



## **Sabbatical Report**

**Lynda Stuart**

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### **Acknowledgements**

I wish to thank the Ministry of Education and the New Zealand Educational Institute for their foresight in providing the opportunity for principals to take a sabbatical. The ability to take some time for reflection around current practice and research into topics of interest, certainly assists with the ability to move forward strategically in our schools.

My thanks go to the New Zealand teachers and their principals who provided responses to my questions around operating in a digital bilingual setting.

A special thanks also to the Welsh Ministry of Education and the two schools that I visited. They were so accommodating of a NZ principal with so many questions.

I also wish to thank the Board of Trustees, staff and community of May Road School who have supported this work and for their aroha as we move forward as a team.

### **The impact of digital technology on the achievement of learners, in particular through the use of 1:1 devices.**

This report is the work of Lynda Stuart, principal of May Road School, Mt Roskill Auckland undertaken during the sabbatical leave taken during Term 3 2015. It includes reflections from professional readings, interviews with teachers and information gained from the ICP conference in Finland and visits to schools in Wales.

#### **Purpose:**

To investigate whilst in New Zealand and also through professional readings and attendance at the ICP (International Confederation of Principals) conference in Finland and schools in Wales, the impact of 1: 1 use of digital technology on learning achievement. I also have a particular interest in the use of digital technology in a bilingual setting and will look to discuss this aspect as well. This will inform the work that is happening in our bilingual Samoan classroom - Lumana'i Manuia Mo A Taeao and hopefully provide information for those who have responsibility for assisting with resource provision in this area in New Zealand.

#### **Background to my focus:**

Over the last few years there has been an increasing focus not only at our school but also nationally and globally on the use of digital technology to enhance teaching and learning.

Our school was seen in the 2012 ERO report, as a school well placed to move forward in this area and indeed over the last three years, we have certainly done so. We are currently working alongside the Manaiakalani cluster of schools with the Outreach programme and have begun our own cluster of eight schools under the name of Ako Hiko. This group has a website and has formed a Trust which manages the financial responsibilities to ensure that our students and their families have an equitable provision of the resources that they need to access digital technology.

*Ako Hiko Education website:* <http://akohiko.org/>

We have formed four digital immersion classrooms in the school and the students in these classrooms have access to their own digital device, which in this case is a chromebook. This development has happened over the last two years and we have provided PLD within the cluster, to support the teachers and students. We also started working with a Learning and Change facilitator, employed through the University of Auckland, during the first year of our cluster wide digital immersion work.

Teachers use the Hapara Teacher dashboard to monitor the teaching and learning programmes and there is a focus on the Learn, Create, Share model, which aligns with the work that we are doing within the Outreach programme. There has also been a strong focus on parental engagement as we work through this process and numerous parent workshops have been held. The importance of Cybersmart practices has been stressed to parents, students and obviously their teachers.

As a leader, I have had a pivotal role not only in providing leadership within my own school but also across the cluster. Therefore for me, it was time to explore that leadership further and look at what is evidenced and effective elsewhere. It is also important for me to hear the views of others in similar situations and to explore how we can best ensure that we are providing the optimum teaching and learning environments for all our pupils.

The other aspect that particularly intrigues me, is the use of digital technology in the bilingual setting. Currently one of the four digital immersion classrooms in our school, is a Samoan bilingual class, and this I believe provides its own set of unique challenges, particularly around resourcing. I was keen to see how other teachers and leaders in these settings, were coping with the challenges and also what support could be provided, that would assist this work.

It was evident from the outset that there has not been a great deal of research completed in this area, so my focus ended up being broader, than first anticipated. Throughout the sabbatical period I was able to complete professional readings away from the ongoing busyness of the school setting, which have informed this report.

## Literature Review

I began by examining those reports and texts directly aimed at the New Zealand context and focusing on the implications within our local learning environment.

Over the last decade there have been a number of reports examining the future of teaching and learning. “ Supporting future-oriented learning and teaching - a New Zealand perspective”, focuses attention on the potential of the individual learner and the importance of effective teaching and learning in enabling the individual to realise their potential. The importance of technology being used to create new ways of learning and opportunities is stressed.

The OECD / CERl notes “the rapid development and ubiquity of ICT are resetting the boundaries of educational possibilities. Yet, significant investments in digital resources have not revolutionised learning environments; to understand how they might requires attention to the nature of learning”. (Dumont et al 2010)

When exploring the use of digital technologies, the report quoted NZCER’s findings (2010) that there were four strategies being used to turn schools into ICT-rich learning environments.

The strategies were providing enabling tools and infrastructure, providing inspiring ideas and opportunities to connect ideas, enhancing capability and supporting innovation.

The report synthesis also suggests that all four strategies are needed in order to support meaningful changes in practice. (p55)

There are key principles that emerge within the report that are reflected in much of the other material that I have come across. Those principles are -

\*personalising the learning,

\*the need to explore new views of equity, diversity and inclusivity ( in particular recognising diversity as a strength),

a curriculum that uses knowledge to develop learning capacity,

\*rethinking teachers and learners roles,

\*culture of continuous learning for teachers and leaders, and

new kinds of partnerships whereby schools are no longer siloed from the community. (p 6)

The asterixed principles are certainly those that I wish to explore further during this report.

That is not to say that others are not important but as outlined earlier there is so much that one could unpack with this topic.

## E-learning and implications for New Zealand Schools: a literature review

This document examines practices and evidence across a number of countries. From an international perspective although it highlights an inherent belief around the benefit of e-learning teaching and learning strategies to learners, it also states that there is only “a relatively small amount of actual evidence about its relationship to improved educational and life chances for students”. This certainly is reflected in my own findings as I researched the topic looking for the evidence around the use of 1:1 devices and their impact on student achievement. The OECD report 2005 stated that “The provision of a tool isn’t enough, if

people don't know what it's for or how to use it, but having them available can precipitate more effective learning relationships (Organisation for Economic Co-operation and Development [OECD], 2005). This is also highlighted in the 2015 OECD report and I have included the link to this within the references.

The literature review also showed the importance of teachers' active presence and roles in classrooms using e-Learning tools, and acknowledged that e-Learning tools can motivate and engage students. These may be critical factors leading to improved educational outcomes. This also links with the University of Auckland research resulting from the work of Manaiakalani which showed increased motivation and engagement in learning from those students involved in the 1-1 classrooms, throughout the cluster of East Tamaki schools.

[Manaiakalani Research Link](#)

In examining the national context within the review, the following points were raised. Firstly that although young people are technologically capable in the realms of social networking and the use of the technology in their daily lives, the understanding around how to use them in purposeful and educational ways can be quite limited. Further, that an e-learning rich environment lends itself to make peer and collaborative learning opportunities easier and that this way of working suits many of our NZ students, particularly Maori and Pasifika. (as outlined in documents such as Key Evidence , Ministry of Education, 2008; Bishop and Berryman, 2006) and Pasifika (Franken, May, & McComish 2005). ( P 1 Exec Summary)

When thinking about pedagogy and e-Learning: e-Learning and collaborative/co-constructive pedagogies appear to be linked and change the dynamics of classrooms when e-learning is used meaningfully within the everyday learning environment. There also appears to be a positive impact on teacher/student relationships as well. It was also noted that preventing students from accessing those sites that they have an ease of access to outside the school environment does not assist in the development of responsible digital citizenship. The importance of providing opportunities to explore critical thinking in this way was also stressed.

As Dillenbourg (2008) cautioned, Internet or mobile technologies coupled with education do not necessarily predict learning outcomes. Instead, the ways that teachers use these affordances have a strong link to this potential. Therefore, given that there are difficulties in making direct causal links between e-Learning improved academic achievement outcomes for students, it is important to interpret 'outcomes' widely as indicated above. ( p7)

Future focused learning communities- This report was completed in May 2014 and launched by the Associate Minister of Education, Nikki Kaye. The report acknowledged the fact that "the emergence of ubiquitous connectivity, increasingly mobile digital technologies and the power of the internet pose the most profound challenges and opportunities that the education system has ever faced". p2 . It stressed the fact that digital competencies have become a universal requirement and the importance of ensuring equitable access to digital technology. It alerted educators also to the fact that if we do not ensure equity that the growing digital divide would then produce disastrous and highly negative consequences. The report outlined ten strategic priorities for 21st century skills and digital competencies.

They are as follows:

- commit to meeting the needs of 21st century learners
- achieve equitable access to digital devices for every learner
- invest in people and innovation
- create future -focused learning environments
- invest in high-quality digital content and systems to make content easily accessible
- build regional capability through collaboration
- build a robust evidence base
- implement a co-ordinated, system-wide effort to align curriculum, digital technologies, property, infrastructure, funding and legislation
- design a coherent, flexible and robust funding structure to support 21st century learning
- implement a comprehensive five year plan from 2014.

Sheninger in his book discusses the fact that schools that 'do not embrace digital learning and place a high emphasis on standardisation will always fail to resonate with our students' (p134). This book explores the changing educational landscape and the leaders' role in evolving and modeling a vision that will foster increased student engagement and enhance learning through the use of digital technology. He discusses how we can rethink learning environments and provide professional learning for our teachers and a school culture which enables this to happen.

#### Questionnaire responses - Summary of views

Due to my interest in the use of digital technology to enhance the teaching and learning from a bilingual perspective, I surveyed three schools in the Auckland area and collated the responses of the teachers to my questions. Two of the bilinguals were Samoan and one was Maori. I have included the key elements of the responses of each individual to the questions asked. These all reflect the differences of the contexts that the teachers were in.

T1 - Teacher One ( bilingual Maori) T2 - Teacher 2 T3 - Teacher 3 (T2 and T3 bilingual Samoan)

#### **How is digital technology used within the classroom to support the principles of bilingualism?**

T1 - Enhance bilingual knowledge and skill set. Bring Te Reo Maori into the 21st Century model of Information Technology.

T2 - Students/ parents/ Teachers on the same path of learning. Reflection and evaluation are used to look at the next steps.

T3 - The use of digital technology has shifted the way that the teacher perceives teaching for the future. Students and teachers are looking at the patterns of learning and next steps. The teacher included themselves within this. There is sharing with fluent Samoan speakers/ giving and receiving feedback. Children are learning to take control of their learning. The role of the teacher has changed and teachers are truly learners and facilitators. The classroom will never be the same.

### How can digital technology be used effectively to support biliteracy?

T1 - The students love the environment and can access information from the web. Teacher has to place the Maori into the English based programmes as most of the programmes are English medium. Programmes such as Study ladder, Googledocs, Padlet, TKI, Edublogs, Blogging and Microsoft word.

T2 - Task sheets in Samoan and English - enables free flow of languages and a deeper understanding of the learning.

T3 - Collaboration with other bilingual teachers will change the look of education. Importance of connection with peers outside the walls of their own classroom. The question is asked - Who will be the teacher and who will be the learner? Leading to a classroom without walls. There is a deepening of the love of learning through the ability of being able to utilise both languages. A focus on parent involvement with parents accessing and commenting on work.

### What resources do you have already to enable you to work digitally in your bilingual classroom?

T1 - Windows 8/ Microsoft. Has to find the way around tools that the teacher knew themselves and use PLD sessions with IT specialists. Also TKI books in Te Reo Maori were used but the teacher reported a funding cut to this area. Support from a Maori Resource Teacher who is assisting with the use of a Visible Learning Network ( VLN).

T2 - Equipment used - laptops, chromebooks, ipads.

T3 - Personnel - school lead teacher and cluster PLD provider, e-learning experts. The teacher is learning to use apps to grow confidence. Chromebooks.

### What adaptations do you need to make to current resources? How easy is it to do this?

T1 - Students need to be able to use the keyboard and you have to start at the beginning. It is not as easy as everyone thinks. It requires practise.

T2 - E-learning experts are needed for PLD and support. The infrastructure is necessary - conditions need to be set up for the teaching and learning environments to work (ubiquitous) - gmail accounts, home/ school accessibility.

T3 - Children's work is now a resource for others. ( We don't now have to glue Samoan words into texts).

### What do you do to enable the effective use of digital technology in your bilingual teaching and learning environment?

T1 - Play around with the programmes in spare time. There is a need to be familiar with the programmes - Padlet, Edublogs etc. takes effort and patience and you really need to know the tools.

T2 - Maintaining effective tasks - relating to both languages and allowing students to enquire, work and present their work in creative ways.

T3 - Still learning how best to use websites etc. Has tried many planning styles, sharing the planning with the children.

### What does the day look like for you in this regard?

T2 - Lots of organising of tasks

T3 - Teacher amazed at the speed of the students. Described it as a “classroom under construction”. The teacher makes changes after reflecting on outcomes. “Every day is different as the teacher and student learning shifts”. The teacher also stated “all of these days are the steepest learning curves for me as a teacher”.

### What support do you need to strengthen the impact that digital technology has in your bilingual setting?

T1 - More PLD in relation to furthering own IT skills and the practical implications of using tools for Te Reo Maori. PLD providers often lack experience with this.

T2 - Keeping up with e- learning goals and reflecting on these.

T3 - Observing other practitioners of bilingual classes. Keeping up to date with the latest apps etc. Time with digital immersion experts. Time.

### Helsinki - International Confederation of Principals Conference

As a part of the sabbatical, I attended the International Confederation of Principals Conference in Helsinki where the focus was on the leadership of our learning environments. There were some key points that I felt supported the work that I do in New Zealand.

Andre Noel Chaker - discussed the relativity model of efficiency to creativity in innovation.

He stated that we need openness in order to enable innovation. There is a need to destigmatise mistakes and allow room for error. That motivation is one of the greatest drivers for success in education and the fundamental needs for people to be motivated are Choice, Competence and Community. He also discussed the importance of bravery in everything that we do.

Pasi Sahlberg - Often it is the things that we cannot see that really make the difference. He discussed the concepts that make some education systems successful . The importance of systems being collaborative, creative, having trust based responsibility, professionalism and he stressed the importance of equity.

Throughout the conference, the focus on creativity, collaboration, risk-taking and trust in the profession certainly resonated with the work that we are currently involved in. I can think of a number of educators very close to me in New Zealand who are involved in leading learning environments where these are the underpinning principles. The students are at the centre of all decision making and the holistic nature of the curriculum is embedded in the practice.



Finlandia Hall - conference venue



Sibelius Monument to Finnish Composer, Jean Sibelius



## Wales - Visits to schools

Both of the schools visited were in Barry, which is around twenty minutes out of the city of Cardiff. They are both considered to be “cutting edge” schools in Wales in the area of leading effective digital technology integration into the teaching and learning environments. They were also both involved in supporting other schools in this area as a part of the Hwb focus of the Welsh government. I was accompanied on these visits, by a Senior Digital Leader from the Education and Public Services Group of the Welsh Government.

Cadoxton Primary School is an English speaking primary school with an attached nursery area so in effect there are students from as young as three years of age in the learning environment. My focus was on the primary age students but it was fascinating to see the work that had been put into ensuring meaningful transition for the nursery age students. The school would equate to what we would call a “Low decile school” with 48% of the students qualifying for free school meals. In discussions I reflected on how similar our challenges were with the Assistant Head Teacher describing her passion for the students and community and the need to ensure that there was equity of access for all to digital technology. There was also a commonality between our NZ context and theirs with the provision through the school of digital devices for parents to lease to buy. This was an attempt to get the digital devices into the home but also to ensure that the learning that happened at school could continue at home and be shared with parents and caregivers. The focus on making a real difference to the lives of learners and the way that the use of digital technology could take the learner beyond their immediate world and link them to what is happening beyond was also stressed. The fact that there was a genuine emphasis on developing self-belief and the knowledge that as an individual you can make a positive difference to the world through your contributions really resonated with me. The technology was being used to reinforce these key messages.

Through the discussions with both the leader and the Welsh Government official it was clear to see that the government were supporting these developments. There was also a strong commitment to Professional Learning Development (PLD) and this had started with providers (Consortia) however there was a real focus now on the Hub leading schools providing this. Good practice was being identified and shared across clusters of schools. Peer observations were built into the daily life of the school and there were positive outcomes being seen around the achievement levels of the students. It was interesting that the Welsh School Curriculum was starting to be reviewed and this was involving educators throughout the country to inform the final outcome (again a flashback to our NZC development where educators were at the forefront and community context was so important in ensuring meaningful opportunities for learning and inquiry). The teaching as inquiry focus was particularly evident throughout my discussions.

There have been a number of reports leading to the developments in Wales but the catalyst to this was the 2011 report “Find It, Make It, Use It, Share It” which came up with 10 recommendations. These have had a strong commitment from the government towards addressing. The report saw the need for national action in two main areas.

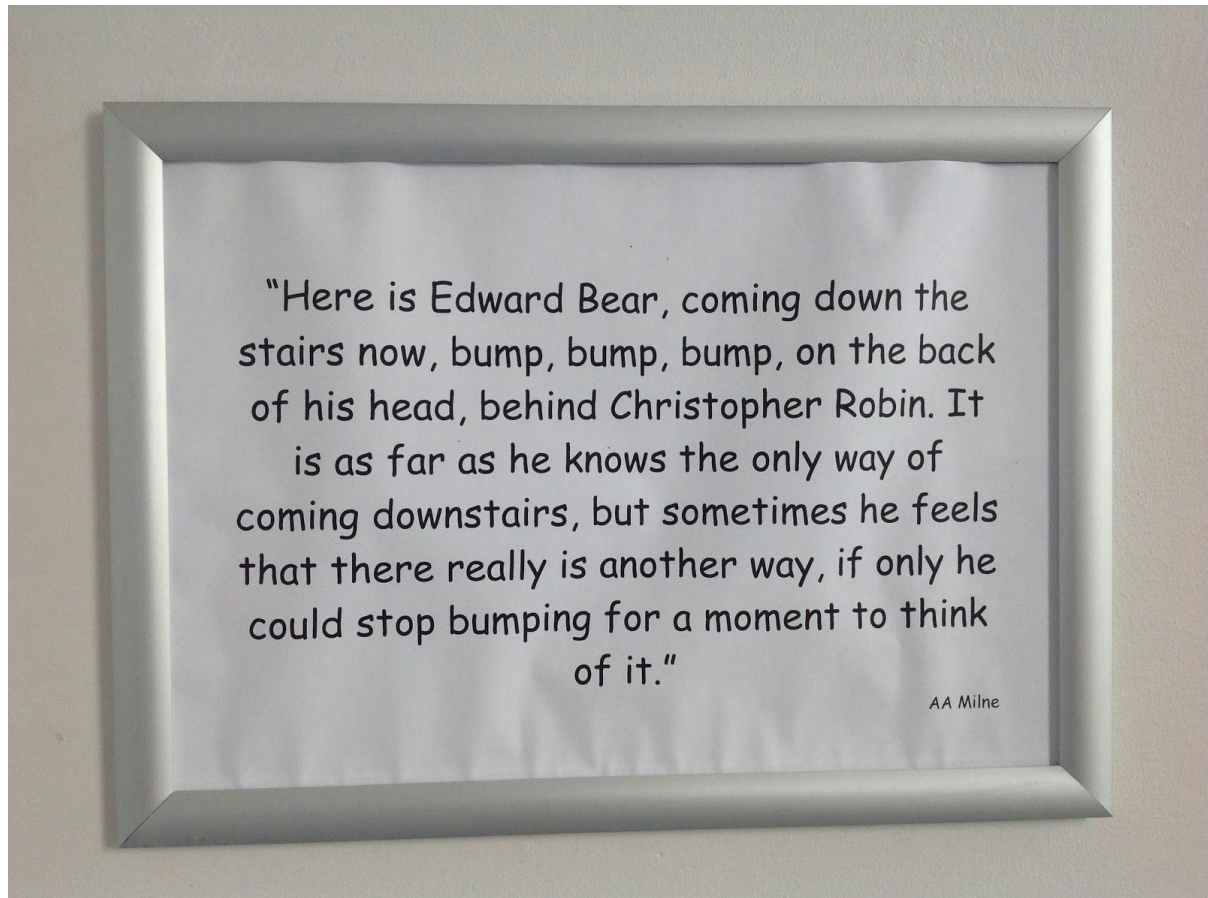


‘Theme 1- encouraging, supporting and preparing teachers to operate in a digital environment and, crucially, to share their digital practice. Theme 2- establishing and developing a system and national collection for creating, storing and sharing digital resources’ ( p7 2011). The report outlined that the best way to action this was to set up a new national body. The provisional name was to be Hwb - “ This conveys both themes: ‘in Welsh ‘ Hwb’ means a push or spur (Theme 1) and what we propose will act as the ‘hub’ for sharing and using digital resources (Theme 2)’. ( p7, 2011).

The Hwb which was referred to throughout my visit to both schools, was launched in December 2012 and Cadoxton school was one of the first to take this up in 2013. This is a digital content repository, which is bilingual - Welsh and English and therefore is used by Welsh Medium and English medium schools. There is a strong content team who thoroughly test the content but there is also the facility for teachers to be able to share their own resources, ideas and planning. Hwb was described as the centre of everything - Wikis, Blogs, Surveys, Document sharing and that it was set up already as they became ready to come on board. This reminded me of the work that is happening in NZ around the development of the POND, our Network for Learning and the VLN's that have been established. The commitment to provision in the two languages was very evident in all of the discussions that I had.

There has been a huge injection of funding into the regions to support the development of infrastructure and the government can now say that 98-99% of the schools are fully connected. Again I was reminded of the developments in NZ through the School Network Upgrade Programme ( SNUP).





Some key messages from Cadoxton Primary School.

#### Ysgol Gyfun Bro Morgannwg (YGBM)

On the day that I arrived at the school they had just merged with the local primary school and changed their status from a secondary school to a school for children as young as three up to 18 years of age. I spent time with the IT lead teacher here who explained the history of the development of Welsh Medium schools in the country, which is a whole other story. YGBM has 120 primary students and 850 secondary, there are also a growing number of nursery school children as well. Ninety five percent of the students are from non- Welsh speaking families and there has been a parental desire for the children to learn Welsh because of the importance of knowing your identity. Again here was another factor that resonated with me, when thinking of the rationale behind our Samoan bilingual and the conversations that I have had with our parents. As for Cadoxton there was a very strong pastoral nature to the practices underpinning the teaching and learning environments in the school.

Engagement, motivation and communication were described as being the key positive effects of the digital device technology used in the school and it was made very clear that the devices were used in all subjects taught. It was interesting to see that there were computer suites available for each of the subject area teams of teachers. Again the use of Hwb was

explained and the fact that it was used by all teachers and extremely visible to others was stressed. Sharing of ideas can be done through Hwb networks, which are online professional learning communities. PLD receives limited funding from the government and much of this happens “in house”. There is an ipad for each teacher, Apple TVs in most rooms, projectors and whiteboards in each class and teachers are trained around the use of apps and also the use of Hwb resources and tools. Resources shared here can also be shared wider and there is a real focus on creating bilingual resources, which is supported at a government level. However there is no additional funding for Welsh medium schools as regards IT developments.

The concept of children bringing their own device to school and the learning being ubiquitous with home and school in a partnership was seen as a next development step for the school. There were also some wifi issues that needed to be addressed and having the internet available at home for all pupils was also seen as important.

### **Reflections on where to next.**

For me this has been an interesting journey and throughout the term I was constantly reminded that we are actually in a very good place to move forward. The conversations in Wales were extremely affirming of our journey with our community and particularly with our Samoan fanau. The fact that the families are already in a position of being supported to access digital devices for their children to use ubiquitously to support teaching and learning was seen as a desired state. Our teachers are positive about the changes that we are making and are embracing the professional development that is required to move this work forward. This is absolutely crucial if we are to be successful.

The importance of allowing for creativity and innovation within our education system cannot be minimised. This will take a deliberate and planned approach for it to be successful – there must be a genuine desire on the part of our politicians to enable this. There has been a start with the implementation of the SNUP (School Network Upgrade Programme) and also the Network for Learning managed network and the POND for teaching and learning resources. However these initiatives do not address the challenges of equitable access for all learners and communities. There is indeed a digital divide in New Zealand, as highlighted through a collaborative study that I was involved in during 2014 – this is where the efforts of politicians and communities are really needed. It should not be up to schools, like those in the Manaiakalani Education Trust or Ako Hiko, to set up trusts in order for this to happen. Our focus needs to be on the provision of effective teaching and learning environments with digital technology usage supporting effective practice.

I was impressed by the way that the government had explicitly supported the bilingual aspirations of parents and caregivers in Wales. The resources that had been produced both through government resourcing and were shared by teachers through the Hwb portal evidenced a genuine commitment to the development of a strong bilingual nation. We are

still working towards this in NZ for Maori ( and this is where it needs to happen first) and indeed I do not really see this explicitly in the future focused documents that I see for digital technology strategic planning. It is certainly not evident as far as supporting the Pasifika languages either.

Currently as evidenced by my interviews with the teachers in the bilingual environments, there is a need to provide the time for teachers to develop resources that will support bilingual digital environments. There is a need also for teachers to have time to be able to observe each others' practice in this area and critically reflect on this practice in order to provide the best possible teaching and learning environments for students.

My plea to our policy makers is to consider this as we move forward in partnership with our whanau, iwi and fanau in Aotearoa New Zealand.

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