FUTURE FOCUSED LEARNING IN INNOVATIVE AND TRADITIONAL LEARNING ENVIRONMENTS

2017 SABBATICAL REPORT

LIZ DRURY

TARADALE HIGH SCHOOL

Secondary Senior Managers' Sabbatical

Term 3, 2017

ACKNOWLEDGEMENTS:

EXECUTIVE SUMMARY

This report explains the findings of my investigation into Future Focused Learning in secondary schools which operate both in innovative learning environments and traditional learning environments. The purpose was to see how this information might be applied at Taradale High School and to come up with some recommendations for our Senior Leadership Team and Board of Trustees to consider.

Specifically, the report focuses on making the best use of both innovative and traditional learning environments through effective pedagogies, cross-curricular teaching and learning, effective school structures, personalised learning and the place of Project Based Learning.

At Taradale High School we want to better engage our students with more personalised, connected, and authentic learning, whilst also improving their well-being by reducing the focus on assessment. We also want to help students to

achieve our school vision which is for them to become confident, caring young people who are creative, collaborative and committed to their learning.

The methodology includes school visits, researching schools via their websites and blogs, attending the Future Schools Conference in Melbourne and wide reading and research.

PURPOSE

The purpose of my sabbatical was to first of all develop my understanding of what effective Future Focused Learning looks like by investigating current research and practice in cutting edge schools, looking at the data about the success of these models, and then developing some recommendations for Taradale High School.

BACKGROUND AND RATIONALE

Taradale High School is a coeducational secondary school with a roll of just under 1000 students. The physical structure of the school is comprised of three Nelson blocks, various prefabs, and a recently built Science and Careers block which is an innovative learning environment.

It is our goal to effectively prepare all of our students for a productive life beyond school by providing personalised, engaging, relevant, student-centred learning which also promotes and protects their wellbeing.

The Senior Leadership team is aware that a move to an innovative learning environment not only constitutes substantive change but that for any improvement in outcome, there must be a change in teacher practice. This effective practice is also essential in traditional classrooms and buildings as the majority of our students will continue to learn in these environments for many years to come.

Taradale High School is currently undergoing a curriculum review. We are investigating effective pedagogies, cross-curricular teaching and learning, personalised learning and the place of Project Based Learning. This review is happening in conjunction with a review of school structures such as timetabling, student grouping, academic mentoring versus form classes, and teacher teams.

METHODOLOGY   Conference, school visits and research

NATIONAL FUTURE SCHOOLS CONFERENCE - MELBOURNE

1. **DOCTOR MILTON CHEN – EDUTOPIA** - educating the whole child – arts, nature and place-based learning, project-based learning – edutopia.org

Chen works at the George Lucas Academy of Achievement. Lucas was an example of a student for whom education did not seem relevant but for whom photography and cars were of high interest. Back then, those interests weren't leveraged and school was a battle, hence Lucas's desire to change education in the future

Chen referred to Howard Gardner's 8 multiple intelligences and the fact that schools tend to focus on the first two. He suggests that we need to consider social and emotional development as well as curriculum. Sir Ken Robinson talks about the danger of educating the child from the neck up when we also learn through our bodies and especially our hands. Too many college professors think that the body is purely for transporting the brain to a lecture. Educators need to think about the whole child and whole learning. Place-based learning connects kids to their community eg students considering sustainability – where does clean water come from? Our food? Our energy? Students need to be considering real issues eg comparing the energy needed to create a kilogram of food from meat compared with vegetable.

Chen referred to the Maker Movement – maker spaces and fairs which invite students to create. He also asked us to consider our definition of a great school ie how do you measure a great school? He then recommended Paul Hewston's definition - do the children run in as fast as they run out? Are they coming to school for real projects and collaborative work?

2. **JAN OWEN – THE NEW WORK ORDER – The Foundation for Young Australians (FYA)**

Owen asked the audience to consider automation, globalisation and flexibility.

Automation – jobs are being disrupted, altered, abandoned. 7 in 10 Australians will enter the labour market in jobs that will be automated or lost. 60% of young people are training in these areas that will be radically changed by automation eg law and accountancy.

Globalisation – 1 in 10 Australian service jobs can be performed remotely.

Flexibility – 1 in 3 Australians are already in flexible working arrangements. It is predicted that young people today will have 17 jobs in five different industries over their lifetime. Young people need career management skills.

Growth areas include: the informers (eg teachers), the carers and the technologists.

Stable areas include: the designers, the generators.

Owen suggested that training in one job can unlock the skills for 13 other jobs. She also stressed the need for foundational skills – technical (STEM) enterprise skills. To survive and thrive, employers say that young people need to have #1 digital literacy, #2 bilingual skills, #3 critical thinking and problem solving, #4 creativity followed by presentation skills and career management skills. And employers WILL pay more for these skills. Rather than a test score, a portfolio of skills is more useful.

So, how do we best cater for the way modern kids want to learn? We need a new mindset. As educators we need to provide the place and the space.

3. **PRAKASH NAIR – Design for learning in the creative age** (International Leader and Author in Learning Space Design *Harvard University and Fielding Nair International)*

As an architect, Nair was involved in years of building and renovating schools in New York City. After the city spent 10 billion dollars, not a single academic measure had improved, so Nair began researching how children learn and set up his own architectural business. He referred to two trillion dollars' worth of obsolete school buildings in the US alone.

Nair sees the biggest hurdle as cells and bells and mentioned that the only two groups in society where the stakeholders have no say in their environment are prisons and schools. He questioned how having students in rows of desks with the teacher at the front helps to develop collaborative skills. His goal was to move education from cells and bells to learning communities with an awareness that is less about the buildings and more about the pedagogy.

So how do you transform education, not just buildings? Nair says to ask the community and to ask students – what is the purpose of school? What do you want your kids to learn? What skills do you want them to have?

Nair referred to a great deal of wasted space in traditional schools in the design of classrooms and hallways. The spaces have to make it easy to collaborate, to work across curriculum areas, and for learning to be largely student directed.

Their architectural services are now operating in 47 countries. Nair's final point was that you want to undergo change when you are NOT in crisis mode.

4. **A CULTURE OF LEARNING – NURTURING DEEP LEARNING AND GROWTH -** Anne Knock **-** champion of school design & innovation, Director of Development, Sydney Centre for Innovation in Learning (SCIL)

Knock suggests that when considering school design, people should visit some modern work spaces eg activity based work spaces and reflect this in the learning spaces. We need to create a really pleasant environment where students want to come each day.

Knock referred to her work with principal, Stephen Harris, who arrived at Northern Beaches Christian School in 1999, when it had 250 students. Harris's firm belief is that every student should love learning, and that it is the responsibility of schools to relentlessly seek to engage students in their learning. No child should be excluded.

Schools must embrace a new paradigm and move away from what was once thought of as "school".

This new paradigm is one where learning is personalised and collaborative, technology is adaptive, spaces are radically different to the traditional mindset, and a community built on positive relationships is at the core. Teaching and learning culture must be informed by global trends towards change in routines, expectations, perceptions, technology and organisational structures in the 21st century.

Knock and Harris suggest starting with the vision and values of the school – then addressing mindset and feelings, and then concentrating on spaces, systems, pedagogy etc. "We knew we wanted personalised and differentiated learning in flexible and adaptive spaces."

Collaborative teams start with teachers and while establishing and refining these teams it is important not to confuse "pleasant discussion" with robust collaboration and to find evidence that what you are doing is working.

The collaboration at NBCS has moved from:

Level 1 – show and tell (Low level collegial activity - hear about each other's practice)

Level 2 – let me help (Look at another's practice - observe, share insights)

Level 3 – share and share alike (exchange materials and ideas)

Level 4 – we are in this together (we have a shared responsibility for the students' outcomes)

To achieve robust, collaborative communities of practitioners, you need TRUST and teachers have to be prepared to be vulnerable.

5. **E learning leader – @MichaelHaEDU - Project Kaizen (Continuous improvement)**

Ha was influenced by the 2006 Ted Talk from Ken Robinson – why do we need to change? When? Where? How? What?

Their school did an e-learning review. They looked at the effectiveness of their current BYOD program, and asked, where to next? They did lots of surveying of staff and students about their use of technology and compared technology use with the SAMAR analysis. They discovered lots of substitution but some great augmentation too and decided, technology use was, "too good not to be better."

Ha's recommendations included clarifying the "why" of technology and aligning the use of ICT on a continuum.

In answer to WHY? Technology can empower teachers and students, helping them to continually improve ie KAIZEN (Japanese word for continual improvement)

Technology use needs to be sustainable, consistent, and based on best practice.

Ha considered the key stakeholders in a school:

1. The staff. They looked at work flow through surveys and interviews, held half day department PDs with a focus on one unit of work that departments could then apply to other units. The goal was that all teachers were confident, proficient, positive and growing. They encourage lots of sharing of practice and distribute "Permission to Innovate"– cards for students and staff – free of criticism.

2. The students – they introduced a "digital leaders program" for Year 8 students– Newington Digital Learning Framework – inquisitive, self-directed, reflective.

3. The parents – the Digital leaders run workshops for parents. The school needed to address concerns about digital distractions. They produce a regular newsletter about e – and always include the "why".

6. RACHEL WILSON – ASSESSMENT FUTURES Senior Lecturer in Research Methodology, Educational Assessment & Evaluation, University of Sydney

Wilson suggests that we need to put ourselves in the position of children. Children today are assessed far more often than in the past. Emotions and feelings are at the heart of learning and high stakes testing is very stressful.

PISA studies show declines in Science, Reading and Maths in Australia. Why? Constant change in education is partly responsible. Assessment or over-assessment could also be the answer. Hattie says that formative assessment with effective feedback can drive learning in a positive direction.

Wilson referred to six ways Australia's education system is failing our kids.

Assessment should provide optimum performance for all students, be engaging, feed into the teaching and learning, use a wide range of assessment types, and value professional judgement. However, assessment for a long time has driven curriculum.

Wilson referred to:

 - Norm referenced assessment eg bell curve

- Criterion referenced eg skills based

- Standards referenced eg focus on the process eg provides benchmarks

- IPSATIVE referenced – personally based assessment. This is repetitive, involves a student's personal best, perhaps a portfolio of work. It is adaptive, can be tied to standards, and requires technology to personalise it. It can be undertaken repeatedly – when the student is ready. It involves a flexible point in time approach, shows personal growth, adaptive difficulty, and removes the anxiety of high stakes assessment. Ipsative referenced assessment becomes just a part of class time – a check on progress. e-asTTle does this (ie provides a dashboard of where students are at – instant feedback for teachers) or CBAL approach by ETS – built on cognitive progressions. Students don't realise that they are being assessed.

Wilson's main message was that high stakes testing is increasing anxiety in children and definitely decreasing their love of learning. We need to consider this.

7. Lisa Rogers - strengths, challenges and opportunities - the future of teaching - CEO, Australian Institute for Teaching and School Leadership (AITSL)

Rogers began by asking the audience to consider outcomes for spend – the return for investment in education. Where should we invest? She suggested we need to re-evaluate our relationship with data. We don't have an integrated approach yet eg education, health, social welfare, corrections, and yet they are hugely connected. Invest in education early – it's the most silver of the bullets!

Rogers challenged the audience to consider how we can better use data to show each individual child's progress day to day and week to week.

Teaching is viewed as a mass occupation rather than an esteemed profession – we need to improve the portability of registration.

Classrooms need to focus more on the notion of "yet" – I haven't got it yet – to encourage students to stick with the fabulous struggle. She referred to Carol Dweck's work on growth mindset.

At the senior end of the curriculum in Australia, there are more students going on to university than ever before - about 60%. Rogers challenged us to consider whether there should be a core curriculum through to Year 12, because currently we let students screen themselves out of Maths and Science. She suggested that we need to think more about the accreditation process eg Trades Academy – practical ways to gain credits. She also said that technology needs to cause more learning – not just engage students. Her final recommendation: "The future is here but it is unevenly distributed." Invest in people – students, teachers, principals.

8. Future for technologies in schools - how to best weave technology into your classroom – Michael Cowling Senior Lecturer, Educational Technology, School of Engineering & Technology, CQ University Brisbane

Cowling's overall message was that technology should just be part of class and must serve a purpose. He stressed placing importance on pedagogy before technology. He

recommended that teachers start with the problem in the classroom – work out how to solve it – and then ask, how can technology help?

He confirmed that collaboration using a device is powerful – particularly for weaker students and that technology should only ever support the process of learning.

Cowling referred to the way augmented reality is being used for giving paramedics practice in procedures such as laryngoscopies. He also highlighted the use of robotics in the classroom eg teaching assistants – running quizzes, asking questions that have come from students etc

9. Embracing technology to build a new paradigm for schooling – Chris McNamara Director Program Design & Development, Melbourne Girls Grammar

McNamara began by stating that it is not actually about the technology but rather about beliefs, intent, philosophy and program design.

MGGS focuses on student control, personalisation of the experience of school, and best use of time. They are trying to promote the well-being of both students and staff and to maximise this, they offer fixed time, flexible time and independent time.

There are four key components over which students exercise a degree of control – academic, well-being, enterprise and physical. Students have 1:1 sessions with well-being mentors. They also have an individual physical program and they place that exercise where it best suits them.

Microsoft Outlook Calendar helps students to shape time. They can integrate their timetable from Schoolbox, due dates etc so they can visualise their time and shape their day.

The school uses the Learning Management System (LMS) Schoolbox for blended learning. Every course is set up the same way ie content areas with embedded Learning Objectives, resources, mastery tasks (which show if a student is ready to move on – self-pacing) Teachers provide feedback on mastery tasks. For student tracking, in Mastery Mark Book, green shows mastery. The girls do a mix of project work as well as mastery learning.

To enhance well-being, MGG use Visual Coaching Pro. The Visual Coaching Pro app is on all girls' phones. It is a well-being self-reporting app which tracks well-being eg

sleep, fitness, relationships etc. The data shows connections between aspects of life and the girls can then discuss this with their well-being coach.

They also use Links Modular app, which is a fit for life program eg group fitness opportunities. This allows the girls to plan exercise within a week to best fit around other commitments. School can track this for every girl but they have choice and control about what they can fit in with their other physical commitments. This app also integrates with Outlook Calendar.

They use Jacaranda Maths, Wolfram, Stile Diagnostics, Pearson, Language Perfect – teacher and students can see dashboards.

The paradigm is about student control: decision making, delivery platforms, adaptive content, rich diagnostics. The role of the teacher has become more of a coach. They know the girls better, can be more responsive, and say that class time is more productive. The girls have already looked at the content, so class time is about ironing out issues/misunderstandings etc.

MGG took a year to plan changes and another year to prepare content and to engage the community before instigating these changes.

10. Benefitting from Digital School Branding and Communication – Blake Seufert - Systems Manager, *McKinnon Secondary College*

Why is Digital School Branding important? The home is a huge part of a student's success, so a school's relationship with home is pivotal.

How parents think about education is largely up to the school. We set the expectations and frame the role of parents in education. However, most schools don't have a communication strategy in terms of website /communication. We have a clear vision and values, but often parents are left in the dark.

Seufert referred to the fact that average attention spans are decreasing. So, if we want people to listen, we need to build trust. We do this best by demonstration. Branding is essentially a "feeling" people have about your school. Branding and identity get confused. Branding is a full picture of your organisation eg grounds, kids' behaviour, Parent Teacher evenings, newsletters etc.

He suggests that schools use story to build expectations, memories, and relationships.

Seufert referred to, "The purple cow" by Seth Godin, who stressed the importance of language. He referred to the main types of content for schools:

- Operational (push) - how we run the school – what we push out – SMS, email, school apps.
- Building culture (pull) website, newsletters etc.

Seufert suggested that most push out is via phones and that schools need to better understand social media and use it. When it comes to a school's website /newsletters /promotional materials – the content must be succinct, relevant, consistent, and visual. The same format creates comfort and familiarity. People want photos and videos.

The school website should have a central jump off point, information for current parents, prospective parents, contacts and logistical info, and should DEMONSTRATE the school's vision and values eg photos/videos that celebrate these.

17% of page views are for less than 4 seconds, so NO big slabs of text! Show rather than tell where possible. He suggested that the newsletter is a curated version of the website. It builds trust and needs to be online eg an i-newsletter which supports multi-media and also gives the school the chance to collect data, to see what parents are reading. It needs to be a great experience on any device.

11. Deepening the learning experiences for all students in STEM (Science, Technology, Engineering, Maths) – Gavin Hays, Assistant Principal, Parramatta Marist High School

The trigger for change at PMHS happened in 2007 when the school's dux was unable to get into the university course he wanted to pursue. His marks were excellent, but at his interview he had to solve a problem and make a presentation. Although he was a very smart student, he wasn't accepted and this was a wake-up call for the Senior Leadership Team and staff of PMHS.

From here they entered a transformational journey which was highly challenging. They established their mission and purpose – that all students can learn. They knew that collaboration was important and that skills AND knowledge were essential. They wanted greater connection to the community and they looked to outside providers for support. The school focused on instructional walks, ICT support and the use of 1:1 devices as well as fabrication technology.

In Years 7 – 10 they focus on Project based learning with an integrated curriculum. They have a big focus on enterprise skills. From Year 11, they focus on problem based learning. The average student at PMHS does 25 projects each year so over four years, they experience 100 different groups, and are involved in 100+ presentations. Academic results have steadily increased and there has been a dramatic rise in HSC. Lots of students have struggled with group work but they have found that the most challenging groups teach them the most.

So, where do you start? Hays suggests that you can't learn group work from a text book and that critical thinking needs to be evident in all work. Communication, collaboration and presentation are essential. Creativity has to be possible in every lesson. Inter-disciplinary learning – project based – has increased the opportunity for all of these aspects.

PMHS started at Year 9 where Maths, Science, and Health and Physical Education operate together and English, Humanities and Enterprise together. Each area dips out of the collaboration for a period of time while remaining areas combine, so as to teach some core skills and content.

Initially the end product of projects was not that authentic. Students came up with lots of simulations and posters. Fabrication technology has helped with this. The model they use is - design/construct/test.

It is essential for schools to move from surface to deep learning in content and skills. PMHS started with their main issues of concern eg the focus on content, lack of rigour, knowledge being in silos, and individual rather than group accountability. Now the school has creative integration of domains, technology is an enabler, and there is authentic collaboration.

It is important to set up conditions for success ie a Project Based Learning framework, and support changes through PLD. PMHS moved away from meetings to differentiated professional learning and they have embedded this into the timetable.

12.National Maths project re(Solve) – inquiry based learning

I for inquiry is project based learning – students solving big problems over a long period of time. Little i inquiry is for improving proficiency in Maths – to ensure that important skills don't get lost.

To promote a spirit of inquiry, learning must be purposeful. A connected curriculum is a smaller curriculum to teach so schools should look for connections and look for links to the real world.

The aim of the project was to shift Cognitive Overload to Cognitive Activation, by breaking the problem down into smaller parts. Students need Enabling prompts and Extending prompts, not just sideways work. Teachers need to be teaching individuals not classes and to be very careful with "we need to move on". Mastery is essential. Video is great for this. Students need to know that it is okay to forget! Look for technology that helps students master content and skills.

Mindsets are pivotal – can or can't do. Put the focus on effort and persistence and stop thinking about "getting through" the curriculum.

13. Full steam ahead – project based learning – Lauriston Girls' School

In 2012, a group of staff visited Stanford University to explore digital fabrication labs so as to foster hands on, experiential learning. Lauriston Girls' introduced a DFL in 2014.

So how do we integrate general capabilities eg problem solving, collaboration, communication? They were aware that: "Imagination is more important than knowledge."

LGS started with the research about girls and STEM (Science, Technology, Engineering, Maths). They initially collapsed the timetable for three days and the girls worked on a "whimsical wonder," where the challenge was for girls to invent a FAB-ULOUS Christmas toy. It had to have wheels, to move under rubber-band power, and they could use a laser cutter to make it. The girls had to problem solve, collaborate, be creative and present their work. LHS ran this program for two years.

They moved to a five-day project in 2016, again collapsing the timetable. Once again, the brief was to create a FAB-ULOUS Christmas toy. The girls did this in groups of three and reflected on their learning. They each had to take on specific roles – Captains of Design, Marketing, Manufacturing and the school partnered with Thoughtworks. Each girl was given $10 cash to buy the materials to create the toy. They used ICT programs such as padlet, Adobe illustrator, etc

In 2017, they decided to delve further. Staff felt there was too much focus on superficial features, so they changed the brief to insist that each toy had to have a mechanism that moved.

The learning is self-directed, cross curricular, independent (with teacher support) and curriculum mapped. Other changes included a focus on engineering and financial aspects eg enhanced spreadsheets.

As a next step, they have partnered with Melbourne University. They want to be able to measure growth in enterprise skills and cognitive skills eg growth in collaboration, tenacity etc. ie How can we measure the growth from the FabLab?

At Lauriston Girls' School, Project based learning starts at Year 1. The Year 1 students designed a fairy house last year, and the girls are designing a bird house this year.

14. Positive education - Placing well-being at the heart of education - Justin Robinson – Geelong Grammar School

Learn it, live it, teach it, embed it. Geelong Grammar teaches the skills and knowledge to prevent ill-being and to promote well-being and the ability to contribute to society and live a good life.

The goal is for everyone to flourish – to feel good and do good. The school focuses on healthy levels of optimism and nurturing. They focus on character strength – positive relationships, meaning and purpose, accomplishment, emotions, health and engagement

They implicitly and explicitly teach character strengths eg creativity, curiosity, judgement, zest, forgiveness, self-efficacy, intrinsic motivation etc. They deliberately spot and celebrate these strengths in staff and students.

Robinson suggested that wellbeing is like the weather. They both consist of real and measurable things but you can't measure them overall. Geelong staff undertake a four-day introductory course for well-being at the start of each year and have booster courses each term. The school prioritises well-being as a subject in the curriculum and on focus days.

Positive education is evidence based – about 10 years old – and based on positive psychology. Melbourne University has been tracking Geelong for four years

alongside a control group from similar schools. They have identified a positive impact on mental health and student life satisfaction.

15. Disrupting the current model of education: moving beyond student voice to student empowerment: Peter Ellis, *Principal - Strategic Implementation ,* Templestowe College

The education system used to look like the workplace last century, now it doesn't, because the workplace has changed. Schools are still too focused on the output instead of the journey.

Most of our students will have 17 employers in 5 different careers, so who does school work for? Students have far more capacity than we give them credit for - don't get in the way!

At Templestowe College, there are no year levels, no bells, no compulsory subjects – just literacy and numeracy. Yes, is the default answer. They prioritise choice within structure. They offer 150 subjects and university study is encouraged. The school is very much based on relationships. They gave careful thought to their signage and made changes eg no food, no students past…it was negative/punitive so they changed it.

Now, each student is in control. They have a one-person policy which applies to everyone in the community eg use of first names and access to areas is the same for all. Students select their own learning mentor. Bullying disappeared when the school went vertical. Everyone has access to hot water, a toasted sandwich maker etc. Everyone has full access to facilities and the same size lockers.

They have a "No yelling" rule for all. They have a "10 minute rule" – no more than 10 minutes talking time, and a "2 minute rule" – if you disrupt the classroom for more than 2 minutes you will be exited from class – so, "No work – no stay."

Students choose 100% of their curriculum (once they have literacy and numeracy) There is a large emphasis on authentic learning projects which are integrated with the outside world.

Teachers provide feedback to students every three weeks, and students feedback to staff every five weeks. Every student has an ILP – parents are involved with this. Graduation is flexible because they have no year levels. Subjects are offered on demand.

Students help run the school wherever possible. They are on employment panels and so have choice in who teaches them. There are students on the school leadership panel and the curriculum panel. All school decisions go through student congress. Many students run businesses at school – eg catering, DJing, art work, bespoke furniture etc and the school employs students wherever possible eg on maintenance, office work, graphic design, photography etc. Just as in the real world, their work is monitored and they can be fired!

SCHOOL VISITS

Hauraki Plains College - Roll is 700, Decile 5, opened in 1912, principal is Ngaire Harris. Key observations included:

- Their change management strategies prior to introducing Collaborative Hubs in 2017 included Jane Gilbert working with the Senior Leadership Team, early introduction of cross-curricular concepts with staff, and provision of lots of discussion time.

- They provided greater clarity around school wide goals, especially when the focus changed to staff working in cross-curricular, collaborative groups.

- They realised that a cross-curricular, collaborative teaching approach can still happen in a single cell environment, which is what Hauraki Plains predominantly has – it is more about the approach and mindset than the physical space.

- They focus on rich cross curricular themes to make learning more connected, relevant and authentic for students eg How clean is our water? Mining, Mineral and Matter, Ecology and Sustainability and Energy Production and Saving.

- They made the decision to divide each junior cohort into two large mixed ability groups, but with Extension students in one hub and Supported students in the other, providing flexibility with grouping and teaching.

- They put an emphasis in the first two weeks on skills and fundamentals.

- They focus on formative assessment and data analysis to track progress horizontally and vertically and have a dedicated data person to undertake this role and to share the data with staff.

- Senior school programs focus on context, with the assessment standards falling out of this.

- Senior school operates in semesters where the aim is to have 14 internal credits from each course by the end of T2 and then use the second semester to prepare for externals OR choose a different subject.

Papamoa College – roll is 1200, decile 6, opened in 2011, principal is Steve Lindsey. Key take-outs were:

- Because the school was a new build ILE, staff who applied for jobs, knew what they were signing up for, so the change leadership process was different and focused more on educating the community.

- They initially ran staff wide PLD on working in an ILE, inquiry learning, managing behaviour etc. They asked staff what they needed in the way of PLD and then provided it for them.

- There was a big shift from teaching the students to learning with them.

- They needed to educate and reassure parents – Papamoa have an open-door policy, so parents can drop in any time.

- They focus on authentic learning, with staff working in collaborative groups that plan, support, team teach, celebrate, and work together in learning commons.

- They use e-asTTle and PAT to monitor progress and to report to parents.

- They have developed their own inquiry model - highly scaffolded in Year 7 and student led by Year 10.

- They have a focus on citizenship at Years 11 – 13 (compulsory).

- They consider their students to be much more independent learners by Level 3 than most students their age. They are better able to cope with university, work, and life in general.

Te Puke High School – roll is 900, decile 3, principal is Alan Liddle

- The tipping point for change occurred three years ago when Year 9 students were disengaged having come from a more stimulating environment of learning.

- Preparing for change included visiting Albany Senior High, Albany Junior High, Mission Heights and Alfriston. They were influenced most by Albany Senior High who did some PLD with TP staff.

- They have undergone recent significant building redevelopment which now reflects an ILE, so the school is part new, part old.

- In 2016, they introduced an integrated curriculum with core teachers teaching a group of 70 students for English, Maths, Science, Humanities. They teach in themed areas with an inquiry focus. They also have Spins, or options, and foci areas driven by staff with a focus on fun learning eg drones, travel writer, virtual reality technology.

- The biggest challenge was shifting staff from traditional teaching subjects to teaching an integrated curriculum in teams.

- Leaders of Learning (HODs) have responsibility for pods. They thought carefully about teams of staff and themes of work eg Who am I? Who are we? Problem solving? etc

- They have three theme leaders for Year 9 with three mixed ability classes in each team.

- They teach blocks of skills and core knowledge for Maths, Social Science, Science and English.

- They have an integrated class of students with learning needs (not behavioural) who stay together for Year 9 and 10 and for options, and work with two teachers plus Teacher Aides.

- They operate three 100 minute periods each day. Theme teams decide on the break-up of time. Non-contacts are timetabled.

- Looking ahead to seniors for 2018, they are currently discussing the philosophy of learning in senior school and are trialling some team teaching with Science, Maths and Engineering, where they decide contexts for learning and then

assessment falls out of that. Students can opt for the level they think they are ready to be assessed at

- Te Puke have strong NCEA results. They have a 16+ academic mentoring system and students take five subjects at Year 13.

- They have a major emphasis on Careers with four teachers of career education plus two support staff.

- They hold very few staff meetings and have tried to remove "administrivia" so as to maximise team planning time. Most staff are part of several teams.

- The first three days each year are Teacher Only Days and staff are in theme teams with data from the contributing intermediates. They spend the time getting to know their learners. They have 8 Leaders of Learning plus careers staff.

- All teaching spaces are theme teams so there is lots of movement of staff from year to year.

- The Senior Leadership Team model the collaborative work space with Alan in the middle of an open plan office. They find it very efficient.

- In the junior school, they report on Key Competencies and Curriculum Levels and their reports are about to become live.

- Students keep portfolios of learning and they hold three-way interviews with students, whanau, and the significant adult at school. At these interviews, they are looking to students to comment on their progress and next steps.

Paeroa College – roll is 250, decile 2, principal is Doug Black

- The mandate for change came from their poor NCEA results and a need to better engage students.

- The SLT considered what they could achieve if teachers and students could influence time, space and pedagogy.

- They introduced horizontal teaching teams in 2016 which are responsible for learning and pastoral care. They have a learning leader of Years 9, 10,11 and 12/13 covering English, Science, Social Studies and Maths. This has resulted in a big turnaround in NCEA results. There are four staff in each learning team – three

on at each time. PE, arts and technology are run separately. Accountability for planning and student progress lies in the middle of each team.

- They used the collective agreement to run a total re-organisation of the school. This required BOT support and consultation. From this review, HODs roles were disbanded to learning advisors on one MU. The deaning system was also disbanded but as deans didn't have units this was easier to do.

- They absolutely put faces to the data ie there are photos of all students in the staffroom with their NCEA results and junior data written on the photos. (Note – the Assay app effectively does this too) There is a strong sense of collective accountability for all students.

- To learn about working in an ILE, staff need to experience it.

- To ensure community engagement, they held meetings at the local marae. All Year 9s and 10s have a night on the marae and the school is involved in many community projects. They also invited community into the school. Their principal is hugely involved in the community.

- Learning teams are carefully selected and the process was helped by new appointments. Teams decide their meeting times.

- Paeroa have no pre-requisites for courses.

- The school is 50% Maori. They have to engage students or they will lose them to low paid work opportunities.

- They operate a 100 minute period, two 50 minute periods, and then another 100 minute period each day.

- During the first three weeks of the year, Year 9 students consider: "Who am I?" "Who are we?" and then in Year 10, they move on to exploring leadership.

- They have a major focus on numeracy and literacy with levels clearly displayed. They use the reading program, "Rev up reading."

- Year 9 and 10 work on passion projects on Fridays.

- In senior school, two teachers work with two classes. They operate semesters for Year 11, and whole year courses for Years 12 and 13.

- They do intense course conferencing with students to ensure they make the right choices. Semester A courses don't have externals. Semester B courses prepare students for externals.

- All Year 11s take an academic tutoring class where three teachers take them for functional literacy and numeracy. In this time, they focus on what students will need in the real world. One teacher takes literacy, one numeracy, and one is project based. The students rotate.

- Seniors have a single day of academies which involves authentic project work. Academies include Gateway, Hauora, Business, Product Design, Fabric, Outdoor Education, etc, and students choose one project for one semester (15 weeks) These academies are Year 11-13 mixed groups.

- Vocational pathways are important and valued.

- They only offer 14 credits per subject so all students need to pass or the teacher finds an alternative eg ITO standards.

Albany Senior High School – Year 11 – 13, opened in 2009, roll is 802, Decile 10, principal is Barbara Cavanagh

- They operate 100 minute periods.
- They have a full day of student led Impact Projects each week.
- They also have traditional Specialist Subjects, where students gain NCEA credits at the appropriate level.
- They operate two 100 minute periods a week of tutorials where students meet with their academic coach. These are used to build learning power, monitor progress, and to set and review goals. These tutorial classes have approximately 15 students (5 students from each of Levels 1,2 and 3) The tutorial teacher liaises with each student's specialist teachers to monitor learning progress.

Hobsonville Point Secondary School - opened in 2014, currently Year 9 – 12 but will have Year 13 students from 2018, principal is Maurie Abraham

- They focus on cross curricular personalised learning.
- They have specialised learning modules of 60 and 90 minutes with up to three teachers focusing on big themes such as Culture and Diversity.

- They operate learning hubs where a learning coach works with about 15 students. They stay together for the students' time at HPSS. The coach tracks progress, negotiates and reviews short and long-term goals, works with students to maintain their learning portfolio, is responsible for pastoral care and career management. They meet together for 10 minutes each day to check in and then have three extended hubs each week of 90 mins each.
- Students also have "my time" which is flexible time to self-study. They may be directed to a tutorial in this time.
- All students undertake Big Projects.
- As well as specialist subjects they have a choice of "spins" or options.

OTHER RESEARCH FINDINGS

Presentation by Mark Osborne from CORE Education (and his papers on Leading Change Management and Innovative Learning Environments) highlighted:

- It is essential to establish common agreement around what is great teaching and learning, with the Senior Leadership Team, Curriculum Leaders, staff, students and the community.

- It is important to acknowledging that a fundamental change in the way we teach is a significant, adaptive change which will be highly challenging for many staff.

- It is important to provide research around the benefits of a more personalised, student driven learning process, based on authentic projects/learning.

- Staff must be supported through the process by presenting a clear purpose, providing PLD on the skills required, reinforcement and role-modelling.

- Establish the value of technology in this type of teaching environment, where students are better able to work independently at the appropriate level when this is required. Provide information and support for using technology effectively.

- Encourage "rich" use of devices, including using them collaboratively and cooperatively where possible but individually for reviewing, revising and drilling skills.

- Maximise the use of devices to improve writing, capitalising on students' willingness to edit, rearrange, improve, and to act on feedback.

- Maximise the benefits of working in cross-curricular teams rather than in subject silos, even in the areas of the school which are still single cell classrooms.

- Maximise the main reported benefits of an ILE which are: the chance to see other practitioners in action and learn from/support them, and the opportunity to move away from desks in rows and teacher directed learning and to have greater flexibility for grouping students and working with them.

- It is important to create diverse groups and distribute the leadership.

- Ensures the process provides sufficient time to plan, reflect, refine.

IMPLICATIONS FOR TARADALE HIGH SCHOOL

CURRICULUM and PEDAGOGY

- Ensure that there is a common view of what great teaching and learning looks like and how we can best prepare our students for the world beyond school. This vision needs to be clearly understood by students, staff and whanau, and should be independent of whether students are based in ILEs or single cell classrooms.

- Ensure any change is linked to this vision ie towards helping our students to be more confident, caring, creative, collaborative and committed to their learning.

- Consider curriculum, assessment, timetable and wellbeing *together* with the overall purpose of teaching and learning in mind.

- Following further review of the current Year 9 cross-curricular trial:

  o Determine a clear vision for what an integrated curriculum looks like and the benefits for students and staff.

  o Determine any barriers for success ie time to meet, curriculum areas less suited, time for core skills etc.

  o Ask for volunteer teachers to continue the trial of cross curricular teams next year to further establish an integrated curriculum at Years 9 and 10 based on authentic real-world issues. There should be an emphasis on problem solving, genuine collaboration, discussion and on presenting.

  o Provide time at the end of 2017 for these teams to meet, research and plan. Make contact with schools who have been operating this model for some time.

- Re-visit some previous professional learning initiatives which hold value in any learning space eg

  - co-operative learning (effect size=0.59)

  - metacognitive strategies – review work on thinking strategies (0.69)

  - effective feedback and feedforward ie Where am I going? How am I going? Where to next? (0.75) and

  - continue the emphasis on learning goals, success criteria and student feedback to teachers.

- Encourage student voice and choice in all classes and where possible, in other aspects of school life.

- As an introduction and preparation for cross-curricular and possibly Project Based Learning, suspend the junior timetable for one day during exam week and again at the end of 2017 to trial cross curricular project work at Years 9 and 10. The focus should be on engaging students, developing collaboration, creativity, critical thinking and problem solving. This could also be a further opportunity to trial a different timetable structure for the day eg some or all 100 minute periods.

- In the new Science block, invite teachers who want to collaborate/work with other teachers/classes to indicate this and timetable accordingly to allow for team teaching, flexible grouping etc in 2018.

- If Level 1 remains, significantly reduce the number of credits on offer to 16 – 18 credits per course with a much greater focus on endorsements and assessment at the appropriate level for each student.

- Provide time for cross curricular collaboration regarding assessment at NCEA Levels 1, 2 and 3 – where are the opportunities to reduce assessment/integrate units of work?

STRUCTURE
- Reconsider the purpose of Vertical Forms and the use of the time allocated. They are no longer needed for administrative tasks such as attendance /notices /collecting notes. The purpose should be: school unity and supporting the house system AND knowing the individual and mentoring effectively. This could be

achieved by re-structuring form time from short, daily administrative sessions to fewer, longer academic mentoring sessions. This could include one session with the whole form class ie Year 9 -13 (if we still value the goal of school unity/strengthening the house system) one with Year 9 and 10, and one with Years 11-13. The goal would be to move towards more academic mentoring and tracking and eventually developing IEPs for students – perhaps initially just for Code Amber students?

- Senior FT could run as a one-hour study period, where students work while the Form Teacher meets with each student individually to track their progress/goals. (See Kapiti College model) Could this also include our Careers modules?

- We could consider using Friday PLG time at targeted times during the year for academic counselling of senior students – ie to take a close look at each student's data, plan for externals, endorsements etc (see Glendowie College model)

- Consider re-structuring of the timetable to include longer periods. I could find no hard evidence that this categorically improves learning, but it does reduce wasted transition times and anecdotally staff and students believe it deepens learning. Some schools use a mix of both eg Freyberg start the day with a 100 minute period and then operate shorter periods throughout the rest of the day.

- Consider new furniture for existing Nelson block classrooms to facilitate the ease of co-operative learning groups and teacher movement around the room and student comfort and safety.

WELLBEING
- Reduction in credits at all levels.

- Reconsider resubmission and reassessment policy.

- Introduce a well-being component to Form Time and as a general focus in the school. Eg a school-wide focus on the Mental Health Foundation's guidelines for wellbeing:
  - Connect
  - Give
  - Take notice
  - Keep learning
  - Be active

- Where possible and practical, allow for student voice and choice in every aspect of school life.

- Consider the furniture/storage/material on walls in new and old classrooms and involve student voice in decisions about this.

- Provide warm meeting places for students during breaks eg open the hall, have seating arranged, heaters on etc

- Take more time to induct Year 9 students into the Taradale High School way of doing things eg a two or three day orientation program.

- During this time, provide an opportunity for all whanau of new Year 9 students to come into the school for individual appointments to meet the Form Teacher, discuss their child's learning background – strengths and areas needing support, and their aspirations for their son or daughter.

- Offer a range of opportunities at lunchtimes for improving wellbeing eg yoga, mindfulness, nutrition, stress reduction etc

REFERENCES

1. Student-Centered Leadership - Viviane Robinson
2. Using technology with classroom instruction that works -Pitler, Hubbell, Kuhn
3. The science of learning - Deans for Impact
4. Managing the Interactive Classroom - Articles edited by Kay Burke
5. Cooperative Learning in NZ schools - Don Brown and Charlotte Thomson
6. Visible Learning - John Hattie
7. Visible Learning for Teachers - John Hattie
8. Mindset – Dr Carol Dweck
9. A Climate of Mentoring - O'Mahony and Matthews
10. Leading Change in your School - Douglas Reeves
11. Leadership and Motivation – John Adair

ARTICLES, REVIEWS and REPORTS:

1. A Rich Seam-How new pedagogies find deep learning by Fullan, Langworthy
2. Optimal Scheduling for Secondary School Students – Hanover Research
3. Reshaping the secondary school curriculum: Building the plane while flying it? NZCER – Rosemary Hipkins
4. Wellbeing for Success – a resource for schools – ERO
5. The OECD Handbook for Innovative Learning Environments
6. Innovative Learning Environments by Mark Osborne
7. Models of Curriculum Integration in Secondary Schools – sabbatical report by Philip Jellyman, Saint Dominic's Catholic College
8. Investigating the effectiveness of modern learning environments on improving student learning and achievement – sabbatical report by Mark Wilson, Cashmere High School
9. What is working best in new or remodelled Innovative Learning Spaces? - sabbatical report by John Inger, Morrinsville College
10. Adapting curriculum to life beyond school – sabbatical report by Sarah Davis, Timaru Girls' High School
11. Investigating Project Based Learning – sabbatical report by Heather Asked, Wellington East Girls' College