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Sabbatical Research
Term 3 2018
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Reading success for Maori and Pasifika students in digital and innovative learning environments

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Background:

Waikowhai School is one of seven low decile schools in Mt Roskill who form the Ako Hiko cluster which is a Manaiakalani Outreach Programme. Schools in the cluster are as follows: Christ the King, May Road, Owairaka, Wesley Primary, Hay Park, New Windsor, Wesley Intermediate and Waikowhai Primary.

The schools within the Ako Hiko cluster are focused on '*accelerating student achievement through equitable, digital learning access in low decile schools in the Mt. Roskill / Mt. Albert area*'.

Waikowhai is a decile 2 school and we are currently providing chromebooks to students in our Year 3/4 and Year 5/6 classes as part of the cluster initiative. The majority of our students are Pasifika and Maori.

At the beginning of Term 3, 2016 we opened up a 3 space digital, Innovative Learning Environment (ILE) in the senior school and we opened a 2 space ILE in our middle school at the beginning of Term 3, 2017. We spent a great deal of time visiting and observing 'best practice' in recommended schools and researching strong pedagogical models. Our students are currently achieving excellent results in Mathematics and Writing in both ILEs. We now want our students to achieve the same success in reading.

Acknowledgements:

I wish to thank the Ministry of Education and the New Zealand Educational Institute for providing the opportunity for principals to take a sabbatical. Time to relax, reflect and investigate areas of interest that support the ongoing development of our schools is very beneficial.

I wish to also thank the Waikowhai School Board of Trustees for supporting my application for this sabbatical.

Thanks also goes to the Waikowhai School staff for taking on extra duties in my absence, in particular, Helen McGrath and Matthew Riceman.

Executive Summary:

Overall, our Year 4 and 6 Pasifika and Maori students have experienced great success in reading and writing this year.
- 85% of Year 4 Pasifika and Maori students have achieved at or above the expectation in reading
- 82% of Year 6 Pasifika and Maori students have achieved at or above the expectation in reading
- 83% of Year 4 Pasifika and Maori students have achieved at or above the expectation in writing
- 76% of Year 6 Pasifika and Maori students have achieved at or above the expectation in writing

Of the 64 students involved, approximately ⅓ have made accelerated progress, with 7 students making accelerated progress in both reading and writing. Several factors have had an impact on these results:

- Thoughtful and co operative planning within a highly functioning ILE
- Teachers in these spaces who are good communicators and team players
- Well managed digital support networks internally and externally (Ako Hiko Trust)
- Digital programmes that encourage and excite students
- Programmes that provide choice for students so that they can further develop their strengths in the Key Competencies
- Classroom environments that encourage risk taking and opportunities to work with small and larger groups

Purpose:
To investigate successful reading programmes that raise the reading achievement of Maori and Pasifika students within a digital, innovative learning environment

Rationale:
The Woolf Fisher Research Centre, based at the University of Auckland, is currently undertaking a 3 year research project which is looking at how effective digital tools are in raising student achievement in Reading, Writing and Mathematics. All Manaiakalani schools and the Outreach clusters are involved in this research. We are now 3 years into this project and results so far are demonstrating significant gains in Writing and Mathematics. However, reading programmes across the cluster are not producing the same positive shifts.

My research goal was to identify strategies that will support our current reading programmes in these new environments, which in turn, will enable our students (particularly our Maori and Pasifika cohorts) to experience the same success in reading as they are in writing and mathematics.
Mission statement is: The Waikowhai learning community is focused on achieving excellence in teaching and learning.
 Vision: Our students and staff will be:

- Confident, connected, actively involved life-long learners
- Positive in their own identity, and personal well-being
- Creative, energetic, enterprising risk takers
- Active users, seekers, creators of knowledge, leaders

All students in the ILEs are using 1:1 chromebooks. As part of the preparation for this shift in teaching and learning style, the teaching team visited several schools to gauge what would work best for our students and how we would develop our school's ILE pedagogy. We found very little research in this area to help us make informed decisions. We visited a range of schools operating ILEs at the time, none of which were operating a fully digital programme.

Activities Undertaken:

As mentioned above, my research goal was to identify strategies that will support our current reading programmes in these new environments, which in turn, will enable our students to experience the same success in reading as they are in writing and mathematics.

To better understand the complexity of this task I have broken my research into 3 categories:

- What does a successful ILE look like?
- What is required to run an effective digital classroom programme?
- How does culturally responsive pedagogy enhance the classroom reading programme, and the achievement results of students?

Findings:
What does a successful ILE look like?
It was recommended that we visit Westmere Primary, Matipo Primary, Hobsonville Primary and Stonefields to observe successful ILEs operating. None of these schools were Decile 1 or 2. Therefore it was important that we considered the following questions posed by Mark Osborne in his paper 'Innovative Learning Environments' :

‘Is the design culturally responsive? Does it encourage and support learners to draw from their culture/background to achieve as themselves? Including strategies eg. ako, whanaungatange, wananga, tuakana/teina.' *Innovative Learning Environments, P.5 (2016)*

We surveyed our students and consulted with our parent community to get their feedback.

We then made decisions about what would work best for our students in our own environment. The Waikowhai 'Innovative Learning Environment Pedagogy' document was then developed here. This is a working document which changes as needs or new ideas are recognised.

   'The process of continually reflecting on what is working, not working and developing strategies to advance the former and improve the latter' is important and highlights the need to include parents, students, staff, and the community in the process for it to be successful. *(Osborne, M.,(2016) Innovative Learning Environments, Core Education)*

Much of the theory incorporated into this document was located on the New Zealand Curriculum Online here. The ILEs have been running successfully for a couple of years now and we feel that we have developed a fluid model that provides teachers and students with clear guidelines and procedures. We are therefore opening a 2 space ILE in our junior school in 2019.

What is required to run an effective digital classroom programme?

The work undertaken to ensure we are running quality digital programmes has been influenced by our involvement with the Ako Hiko cluster. The Trust employs a facilitator to work across the 7 schools. His role involves :
- providing staff with ongoing professional development
- co ordinating teacher led and student led toolkits.
- facilitating full day workshops in January of each year for teachers new to the digital environment which focus on the inquiry model 'Learn, Create, Share', cybersmart and setting up a class website.
- facilitating a staff meeting at each school every term
- Working with the lead teachers from each school
- attending a Board of Trustees meeting each year to provide an update on the work being carried out.
- supporting teachers new to the digital environment by working with them in their classrooms each week for the first year, with the main focus being to teach the students how to be 'Cybersmart'.

 This consistency is very important as it ensures that every teacher is getting the same message and we are providing programmes that allow students to progress through the year levels.

Each school also has an 'expert' lead teacher who attends PD with the above mentioned facilitator each term. These meetings are used to plan toolkit sessions and allow opportunities to discuss concerns and successes.

As all students in digital classrooms from Year 3 -6 use chromebooks, staff need to become familiar with google applications.

Most importantly, for all of the above to work successfully, it is important that teachers in the digital environment are open minded and enthusiastic about the challenges and new learning involved.
For more information about our cluster's work go to the Ako Hiko website.

How does culturally responsive pedagogy enhance the classroom reading programme, and the achievement results of students?

During the first half of this year we were engaged in an MOE project facilitated by James Hopkins. Our focus was to look at raising the literacy achievement of our Pasifika and Maori students. We used the 'Spiral of Inquiry' (Judy Halberg and Linda Kaser, 2013) approach to delve into our practice and make positive changes to the way we deliver the curriculum. The first 3 stages of the model were investigated in Terms 1 and 2 - 'Scanning', 'Focusing' and 'Developing a Hunch'. During the remainder of 2018 teachers have worked through the 'Learning' stage. We will revisit the model early in 2019 to complete the 'Learning' and 'Checking' stages.

As part of the scanning stage, teachers were asked to identify target students and their potential barriers to learning. Questions that teachers needed to think about were:

- What do I know about this student already?
- What do I know about their learning in literacy?
- What are potential barriers for their learning?
- What support could I give for these barriers?

It was also important to acknowledge the importance of providing a safe environment for students that ensured that they felt comfortable taking risks.

'Dialogue within responsive pedagogy requires relationships in which risk taking is encouraged, where there is no shame in being a 'not knower' and where it is understood that everyone brings with them knowledge, ways of knowing and experiences of value to share', (*Berryman, M., Lawrence, D., & Lamont, R., (2018)*)

Since the inquiry began a variety of techniques have been introduced to engage students:
- A wide range of cultural texts have been introduced to students
- Reading and writing tasks are now presented through slideshows that include 'must do, 'should do' and 'could do' tasks.
- Slide shows focus on one topic that is looked at in a variety of ways, therefore encouraging students to go deeper into the topic over a longer period of time. An example of a wide and deep reading task.

Further recommendations that have come out of the inquiry so far are:
- Explore the possibilities of utilising individual blogs to share culture and belonging
- Continue to develop a rich bank of culturally responsive resources
- Explore blogging in different languages

The results below indicate a marked improvement in literacy results with some students making accelerated progress over the year.

Waikowhai Primary School Student Achievement Outcomes (December 2018):
Data below includes all Year 4 and 6 students (broken into Pasifika, Maori, male and female students) who have been in a chromebook Innovative Learning Environment (ILE) in 2018.

End of Year Reading Data 2018

Year	Not Yet Achieved	Nearly Achieved	Achieved	Above	Well Above	Total at and above	Total number of students
Year 4 (all)	**9% (3)**	**6% (2)**	**41% (14)**	**25% (9)**	**19% (6)**	**85% (29)**	**34**
Year 4 Pasifika Students	7% (1)	7% (1)	57% (8)	22% (3)	7% (1)	86% (12)	14
Year 4 Pasifika Males	20% (1)	20% (1)	40% (2)	20% (1)	0% (0)	60% (3)	5
Year 4 Pasifika Females	0% (0)	0% (0)	67% (6)	22% (2)	11% (1)	100% (9)	9
Year 4 Maori Students	0% (0)	0% (0)	33% (1)	67% (2)	0% (0)	100% (3)	3
Year 4 Maori Males	0% (0)	0% (0)	50% (1)	50% (1)	0% (0)	100% (2)	2
Year 4 Maori Females	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	100% (1)	1
Year 6 (all)	**15% (5)**	**3% (1)**	**26% (9)**	**24% (8)**	**32% (11)**	**82% (28)**	**34**
Year 6 Pasifika Students	17% (2)	0% (0)	50% (6)	17% (2)	17% (2)	84% (10)	12
Year 6 Pasifika Males	22% (2)	0% (0)	44% (4)	22% (2)	11% (1)	77% (7)	9
Year 6 Pasifika Females	0% (0)	0% (0)	67% (2)	0% (0)	33% (1)	100% (3)	3
Year 6 Maori Students	0% (0)	20% (1)	40% (2)	0% (0)	40% (2)	80% (4)	5
Year 6 Maori Males	0% (0)	0% (0)	50% (1)	0% (0)	50% (1)	100% (2)	2
Year 6 Maori Females	0% (0)	33% (1)	33% (1)	0% (0)	33% (1)	66% (2)	3

End of Year Writing Data 2018

Year	Not Yet Achieved	Nearly Achieved	Achieved	Above	Well Above	Total at and above	Total number of students
Year 4 (all)	**9% (3)**	**9% (3)**	**56% (19)**	**18% (6)**	**9% (3)**	**83% (28)**	**34**
Year 4 Pasifika Students	7% (1)	14% (2)	57% (8)	7% (1)	14% (2)	78% (11)	14
Year 4 Pasifika Males	20% (1)	40% (2)	40% (2)	0% (0)	0% (0)	40% (2)	5
Year 4 Pasifika Females	0% (0)	0% (0)	67% (6)	11% (1)	22% (2)	100% (9)	9
Year 4 Maori Students	0% (0)	0% (0)	67% (2)	33% (1)	0% (0)	3	3
Year 4 Maori Males	0% (0)	0% (0)	100% (2)	0% (0)	0% (0)	100% (2)	2
Year 4 Maori Females	0% (0)	0% (0)	0% (0)	100% (1)	0% (0)	100% (1)	1
Year 6 (all)	**15% (5)**	**9% (3)**	**32% (11)**	**35% (12)**	**9% (3)**	**76% (26)**	**34**
Year 6 Pasifika Students	25% (3)	0% (0)	50% (6)	17% (2)	8% (1)	75% (9)	12
Year 6 Pasifika Males	33% (3)	0% (0)	44% (4)	22% (2)	0% (0)	66% (6)	9
Year 6 Pasifika Females	0% (0)	0% (0)	67% (2)	0% (0)	33% (1)	100% (3)	3
Year 6 Maori Students	0% (0)	40% (2)	20% (1)	20% (1)	20% (1)	60% (3)	5
Year 6 Maori Males	0% (0)	50% (1)	0% (0)	50% (1)	0% (0)	100% (2)	2
Year 6 Maori Females	0% (0)	33% (1)	33% (1)	0% (0)	33% (1)	66% (2)	3

Of the above Pasifika and Maori students 10 have made accelerated progress in reading and 11 have made accelerated progress in writing. 7 of the 14 students have made accelerated progress in both reading and writing.

Accelerated Progress in Reading				
Year Level	Name	Ethnicity	From Beginning 2018	To End of 2018
6	Student 1	Tongan	At	Above
6	Student 2	Samoan	Above	Well Above
6	Student 3	Samoan	Above	Well Above
6	Student 4	NZ Maori	At	Well Above
4	Student 5	Niuean	Well Below	At
4	Student 6	Tongan	Below	At
4	Student 7	Samoan	At	Above
4	Student 8	Samoan	At	Above
4	Student 9	Samoan	At	Above
4	Student 10	Samoan	Above	Well Above
Accelerated Progress in Writing				
6	Student 11	Tongan	Below	Achieved
6	Student 12	Samoan	Below	Achieved
6	Student 3	Samoan	At	Above
6	Student 2	Samoan	Above	Well Above

6	Student 4	NZ Maori	At	Well Above
4	Student 13	Tongan	Below	Achieved
4	Student 5	Niuean	Below	Achieved
4	Student 14	NZ Maori	At	Above
4	Student 8	Samoan	At	Above
4	Student 10	Samoan	At	Well Above
4	Student 9	Samoan	Above	Well Above

The above students were interviewed individually to discuss what had made a difference to their success in literacy this year..

Feedback from Students		
Year Group	**Reading**	**Writing**
4	- Types of reading programmes - 'Sunshine Classics Online', 'Readworks programme' 'You can record yourself reading on Sunshine Classics'. - Themes based on a variety of cultures - Choice of spaces and furniture available in ILEs - Reading activities and coding on the chromebook are fun	- Syndicate Site - writing instructions with choice of pictures to write about - Using google docs and slides - Enjoy using the chromebook as easier and quicker to write
6	- Selection of novels that interested them - Themes based on a variety of cultures - Reading tasks in google slides including PMIs	Creative writing - 'selecting pictures and style of writing means I am more motivated. I can write about things I like and enjoy.'

'Must, Should, Could' activities on syndicate site allows choice - Choice of spaces and furniture available in ILEs - Get to work with different teachers and students in the ILE - Using the chromebook means 'I work faster, it's easier to find information, it's interesting and I'm more motivated'. 'The chromebook has made me more confident'.	'Mum pushing me to my limits at home' (practises handwriting and writing in different genres) - Syndicate - site (Writing) - Creative writing slideshow 'Blogging has helped' - feedback from teachers and students from other schools - Chromebook allows access to lots of information - Chromebook allows me to 'present my work more creatively'.

Conclusions:

The data shows that students have achieved a great deal of success and I believe that it can't be attributed to any one area that has been discussed in this paper. Instead, multiple factors identified have influenced the success of our students. The combination of digital tools within an ILE being driven by 'expert' teachers who are committed to better understanding the students in their care has been a 'winning combination'.

Implications:

We must continue to grow our understanding of our students and make positive connections with their families. The factors that have influenced the success of our students must be celebrated and remain at the forefront of our pedagogy and practice.

It is also important that we continue to investigate new strategies that will provide our students with the tools for success. During my research I came across the following table which will provide some interesting discussion with staff in the new year, *Fa'avae, D., Set 1, 2018,*

HE WHAKAARO ANŌ

	What are *effective* cultural relationships, embedded in the metaphor of mana ōrite?	What are *ineffective* cultural relationships?
Whanaungatanga	Thinking about what you would want for your own child or whānau member and helping this play out for other people's children in your school. Taking responsibility to provide care and support to students and then expecting the highest in terms of your combined endeavours.	Trying to be a friend or acting friendly without also being prepared to take responsibility for both the relationship and the outcomes.
Whakapapa	Working to know the student and their whānau, who they are, and what their experiences are. Being prepared to reciprocate by working to understand your own cultural identity, values, and assumptions and the way these can impact (both positively and negatively) your interactions and relationships with students and their whānau.	Assuming knowledge of the student and their whānau from an essentialist perspective (ie., "They are Māori, so that means they…") Believing worthwhile learning only happens in formal education settings.
Kaupapa	Ensuring, through ongoing dialogue, and face-to-face meetings across multiple settings and with multiple groups, that what you want for your students' schooling is also what they and their whānau want as well.	Believing there is only one curriculum and one way to teach it. Believing that traditional forms of consultation, such as newsletters, really work. A school-mandated goal or vision determined without the voices of all

	What is *effective* responsive pedagogy?	What is *ineffective* responsive pedagogy?
		stakeholders.
Wānanga	Using a wide range of information including what you know and are still learning about the cultural context of your students to understand what a learner has in their "cultural toolkit" (Bruner, 1996) as the basis for determining their next steps. A "one size fits one" approach for personalising learning.	Believing students come with no knowledge of the world or ways to make sense of it.

Using a single worldview approach to teaching and learning or a narrow set of strategies-a "one size fits all" approach |
| Ako | Taking reciprocal responsibility to learn from and teach each other.

Ensuring opportunities for students to question and learn from one another as well.

Finding ways to take advice from and learn from and with whnāau. | Imposing your knowledge on others as a single truth.

Mining students and their ahānau for information with no reciprocal benefit. |
| Mahi ngātahi | Asking students for their ideas about the learning contexts and being prepared to act accordingly.

Working together as one, collaborating to achieve common outcomes. | Giving away your power effectively absolving yourself of any responsibility in achieving common outcomes. |

Fa'avae, D., (2017) Family knowledge and practices useful in Tongan boys' education. Set 2, 2017, NZCER Press

TABLE 1. CONSIDERING WHAT EFFECTIVE CULTURAL RELATIONSHIPS AND RESPONSIVE PEDAGOGY ARE AND ARE NOT

References:

Berryman, M., Lawrence, D., & Lamont, R., (2018) Cultural relationships for responsive pedagogy - a bicultural mana orite perspective. Set 1, 2018, NZCER Press.

Fa'avae, D., (2017) Family knowledge and practices useful in Tongan boys' education. Set 2, 2017, NZCER Press

Ministry of Education: The New Zealand Curriculum Online: here.

Osborne, M.,(2016) Innovative Learning Environments, White Paper, Core Education