

2016

Sabbatical Report
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LEARNING AT CORNERSTONE

**CONSIDERATIONS FOR OUR TONGAN LEARNERS
AND OUR USE OF INFORMATION TECHNOLOGY**

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Introduction

In this report I give details of research into two topics of interest to Cornerstone Christian School (CCS):

1. How to assist Tongan learners at CCS
2. The use of IT in learning at Cornerstone in the future

My research involved the following main strands:

- Background knowledge reflections
- School visits for both topics
- Background reading
- Discussions with knowledgeable educators at other schools
- Attendance at a conference on Pasifika learning

The purpose of this report is to summarise the observations and learning and to distil them down to brief summary statements on where to next for our school in these 2 areas.

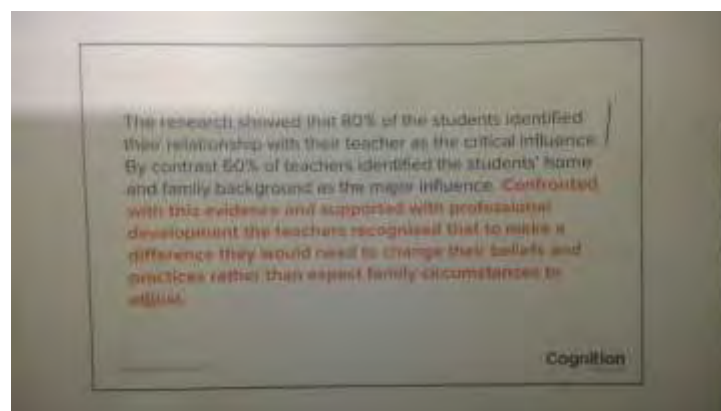
Carrying the Tapa conference

During my sabbatical I attended this conference in Wellington put on by TRC which is a registered Ministry of Education provider. This conference was excellent; it focussed largely on the diversity and needs of Pasifika learners but also had significant focus on Māori students (which was directed by ERO and not part of the conference brief).

A summary of the key points, in no particular order, gleaned from the conference include:

1. “Pacific” means calm/peaceful. It was named by the Portuguese explorer Ferdinand Magellan since he entered it after having sailed through the turbulent waters of the Atlantic Ocean. The Pacific peoples are generally peaceful.
2. Pasifika is a term invented by the Ministry of Education – it comprises all of the varied island peoples of the Pacific Ocean of which there are 18 sub groups according to the MoE eg Tahitian, Aboriginal, Cook Is Maori, Tokelauan, Hawaiian, Solomon Is.
3. Pasifika families move here for a better life for their children. They call it the migrant dream.
4. Pasifika students are well aware they are representing their whole family. You only see the one of them but in actual fact it is the whole family there standing behind them.
5. Many of the churches have exams and they put a lot of emphasis on them – often more than on their school exams!
6. Cultural customs eg
 - a. When visiting a Pasifika family always accept food – this is a part of coming together “breaking bread together”
 - b. When serving tea and coffee don’t ask them how they have it. This makes it look like you are only going to give them 1 cup. Put everything on a tray and bring it out to them and let them help themselves
7. If you want to share messages with a Pasifika family find out who calls the shots – usually it is a lady since the women are expected to run the family: a grandmother, an elder sister, an aunty (who would be the elder sister of the mother and may have always called the shots with her little sister and this carried on with her little sister’s family)

8. White Sunday: this is a holiday in Samoa and Tonga falling on the second **Sunday** in May and October. It is a day for parents and communities to acknowledge and celebrate childhood by hosting special programs during church services which include scriptural recitations. It is a big deal for these families.
9. Modern learning strategies work well for Pasifika students especially facets which focus students on their ownership of their learning.
10. John Hattie's 4 levels of feedback are a useful strategy (task, process, self-regulation and feedback about the self)
11. Academic feed forward is a useful strategy
12. Power sharing strategies work well ie ones in which the student has some control
13. Assigning academic mentors has a significant impact
14. When students understand success from their own efforts this helps them – they must see it as their own though
15. If Pasifika students are not learning we have to look at the environment and see how that can change. Don't try to change the student. The teacher has to change.
16. Extra-classroom considerations such as feeding the students are not effective in improving learning. Schools must focus on learning not food.
17. The research is quite clear: Relationships is number one. No relationship: No learning.
18. Reject deficit thinking (eg Tongan kids are not as capable) and take the agentic position (a cognitive position that views all people as self-regulating, self-organising, self-reflective, having capability)
19. There is an identified gap between the understandings of Pasifika students in their learning and the understandings of their teachers:



20. Create contexts where they can safely bring what they know and who they are into the learning relationship (quotation in book Culture Counts by Russell Bishop et al.)
21. Quote from conference: "They don't always remember what you said but they damn well remember how you made them feel"
22. Leverage language weeks more eg
 - a. Raise the flag of that nation on a pole which would normally have the NZ flag on it
 - b. Invite parents of that culture to come into classes and teach a little language to students
 - c. Sing that country's national anthem at language week assemblies

23. What is culture?



24. An interesting concept in Samoan which Lesieli McIntyre tells me is the same in Tonga is the Samoan word Va which means space. The space between people is sacred: Va-tapu-ia is the term for relationships and literally means the sacred space between people. Tausi le va means to nurture or take care of that space ie nurture relationships. "Know me before you teach me"
25. Resources for teaching Pasifika contexts can be found at the down the back of the chair website.

Culturally Responsive Practice – Best Evidence Synthesis summary

1. Assumptions based on our own cultural mind-sets create barriers for students who don't share them and can't relate to them
2. Children learn best when their identities are valued
3. Teaching effectively requires forging educationally powerful connections with students' lives and identities
4. Children engage productively when problems are set in contexts they can relate to and understand
5. Learning requires active participation, so children who come from cultures that do not encourage questioning and putting forward ideas need to be supported to overcome these inhibitions
6. Mistakes have to be repositioned as a necessary and valuable part of learning if children are to be willing to take the risks that learning entails
7. Caring for students can mean making them uncomfortable by pushing them to think (pressuring them for understanding) and to publicly contribute their thinking

8. Pasifika students learn best in a supportive collective characterised by reciprocal benefits and responsibilities. Parallels with a whanau and with a community of learners can be leveraged
9. When supposedly “low” students are exposed to mixed ability challenging subjects/concepts/topics, they can surprise teachers
10. Ambitious teaching gets far more out of students than low expectations

Interview with Lesieli McIntyre – Supervisor at Massey University

Interview points – how to improve Tongan learning:

1. Parent engagement is the key
2. The problem for our Tongans is literacy
3. Children and parents tend to mix up the language between Tongan and English
4. With the parents must do it in the Tongan language – need someone to act as an interpreter. Then get parents to discuss key points together: think pair share
5. There are lots of church meetings and both parents and children attend
6. On Broadway St. there is a HW centre on Tues 6-8 operating out of the Broadway church hall (the Kilesi parish). Some of our students attend.
7. Tongan students love getting things right
8. If the first child is successful then the others following are much more likely to be successful
9. Mothers who serve at the school: their children are more likely to do better at school
10. A key issue for Tongans is when they have an issue they tend to laugh it off – don’t like to focus on an issue so as to deal with it
11. “What do you want me to know” is a good question to ask Tongan parents and children since they will not come forward by themselves to tell you
12. Ako is the word for learning in Tongan but it has a much wider definition than in Maori. It means a general education/ practice/understanding/learning to cook etc
13. Students coming from Tonga don’t sequence very well in their education. They need to be helped for this eg in the morning when you got up what did you do, then what, then what...
14. In writing – have the students use their contexts eg church preparation, what did you? Then what? Then what? Or cooking: peeling the vegetables – what are the names of the vegetables – how do you peel them? Then what do you do?
15. The children would use a Tongan English dictionary at home if they had one
16. How to run a Tongan Parents meeting:
 - a. Select something really good that a Tongan student has done and showcase it
 - b. Tell parents (with a translator) here are some other things that can help
 - i. Not being tired when they arrive at school on time
 - ii. Spend 20mins in HW with your children
 - iii. This is how you do HW with your children – they always have HW
 - iv. Reading writing and math HW all should be expected
 - v. Lots of praise works well
17. They will compete will against each other so they can please their family
18. Encourage parent involvement in HW at home through parent meetings where a translator is used
19. Have separate Tongan and Samoan parent nights

20. Teachers should always start interactions with their Tongan students with a positive comment
21. Teachers need to use Tongan contexts
22. Teachers encourage students to think of contexts in sequence eg cooking, preparing for church. “Then what?, Then what?”. Tongan children have a lot of chores to do so there is plenty of room for context.
23. Teachers need to speak to them slowly so they translate into Tongan in their heads
24. Using tutors is very worthwhile but they have to know what they are doing/be directed

Other points from various readings

There has not been much written on this topic until quite recently when Pasifika tertiary students have completed their Masters and Doctoral theses on this topic at NZ universities. The following is some points gleaned from this. This section could be huge but I have distilled a handful of points.

Key points

- The importance of va-tapu-ia – the sacred space between people = the importance of relationship.
- Mothers have huge importance in the learning of their children –this is a Tongan specific cultural characteristic.
- Lalanga mo’ui actually means to weave a human life in the same way that a flax mat is woven (Lalanga fala). It takes a lot of input from the women who spend time poring over it and connecting relationally. The time talking during the communal weaving of a mat can be of significant import to the entire community.
- Communication is particularly challenging for our Tongan immigrants who have often not been in NZ for more than 1-2 generations. English for the parents can still be an issue.
- A number of our Tongan Mothers just do not know how to do reading etc homework with their children – this is a major impediment and one which they struggle with. (reflection: it is easy for us as a school to think “why aren’t the parents helping their children” we don’t often ask the question “how can we help our Tongan parents to do homework with their children”)
- Tongan mothers want to help at school. They feel that the time they can spend freeing up the teachers will allow the teachers to focus more on the children
- Tongan mothers want their children to be obedient and follow instructions, to take in the learning, something which can be at odds with the NZ curriculum which encourages questioning and consideration, deep thought and discussion and that the teacher is not the fount of all knowledge, rather we are all lifelong learners.

School visits – key observations

Schools were chosen after perusing their ERO reports, ethnic breakdown and National Standards/NCEA data for their students. Not all schools chosen agreed to a visit.

Point England School

Point England is a Manaiakalani school. Manaiakalani is a cluster of 12 schools who share the vision: to



lead future focused learning in connected communities. Our young people are actively involved, lifelong and literate learners who are confident and connected; ready for employment in tomorrow's market and contributing positively to their community. Learners who are at home in the digital world.

This comes with funding from private providers.

They are a very impressive decile 1A school with a roll of about 600 in the heart of Mangere and are almost entirely Maori and Pasifika. They feed into Tamaki college.

They use IT as their key engagement tool and it is everywhere. The students are very engaged, happy, confident and polite.

In year 1-2 the students use iPads provided by the school (1:1 access). In Y3-8 they use chrome books which the parents provide. The school buys the Chromebooks as a bulk order (about \$500ea) and parents pay them off at a rate of about \$3.50/week. Parents also pay their stationery fees (\$30) straight to the school and the children are given one pen and one book (the rest supplements IT).

The school uses Google Aps for Education (GAPE) as their key platform with both the iPad and Chromebooks.

Students still do write in their one book but nowhere near as much as is traditional. They pay less attention to handwriting (although they do, do it) and it seems the implication is that it is a skill for the 20th century not the 21st. However they have also found that their children who learn handwriting from an iPad app are actually better hand writers in Y4 than the children who practice on paper.

On a low budget they have converted their traditional single cell classrooms into MLE spaces by simply removing walls. Classes are now open plan and students learn to drive their own learning rather than having it done to them, right from NE level.

They also have an impressive use of volunteers. One staff member is tasked with coordinating volunteers of about 100 parents and grandparents who are involved in listening to the children read one on one and helping them. This was impressive and is something we could replicate.

Orewa College

Orewa College was the first secondary school in NZ to have a compulsory BYOD (bring your own device) program.



It is a Y7-13 coeducational state school of well over 1000 students. They originally did not specify a platform for their students but allowed any devices to come in. Students would submit work to teachers via email.

Many of the devices owned are up to 7 years old but they still work since only browsing capabilities are needed.

They have a new man in charge of IT learning: Richard Wells who is very impressive and passionate. He has taken the school to Google Classroom environment this year and feels it is working very well. Devices are used all the time in classes all over the school and I did not see any students writing in books – only on devices.

Students bring their own devices – these are mainly iPads but can be anything. Students have all the responsibility for their own device and there are not many issues with them. About 1 per class gets damaged per year on average and usually this is just a cracked screen and the students just keep using them. Students are responsible to ensure they bring them to school fully charged. Students keep them in their bags as they move between classes.

There was real engagement and even “rough around the edges” students seemed to be engaging and learning because of their devices (I talked to a few of them).

One interesting observation is that, universally, students did not see the need for a keyboard. They thought it was a waste of space. They were very happy to type on the touch screen face and Richard says he feels it is a generational thing – our generation see separate keyboards as essential but the new generation don't need them.

One interesting thought is the decline in the need for the written word. It has long been said that a picture tells a thousand words and modern thinkers have equated this to the inefficiency of a written alphabet over an image for more than 20 years now. In these two schools I saw the evidence of this being very effective to engage students who may well have been disengaged in the world 10 years ago as our education system struggles to keep up with the demands of a constantly shifting world. Handwriting is not a skill that is needed in our current world and the ability to type is losing its importance as well. Even English as an NCEA subject allows significant numbers of standards to be submitted as annotated pictures and videos with little writing required. The need for a camera seems more vital than a keyboard. Richard says it even more strongly: “The world doesn't allow people to use paper anymore”.

For this reason Richard insists tablets are the way to go not laptops which are heavier, have shorter battery life and have cameras which are not sufficient.

In terms of problems around cybersafety etc, Richard says the mean years where this is an issue are Y7-8 when the kids are experimenting since they are going through puberty. After this stage they settle down and there are few issues in the later year levels.

They do have a sophisticated Sonicwall firewall and generally they have to scroll through the logs to check the behaviour of 1-2 students/year ie insignificant behavioural concerns.

Orewa College have 200 MB internet speed from N4L which is double ours.

They have a small number (20 over the whole school) of loaner iPads for students who don't have their own but they deliberately don't make them high spec machines.

KingsWay School

KingsWay School are very similar to us in their current IT practice and considerations for the future and would be a good school to liaise with closely as we progress.



They:

- Are compulsory BYOD in Y9-13 and supply devices in primary which are largely iPads in Y1-6 and thinkpads in Y7-9.
- Due to the disconnect currently between Y7-9 (their middle school) not being BYOD and the secondary being compulsory they are seriously considering making it compulsory from Y9 (last year of middle school).
- Use N4L as their Internet provider and are given 500MB upload/download speed (they encouraged me to complain to N4L about our 100MB speed)
- Have very sophisticated and expensive firewalling in place to be able to track students.
- Use office 365 and sharepoint as do we but have paid NEIT to design their intranet. They are trialling the use of Office 365 classroom which comes out in January and we also are very interested in.
- They have had mixed success with devices and now specify the students must bring a laptop only and not a tablet. Their reasoning for this is that more sophisticated specialist software is needed for some senior subjects. I do not agree with this position.



Specialist software is generally not needed apart from a few titles eg Photoshop in design, CAD in technology, Sibelius in Music etc. In areas where specialist programmes are needed this can be done simply by putting a few high level desktop Macbooks or PCs into the specialist classes.

KWS feel that the use of O365 and SharePoint, as opposed to Google platforms, is very important to prepare students for the world since the vast majority of businesses use this platform the world over. They are comfortable with where they are at which is a similar IT place to CCS.

The biggest issue they have is in Middle school where the devices they have purchased do not seem to prepare the students for secondary BYOD. They are strongly considering compulsory BYOD in Y9.

Sutton Park school

Y1-8 primary school in Mangere with approximately 550 students. Ethnicity mix is roughly 50% Tongan, 25% Samoan, 10% Māori, 1% pakeha.

They keep their Tongan, Samoan and Māori students all separate and they learn in an immersion environment. This consists of full Tongan at Y0, 1 day/week of English in Y2 which increases up to Y7/8 who do 50% Tongan 50% English which is taught in 5 week blocks of each. The same material is taught to the students but the language changes.

Most of their teachers are Tongan, Māori or Samoan and are fluent in those languages. Their Principal: Iosua Esera is Samoan and a very nice man.

Similar to Pt England they have removed walls and turned most of their classrooms into open plan MLE type spaces. They find students really like the higher desks for learning at. Not much IT around. The focus here was language.

In terms of parent engagement they have similar experiences to us. Tongan parents turn up for the events eg cultural celebrations but not as good at turning up to the parent teacher interviews.



McAuley High School

McAuley is a well known South Auckland secondary school in NZ education circles for their work for Pasifika students. Whilst I was there a team came from ERO to film some of their classes to be able to show best practice to other schools.



It is a secondary Catholic girls integrated school of about 800 students. The ethnicity breakdown is roughly 50% Samoan, 27% Tongan, lots of other Island nations, some Iranians and one solitary pakeha.

All of these girls attend church on Sundays. The girls were lovely and well engaged in learning and the Principal Anne Miles was very accommodating and very knowledgeable. (I found out during my time there that she has often been a speaker at the Carrying the Tapa conference).

The school is decile 1A (lowest of the low in the decile rating) but doesn't look it. Attendance dues are \$800.

Anne's points re looking after Tongan learners:

1. Engage the parents – Anne had a number of strategies which she has used around this which I have in my more detailed notes.
2. Acknowledge the language – A compulsory options at Y9 is a course in language which has a third of the year each for learning Tongan, Samoan and Te Reo Māori. From Y10-13 all 3 of these are subjects the students can opt for (to NCEA L3). Language weeks were well celebrated.
3. Acknowledge the culture at every opportunity



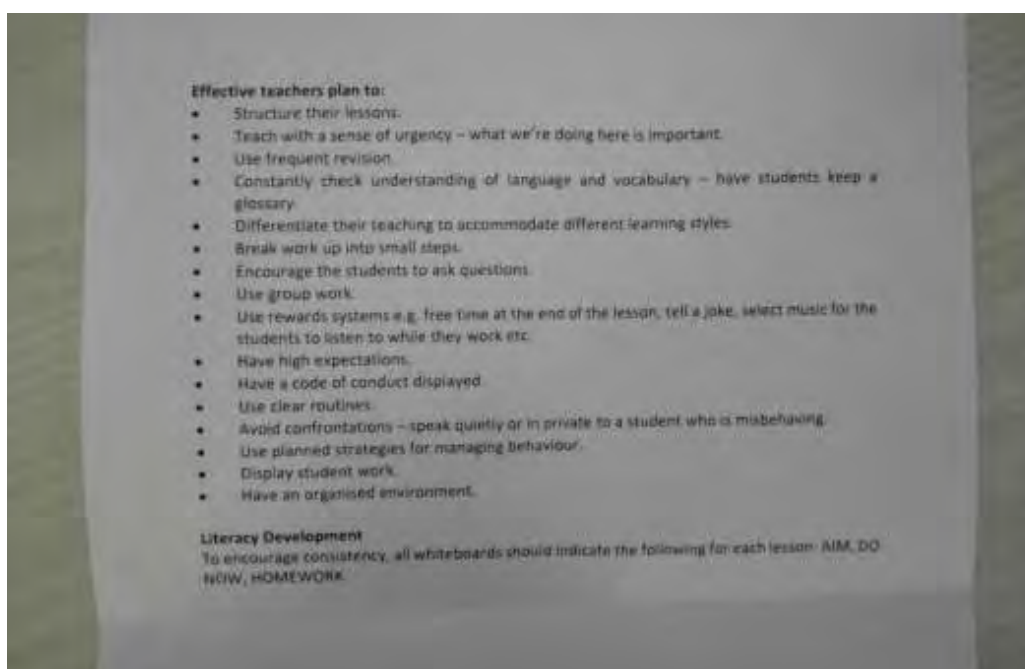
I asked a class of girls what they thought the most important factors for their learning were and they gave the following list:

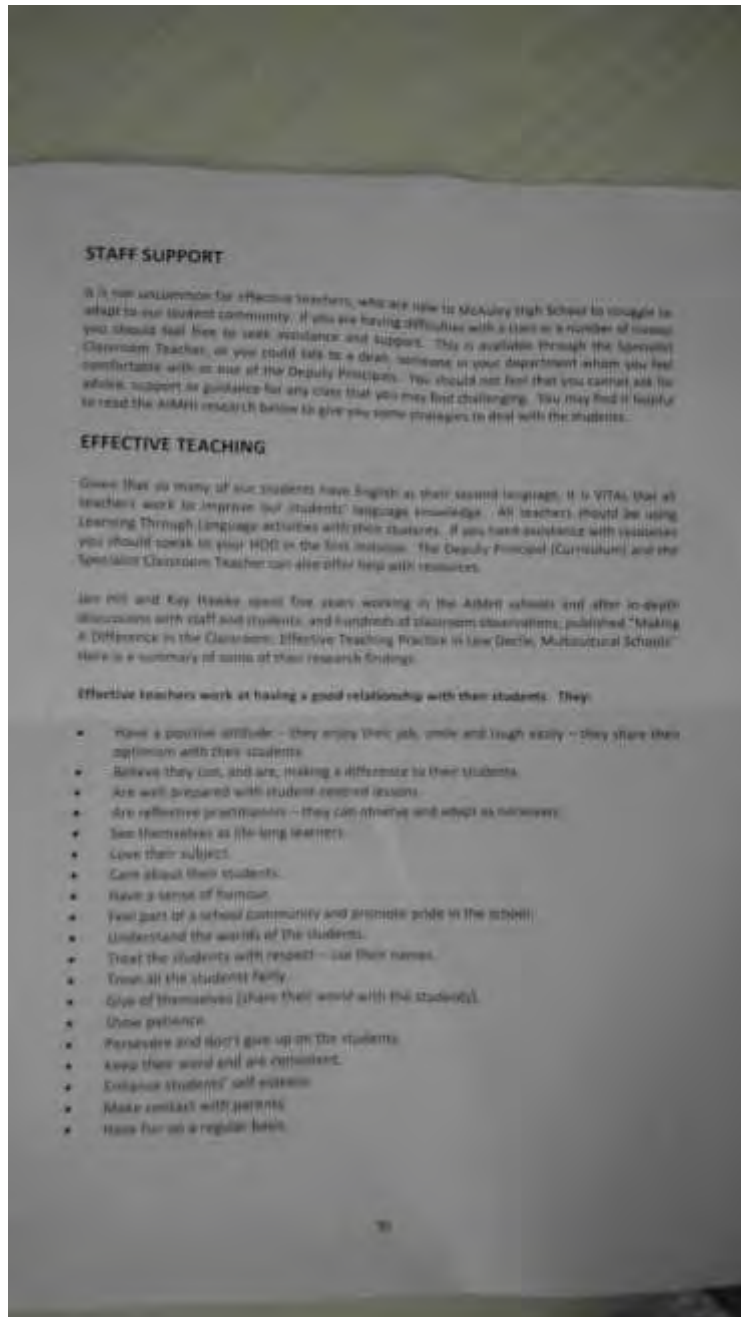
1. Family esp mum (they said the mum was a more important teacher than a really really good school teacher)
2. Quality relationships with their teachers
3. High expectations from their teachers

One of the overwhelming impressions for me was that the teachers were quite relaxed and the principal just wandered into classes and everyone was fine about it. This is very similar to our school.

The school has just gone compulsory BYOD in Y11 and will roll it out for Y11-13 over the next 2 years.

The following points come from McAuley's staff manual which are very positive points for staff to be aware of when dealing with Pasifika students:





Tamaki College

I very much enjoyed Tamaki College and spent about 4 hours there; they were extremely welcoming and friendly and giving of their time. The staff reported that they were not considered highly by many adults but I have nothing but praise for the school during my short visit. Tamaki College is the natural feeder secondary for the Manaiakalani schools in the Mangare area of Auckland since it is the only Manaiakalani secondary school in the area. However, they get less than half of Pt England's students, with the rest often going across Auckland to out of zone schools. This is a source of frustration to the management there and, while I was there, TV3 were filming an episode which featured on the "Storey" programme that night on White Flight from South Auckland. I refused the temptation to photobomb either filming segment (to the disbelief of my PA).

I found Tamaki College to have some outstanding staff. The Principal Soana was Tongan and a lovely lady. Her teacher who looks after Pasifika students, Mele Latu, was also a Tongan minister and leader and very dedicated and knowledgeable. Mele knows Tasa Havea, a Tongan leader in

Palmerston who is close to our school and she echoed many of Tasa’s convictions. These included that one of the key issues for Tongans in NZ is their financial dedication to their churches and that sometimes Tongan’s who want to integrate into NZ culture for the betterment of their children become tagged as fie palangi (palangi wannabees – not a term of endearment) from those who want to stay true to traditional Tongan culture. Mele also felt that one of the real issues for Tongans is the level of NZ handouts to Tongans and that since so much was provided, young Tongans growing up were not seeing much reason to better themselves. She felt this was resulting in low motivation for Tongan teenagers.

Like McAuley College, Mele felt the real solution for the children was the parents and solutions to learning disparity included the school working with the parents in order to help them to help their children. Mele runs parent evenings, all in the Tongan language, on subjects such as HW and NCEA (McAuley does similarly). Mele also feels there is merit in asking children what they want from their parents and letting the parents hear this since the cultural way is for them not to listen to their children and this is counter productive. She feels there is somewhat of a disconnect between many Tongan parents and their children.

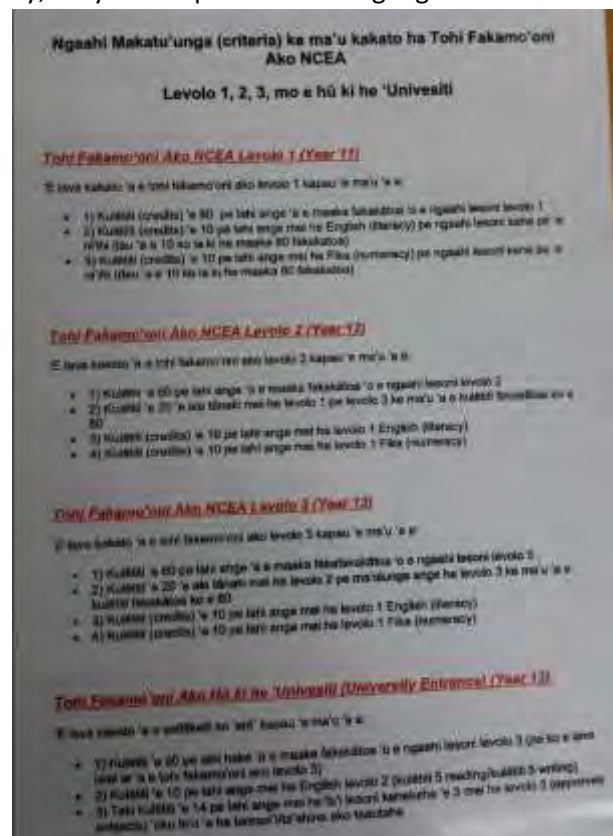
Mele feels Tongan children in NZ are confused culturally; they don’t speak either language that well and don’t see the relevance of the things their parents hold so tightly to. She feels the parents need to wake up and realise what is happening to their children – she is very forthright in telling them this but is not always successful – this is very similar to Tasa’s views. She says the children need to be grounded in Tongan values but able to embrace the 21st century western world without being impinged upon by traditional Tongan customs.

To paraphrase what she was telling me: the parents need to get with the modern world and not hide behind their Tongan culture. She says in Jesus we all have one culture: the gospel. This is definitely a tough message.

The learning I took from it was that, as a palangi, I need to be gentle with the parents who are very respectful of me (as the leader of the school) but help them to grow in learning as well as the children. There seems to be universal agreement amongst Tongan adults and children that the parents are the most important factor in learning and not any programme that the school may do.

I also spoke at length with Russell Dunn who was the Deputy Principal and in charge of IT. He felt that technology definitely helped Pasifika learners succeed (Mele did not think that it was specific to Pasifika learners but that it helped all learners). His reasons for this included:

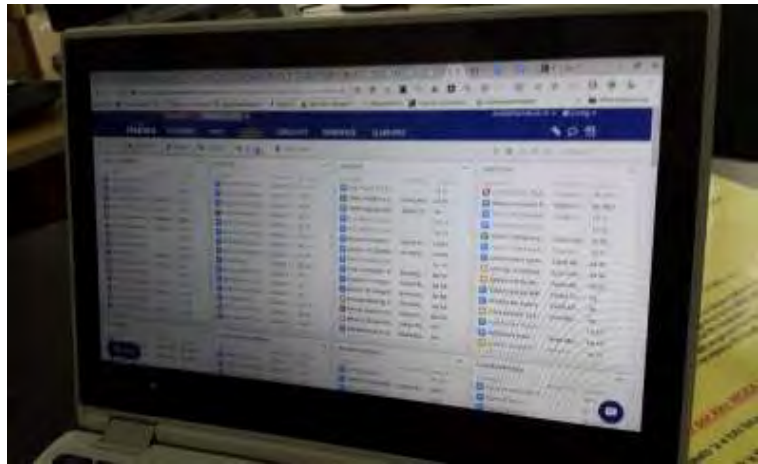
- doing all of their work on tablets allowed the students to excel in deeper features of literacy (depth of writing ideas etc) rather than being hamstrung by low ability in the surface features (spelling, punctuation etc)



- Having their own device allowed them to self-regulate and to learn the skills of self-regulation in their learning
- Having their own device allowed them to complete work whenever they had time available and this helped the students manage around their busy cultural requirements, including night church 3 times per week, interfering with HW and assignment completion.

Tamaki college uses an N4L IP connection and N4L's Cisco firewall. However all of the Manaiakalani schools are switching to a Linewise solution next year.

They use Heparu (right) as a teacher means of organising files within and between classes. Heparu is used by all the Manaiakalani schools. The Microsoft version of this is the yet to be released Microsoft classroom.



General Points for our school

1. Tongan learners

Our Tongan learners and parents need focussed attention. The pathway we are on has yielded some benefits, but I think it is time to have a staff member responsible for Tongan students, to consider each one's academic goals and progress in close contact with their parents similar to the new Life lab coaches' role in academic mentoring in secondary. I suspect the current ESOL programme is the best avenue for this. The hours could be extended to include mentoring time and time spent with the families.

We need to improve the literacy of our Tongan learners.

An evaluation of the Reading programme used in 2016 will guide us as to whether we wish to continue that programme in 2017. The question is: were the gains achieved worth the significant cost?

Continued PD for teachers by myself on some of the learning from the current sabbatical research will be valuable for our staff.

A clear message from both readings and observation was the centrality of mums in the learning process of their children, which seemed a much higher factor than for palangi learners. This needs to be harnessed and so the school will need to consider some responsibility for training the mums to help their children. Regular meetings with Tongan parents along the lines of what Dr McIntyre has suggested, and evidenced in the best practice of McAuley High School, is a likely way forward. Previously we have had many meetings, but they have usually been consultation meetings. Whereas

meetings likely need to focus on helping parents to help their children including providing some books and using staff to teach them how to use them for homework. We ran some of these style meetings in 2014 and they were well attended, but with the MoE and ERO focus on consultation and discussing data with parents we reverted back to this.

MoE/ERO often seem to lump Pasifika and Māori learners in a similar box and suggest the same strategies will work for each. Indeed, at the Carrying the Tapa conference, ERO had one session and it was entitled Improving Pasifika outcomes through Māori student strategies. The whole session focussed on Māori student strategies and stated that these would work for Pasifika families as well. Many of the delegates including myself disagreed with this viewpoint and I suspect ERO's use of McAuley High as a model will start to alter their viewpoint.

I will need to start using an interpreter in parent meetings and hopefully start to use students to do this for me as per McAuley High. I have done this periodically but I think it needs to be standard practice.

Digital learning certainly seems to aid engagement and learning for Pasifika students and so the more of this we can do the better. Hence a suggestion from me that we invest more heavily into primary devices.

I'd like to see us have a flag pole with the NZ flag on it and to raise the flag of the certain culture during that language week. This was an idea of Lesieli McIntyre's.

2. IT in learning

It seems obvious that the educational world, as well as the world at large, is moving away from paper to digital. Having knowledge or memory is not the skill it used to be in our instant knowledge-access world and this concept now underpins educational theory in the western world including our own NZC with its focus on Key competencies. Key skills now include being able to rapidly obtain and use knowledge. To use information rather than just retain it.

In the schools I visited, students were learning better, in a less traditional environment which gave more student ownership, through the use of IT. They were more engaged on average than I am used to seeing.

The ability to handwrite beautifully, spell and punctuate correctly and to copy information off a whiteboard have much less necessity in the modern world we are preparing the students for. I'm not suggesting they are not valuable, just not as valuable as they were, and this is a quantum leap in understanding for people of my generation who grew up with these things as pillars of their education.

We are in the business of preparing young people for the world they will go into, not the world which we were successful in – it's clearly completely different. The modern world is a world of images and multimedia much more than written words. Written word use only developed for humans to be able to encode things we see and feel, to communicate and record. These things are clearly not as important now with the ability to use images and moving images quickly and easily (it's hard to keep in mind that this has only been the reality for about 15 years or less as these things

became easier to use). It has long been said that a picture tells a thousand words but we have never had the technology to be able to use pictures easily instead of written words until now.

It makes me wonder if a camera is a more important tool on a computer than a keyboard.

Many schools, and possibly most schools, are compulsory BYOD these days. Our current reliance on pens and bookwork is in danger of appearing antiquated, particularly with very modern IT primary schools nearby to us. We are a Christian school and our emphasis will always be on Christian holistic character development, but even church life is changing – you just have to see what happens when the pastor says “turn in your bibles to...” (many adults bring out their smartphone). Why would you carry a heavy bible when you can just access it on your lightweight phone and the same argument could be used in secondary. We don’t actually need the students to carry heavy textbooks and workbooks in their bags anymore if they have a device with internet access. Already we have parents concerned about the weight of their children’s bags and there are studies to suggest that this may have long term impact on back health.

I am comfortable that the Sharepoint/Office 365 environment we have for the school is a fine direction. However we could improve performance by having increased internet speed which may be a negotiation with our current internet provider (N4L). This environment is only really needed in secondary but you could also argue in Y7-8 to prepare students properly.

Encouraging students away from paper in secondary seems the only real way to give a modern education and I think our current model is quite sound and the use of office 365 and classroom OneNote is the correct direction.

In Y1-5

It is time for a robust discussion in our staff and BOT on where we want IT in learning in primary to go. These discussions could happen over the course of next year with a plan set for 2018. Robust discussions in primary are needed and potentially a committee set up to investigate this further. In 2017 we will likely need to continue to increase the number of school tablets/iPads available and the use of apple apps as currently. We will need to consider the licencing of applications on mass and possibly file storage solutions. The devices which are ideal will depend on the teacher use of such and hence a committee to research what is best for our needs.

Y6-13

Ideally, I would like to see us be compulsory BYOD from year 6-13 which could be staged in from 2018. The reason is 2-fold: education in the 21st century is increasingly paperless (students need to become familiar with their own technology) and the cost to the school to continue to supply large numbers of up to date devices and photocopying costs will be untenable, the current fleet will inevitably become outdated.

A good camera and internet browser is all that is needed from these devices so they do not have to be significantly expensive (\$4-600). Parents would save on existing stationery costs. The school could supply any other stationery as needed with some exceptions (eg workbooks in secondary, although many of these are becoming available digitally as well).

Apart from the educational benefits, other benefits of this include: students sometimes lose their notes or they get destroyed eg through rain, lack of care etc – just prior to examinations and this makes success for them very difficult. In a cloud environment, as we have currently, there would be no loss even if their device itself was damaged. Also, as stated above, students’ bags are starting to

become heavy and the call for expensive and problematic lockers from concerned parents has been common recently. BYOD removes the need for heavy bags.

Policy would still be that no 3G/4G devices on site as currently and so devices would have to use the school's wireless only so that traffic could be monitored and filtered appropriately once full firewalling is in place.

We could continue to supply devices for those who really cannot afford it.

Without this, the following would be the likely options:

- Increased iPads at Y1-6
- At present we have Y7-13 optional BYOD with all students encouraged to have their own device and strongly encouraged at Y11-13.
- At Y7-8 The school should invest in more devices for these levels. Currently we have been sourcing 2nd hand laptops for around \$400. Tablets to supplement the existing complement of PCs would seem the way to go due to better cameras and longer battery lives. There are various options from Apple iPads to HP stream windows devices to cheaper android tablets. We will need to see what useage the teachers have for these but it would seem that the only real requirements would be a camera and an internet browser. If teachers are keen to be heavily involved in media productions; iPads may the way to go.
- Y9-10 Devices supplied as currently. As close to 1:1 as possible
- Y11-13 Students very strongly encouraged to have their own device. School to not support these year levels with any extra numbers of devices (although obviously the existing devices will still be available for students who need them). Some specialist devices will always be needed.

Student protection

In terms of hardware, we will need to have an on-site firewall, to protect our students from issues such as pornography and cyberbullying, although the emphasis will continue to be on education on how to use the internet productively and in a God honouring manner. The cost of this is upward of \$10K.

Better back up systems will also simply need to be purchased.

BYOD or not

The cost to the operations budget of increasing devices to the point where there is less reliance on bookwork could easily cost over \$100k in the 2017-18 budget. We need to consider other options. It would seem that we need to be considering which options we are in favour of:

- Modern IT based education where parents supply devices
- Modern IT based education where 20-30% of the operations grant is composed of IT purchases
- Current, more traditional, bookwork based learning continuing into the future.