

Investigating the design of a future-focused curriculum for junior secondary students that maximises innovative learning environments.

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- Tarawera High School - Gavin Holland

Hamilton:

- Rototuna High Schools- Senior team members from each school.
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Executive Summary

This report explores what is meant by Innovative Learning Environments (ILEs) and more specifically how school designed curriculum in schools with modern school design supports a change in the learning experiences for students in Year 9 and 10 students. I used the opportunity to visit a range of schools in Christchurch, Hamilton and Kawerau and to read more deeply about ILEs.

Innovative Learning Environments is term that has a wider meaning than innovative design of physical learning spaces and as I visited schools and read reports on ILEs I become interested in the impact of flexible spaces on how schools organised the student groups, teachers, timetable as well as the curriculum.

The report also looks at the recent research that is being reported about the impact of physical space on teaching and learning in Australasia. The findings highlight modern designed learning spaces on become innovative if they are used by teachers in different ways than used in more traditional spaces. The design and organisation of the Junior secondary curriculum is similar in most of the new schools visited and appears to have been strongly influenced by some of the earlier commissioned new schools particularly in Auckland. Existing schools undergoing major building changes appear to have less integrated approaches to their curriculum design, although developing greater collaborative approaches to planning and teaching than when with traditional classrooms.

Purpose

The purpose of my sabbatical was to investigate how New Zealand schools with new flexible learning environments have designed and implemented their school curriculum. I wanted to see how these schools utilised the changes to more flexible learning environments for teaching and learning and how it reflected the research about modern learning practices (21st Century Learning).

I also wanted to research the current thinking on what is meant by “Innovative Learning Environments” and explore recent studies on the impact of these new types of school learning spaces on learning and curriculum design as implemented at the classroom level.

Rationale/Background

By the end of 2018, the substantial rebuild of over half the teaching areas at Wellington East Girls' College (WEGC) will be completed, and we will be teaching in very different learning environments. Within the new buildings there will be spaces in which junior students, in particular, will be working in more open learning environments. In 2015 the school was successful in gaining for three years, Teacher Led Innovation Funding for a project within our school to explore how to shift teacher disposition and develop a more collaborative approach to planning the curriculum for each Junior class. We have been trialing different approaches for integrating the curriculum and I was interested to learn how these could be supported by different physical environments that are proposed as being better suited to modern teaching practices. I wanted to extend my understanding of curriculum design to augment my inquiry into “Learning Hubs” (a term we use for our collaborative teaching approaches in Years 9 and 10) and to follow on with the CORE online study I did in 2014 on Modern Learning Practices. In

2011, I had the opportunity to visit schools in the USA and UK to see project based learning and modern learning environments when on a Woolf Fisher Scholarship. In 2012 and again in 2016 I visited some of the new schools in Auckland and those that have been re-modelled in Wellington, to look at the learning environments of similar designs to those that are being planned for our school building development. I was interested to see how more recently re-developed or new schools were developing their school curriculum and how it is enhanced by working in flexible spaces. In particular, I wanted to see the influence of the new learning environments on school curricular to allow for:

- collaborative teaching practices,
- cross-curricular approaches,
- project based learning,
- developing students' 21st Century skills (collaboration, use of ICT for learning, real-world problem solving and innovation, effective communication, self-regulation and the construction of knowledge)
- enhancing students' engagement with their own learning.

Activities Undertaken

Readings and research

The following questions guided my research into Innovative Learning Environments (ILEs):

- What comprises an ILE in New Zealand Secondary Schools?
- How does an ILE support 21st Century or Modern teaching and learning practices?
- How do schools with ILEs design the school and classroom curriculum, in particular, for Years 9 and 10?
- What is the impact of ILEs on student outcomes?
- What are some of the challenges teachers face in the move to ILEs?

School visits

School	Type	Buildings	Roll	Timetable
Rolleston College Rolleston	Y9-13 (Co-ed)	New build PPP Population growth post 2011 ChCh earthquake	2017 - 229 Year 9 only	Three 100/90 minute sessions per day
Haeata Community Campus, Aranui (Christchurch)	Y1 -13 (Co-ed)	New Build PPP Replacing 3 primary and 1 secondary schools in East ChCh post-earthquake Organized into 5 "houses"	2017 - Years 1- 13 (958 first day) 290 in Years 7 - 10	Three 100 minute sessions/day
Rangiora High School Rangiora	Y9-13 (Co-ed)	Replacement buildings (approx 1/3 learning areas)	Roll	Five 55 minute + 20 minutes Form time each day
Avonside Girls High School Shirley (Christchurch)	Y9-13 (Single Sex)	New building /new site PPP Co-located with Shirley Boys High School	To open 2019	
Tarawera High School Kawarau	Y7-13 (Co-ed)	New building combining intermediate and High Schools	Opened 2013 with full roll	Three 90 minute sessions/day - have whole days in home rooms for juniors/subjects for seniors Whanau class time at start of school
Rototuna High Schools - Junior/senior (Hamilton)	Y7-10 and Y11-13 (Co- ed)	New Building Population Growth - new area 2 schools with one Board Co-located with some shared spaces	Junior High opened in 2016 with 634 students across Y 7-10 Senior High 2017 with Year 11.	Three 100 minute sessions each day + 15 minutes Learning advisory time at start of each day

PPP -Public Private Partnership procurement process for design, building and ongoing maintenance of property.

I also visited Waikato Diocesan School for Girls in Hamilton. They have traditional spaces and no immediate plans for building upgrades but they have been trialing an innovative approach to Year 9 organisation of teachers and the curriculum which is similar to the WEGC "Learning Hubs" approach.

Findings

In this section I have grouped my findings into the following sections

1. Innovative Learning Environments – What are they?
2. Flexible Learning Spaces – With what?
3. Curriculum – What
4. Linking curriculum with modern flexible spaces
5. Impact of ILEs on student outcomes

1. Innovative Learning Environments – What are they?

There have been various terms used for the more open physical spaces of newly designed schools and renovated school buildings: Open Plan in the 1970's, Modern Learning Environments (MLE) in the 21st Century and more recently Innovative Learning Environments (ILE).

The Organisation for Economic Co-operation and Development (OECD) Innovative Learning Environments Report (2103) examines the conceptual model for ILEs. In that report they propose that contemporary learning environments should have a pedagogical core that is innovative and promotes 21st century effectiveness through the application of the ILE learning principles. It also states that it should be a 'formative organisation' with learning leadership, evaluation and feedback, open to partnerships that grow social and professional capital and to sustain renewal and dynamism.

Figure 1 shows that ILE has a pedagogical core and has 4 key elements and dynamics between them which composed of learners, educators, content and resources - or more simply 'the who, with who, what and with what'.

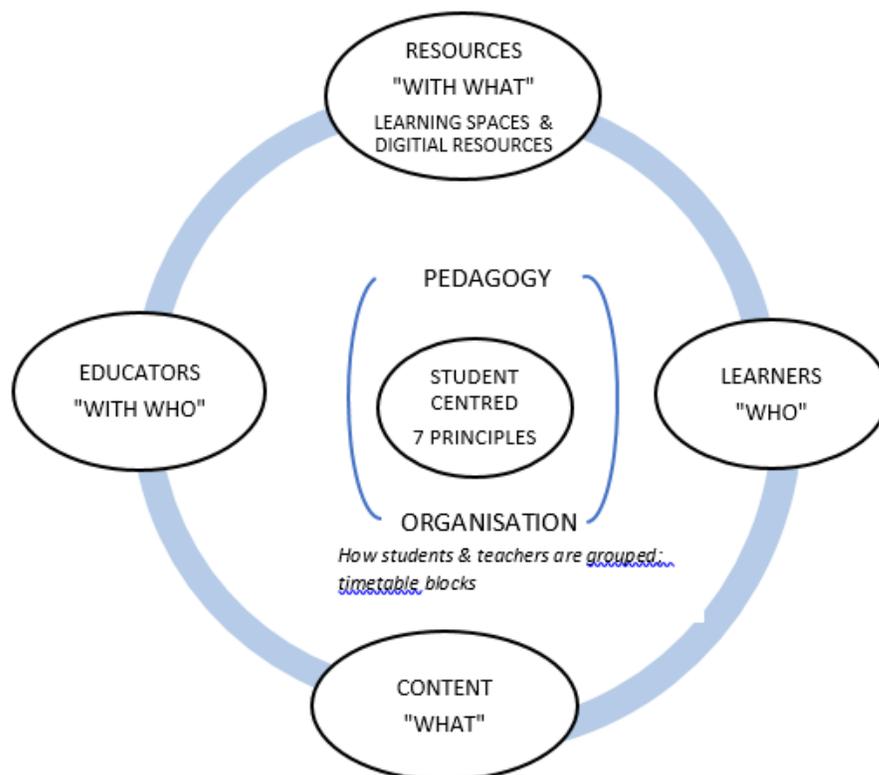


Figure 1 Based on diagram from OECD 2013 Report "Innovative Learning Environments"

The 7 core principles of innovative learning environments can be summarised as:

- Make learning and engagement central
- Ensure that learning is social and often collaborative
- Be highly attuned to learner motivations and emotions
- Be acutely sensitive to individual differences including prior knowledge
- Be demanding for each learner but without excessive overload
- Use assessment consistent with learning aims, with strong emphasis on formative feedback
- Promote horizontal connectedness across activities and subject, in and out of school.

Innovation can take the form of any intentional change from the traditional way of doing things and can involve changes in the grouping of students, the organisation of time and timetables, integration across subjects as well as innovative designed physical spaces.

The organisation element refers to how teachers and students are grouped, the timetable as well as the pedagogical and assessment practices. The physical aspect of the ILE is a subset of the resources where the provision of flexible spaces is considered to be one of the key elements as well as digital resources.

The New Zealand Ministry of Education (MOE) definition of ILE is an environment where the National Curriculum is being expressed in the way it is intended, to be learner-focussed and emphasise valued learner outcomes. It should encourage collaboration and inquiry for learners and teachers, and allow teachers to teach in a style that best suits the needs of diverse learners. An ILE needs to be capable of evolving and adapting as educational practices evolve and change so thus remaining future focussed.

2. Flexible Learning Spaces - “With What?”

Flexibility of the learning spaces is considered to part of the infrastructure that supports innovative learning and teaching. The MOE defines flexible spaces as those that can be easily configured and used in a variety of ways to support and enable a range of teaching and learning approaches. (<http://ile.education.govt.nz/>)

Flexible spaces have to have the right acoustics, lighting, technology, heating and air quality. The MOE website has a range of guidelines for ensuring modern designs of school buildings meet these expectations as well as those in relation to building materials and structural and geotechnical engineering guidelines. There are also guidelines for upgrading existing buildings to allow for redesigned spaces to maximise the connectivity within enlarged learning spaces. It is these guidelines and attention to those design details that make the new spaces so different from the open spaces of the 1970’s that were more or less abandoned by the 1990s. Key differences include high use of digital technologies, flexible furniture, breakout areas that also have a variety of designs and uses, as well as teachers having a wider range of teaching strategies.

The flexibility of the learning spaces means that teachers are able to have a range of learning spaces for different activities and to support teaching practices that are collaborative and use

of digital technologies. It also enables easier organisation for different student groups (across levels, years, or in differentiated learning groups) that can be more fluid than in traditional classrooms. Such spaces are seen as critical enablers for co-teaching in student centred environments (Neil O'Reilly, 2016). The collaborative practices can be thought of in different ways: teacher-teacher, student-student (within and across classes) and student-multiple teachers.

Hargreaves and Fullen in their book Professional Capital refers to Judith Warren Little's continuum of teacher collaboration, with 4 key types identified

- Scanning and storytelling
- 2 Help and assistance
- Sharing - materials and teaching resources
- Joint work - where teachers teach, plan or inquire into teaching together

In this book, the authors contend that teachers who work in professional cultures of collaboration tend to perform better than teachers who work alone. They also raise the idea that the fact that informal collaboration (sharing practice) left by itself can be loose, unfocused and inward looking but that it does underpin a collaborative school culture and to ignore it can lead to collaboration being awkward, artificial and even oppressive.

The physical design can also be used to support cultural inclusivity - MOE report on The Impact of Physical Design on Maori and Pasifika student Outcomes (Nov. 2016) highlights a range of ways that physical spaces are able to raise cultural visibility and inclusivity for the community and learners who are Maori and Pasifika. In the schools I visited this was most apparent in Haeata Community Campus and Tarawera College. However, it is to be noted that in the conclusion of this report the caution that physical design can only support cultural inclusivity to the extent it is also reflected in effective teacher-student relationships and culturally responsive pedagogies

3. Curriculum - The "What"

The New Zealand Curriculum (NZC) is a document that sets the direction for schools to develop their own curriculum within the framework that the NZC provides. It sets out eight principles that put students at the centre of teaching and learning. It also states that students should experience a curriculum that engages and challenges them, is forward looking and inclusive, and affirms New Zealand's unique identity (NZC p. 9). These principles in combination with the vision statement, the key competencies and the statements about effective pedagogy are reflected in the 7 Principles that the OECD documents set out for Innovative environments and in line with 21st Century or modern teaching and learning practices. The 21st Century education literature highlights that learning should be integrated and interdisciplinary, project based and research driven and in particular 'relevant, rigorous and real-world' as well as developing the 21st century skills and developing multiple literacies. (www.21stCenturySchools.com)

The NZC also states that all learning should use natural connections between learning areas and that the Achievement Objectives set out 'desirable levels of knowledge, understanding and skills to represent progress towards broader outcomes that ultimately amount to deeper

learning'. (NZC p. 39). However, it is interesting that the NZC still organises the achievement objectives in separate disciplines as does the National Certificate of Educational Achievement (NCEA) Achievement Standards at all three levels. For secondary schools, particularly, shifting to a more integrated approach is acknowledged to be challenging. External drivers such as NCEA and University Entrance requirements, reinforce a single disciplinary approach to teaching and learning particularly at Level 3. Most schools still have a more traditional approach to school curriculum organisation that teaches students in separated subjects, in separate timetable blocks.

David Hood (2015) refers to the a “paradigm of one” in our secondary schools with “One teacher, teaching one subject to one class of one age, using one curriculum at one pace, in one classroom for one hour “ (p.13). He, along with other researchers believe making connections across disciplines would increase the relevancy of learning for students. Dr Gabrielle Wall’s report commissioned by the MOE (2016) on the impact of physical design on student outcomes highlights that flexible spaces enhance and enable innovative learning environments and the importance of having a teaching and learning programme suited to the space.

Most of the schools that I visited had changed the organisation of the day into 3 blocks of learning time (100 or 90 minute periods) They also had changed the grouping of students from the traditional of “one class of one age” to either mixed ages e.g. Years 7 & 8 and 9 & 10 at Rototuna Junior High; Years 7 to 10 at Haeata Community Campus or by having larger groups of students at the same level taught by teams of teachers such as at Rangiora High School and Tarawera College.

The organisation of the curriculum for Junior levels (Years 7-10) at Rototuna High School, Rolleston College and Haeata Community Campus School is similar in design to each other. Haeata Community Campus has a Year 7-10 House of about 260 students and 16 teachers (half Primary trained and the other Secondary trained). The teachers work collaboratively with 10 to plan the programmes of learning. There are three parts to the curriculum structure:

- Kaupapa Ako (9 sessions/week): teaching of learning area outcomes organised around themes such as “Identity”, “Te Ao”. These are transdisciplinary and are about 6 weeks in length. They use the curriculum progressions to anchor age/level learning. They link the design to the 7 Principles of Learning
- Puna Ako (3 sessions per week) - smaller learning groups with a focus on pastoral/wellbeing; teachers co-teach 40-50 students. All teachers involved during this time.
- MAI time (3 sessions per week) -My Area of Interest projects
Rolleston College has a similar structure for their Year 9 with:
- Ako/whanau time - 5 sessions/week - Involves literacy work - personal reading and responding, learning conversations, exhibition” which incorporates completing eportfolios, digital skills and celebration for students to showcase their learning. Also as part of this time (about 200 minutes per week) is “Quest” which is similar to passion projects of some schools or MAI time of Haeata, where students explore their own

project, scaffolded and where learners co-construct with their teachers the assessment rubric aligned to the critical skills identified by the school.

- Connected - 5 sessions per week - Co-teaching with 2 teachers to a group of 55-60 students where the teachers plan together programmes of learning around themes. Incorporates outcomes from the Mathematics, Science, English and Social studies learning areas and 1 other in rotation eg Health/arts/Technology. They use Solo taxonomy approach for developing learning tasks and assessments.
- Selected - 4 sessions per week It involves students selecting 2 “options” per term (Year 10 students will do less)

They also have 100 minutes of Physical Education per week.

At Rototuna Junior High School the Junior students are organised into mixed year level groups Years 7 and 8 together and Years 9 and 10 together. The curriculum has been designed with the 7 principles interwoven with the 5 dispositions of learners that are fostered through the teaching and learning programme. They use the acronym of CLOAK - Challenge & mind set; Learning to connect; Ourselves as learners; Ako always; Kindness and respect.

The curriculum is again structured into 3 groups:

- Learning Modules - these are co-constructed, taught and assessed collaboratively by teachers from several curriculum learning areas in response to student needs and interests. These modules aim to foster deep learning and student engagement, with meaningful connections across learning areas. Each Learning Module will integrate 2 NZC Learning Areas, be taught by 2 teachers to a group of up to 60 students, for a duration of 1 school semester (2 terms). Students select 3 Learning Modules to study in each semester. Every student takes 1 Learning Module that includes elements of the English curriculum, and 1 Learning Module that contains elements of the Mathematics and Statistics curriculum, each semester.
- “Advisory Time” - Smaller groups within groups. Each teacher has 15 to 17 students and follows them through from Year 7 to 10. Health, academic mentoring, learning to learn strategies and tracking their own progress and coverage of the curriculum from the Learning modules are all part of Advisory time. This occurs 15 minutes at the start of each day and 3 sessions per week (100 minutes each session).
- “Flight Time” - interest or passion projects with the students choosing 3 per semester which are given 100 minutes per week each. Some students may use all three sessions for the one project is appropriate.

Tarawera High School also has a similar approach to the curriculum designed for these age groups. They teach in year groups with 3 teachers linked to about 75 students. The teachers work collaboratively to plan programmes of learning and co-teach. They teach an integrated programme in “home rooms” for 3 days of the week. The programme is thematic of “topic based” with the key competencies at the core of the homeroom teaching and learning. There is also a significant focus on learning through inquiry that involves teachers supporting students as they explore, question and investigate an issue, problem or idea. While called “home rooms” they are in flexible spaces. At Tarawera High, the term is used to identify the model of teaching and learning and has a strong pastoral component to the organisation of the groups.

The other two days a week are when students do “options” or “Specialist Subjects” (half year courses). Students select 3 options with one session each on two days of the week.

These schools’ curriculum structures have been clearly influenced by the early adopters such as the new schools I visited in Auckland. However, while similar in structure there are significant local differences and emphases. Rangiora High School has a different approach to their curriculum structure. While collaboratively developed by teams of teachers, the timetable is still more traditional, 5 hour sessions per day, and timetable still identifies separate disciplines. Similarly, Avonside Girls’ High School also has planned the flexible spaces so that they organised into discipline /specialist areas.

1. Linking curriculum with modern flexible spaces

In the OECD 2013 report, reference is made to John Hattie’s work Visible Learning (Hattie, 2008) in which Hattie contented that ‘visible teaching’ assumes that the stifling organisational arrangements of highly fragmented schools - in which each teacher works in relative isolation from others in a series of parallel mini-environments, jealously guarding his or her invisibility - needs urgent change.

The processes that are used when developing a school’s Master Plan - for new school or replacement of an existing school as well as the design processes for major upgrade of buildings, includes a stage that requires schools to develop their education brief and a functional brief that with the other structural design factors will inform the final design of the new buildings.

The Ministry of Education Head of Education Infrastructure Service as recently as December 2017 reconfirmed to all property teams that: “Our priority is flexibility. We never want to impose one way of teaching on a school. Rather, we want them to think hard about how they see learning taking place in their community. Taking account of their pedagogy, their students and their culture, we want to design teaching spaces in tandem with schools in a way that will meet the school’s needs today and into the future.”.

The Educational Brief sets out the school’s vision for teaching and learning for the future and how that translates into physical spaces to enable and support the pedagogy. It requires schools to consider the vision/mission, the character of their school, values, curriculum, timetable, teaching and learning as well as the linking of these with the spaces and any positioning of particular spaces in relation to others eg Technology spaces positioned next to Science spaces, and the flow from one area to another.

This process is valuable in that it allows schools to review those aspects of both its vision and curriculum, consulting their community and to have rich discussions about the future of teaching and learning in their school context. This sort of consultation was evident in Avonside Girls’ High School as they were planning for a complete rebuild of their school on a new site post-earthquake of 2011. An interesting aspect of this rebuild is they will be co-located with Shirley Boys’ High School. Some of these spaces will be shared, co-located and others separate from each other. Avonside have developed an overarching purpose and four overarching principles to act as the basis of developing curriculum - both in what and how

teaching and learning will occur. Although I did not visit Shirley Boys' High School, it is clear from reported statements by their Principal, they are retaining a more traditional design for much of the school. In a Press editorial (28 December, 2017), John Laursen is reported to say that with the re-build, they will avoid 'barn-like' classrooms that can house 3 teachers and 75 students with minimal noise reduction. Instead they will feature a mix of traditional and flexible spaces. Shirley Boys' High would still meet the MOE design standards for new school buildings to be "flexible learning environments", by not having load-bearing internal walls and consequently able to evolve and be future focussed.

The concern raised in his comments about minimal noise reduction is common, but in my visit to Rangiora High School, it was clear that although being 'barn-like' it was divided cleverly into differently organised spaces using a mix of breakout rooms and moveable dividers such as bag racks and different types of furniture. When I visited, teachers commented that it was quietest when fully occupied, but it still was well designed from the acoustic point of view when not fully occupied. As I toured the full extent of the building the sound from each space seemed to be contained and not leaking out into other areas. For example, one group of students were doing silent reading in one space, close by another space there was a class involved in a teacher-led presentation while in another had about 50 students doing group work. The noisier group work students' noise did not intrude onto the other spaces at all. In contrast, Rototuna Junior High School had added a system to support teachers being heard in the larger more open areas. This highlights the importance of those design aspects in relation to acoustics about which the MOE have clear design guidelines.

At WEGC, we followed a similar process to Avonside, however, since the initial brief was written at the end of 2012, it has evolved as we work to having 50% of the learning spaces replaced by the end of 2018. The origin concept for the type of flexible spaces was modified as we explored examples and trialled different teaching strategies particularly for Years 9 and 10. This continued change of approaches needs for the spaces to be flexible enough to enable these changes. Rangiora High School also used the development stages to trial new approaches for teaching and learning initially with their Year 9 students as they learn to make maximum use of the new learning environments they now have. They like WEGC will have a mix of traditional and new environments, and they, as are we, are planning to upgrade the remaining traditional environments to create more flexible spaces to enhance the pedagogical changes they are making.

The new schools, such as Rolleston College and Rototuna High Schools did not have the existing community of students, teachers and parents with whom to consult, so the vision and principles for learning initially had a narrower consultation basis but it is evident that as they increase in size they are reviewing in an on-going way to adjust the original vision and principles. The new schools have the advantage in not needing to change from traditional spaces and more teacher-led pedagogies but able to implement their vision from day one with all staff and students. It was interesting for me to see that the structure of their curriculum as well as the design of the spaces are very similar to each other.

5. Impact of Innovative Learning Environments on student outcomes

There is not a lot of research on impact of ILEs on student outcomes. The most relevant and recent research I found was from studies by Melbourne researchers. A report from Melbourne researchers involved in a 4 year study on the changing shape of teaching (“Re-arranging the way we learn”) provides insights on the impact of innovative classroom design are starting to emerge. Associate Professor Wesley Imms stated that “While the project was about space, it is really about our teachers adapting to change and rethinking how they teach in light of innovative design and the future needs of their students.

In the first report (ILETC Survey 1) released in 2017, the researchers surveyed 6000 school Principals in Australia and New Zealand for their perceptions. Of those who responded, 75% were still working in traditional spaces. The dominant teaching approach was teacher-led pedagogies, with students in traditional spaces showing less deep learning characteristics, with the opposite in flexible spaces. Another interesting snapshot result was that students in flexible spaces had their best outcomes in their mathematics.

In their more recent report, November 2017, (Technical report 2, Teachers’ Perceptions of ILEs), a range of ideas were explored in workshops with teachers held in different cities in New Zealand and Australia. These workshops had teachers across the range of school types - secondary and primary. The table below gives the focus and key research question explored in these workshops.

Place of workshop	Focus	Key Research Question
Sydney	Teacher Practice	How do teachers perceive and define ILEs?
Auckland	Teacher Mind Frames and belief systems	Do teacher mind frames reflect actual practice?
Christchurch	Student Deep Learning	What are teachers’ understanding of deep learning?
Canberra	Journey Maps	How do teachers perceive their transitions in ILEs?
Brisbane	Teacher Change	What support is required to enable teachers to undertake changes in their practices?

This report also included a number of fact sheets that give a quick summary of key findings from these workshops. In these a number of challenges as well as positives were identified. One challenge, in particular, was the lack of knowledge of ILEs and changing teacher practices and mindsets but this was seen as being addressed by ongoing professional learning that supports collaboration. One important finding is that spaces became innovative when teachers made use of the possibilities the space affords. It was interesting to note that in a number of the schools I visited that they had to prepare and teach students appropriate learning behaviours to work effectively in the flexible spaces and with a wider range of teachers and students.

Similar sorts of finds were evident in an earlier report by Terry Byers and Wes Imms “Does Space Make a Difference” (April 2016) in which evaluated effectiveness of ILEs based on research findings from their New Generation Learning Spaces (NGLS) project. They stated that:

“While in an NGLS, many teachers were able to facilitate a wider array of active pedagogical practices and collaborative learning modalities. This often correlated to significant improvements in both student engagement and academic outcomes.” However, they make the point that NGLS by themselves are not the agents of change. The long-term success of the learning spaces movement lies in the hands of the classroom teacher.

Conclusions

An ILE is not just about innovatively designed learnings, it is about how those spaces are used and the pedagogical practices of the teachers that makes them an Innovative Learning Environment. Innovation is not just taking place in flexible spaces, however, the research and the school experiences show that flexible spaces enhance and enable Innovative Learning Environments and are critical enablers for co-teaching and collaboration.

Wesley Imms in the Re-arranging the Way We Learn research states that the next generation of workers need to be collaborative, have to access information quickly, work in teams and be lateral in the way they approach problems so they require a learning environment that builds those skills.

In order for teachers to maximise the potential of these learning spaces, they must be supported to develop their pedagogical repertoire while also being encouraged to explicitly consider the role of the physical environment as part of the planning process. Schools should provide professional development to assist both teachers to perceive and act upon the range of opportunities offered by the learning environment as the teaching and learning programme needs to be suited to the space. Clearly how the space is used is critical to maximise the full potential of its impact on student outcomes. Students and parents also need support to understand the changes to teaching and learning and how flexible spaces support innovation.

It is clearly important for the teaching and learning programme to be suited to the space, however, the design of the curriculum can be varied, as seen in the schools I visited, and appropriate to the community, the school vision and values, and the future needs of their students.

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