made arrangements to cremate them. It is important as we reflect on this journey that we hold the people involved to any account only in terms of the context they experienced at the relevant points of it. From the donor through to those who had taught with him for many years, and those of us who were deeply concerned when we discovered he was 'real', we are all responsible for ensuring our responses are appropriate and respectful.

Conclusion

Human remains may provide high quality resources for very specialised teaching in the health sciences, but they are not needed to teach anatomy to all students. The quality of plastic skeletons and innovative digital technologies mean that anatomy teaching can be supported by interesting and high-quality resources that do not raise ethical or cultural questions about the provenance of human remains. Any educational journey in the health sciences involves engagement with human beings and requires educators to carefully consider the messages that are being conveyed about respect and privacy. Gazing on the human body, regardless of the components of it, how they have been acquired, or are presented, requires acknowledgement of the cultural, ethical, social and geopolitical context of the body in question and those doing the gazing.

Deciding to lay our skeleton to rest, given what we understood of his provenance, was the most appropriate course of action in Aotearoa New Zealand. It is our hope in sharing our journey that we have contributed to the points of reference available to educators of students in the health professions as they consider how to care for human remains at this point in the ethical, cultural and geopolitical history of the Pacific and wider world. The world has moved on and it is no longer appropriate to rely on human remains to teach basic anatomy for the majority of students in the health disciplines.

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