Tradition to Transformation: How Conventional Secondary Schools are Breaking Ground in 21st Century Education

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Summary

This research inquiry investigates how some forward thinking secondary schools are maintaining future focused and innovate practice despite their traditional settings. The schools involved are not part of a new build or in the privileged situation of having new modern learning spaces.

The study asks how these schools are:

- moving away from traditional 'industrial model' systems and practices
- ensuring they're meeting the needs of their 21st century learners.

Purpose of study

It is hoped that the findings from this research will provide hope and inspiration for a way forward for those schools who have the desire to change, as well as provide a challenge for those who are still working in more traditional or teacher-centered environments.

Key finding

It was discovered that there were four key elements to each school's culture of 'way of being':

- Relationships
- Reflection
- Responsiveness
- Risk-taking

These ensured that learners always remain at the heart of every decision and learning moment in the schools. It also enabled a number of other key pedagogical approaches.

Method

Selection of schools

A number of secondary schools were approached by drawing upon professional networks for Te Toi Tupu and national online communities.

I endeavoured to ensure a balance of:

- boys', girls' and co-educational schools
- urban and rural
- North and South Island
- state and integrated schools.

Research methodology

Interviews were conducted in six schools, typically for a full day, with a variety of teaching staff and leadership.

The number of schools was limited to six for manageability.

Participants in the interview process appeared to enjoy the opportunity to reflect upon their journey through transformations in their practice. Often, questions allowed for the chance to clarify and articulate the changes that had taken place in a school, or perhaps highlight an area which may still require focus.

As the research progressed, these interviews also provided an opportunity for me to share what I had been seeing and hearing in the previous schools I had visited.

Interviews were recorded, transcribed and notes were taken during this process. Data from these was then drawn into common themes and analysed.

The diagram below (Figure 1) was constructed to illustrate these themes and their relationship, as a reference point.

Figure 1
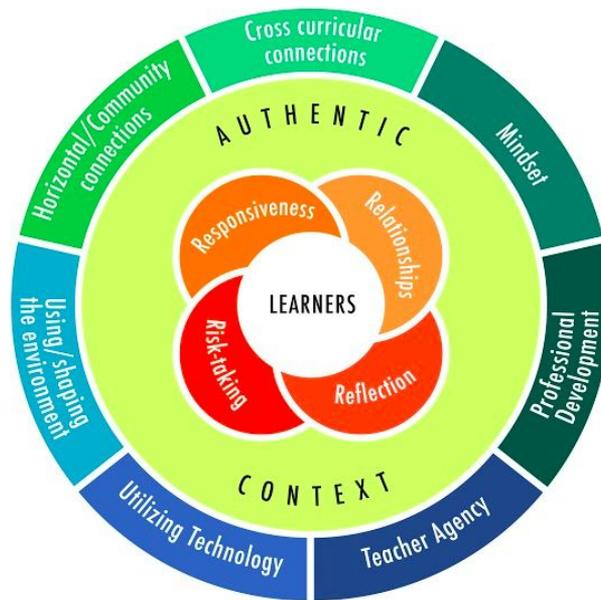
Future Focused Learning Gauge; a Tool for 21st Century Schools.   Rowan Taigel, 2015

Findings

Learners at the Centre

Each of the six schools visited clearly place learners at the centre of all thinking, practices, systems and procedures. This is because:

- the learner's voice is sought, listened to and acted upon
- learners can work to their strengths
- they can negotiate, design and make decisions about their own learning pathway
- they can identify desired outcomes in the majority of learning situations
- they can showcase their understanding via a medium(s) that suits them (teachers accepted written, oral, visual, hard copy, digital or combinations of of these)
- learners have opportunities to lead and drive in all areas of the school (in one school, assemblies were lead by students alone)
- they are invited to experiment, take risks, make mistakes, and ask questions
- they are encouraged, if not required, to undertake self-reflection and review
- they take on leadership and mentoring roles in the learning process (an example of this is a Year 13 student establishing a peer mentoring and group tutorial programme which students signed up for via google docs).
- multiple opportunities for collaboration and sharing are provided wherever possible.

Relationships

"The best learning is based around good relationships between teacher and student and the trust that's built up with that, so if we want kids to take creative risks and to focus on independent decision making then they have to be really trusting and feel like they're in an environment in which risk is accepted and the consequences of risk are dealt with and accepted. So that basically means, that if the kids trust you and you're encouraging them, then the usual traditional fear of failure, which these traditional environments largely operate on is negated."

For students to be placed at the centre, strong relationships must be established.   All people involved must be known, understood and valued. These schools understand this and encourage staff and students to build strong relationships with each other.

These schools have an understanding that everything they hope to achieve will come about due to the people involved at every level, and the level of investment from these people into any given project is in direct proportion to how known, understood and valued they feel in their role.   One school, for example, has made it a clear priority to involve families and the local community in as many learning experiences as possible. Teachers and learners are encouraged to openly share what they are learning about as widely as possible so community members may see and hear about opportunities to contribute their experiences and expertise to the learning, or may be invited to do so by members of the school. On any given day, there are at least 3-4 members of the local community, family members, business people etc in at the school in classrooms working with teachers and learners. This is most often reciprocal, with teachers and learners going out into the community on a very regular basis to enact what they have learned in an authentic context.

Reflection

These schools all have clear expectations for and robust processes around reflection. It is not only something that happens at the end of the year in a final report, but is an expected part of everything that happens at every level of the school.   Teachers (and to a great extent students) are expected to ask questions of everything they do in order to check that it is still best practice and has learners' experiences and achievement outcomes at the centre.   If it is discovered something could be improved, staff are encouraged to be responsive.

"Five years ago, the national assessment feedback was showing us that in the arts area, in digital arts in particular, it was saying to us we're seeing lots of high quality product but we don't think that's indicative of high quality creativity. In other words, what we're seeing is students' translation of teachers' work.   What they want to see is the process of students actually being creative." This realisation was a huge catalyst for change in the Arts faculty in one school. Through ongoing reflection and inquiry, the faculty reimagined how they might function better in order to foster, support and develop student creativity. This involved digging into which conditions best support the creative process. Through research, expert consultation and student voice, they reached the conclusion that a trusting, safe environment with the opportunity to build strong relationships with like-minded peers and older mentors

could be the key. They established what they called the "Arts Academy": vertically grouped whanau classes based upon artistic passions and skills. Regular, ongoing contact with like-minded peers, coupled with a more co-constructive based approach to student learning pathways has resulted in more creative risk-taking by learners who are less afraid of getting the 'one right answer'. Teachers' feedback processes had to adapt to fit with this new model, and so a more regular one-on-one conversorial style feedback session with a 'teacher-facilitator' was adopted. Students bring photographic (or other recorded) evidence of their work in progress and they discuss it with the teacher, whereupon feedback is discussed and recorded verbally and / or in written form in a Google doc for revisiting. It is *"about giving status to kids and saying they are trusted as learners"*.

Responsiveness

Because they have established strong relationships, and people feel known, respected and valued, it is easier to be responsive when new needs arise. Being responsive implies a certain amount of give or flexibility in a system, team or person. It requires communication and collaboration in order to listen to a need or request, design a solution, and act. In these schools, when staff become aware of a need or a need for change, they communicate with others and often collaboratively reflect upon the best course of action. Responsiveness implies action in a timely fashion and sometimes, or even often, this means there might be some risk-taking involved.

"Early on, we recognised that we wanted to change the timetable because we could see it was a barrier to real curricular change…....we had lots of consultation with parents, with the girls and with staff and even with parents who hadn't come here yet. [Our new 100 minute periods] is a structure that actually allows deeper thinking, and collaboration in a more authentic way."

Risk-taking

"[our approach is] This is how we think it could be, these are the ideas that are driving it, but actually we want you to do some exploring to see what works best. That's really smoked out all of the angst, a lot of teacher anxiety around getting it right."

These schools understand that risk-taking and failure are just steps in the innovation process. Risks don't need to be reckless; they are actions where there may be some uncertainties or variables in the potential outcome. It is understood that some prototyping and trialling may need to take place, and through their strong relationships, all people involved in the process (staff, students, families etc) are informed and consulted.

The above school took a calculated risk in establishing their Arts Academy:

"Initially, there was opposition from other staff to the academy because they felt we were effectively trying to steal the good kids and the interesting thing about that is, that they saw

the kids as a commodity. As opposed to seeing the commodity is our teaching."

Keeping the lines of communication open and allowing voices to be heard was vitally important in the prototype being launched. The usual form of selection for special classes based upon grades alone was also challenged:

"But we were choosing kids who we felt A would benefit from a different learning environment, but also [B] kids that we felt had the spark of some creativity, and learning independently and the initiative...kids we felt would learn with us."

Based upon the success of the Arts Academy and the number of students who are asking to join this style of class, the school is now considering passion-based Academy classes (form classes) as an option for all students.

One of the strongest and most powerful themes which connects these innovative schools, is their realisation that when learning experiences are made real and ring true for learners, then engagement and academic outcomes improve.

Authentic Contexts

Authentic contexts for learning is the theme which came through almost as strongly as Learners at the Centre. It seems that even just focusing attention upon these two elements in a school would go a long way to making significant change and development for many who may still be working in more traditional, industrial style models of education.

These schools understand that knowing each student and their background, interests, skills, etc., means that contexts can be personalised to the student rather than topic. They use current events or timely issues or problems to anchor learning and allow student work to be showcased in real events. Projects are developed so that learners have real clients, real deadlines and real virtual or live audiences. I saw a great many examples of this. In one school, they have developed a local park and recreation area for use by the whole community, with those community groups. Students built tracks for running and cycling, constructed an orienteering course and even a frisbee golf course. All plans and specifications were agreed upon with the local council and community groups within a proposal written by students. Clients' needs needed to be met, as did the deadlines. This area is also now used regularly by classes as an outdoor learning environment, with specially designed learning stations set up for use in a wide range of activities across subjects. I took part in a combined Physics, Maths and Biology session at the outdoor ILE[1]. Learners moved through stations learning about how pulleys worked by endeavouring to lift a very heavy weight by using them. At another station, students learned how to calculate their own weight through the use of a seesaw, measuring tape and two dumbbells. At yet another, they used surveying equipment to measure gradients. I learnt how to measure the height of a tree by using two sticks of equal length and a measuring tape. I was privileged to

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[1] Innovative Learning Environment; http://mle.education.govt.nz/

witness a number of 'lightbulb moments' for students who, according to their teachers, typically struggled with these concepts in the classroom when only using a textbook.

Putting learning into practice by going out into the community, on field trips, co-constructing resources and getting to see real outcomes and effects for real people is incredibly powerful for learners. Being able to move freely in the environment while learning and having access to variety of perspectives is key. These schools are also moving towards ensuring that assessment for and as learning is a product of the investigation or directly related to the project and context.

Cross-Curricular Connections

In order to learn in more authentic ways, these schools understand that breaking down the 'silos' that exist in many secondary schools due to subject area separation is essential. This is still an area that many find challenging, but are working together with their school communities to make it more of a reality. It is happening in many ways; from sharing a learning theme across subjects, to working full time in cross-curricular teaching partnerships (this option appears to be more viable long-term). Some schools hold themed weeks during the year, where all subjects come together to complete a project (a much clearer example of real life learning) and others have regular project-based learning scheduled into their timetables where learners draw upon all subjects' skills and knowledge in order to complete a project of their own design. More effort is being made in all schools to ensure transparency around Achievement Standards being offered in each subject and course outlines being widely accessible, so that commonalities are more readily noticeable and cross-curricular partnerships or discussions can be organised. Ultimately, the goal in many of these schools is to be working in cross-curricular teams / partnerships right from the planning stage from years 9-13. This is generally still only happening to any great degree in years 9-10 currently.

Horizontal & Community Connections

This is the next natural and logical step from the one above. Another way to make learning more authentic is to stretch learning beyond the classroom walls and out into the community and beyond. Leveraging their strong relationships, many of these schools are utilizing local experts by bringing them into their classrooms, or visiting them in their place of work. Communicating with others via skype if they are not local, is also a common practice. Joining together with other local schools, centres and community groups to work on a communal project is a popular option, and provides a real sense of ownership and belonging for everyone involved.

Using or Shaping the Environment

Again, this theme blends with the one above. Knowing their learners so well, these schools understand that people like to leave their mark on the world, and also to see something that they have created or contributed to a space being used and enjoyed by others. It appears that having a familiar connection with the surrounding environment creates a mindset more

conducive to learning, so helping students to see where they fit into the environmental context and find their place in the world is important. Seeking to utilize or recreate elements of the physical or social environment to ground learning into an authentic context works well. In one school, a student remarked to a teacher that there was very little in the way of options for outdoor seating in fine weather. The teacher suggested the student design some options and a proposal for their construction. This ultimately led to a Year 10 class constructing new outdoor seating for the school, learning how to design furniture, source materials, write a budget and proposal, survey clients for needs and construct a product to specifications. They now are able to see their peers enjoying the use of furniture that they have contributed to the school; a very gratifying experience.

Utilizing Technology

"I'm not getting the "what do I do" questions as much anymore. I'm getting the "so this is what I think I can do, what's your opinion of that?" and that's much more a credible dialogue."

This is an area where all schools have made significant progress. Every school has moved to BYOD, with most already doing this across all year levels. Technology is used with a view to empower collaboration. All schools discussed learners working together in shared online spaces through the use of tools such as Google Docs or websites. The teachers are very open-minded about learners approaching them with ideas for new tools to help them with their learning. Tools and apps that many teachers have concerns about in more traditional classrooms are being utilized in purposeful and sophisticated ways by learners in these schools. Learners are blogging about their learning journeys and receiving real-time feedback and comments from not only their teachers and peers, but from authentic audiences all around the world. Facebook groups have been set up for learners and members of the community to collaborate on shared projects. In one school, students are using Snapchat as a way of taking a photo of their work in Design and Visual Technology, writing a message over it and taking a screenshot to add to their portfolio as a way of tracking their piece's development. These schools all have clear expectations about technology use and have open and ongoing dialogue with students about its use. They critically evaluate the purpose of different tools, and the benefits and drawback of using different tools for a different purposes. In the majority of these schools, very little is 'blocked', as it is all about the strong relationships teachers and learners have and the mutually agreed expectations of use. The teachers I spoke with are strong supporters and users of technology in their work to support and enhance outcomes for all. Each school still has teachers who are at various stages of readiness and adoption, but there are strong practices of sharing, modeling, mentoring and leadership in place for support.

Teacher Agency

The use of technology is one great enabler of teacher agency. Again, due to the solid foundation these schools have in the four R's, teachers are given freedom, choice and are trusted as professionals to do what is needed in the way that works best for their learners,

them and their learning team. While a series of desired outcomes might be agreed upon, the means by which they are reached and presented is most often very flexible, allowing for teachers to play to their own strengths, and knowledge of their learners and learning area. Teachers have freedom of choice over which digital learning platform to use with their learners in their subject area and the ways in which assessments are submitted. They may change or adapt their courses based upon changing learner needs during the year, and may use the school learning spaces in the way they see fits their learners' needs and objectives during any given lesson. Examples of this are having a Physics lesson in a Music room, using Weebly as a learning platform for one class and Moodle for another, spontaneously taking a class outside to read nature poetry outdoors, or removing some Technology standards from a course during the year in favour of Spatial Design, in response to the passions of learners in the room.

Professional Development

One key element which comes through very clearly in these future focused learning environments is the absolute prioritisation of staff professional development. Investment in people is a clear strategy for innovation, success and change in these schools. Wherever possible, funds are re-distributed so that more is afforded to professional development. There is much less of a 'one-size-fits-all' approach in these schools, with individual staff expertise being invested in through attending courses, visiting other schools or release time to upskill and consolidate, so that they may then work alongside other staff and learners to share their expertise. These schools have all been responsive to teacher requests for support and development in various areas by reimagining staff and department meetings. Many tasks which used to be carried out during meeting times have been re-designed or streamlined so that more of the face-to-face time is spent sharing new pedagogy, success stories, or working collaboratively on challenges of practice. Many schools have restructured their weekly schedule to incorporate more PD time for staff, often doing this by revisiting systems and structures which have been in place for a long time and asking if they still have the learner's and teacher's best needs at heart in their current form. In one school mentioned earlier, while students are in the hall attending an assembly run by student leaders, staff are in the staffroom sharing that week's success story, technology tip or provocation of practice. They call these "brilliant bursts". Staff have been listened to when reflecting that it is this type of collaborative and co-constructive approach to development of collective expertise that is the most powerful and meaningful form of professional development for them.

Mindset

"The kids were just alive about their learning and they and the teachers had woken up differently because everyone was thinking differently".

Something of a surprise was the conscious effort by these schools to foster and develop a positive, supportive and growth-mindset in staff and learners. By keeping learners at the centre of every decision made, and a mindful focus on nurturing relationships and being reflective, responsive and open to taking risks, staff I spoke to were incredibly happy in their

roles. Creating a culture in conversation of "yes, and…" or "not there *yet*" is a focus in most schools. I heard from teachers who had staff rally around them during times of challenge, and teachers willing to take on extra roles, or give more of their time to projects because they could see the value in them, and felt they in turn were valued for their contribution. Many staff actively participate in mindfulness practices, for example moments of meditation in meetings, or having colouring-in stations in their staffrooms. Some teachers mentioned to me the attitudinal shift about being seen to be taking a break; no longer being considered lazy, but sound practice in order to be mentally fit and ready for the next session with learners. Many of the schools visited have well-established exercise groups for staff, from crossfit to yoga and dance, all with a view to help develop well-being and strengthen relationships between staff.

Conclusion

What came through very strongly from the schools in this study, was the sense of optimism, excitement and potential for the future. They all had a clear vision and moral purpose centered around the future for their learners and that of education, and would not allow the fact that they did not yet have any new 'Modern Learning Environment' buildings affect or have any negative impact on their adoption of more future focused, '21st century' pedagogy.

These schools have collectively made the shift from 'transmission-style' education where the teacher holds all knowledge and transfers it to the students, to a more student-centered format where learners have more agency over how, where, what, when and why they learn.

Grounding learning experiences in an authentic context which makes knowledge and skill building and creation more real and meaningful to learners was a key finding in this research. The combination of having meaningful relationships between teachers and learners, listening to their voices and responding by ensuring learning opportunities occur in contextually relevant locations and times are major indicators of a school having shifted their pedagogy and practice of education from the industrial model, to a 21st century one.

The willingness of a school to recognise when 'the status quo has lost its status' and to change, remove or reimagine current systems and procedures that often end up "ruling the school", for example, restructuring the timetable, in preference for meeting the needs of current learners, is a key trait or calling card of these schools.

While there was no one 'perfect school' in terms of being equally fully functional or immersed in the utilization of all of the elements in the outer wheel of the *Future Focused Learning Gauge* (and that could only be in the opinion of this researcher), it was clear that these schools have a strong awareness of the need to develop their capabilities in all of these areas, and are ensuring they put plans in place to do so.

For secondary schools who are looking to make a shift away from a more traditional approach to schooling, towards a more transformational approach to education, I would recommend starting with their learners; holding up every practice, system, procedure, and

tradition against what is best for them and their future in this modern world. Open what they do up to the voice and scrutiny of learners, their families and community in order to develop the relationships they'll need to move forward together. This collaborative approach will help to build a resilient school community who have a change-ready mindset.

As a follow-on or continuance to this research, I believe it would be of great benefit to hear more student and community voice regarding the impact the schools' changes have had on them and their experiences of learning. It would be especially interesting to hear from learners who have experienced both a more traditional and transformational approach to learning within the same school or who have been part of a school's journey through change.

It seems there could also be an opportunity for the creation of an online space for schools who are members of communities of learners to share their practice. This could be used to collaborate on effective pedagogy with a view to creating equitable opportunities for access to the knowledge and experiences these leading schools have to share.

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