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Ua Aoina le Manogi o le Lolo: Pasifika Schooling Improvement Research – Summary Report

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Report to the Ministry of Education

Pasifika Education

RESEARCH DIVISION

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Ua Aoina le Manogi o le Lolo

Pasifika Schooling Improvement Research

Summary Report

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Feiloa'iga

O le vi'iga ma le fa'afetai i le Atua e maualuga lea. E maualuga fo'i ona manatu ma ona ala uma.

E faatalofa atu i le paia ma le mamalu o le Atu Polenisia ma le Pasefika atoa o alala ma papa aao i Aotearoa nei.

Afio mai lau Afioga a le Sa'o a le ofisa o A'oga i Aotearoa. Afio mai lau Afioga a le ali'i Pule of le Matagaluega o Fa'aleleia o A'oa'oga i Manukau Afio mai lau Afioga Tui Samoa Afio mai lau Afioga Tui Manu'a Afio mai lau Afioga Tui Toga Afio mai lau Afioga Tui Atu Kuki Afio mai lau Afioga Tui Fiti. Afio mai fakatulou atu kite mamalu o Tokelau Afio mai ki a mutolu oti o Niue I Susuga a Pule A'oga ma le nofo a Faia'oga I Susuga a le Au lagolago i lenei galuega Le mamalu o le Atu Pasifika i Niu Sila nei.

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This large multi component project was reliant on many people. We use the Samoan metaphor in the title 'Ua aoina le manogi o le lolo' (The different fragrances of the oil are deemed gathered) to express what this project had been about – examining the effects of different layers of the learning community on Pasifika achievement. We therefore wish to acknowledge the substantial contribution that different groups in the practice and learning community have made to the successful completion of the research project. It is hoped that this project will make a substantial contribution to the Ministry of Education's future plans for the achievement of Pasifika students in Aotearoa, New Zealand.

We especially acknowledge the Pasifika students in Focus Clusters and Case Study Schools who contributed their voices to this research. They are the reason why we do what we do and without them we would not have been able to ask the questions we ask in our search for answers.

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Table of Contents

1. Introduction	1
1.1 Purpose	1
2. How the Project was Conducted	2
2.1 Data Collection and Analysis	2
3. Summary of Findings	3
3.1 Specific Findings	3
4. Achievement Data Patterns	6
4.1 Achievement in the Focus Cluster	6
4.2 Achievement Across Clusters	7
5. Case Studies	9
5.1 What Works for Higher Achievement by Pasifika Students at a School and Classroom Level?	9
6. Summary Parent Voices	16
6.1 Five Questions Guiding the Talanoa	16
6.2 Pasifika Parents' Concerns for Their Children	16
6.3 Parents Beliefs on How to Support Children's Success	16
7. Summary of Pasifika Student Voices	19
8. Summary of Language Survey Data	20
9. Summary of Leadership Survey	21
10. Summary of Pedagogical Content Knowledge (PCK) Survey	22
11. Summary of Classroom Observations	23
11.1 General Patterns	23
11.2 Components	23
12. Implications: What Does This Mean for Schools and for Schooling Improvement?	24
References	25

1. Introduction

The Schooling Improvement team of the Ministry of Education sought to examine the current state of Pasifika academic achievement in Schooling Improvement initiatives and in individual schools. Part of the examination was to identify aspects of Schooling Improvement (SI) work that has been shown to enhance or hinder academic achievement for Pasifika students and to offer some recommendations. This report is a summary of a detailed technical report from Auckland UniServices Limited prepared by the Woolf Fisher Research Centre. Details of each of the sections summarised here are contained in 'Ua aoina le manogi o le lolo: Pasifika Schooling Improvement Full Technical Report' (Amituanai-Toloa, McNaughton, Lai, & Arini, 2009).

1.1 Purpose

The purpose was three-fold: First, to identify practices that work to raise achievement and close the gaps for Pasifika students especially at the classroom, school and cluster levels. Second, to find out how effective Schooling Improvement initiatives are in raising achievement for Pasifika students. Third, to provide information to help existing and new initiatives to improve their effectiveness for Pasifika students.

The research questions that emerged from the three-fold purpose of this project fell into two overarching research questions:

- 1. What works in schools for Pasifika students and under what conditions?
- 2. What are the barriers to schools achieving positive learning outcomes for Pasifika students?

Findings would contribute to the SI team's understanding of how they could best influence what initiatives do, and in turn what schools do, to ensure the best possible outcomes, in achievement terms, for Pasifika students. The research would look at some of the key characteristics of the school environment associated with positive outcomes for students and how initiatives that are successful for Pasifika students operate in practice. A further concern was to clarify what constitutes 'evidence of success' and to see how participating schools and the different clusters may be able to articulate a clear link between elements of the initiative and student outcomes and how such links might be validly investigated.

2. How the Project was Conducted

The project was conducted in Auckland, Wellington and Napier in three Phases:

- Phase One A literature review to inform the research and a profile of the nine initiatives.
- Phase Two Focus Clusters (n = 2). The two Focus Clusters (one primary, one secondary) were identified from the summary analyses of Phase One as being highly effective and having quality data in addition to showing keen interest in being part of the Focus Clusters examination.
- Phase Three Case Study Schools (n = 6), two Focus Cluster Schools (one primary, one secondary), two Schooling Improvement schools not in Focus Clusters (one primary, one secondary), and two non-Schooling Improvement schools (one primary, one secondary).

2.1 Data Collection and Analysis

Achievement data

Refer to Section 2 of the Full Technical Report for detail.

Classroom observations

Refer to Section 2 of the Full Technical Report for detail.

Surveys

- A leadership survey was conducted with school principals and literacy leaders in addition to their being interviewed.
- A pedagogical content knowledge (PCK) survey was administered to teachers.
- A language survey was given to students to gauge home language.

Interviews

In addition to Principals and Literacy Leaders, interviews with students identified from selected classrooms and their parents were conducted. This was to represent students' and parents' views and beliefs on learning and teaching and what education in SI schools meant for them. The interviews were transcribed and coded for analysis.

3. Summary of Findings

- Data systems vary across and between schools there is a pressing need for data systems to be both developed more coherently and standardised for easy and accurate reporting.
- There is evidence that SI initiatives can be effective for Pasifika students but greater differentiation in practices and goals for Pasifika is needed to make greater gains.
- Case studies of effective schools within Schooling Improvement clusters provide quantitative and qualitative support for four hypotheses about effective instruction and attributes of students associated with achievement. The hypotheses relate to the need for: substantial connections between schools and their communities; deeply embedded inquiry processes and coherence in school practices; generically effective instruction which has been adapted to be culturally responsive; and the presence of (largely unknown) language and motivational attributes of students.
- Students have distinct views of effective forms of instruction; for example they want clearer instruction and more challenging academic work.
- Parents want more explicit and differentiated information on how they can support their children, and they have views that they can contribute to schools' thinking about effective instruction.
- Being bilingual is not an impediment to academic achievement of Pasifika learners.
- There is a need for induction for newly arrived Pasifika students.

3.1 Specific Findings

- Clusters vary in effectiveness in terms of rates of gain over the school year and there were achievement drops over summer (the Summer Learning Effect).
- More gains are needed to reach a full match with nationally expected distributions in achievement.
- There are substantial gender differences in the levels achieved although rates of gain are similar.
- In the Focus Cluster, there were gender differences in the levels achieved although not in the rate of gains, and while different Pasifika groups achieved at similar rates, Samoan students tended to score at higher levels (but not always).
- Judgements about effectiveness need to be made over more than a year. One reason for this is that there are substantial Summer Learning Effects.
- It is very important to be able to examine how higher achieving students fare in programmes.
- There were high gain and low gain schools within the cluster and the differences need to be teased out further to examine features of schools associated with these differences.
- Unlike the statistical modelling using rates of gain in achievement where there were no differences in rates of gain associated with gender or language, in our 'level difference' statistical models

gender, time lived in New Zealand, home language and school were associated with significantly different levels of achievement.

- Both rate of gain and level of achievement need to be considered when evaluating effectiveness of schools and Schooling Improvement with Pasifika students.
- Three hypotheses about school effectiveness received support from the Case Study evidence. These were that more effective schools would be associated with: (1) the presence of significant and wide ranging two way connections between schools and their communities; (2) the presence of inquiry processes and a collective sense of being able to solve achievement issues both of which are embedded into school practices; and (3) the presence of high quality instruction that is culturally responsive. A fourth hypothesis which received mixed support was that there would be attributes of Pasifika learners that would be related to achievement (for example, there was no evidence for the Case Studies that having two or more languages is an impediment to high success either at primary or at secondary; more familiarity with the New Zealand education system is advantageous).
- Parents want to receive specific information about their child's academic strengths and weaknesses and are keen to receive advice, and they have ideas about both practices at home and at school through which they could make a contribution.
- The coherence between teachers' practices appears to be especially significant so that there is consistency in pedagogical approaches as well as in focus and goals.
- Schools, to varying degrees, taught using generically effective forms of instruction, but adapted them to be applicable to and responsive to different Pasifika learners. However, the specific measures from classroom instruction, when examined at a teacher level, were not related systematically to either rate of gain in classroom or achievement levels. But when combined and averaged across schools, there was evidence that teachers' measures of instructional quality and cultural responsiveness were associated with overall school achievement, thus suggesting that coherence in instruction and cultural responsiveness in schools may be more important than individual teachers' specific practices.
- The twin dimensions of positive relations and incorporating students' resources (as parts of culturally responsive teaching) were identified to varying degrees in classrooms. Importantly, the significance of these attributes of teaching was echoed by the students.
- Pasifika pedagogies that are being developed in these schools, in the sense of being adapted to Pasifika learners, draw on background knowledge including topics and event knowledge, language patterns and activities, and the students and teachers are aware of this.
- There is the dimension of a strong emotional relationship which, together with the instructional attributes, has elements of being both rigorous and challenging as well as being respectful and empathetic.
- The student voices were very similar to those in the Te Kotahitanga project (Bishop, Berryman, Tiakiwai, & Richardson, 2003), but the adaptations include a need for teachers to provide a strongly supportive base enabling the students to take risks, and be critically engaged.
- The patterns of development in achievement may look different for those students with a Pasifika language or both a Pasifika and English language background in the earlier years, compared with

English only students. But from the middle and upper primary and into the secondary years bilingualism may (under important conditions not tested here, such as level of bilingualism) lead to similar outcomes as having a strong English-only status, and in a wider sense confer other advantages.

• For newly arrived students there is a need to have very explicit induction and support to develop the knowledge and skills required for local schooling.

4. Achievement Data Patterns

4.1 Achievement in the Focus Cluster

We collected individual student achievement data in reading comprehension (STAR) from schools in the focus cluster over two years (2007-2008). We analysed the achievement results in two ways:

- <u>Rates of gain</u> in achievement over two years
- <u>Average achievement levels</u> over two years

In particular we wanted to know if the rates of gain and achievement levels were influenced by gender, ethnicity (the four main ethnic groups), language spoken at home, first language learnt, school and/or starting achievement levels. The details of the analysis are contained in the Full Technical Report (Amituanai-Toloa, McNaughton, Lai & Airini, 2009).

There were three key findings:

- Significant accelerations in achievement for Pasifika students can be attained through Schooling Improvement. However, achievement is not yet at national norms.
 - Achievement for Pasifika students increased significantly over two years, with the average achievement moving from the "Below Average" band to the "Average" band (see
 - Figure 1). The average stanine achievement rose from 3.31 (SD = 1.51) to 4.12 (SD = 1.72) with an average effect size of 0.5. The effect size is comparable to overseas studies (Borman, 2005) for interventions over five years.

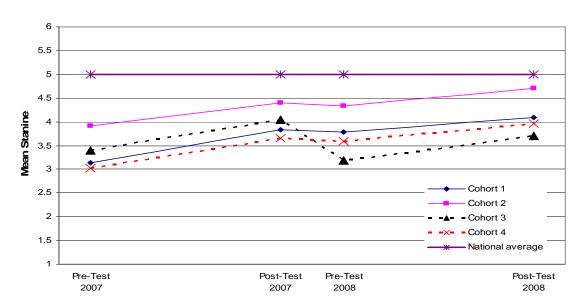


Figure 1: Mean stanine scores for cohorts over two years (four time points).

- Rates of gain are primarily influenced by students' starting achievement level.
 - Students that started the project with lower achievement levels (stanines 1 3) made greater gains than students that started the project with middle to high (stanine 4 - 9) achievement levels.
 - There were no gender or language effects on the achievement gains. In other words, males and females, and students who spoke different languages at home or whose first language was English, made similar gains over the two years. There were some minor effects by ethnicity and school but these appeared to have been influenced by starting achievement levels.
- As distinct from rates of gain in the cluster, four factors were found to influence the average achievement levels gender, time lived in New Zealand, home language, and school.
 - Students that spoke mainly Pasifika languages and those that spoke two or more languages (Pasifika language as well as English) achieved significantly lower than the mainly Englishspeaking Pasifika students. However, in the Case Studies we found no evidence of an impediment to achievement for students who speak a language in addition to English. What we report here is a relationship between language to overall levels of achievement when collapsed across year levels and under a variety of classroom and schooling conditions within a cluster.
 - The mean achievement levels for females were significantly higher than those for males.
 - The mean achievement levels for those that had lived in New Zealand for more than five years and those that were born in New Zealand were significantly higher than for those that had lived in New Zealand between one and five years.
 - The mean levels of achievement differed significantly between schools.

There are three important implications from the findings:

- The challenge is how to accelerate the achievement of the middle to high stanine students as well as the students in the lower achievement bands. This requires the ability to differentiate instruction and effectively deliver a differentiated instruction to the class.
- There is a need to examine both rates of gain and levels of achievement when evaluating interventions (McNaughton & Lai, 2009). The tests of effectiveness should be firstly, whether clusters are achieving accelerated rates of gain, and secondly, whether they are shifting distributions of achievement to match national expectations.
- Some groups of students may need to make greater gain if they are to 'catch up' with their peers. Male students that speak mainly Pasifika languages and those that speak two or more languages, and new immigrants, may need teaching programmes which accelerate achievement in English at a faster rate.

4.2 Achievement Across Clusters

Overall, it was difficult to determine the achievement of Pasifika students across the clusters because of differences in how data were stored, analysed and aggregated across clusters. The Pasifika Schooling Improvement – Policy Paper examines some of the systemic issues associated with this finding, such as how

the self-governing context resulted in responsibilities being devolved to individual clusters/schools without extensive infrastructure support, and outlines policy implications for the Ministry (Lai, McNaughton & Amituanai-Toloa, 2009). The clusters should be commended for their innovation and courage to develop cluster databases and aggregated analyses, in a policy context where they did not have to. These clusters have de-privatised their results and created collaborative communities that critique and support each other to raise achievement. They in turn worked in partnership with the research team; thereby confirming the importance of learning communities when seeking improved student outcomes through schooling improvement.

5. Case Studies

The Case Studies were designed to answer questions about effective practices with Pasifika students for achieving positive learning outcomes and by implication the barriers to achieving positive learning outcomes.

In-depth analyses of interviews with Principals and Literacy Leaders, observations of classroom instruction (3 lessons from two teachers in each school), interviews with students (a total of 57 students) and parent interviews (a total of 28 parents) were taken from four schools (two primary and two secondary). Additional interviews and observations were available from two further schools which had incomplete achievement databases. The four schools were well functioning schools in well developed Schooling Improvement clusters. The two further schools were not in Schooling Improvement but were chosen for 'positive deviance' (a term borrowed from the medical research literature to mean positive examples against the trend); that is they were very effective schools judged by achievement data and other educational indicators such as student engagement in the school.

Four general hypotheses were tested through the Case Studies. However, the schools were not compared directly, rather they were used to exemplify an emerging model of effectiveness and their individual and collective attributes were linked to the hypotheses. Given that for four schools there was achievement data over two years which provided evidence for both rate and level of students' achievement, we have made judgements about the emergent model using the trends between the higher achieving schools and lower achieving schools (each of which were well functioning schools) to plot the pattern of development of the model. This 'emergent model' design is used to propose answers to the question of what works for higher achievement by Pasifika students, at a school and classroom level within schools.

Schools	Year Levels	Decile	Students
Schooling Improvement			
Case Study 1	1 - 8	1	628
Case Study 2	9 - 13	3	647
Case Study 3	1 - 6	1	311
Case Study 4	9 - 13	1	785
Other schools			
Case Study 5	1 - 8	2	600
Case Study 6	7 - 13	2	310

Table 1: Case Stud	y Schools: Year Lev	els Taught and Decile Rating

5.1 What Works for Higher Achievement by Pasifika Students at a School and Classroom Level?

There were four hypotheses developed from the literature review (see the full report) on what works for higher achievement by Pasifika students at a school and classroom level:

- Hypothesis One: The presence of significant and wide ranging two way connections between schools and their communities
- Hypothesis Two: The presence of inquiry processes and collective efficacy coherently embedded into practices
- Hypothesis Three: The presence of high quality instruction that is culturally responsive
- Hypothesis Four: There would be attributes of Pasifika learners that would be related to achievement.

Hypothesis One: Two way connections between schools and their communities

The theoretical hypothesis was that effective schools will have well developed connections with communities and families. The connections would be reciprocal, that is, with considerable flow of information both ways, some of which are described below. In addition, consistent with the Pasifika Education Plan and the research literature, there would be a range of types of parent involvement, from volunteering, participating in decision making, and communicating with the school to active academic support including involvement with homework.

The Case Studies do, in fact, indicate that the four schools are developing such connections. They also show that greater effectiveness is associated with practices between schools and their communities that involve widespread sharing of knowledge and resources with a degree of reciprocity, with the specific outcome of increasing parent involvement, which may then impact upon students' motivation and academic skills. Schools had developed, to varying degrees, strategies to involve parents. The more developed schools (in terms of the emergent model) had strategies for involving parents that went considerably beyond what might be described as 'information dumping'. They viewed their parents and the community as essential resources for their children's learning and success at school.

The more advanced primary school in this area (which had the highest levels of achievement, between stanine 4 and 5 in reading comprehension) had multiple well planned and monitored strategies which included all the types identified in recent reviews of parent involvement that impact upon motivation and academic skills, and have been related to academic achievement (Epstein, Coates, Salinas, Sanders & Simon, 1997). They included strategies for academic support at home and at school (the school has a community initiative around Parents as Reading Tutors (PART) which involves parents assisting as reading tutors using the pause, prompt, praise programme). This type of connection extended to parent involvement in academic skills throughout the school, for example, with struggling students. The school has an English for Speakers of Other Languages (ESOL) programme for students struggling academically and employs parents from the community as teacher aides as part of the PART programme.

The information flow is designed so that it is usable by the parents. They have identified their key ethnic groups and harnessed the cultural and pedagogical expertise of their Pasifika teachers and leaders in their communities to communicate with parents, share the achievement data, and disseminate in their language strategies other parents can use to support their children's literacy and numeracy development.

[We identify] key parent leaders, and then provide those key parents with strategies that we've focused purely around literacy and numeracy. So a few of the sessions were providing those key parent strategies that we use within the school around literacy and them being able to deliver that in their home languages to the parents. And... being able to do that has seen the school have more parent involvement because it's almost like the school is saying that we acknowledge that [they have a part to play]. [Principal: Case Study School 3]

The parents' cultural resources are used through contributions to the development of topics in the curriculum planning. Pasifika parents are involved in more traditional ways too. For instance, their expertise is recognised and utilised to assist with cultural activities, arts and school sports.

For this school, parent involvement is not seen as an added extra or useful adjunct to core business. Parents are seen as a key resource and central to students' achievement gains. Similarly, parents saw their role as one which should complement the school's role. They understood the importance of the work the school is doing and their role in supporting the school in raising achievement for their children.

There are greater constraints in secondary schooling, such as multiple teachers with any one student and specialist content area teaching and learning that are challenges to high levels of interconnectedness. However, in the more advanced secondary school (Year 9 and 10 Pasifika students were on average close to the norm in reading comprehension) the Principal had thought strategically about involvement and close connectedness. This had come after a series of 'hit and miss' strategies with different literacy leaders at different times, where they had not been able to identify strategies that would encourage parents to participate. Her view was that this was because the initial focus was only directed inward - on strategies and programmes to be developed for achievement of students - and not on strategies to increase connection.

The particular strategies that we've used to meet the needs of Pacific Nations students have really developed over time. Because we really, I think we just didn't understand how deeply we had to delve into this. I think people had been lulled into a false sense of security with the literacy across the, language across the curriculum that everyone used to do. And sort of thought that that was what it would be all about. [Principal: Case Study School 2]

In this secondary school there were several programmes designed to increase connections. For example, the delivery of information about asTTle to parents and the community extended to much more focused events during an informal barbecue. There were classroom-specific activities where Form teachers held term meetings with their parents in small groups, creating opportunities for parents to talk one-on-one about analyses of achievement and the focus for the following term. A wider community connection occurred in a yearly Fono at which achievement data were again discussed, with the help of a translator. There are mentoring schemes run by community members – one for Year 12 - 13 and one for Year 10 students. There was evidence that the parents felt they were not given specific information about how to help support their children academically or how the school could learn from the parents about cultural and linguistic backgrounds and resources.

The two other schools were working on more deliberate strategies. In both there had been a strong emphasis on parents being responsible for attendance – which for Case Study School 4 was a substantial problem in the upper levels. The provision of achievement data and the deliberate designing of more interactive fora to discuss this were stronger in the primary school, and the school had recognised that a unidirectional transmission model was not effective:

On the one hand we were saying, "We want to share with you and talk with you and invite you into the school," and then in practice what we were doing was, "Yeah come and sit down and I'm going to tell you what happens and when I'm finished speaking you can go home and sort it out." [Principal: Case Study School 1]

Given this realisation (which had come from the Home School Partnership model), school meetings with parents are now run by a group of teachers and parents who have a shared role. Discussion groups based on ethnicity are formed and the discussion is shaped by a set of questions. The Literacy Leader commented that some really good ideas have come from this change. The school is planning new initiatives. A new development is a group of parents who are to review how the school reports to parents.

Three conclusions are suggested by the Case Studies:

• Teachers have a role to play in fully informing parents about children's learning. Parents' understanding of information about their own individual child's learning and achievement, both strengths and weaknesses as well as progress across time, can increase parental impact on motivation and skills. Parents expressed a need to have this information:

[Translation] Teachers say to me that everything is alright with my child. He listens too. I hear too that he does everything he's asked to do. He helps other children most of the time and helps other teachers with sports and the like. [But in terms of] the exact academic weakness [her child] there is no specific identification of that or in what subject... only that everything is alright. [Samoan Parent: Case Study 1]

• Teachers are seen by parents as key informants about what parents might do to help their children's achievements. Parents need guidance and advice on both motivational and academic involvement:

It's just that some parents say that teachers should be able to give examples of homework and how it should be done so that parents could follow it. [Pasifika Parent: Case Study 2]

• Parents are keen to receive advice and they have ideas about practices both at home and at school that could contribute:

[Translation] I wish they [the school] could teach the children other words [synonyms] for maths concepts e.g., 'minus' for subtraction; 'multiply' for times and that sort of thing. Because when I say minus, he doesn't even know what that meant. And he looks at me as if I'm stupid. [laughter] [Samoan Parent: Case Study 3]

While it is as yet unclear how these practices impact upon student achievement, they can be the basis of reciprocal information flow.

Hypothesis Two: Inquiry processes and collective efficacy

It was predicted that effective schools would have robust and well developed inquiry processes operating which would have become core practice of the professional community (e.g., McNaughton & Lai, 2009). Interventions where inquiry processes have been central show improvement for their predominantly Pasifika student population with gains of up to one year in addition to expected national progress (Lai, McNaughton, Amituanai-Toloa, Turner, & Hsiao, 2009). A strong inquiry process is associated with a strong collective sense of efficacy held within the professional learning community.

Our hypothesis about developing inquiry practices that are evidence-based and outcomes-focused was well illustrated in the Case Studies. Each of the Case Study Schools was engaged in clusters of Schooling

Improvement which focused on inquiry and it would be expected that these practices would be in place. But the schools varied in how deeply ingrained, extensive and coherent their practices were.

The patterns in the emerging model suggest that greater coherence in the practices (that is greater shared beliefs, goals, knowledge and ways of teaching and assessing) will be associated with greater effectiveness. Coherent practices matter: (a) between levels in the schools, across members of the school professional community, and between different instructional parts including teachers; (b) for new members of the system so that detailed induction as a member to share values and skills is important; and (c) so that all programmes – existing and new – are integrated into the inquiry practices and are 'tested' by the inquiry process. The two primary schools were particularly advanced.

We have cluster wide induction. A lot of it is around analysing the data... it doesn't matter whether you are a beginning teacher or an experienced teacher... then our, they used to be called staff meetings, we now call them professional discussion forums – PDFs - also centre on building that, that kind of pastoral side or it but there's also getting the classroom culture and the learning culture going... Then new teachers have their release, senior teachers are released a whole day a week to work with teachers and tutor teachers also get release time. [Literacy Leader: Case Study School 1]

I think the effectiveness comes from the fact that we participate in the PD [professional development], we participate in the clustering and then it's brought back to school and it's followed up, so we don't just go to the PD, come back, that's done, out of the way...what happens is we come back together, we plan and how that PD is going to be effectively implemented in our classrooms and it happens on a school-wide basis, so everybody is doing and saying the same thing. [Literacy Leader: Case Study School 3]

The coherence between teachers appears to be especially significant in the evidence so that there is consistency in pedagogical approaches as well as in focus and goals.

Hypothesis Three: Quality instruction that is culturally responsive

Our theoretical view was that in effective schools there would be evidence for generically high quality instruction. But we also had the view that a generic feature of high quality instruction would be that it was culturally responsive. That is, distinctively effective 'Pasifika pedagogical styles' would reflect the generic need to have culturally responsive features in instruction. In the case of Pasifika students, like Māori students, that would be reflected not only in the deliberate use of background knowledge and styles of interacting, but also in evidence for mutual respect and positive relationships. We make the point that Pasifika is a complex group of ethnic groups and that we do not attempt to define a pedagogy that is generic to all of the groups.

Within the schools there was ambiguity in how terms such as 'cultural responsiveness' and 'Pasifika pedagogy' are used, and there is a need to clarify more specifically what is meant by these terms. The schools, to varying degrees, taught using generically effective forms of instruction, but they also realised that they adapted them to be applicable to and responsive to different Pasifika learners. Quality measures of classroom instruction were all relatively high as would be expected from these schools and the differences between teachers were not related systematically to either rate of gain or level of achievement in individual classrooms. However, when averaged, there was evidence that the teachers' measures of instructional quality and cultural responsiveness were associated with overall school achievement. The schools with the consistently highest scores for teachers had higher overall school achievement levels and moderate to high

rates of gain. This suggests that coherence in instruction and cultural responsiveness in schools may be more important to a school's effectiveness than individual teachers' specific practices.

It is possible to identify elements of the pedagogical model that is emerging in the schools. Schools are effective to the degree that they use known features of quality instruction, such as explicit instruction for basic knowledge and strategies, high levels of elaborative talk and inquiry (more frequently observed in primary classrooms), a strong focus on the language needs including those for vocabulary and there are well developed forms of feedback. Running across these is the need to be clear about activities, and explain goals and needs for learning. On the other hand, specific dimensions of cultural responsiveness are clearly part of more effective teaching. The twin dimensions of positive relations and incorporating students' resources were identified to varying degrees in classrooms.

In Case Study School 2 there was a deliberate focus on Pasifika learning and achievement. The Principal believed that a distinctive pedagogy was developing comprised of an amalgam of elements: a new inquiry focus drawn from Te Kotahitanga (Bishop, et al., 2003) and explicit instruction in literacy content and features, such as main ideas and use of text structure (and this was borne out in the observations in classrooms). It was in part content-based drawing on text resources such as having Pasifika writers coming to read their published works. The push in reading included buying many new books and short stories that had a Pacific nation focus for SSR. Other prongs of the coherent set of strategies included a Literacy Leader visiting every Year 9 class to read a book in Samoan, explaining how she worked out some meaning from her limited knowledge of Samoan as a means of modelling how to get the gist and making an 'informed guess'. Other strategies included group-based work to shared knowledge and an understanding of the socialisation of Pasifika girls.

Similarly in Case Study School 3 the selection and use of particular texts enabled background knowledge and cultural resources to be incorporated and built upon. The two teachers observed drew on familiar artefacts (e.g., colour of the Tongan flag) and experiences (e.g., a barbecue at beach with Church) to activate and build vocabulary, background knowledge and thematic understandings in both poem writing and reading comprehension. In addition, observer notes included comments on how positive, respectful, and reciprocal the relationships were. Teachers were very accepting but not at the cost of being uncritically affirming.

Importantly, each of these elements was echoed in the students' comments which in the following quote include explicit and personalised instruction.

She can help us in many different ways like if we're stuck on a maths problem, she tells us different ways to solve it or a faster way to solve it, and writing, we always stick in worksheets, like a structure, and then when we look at our work and we don't know what to do, we just flip back to the structure to look at it. [Student: Case Study School 3]

The dimensions also were identified strongly by secondary school students, both positively (when referring to liked teachers) and negatively. In the latter case students referred to limited use by teachers of the students' own knowledge, to not finding topics interesting because their teachers don't relate to things that interested them, to not having their opinions listened to, and to needing more elaborative and inquiry oriented talk.

The emerging Pasifika pedagogies also include a strong emotional relationship which, together with the instructional attributes, has elements of being both rigorous and challenging as well as being respectful and empathetic. The former includes encoding of the high expectations and the latter a Pasifika sense for the students of education being service-oriented and, from the teacher, positive affect expressed with devices

such as Pasifika-oriented humour. The sense of teachers being like family and being able to balance rigorous and challenging instruction with having fun was universally referred to by the students.

In some regards (e.g. wanting high expectations, mutual respect, and an inquiry orientation) the secondary Pasifika student voices were very similar to those of the Māori students from the Te Kotahitanga project (Bishop et al., 2003) but the adaptations suggested in this study include a need for teachers to provide a strongly supportive base enabling the students to take risks, and be critical and engaged. The evidence here supports previous research showing Pasifika learners to be generally highly motivated to succeed and to learn across the schools, particularly at primary level. Students were more consistently positive and motivated at primary schools as illustrated by students at Case Study School 3 who liked being at school because it was connected with their family life: "you can learn heaps and go home and tell your parents about it", "you learn [even] more than what you learn at home". One student said "I don't like to miss school even if I'm sick. This school makes me feel safe and I love the school more than my family." Another thought school is "very cool, cause you get to learn lots of good things. You get to know other things that you didn't know before, make new friends." She said she is happy to come to school because if she were to stay at home she believes she would "have nothing to do".

Hypothesis Four: Pasifika learner attributes

The students themselves are sources of variance in achievement (Hattie, 2009). That is, attributes of the students including their own beliefs and values, as well as cultural and linguistic resources influence teacher ability to engage in effective learning and instruction. Given the limited amount of existing evidence, however, our predictions were deliberately open-ended.

Looking at language status from the point of view of achievement, there was no evidence for the Case Studies that having two or more languages is an impediment to high success either at primary or at secondary. The patterns of achievement over time may look different for those students with a Pasifika language or both a Pasifika and English language background in the earlier years, compared with English only students. But from the middle and upper primary and into the secondary years the sense is that bilingualism may (under important conditions not tested here, such as level of bilingualism) lead to similar outcomes as having a strong English-only status, and in a wider sense confer other advantages. There is perhaps an obvious suggestion in the data that more familiarity with the New Zealand education system is advantageous and we take this to mean that there is a need to have very explicit induction and support to develop the knowledge and skills required for success in the New Zealand education system and in local schooling, especially for newly arrived students.

As noted above, some differences between students' motivation at primary school and secondary school were found, and this reflects a general finding (Paris & McNaughton, in press). Like the more general need, Schooling Improvement will need to consider how to increase engagement and emotional connection at secondary levels.

6. Summary Parent Voices

The parent interviews drew on two important cultural concepts from a Samoan perspective of 'va fealoaloa'i' (reciprocal respect of space) and 'ava fatafata' (reciprocal respect of face-to-face). The interviews were carried out by the research team leader, and as a Pasifika researcher it was important that the interviews reflected 'va fealoaloa'i'and 'ava fatafata' in order for acceptance between people, for people and with people to occur. Hence a 'talanoa' (conversation) format was used. This enabled the collective and unique voice of Pasifika parents to be expressed about their anxieties, their desires for their children's future and their beliefs about 'success' for their children.

6.1 Five Questions Guiding the Talanoa

The five questions guiding the talanoa were: What dreams do you have for your child's education?; What sort of support is the school giving you in order to help your child?; What sorts of things might you suggest that would enable the school and you to help your children achieve?; What do you do to support your child and do you ask the school for help?; and What are your expectations of schools?

6.2 Pasifika Parents' Concerns for Their Children

All parents desired the 'best' for their children so that children can succeed in life. To be successful in their lives, parents believed that their children must have a balanced and holistic education in order to help families and others. For example:

To have a good education, good life, good work you know, look after their family. That's ...that's my dream. But yeah, I'm ...I'm so happy with [the school]. They look after my family. [Niuean parent]

All I want... [sobs] is to see them achieve before I go ... [Tears through the silence] ...I want to see my children grow up and lead a happy life and one that I never had. [Tongan grandmother]

In that dream, I mean for my husband and I first and foremost is that we always wanted our children to be good people and good Christian people and anything on top of that is a bonus, but in saying that though we do push our children academically. [Samoan parent]

6.3 Parents Beliefs on How to Support Children's Success

Almost all parents felt that schools did not fully provide them with the information and practices that they need to best support their children. They suggested improvements in the following areas:

• As parents support their children the only way they know how, they now want schools to tell them explicitly how they can support their children academically to optimise their children's success.

[still crying] ... O la'u fa'agaugauga ia lelei age a lakou a'oga a e ou ke leiloa po'o le a sa'u fesoasoagi ou ke faia i la'u fagau..... e kakau lava ia lakou oga ka'u mai po o a fesoasoagi e fai i la'u fagau ile gumela ae maise a fo'i le faikau kusi aua o la'u kamaikiki e vaivai ia i le faikau kusi ...o lea ga ou fai lea iai fa'amolemole pe mafai oga avaku la'u kama iiga e a'oa;o mai ai laga faikau kusi.

[Translation] My desire for them is to have a high level of education but I don't know what sort of support I should give my children... they [the school] must tell me what kind of help I should give to my children in maths and also reading because my child is weak at reading so at home, I ask my nieces to help because they have reading programmes. [Samoan Parent]

• Parents of children in both primary and secondary schools suggested that schools should seriously look at opportunities to create an academically competitive environment for their children.

O le isi mea e tatau ona fai i totonu o a'oga, e tatau ona fai 'comptetition' fo'i ia e aoga e tauva ai le tamaititi.

[Translation] One thing the school must implement is the establishment of academic competition where children could be motivated to learn. [Samoan Parent]

- Parents prefer schools to give examples and clear instructions of homework tasks and how homework should be done so they can in turn help their children to complete them.
- One parent commented on the need to see daily homework for his children. But what he wanted was examples and clear instructions on how to carry out homework. He claimed that reading Duffy books and the Bible also helped. However, when children had difficulty, the parent's sister-in-law who is a lawyer then helped the children instead. When told that his child's dream was to be 'just like Daniel Carter and a playmaker' he laughed and pointed out:

It's good ... but whether sports, you still need a good brain. [Niuean Parent]

• Parents afford the greatest 'respect' for schools and teachers because of their professional knowledge. In return, parents prefer frequent and honest feedback about their child's academic achievement progress:

E kalagoa mai a le faia'oga 'o lae lelei lau kama. Po o le a kogu lava le mea la e vaivai ai (her child) [to the child] ... e leai se okooko mai ole mea kogu la e vaivai ai...poo le a le makaupu, pau a le mea o la e alright uma mea uma.

[Translation] Teachers say to me that everything is alright with my child. [But in terms of] the exact academic weakness [her child] there is no specific identification of that or in what subject... only that everything is alright. [Samoan Parent]

• Parents agree that a home-school partnership is viable but not all schools encourage them to participate. A parent captures what happens when schools strike a balance between school and home support in the following way:

I know the teacher was very good. She liked the teacher. O le fiafia ia i le a'oga. A kuu la i lau fesili lea ga e fai mai e uiga I le support a...poo le support a makua poo le aoga *[She loves school. If I have to respond to your question about support*]

...albeit parent or school] I'm pretty sure its both. Aua aga fa'apea e lelei le support a makua ae fa'alekogu le a'oga ia kailo. A fa'apea foi la e lelei le a'oga ae leaga le support a makua ia e fa'apega lava. Ae ou ke iloaiga lava ... [Because if there was good support from parents and the school support was not [good], I don't know. Just as if the school support was and parents' was not, well it would be like that. But I know...] I know her needs were catered for. [Samoan parent]

• Parents suggest that schools should run workshops to alleviate confusions with how to help children including with homework, especially aligning how they were taught and how children are now taught.

I just don't like how they get the questions right, but they have to actually show strategies of how they got there. My children have always just been able to come up with the answers straight away, but when they are told you have to show us how you get that answer they can't do it. [Samoan parent]

7. Summary of Pasifika Student Voices

Students have 'big' dreams that they want to fulfil:

- Students talked of success at school in terms of being able to 'tautua' (serve) family and country
- Children generally expressed considerable enjoyment of school, and high motivation to succeed at school; more so at primary school than secondary school.
- Students want to be critically engaged and contribute to learning.
- Students identified attributes of teachers and teaching that enabled them to be more successful learners. These included teachers:
 - believing in students and their ability
 - providing clear instructions and challenging academic work
 - making use of their background knowledge
 - providing opportunities to discuss and express ideas
 - taking time to more clearly explain new conceptual ideas and breaking these down for understanding
 - listening to students
 - expressing positive affect.

8. Summary of Language Survey Data

- In the general 'gap differences' analysis, language (either first or language at home) was not associated with differences in achievement.
- When looking at 'level differences' analysis, gender, time lived in New Zealand, home language, and school were associated with significantly different levels of achievement.
- Relationships between language (either first or language at home) and achievement vary across and within schools. For example, in one school no positive relationships were found between having English as a first language and higher achievement; and having a Pasifika language and English spoken at home and achievement over one year was not negative.
- However, in another school, there was evidence of a developing bilingual status for those students who had a Pasifika language as a first language where by Year 5 their achievement resembled the achievement of those students who had English only.
- In one other school, students who spoke English as a first language at home were consistently higher in their achievement than others who spoke a Pasifika language, or both a Pasifika language and English at home.

9. Summary of Leadership Survey

- No relationship found with achievement.
- Scores indicated low emphasis on strong instructional leadership of the Principal.
- Scores indicated very weak focus on 'strong emphasis on academics' in both clusters.
- Mean ratings across all five Case Study Schools were similar to Cluster A with highest ratings in positive school climate.
- Variability between and within schools.

10. Summary of Pedagogical Content Knowledge (PCK) Survey

- There were no significant correlations between the PCK total scores and any of the achievement measures or with teacher demographics.
- There was considerable variation between schools and sections (e.g. the section on identifying teaching moves and explaining what could be done differently was higher than the section on analysing and applying STAR data).
- There were some significant positive relationships between PCK scores and features of teachers such as position in the school and teacher qualifications. There were also some positive and negative relationships between sub sections and features of teachers.
- Secondary teachers had higher average scores than primary teachers PCK. But there was variation between sections within some schools.

11. Summary of Classroom Observations

11.1 General Patterns

- Scores were high on all the three components: Features (Classroom Environment); Dimensions (Instruction); and Attributes (Cultural Responsiveness).
- Teachers tended to score similarly across components.
- Schools varied considerably in the total scores.

11.2 Components

In relation to the components of the classroom observations:

- Teacher scored highest on Features and lowest on Instructional Dimensions.
- In Instructional Dimensions, Feedback was scored lowest and teachers varied more markedly in the focus on providing high quality feedback than in other dimensions.
- Primary schools tended to have higher total scores than secondary schools.
- In the Attributes of cultural responsiveness, Specific use of students' backgrounds was lower than Relationships.

12. Implications: What Does This Mean for Schools and for Schooling Improvement?

The general and specific summaries of results in Section 3 above contain implications for schools and Schooling Improvement. These are fully developed in the Policy Paper (Lai, McNaughton & Amituanai-Toloa, 2009) and the Full Technical Report (Amituanai-Toloa, McNaughton, Lai & Airini, 2009). The implications fall into three major groupings:

- Implications for the development use and management of evidence (data) systems in schools. For example:
 - The capacity and capability of schools to collect and keep good and reliable data is a pressing need.
 - Resourcing to achieve the capacity and capability is needed: programmes, staff and specific expertise.
- Implications for Schooling Improvement. For example:
 - Both rate of gain and level of achievement need to be considered when evaluating effectiveness of schools and Schooling Improvement with Pasifika students.
 - More research is needed on the features of schools and clusters that are more effective with Pasifika students and especially considering the major sources of variations in effectiveness we have identified (e.g., gender, Summer Learning Effect).
- Implications for the development of more effective instruction in schools. For example:
 - While the descriptions here add to a developing knowledge base, more research is urgently needed into identifying the features and attributes of the pedagogical practices that are known to be effective for Pasifika students.
 - Schools need to develop (and share) strategies which enable effective and reciprocal ways of
 engagement with the community to utilise their knowledge and expertise in order to build
 reciprocal relationships between home and school to enhance student identity and learning.
 - Valuing parents as resources and student voices for what they convey and how they can add to
 empowerment and motivation to achieve academic success.

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