

**Sabbatical report: Phil Tappenden, Kirkwood Intermediate School,
Term 3 2017.**

**Investigating change in school configuration and the use of
technologies in the classroom**

Acknowledgements:

I would like to thank the Board of Trustees of Kirkwood Intermediate for their support during the sabbatical. Thanks must also go to the selection panel for allowing me this opportunity. I would especially like to thank all the schools – Principals and teachers – who so kindly allowed me to visit and who so generously gave of their time and knowledge. For me, the opportunity to spend quality time talking with professionals only increased my admiration of our personnel in the education sector, both here and in Australia.

Executive Summary:

As Principal of Kirkwood Intermediate School, (Kirkwood) located in Riccarton, Christchurch, I have the opportunity to lead the school's refurbishment as part of the "Grow Waitaha" initiative following the 2010 and 2011 earthquakes.

Our school is a smaller intermediate with a roll of around 320. We have pupils from around 35 different schools join us at the beginning of Year 7, many of whom are leaving full primary schools at the end of Year 6, or who choose us rather than attend their local Year 7 – 13 high school. As a result we are seen as a school of choice, and as such our parents are very interested in any developments we may be proposing.

Therefore, my sabbatical was a time for reflection on the current developments in education – in particular the growth of Innovative Learning Environments, Modern Learning Environments, Flexible Learning Spaces, and the use of technology – in particular the use of Bring Your Own Device or Bring Your Own Technology (BYOT).

I remain unconvinced by the idea that one size will suit all, or that Kirkwood will be resourced to such a level – especially in footprint – to enable us to effectively develop a flexible learning environment that would suit our needs. I believe that BYOT may well be an answer to alleviate the shortfall in funding we have to provide enough devices for children, but also feel that we have a responsibility to ensure all children have fair and equitable access to the appropriate device.

The findings of my sabbatical will be discussed at school and community level, and eventually a plan to move forward will be established.

Purpose:

This sabbatical is structured in two parts. The first part is:

Explore how Modern Learning Environments link with pedagogy for successful teaching and learning of students in the Middle Years. In particular, I will consider various ways to remodel Kirkwood.

The second part of this sabbatical is:

Examine the use of digital technologies at the Intermediate – Middle School level. In particular, I will consider the use of teaching tools and BYOT programmes and their effectiveness in raising student achievement for all students.

Rationale and Background Information:

Over the past few years, there has been a real change in the way classrooms are physically developed, along with a change in furniture styles, and a growing dependency on Computers in various forms. This has been associated with the rise in schools asking parents to supply a device. Associated with this has been a call for “21st Century learning”.

This appears to be particularly so in Christchurch, where anecdotally one hears stories of schools having to adopt a particular style of teaching if they wish to have new buildings or refurbishments completed. After looking through a significant number of reports, theses, and books and speaking with a range of Principals, teachers, parents and educationalists, it does not seem to me that there is any clear and detailed evidence of these changes improving student learning outcomes. I hear through parents who send their children to Kirkwood a whole range of disaster stories.

They did not work for my three children hence moving them to Kirkwood from a full primary school. They had no sense of belonging and being so self directed/managed was not advantageous for their learning needs.

- Current parent

I am not in favour of the MLE environment. I found it was noisy, distracting and not ideal for kids that are easily distracted from the task at hand. My daughter, who is more focused than my son, said that while she was in that learning environment it was easy for kids to fly under the radar – take themselves off to a quiet place and use devices and go unnoticed for long periods of time

- Current parent

Moving onto the refurbishment cycle of our school redevelopment I have met with many people whose wish is for me to lead our school in a certain direction – a direction I have felt uncomfortable about and so this sabbatical provided a great opportunity for me to take time to investigate further. At more or less the same time, we are wondering which direction we should move with computers and the like. Up until this year we have tried to provide all equipment necessary, and this has necessitated us moving from laptops to chrome books, whilst other schools are focusing on iPads and tablets. Again, the time I have been granted has allowed for some further reading, some in-depth questioning, and possibly more confusion!

As I have indicated before, we are a school that depends on parents deciding, often in consultation with their children, to join our school. As such, the opinion of our parent community is vital to our continuing viability. I have given a parent survey, as well as a staff survey to try and elicit the thoughts of our school community. When I get back to school I will also survey our current students to get an understanding of student voice.

Activities undertaken:

During the period of my sabbatical I undertook four main areas of research. First I visited schools within New Zealand. I managed to visit a wide range of schools with a diverse set of modern learning environments, ranging from no shared spaces, through two classroom, three classroom, four classroom and 5 classroom spaces. At each school I spoke with the Principal, as well as those leading in the spaces, and with a range of pupils. I had constructed a simple set of questions, which I emailed prior to my visit, that asked general questions about the use of space and the pedagogy behind this, as well as looking at their use of technology. Second I visited schools in Australia, ranging from Primary to High School. The schools I chose had been identified as leading schools in their area. Again, the questionnaire was emailed first, and again I had the opportunity to not only look, but to discuss as well. Third I conducted a survey of parents and teachers at my school. Lastly I read – a lot! – especially looking at some Masters theses and work by Sir Ken Robinson and Robert J Marzano.

In all I visited over 20 schools which I feel has given an excellent overview of current practice. My parent survey had the highest response rate I have ever had for parent communication. I feel the work I have done has given me clear information and a direction for the school.

Findings:

From my school visits I have seen that there are some standard requirements for any change to buildings to work. First, there has to be a leader – not necessarily the Principal, but someone who has the support of the Principal and the knowledge and passion to push a change through. Second, the involvement of the parent community before changes are made seems to be essential. Third, there needs to be a group of interested teachers ready to take the lead. Fourth, there needs to be a clear vision – and this must be shared – as to what the school wants to achieve, why it wants to do this, and how the vision will be achieved. This is where the passionate driver comes in. Fifth, there needs to be significant staff professional development so that issues are covered before they become a problem. I frequently heard the comment that people were changing structure and pedagogy on the spur of the moment – there has been a dearth of planning and professional development available is what I have been told on many occasions. Lastly there need to be a lot – an awful lot – of communication with everyone involved. Issues such as the amount of time for co-operative planning, for sorting out personality issues, for moderation have been mentioned many times.

I found that I was expected to teach in an environment with multiple other teachers without any professional development. It really seemed as if we were making it up on the go. It was clear that we could not challenge the changes that were happening, we were just tasked with making them work without any guidance.

- Past teacher from an MLE environment

An interesting finding is that in each of the class arrangements I visited, the people involved were sure that their organisation – be it single cell, two class spaces or five – was the best fit for the intermediate middle school age child.

I so much enjoy working in this space with my four colleagues. I don't think we could do the things we are doing if we were in a smaller space.

- Lead teacher (5 teacher space)

In my research I came across some suggestions for why moving to an innovative learning environment is a good thing to do. Many people suggest that the industrial model of single cell classrooms with children at single desks no longer suits a 21st century education. I heard of student voice, authentic learning, collaboration, student agency and individual, personalised, learning as good reasons for transforming our education system. I did research as to why the precursor to our current change – open plan classrooms – did not work (having written this I am sure there are pockets of excellent practice still remaining from that time). Most researchers identify some key reasons for the demise of “Open Plan learning spaces”. Neil O'Reilly in his Masters thesis sums these up as

The demise of open plan schools was evidenced by the gradual rebuilding of walls and doors within the open plan spaces starting in the late 1970's and early 1980's (Brubaker, 1998). A number of factors led teachers and principals to wall up the spaces including rejection of the notion of child centred education, the complexity and lack of understanding of co-teaching, a lack of collaborative skills, teacher conflict, opposition to change, noise levels and perhaps most significantly, teacher lack of understanding and ownership of the approach. (Cuban 2004; Cameron and Robinson, 1986; Nair 2014; O'Neill 2004; Woolner, 2010). Further complicating the open plan era was the "top down" approach, where it was expected design and buildings would drive pedagogy, rather than a "bottom up" approach with teachers and school leaders driving the change and requesting spaces to meet pedagogical needs (Fisher 2005)

These difficulties still, in my mind exist, and I wonder that as our system develops, and the next big thing takes over, whether our current shared spaces will be consigned to a footnote in our educational history. Amongst my reading I came across a work by Margaret MacDonald entitled "Elwyn Richardson and the early world of creative education in New Zealand" (2016). This well written and researched book follows the life of a remarkable teacher and educator, Elwyn Richardson. It firmly reinforced for me my belief that there is very little new in education. In the early and mid years of last century, Richardson was effecting what we would now label as child centred, democratic education in his classrooms, both with the support of the Department of Education, and to the horror of some of his contemporaries who had quite different beliefs in the role of children in education. This book is well worth reading to see that some of the principles that we hold dear, and that can be used to formulate the basis for modern plan learning classrooms, have been a feature of forward thinking teachers and educators for many years, and can work effectively regardless of the physical confines of the space available.

I found visiting schools in Australia to be of enormous interest. I was able to visit a school in Brisbane that had been seen as a real leader in collaborative and open learning environments 15 or so years ago, but has now returned to a mainly single cell model of teaching. Talking with one of the senior management leaders, it seems that the step missing in their journey was having a shared vision right at the beginning and transferring that across the whole school. Another school I visited, a Primary school that had just been built, was designed to have co-operative teaching, with two classes working together. It had the benefit of really appropriately sized classrooms, with good breakout spaces. Starting a school specifically designed in this way meant the staff had all bought in to the idea, and also the community also knew exactly what was happening. A third school I visited in Adelaide had a two teacher space which looked really inviting, light, airy and sunny, with attractive furniture. There were sliding doors between the two classrooms which were closed when we visited. The teacher showing us around explained the furniture had been chosen specifically so that the pupils wouldn't just face the front of the classroom, but would be prompted into working

collaboratively, in small group settings. In the adjacent classroom, the pupils had re-aligned the furniture so that they were sitting in rows facing the front of the classroom as the teacher was sharing something on the whiteboard – perhaps a case on intentions and practice not marrying up? More likely, the pupils were given permission to move the furniture to suit the needs of the lesson, and having some control over their classroom environment allowed this.

Probably the most interesting part of my sabbatical was my parent and teacher survey. As mentioned before we are very much a “school of choice’ with over 75% of our pupils coming from outside what the Ministry of Education calls our “catchment area”. From our 79 replies, **60 came from parents who had chosen to remove their children from a “modern learning environment”** to come to a school that has single cell classrooms. They gave a number of reasons with the most common ones being along the lines of the classrooms being too noisy, with too many distractions, as well as not suiting their child’s learning styles, having no evidence of improved student learning outcomes, and a general feeling of having a model of teaching and learning foisted upon them, without due and full consultation. (see table 1 below)

Table 1: Frequency of parent comments (first 6)

Parent comment	Number of times mentioned
I don't like the modern learning environment	29
Too many distractions	20
Noisy	15
Kids fly under the radar	14
Kids need more structure	14
Furniture and Posture	10

As part of my research I also surveyed the existing staff at Kirkwood as to their feelings. Like, I imagine, many schools in New Zealand we have heard much about the changes in classroom design, but we have not spent time looking in depth at what these mean, why the change, and what happens in the range of environments available. Some of my staff have worked in Modern Learning Spaces, but most have based their thoughts on talking with other teachers, talking with pupils and their parents, and reading available material. As one might suspect, we had a range of responses. In general those who had taught in such an environment either liked it or hated it. Issues such as workload, time commitments, lack of PD, lack of parent consultation, lack of a clear vision, and a sense that there was not such a deep development of positive relationships, gave a negative image. Those who supported the concept talked about sharing workload, about giving pupils more freedom to follow their interests, developing a positive climate. When asked whether they would like to work in a different way, the general consensus was that staff were open to new ideas, but wanted to retain their own group of children, and their own space, but would value

more space being available for collaborative projects, and more break out spaces so that children could be engaged in different activities at the same time. Mention was made of those children who staff thought would not cope in an open learning environment and the difficulties those with disabilities may face.

Just because I don't approve of the way MLE's are being implemented at the moment, doesn't mean that I don't think learning environments could be modernised or improved. I'm not exactly sure what this may look like but I would love to have a bigger space than I have currently. A break out space with glass walls would be amazing.

- *Current staff member*

One of the more interesting readings I have looked at recently was the results of a survey by the University of Canterbury who were looking into perceptions of modern learning environments. Again, I find it interesting that people are identifying as difficulties things that were identified 40 years ago as problems with open plan learning. A questionnaire formed a part of their research project, entitled "What is happening to promote effective teaching and learning for all learners in co-teaching in the flexible learning spaces in New Zealand". The questionnaire received 335 responses, from 151 principals, 108 teachers, a further 70 teachers being in middle management roles, and 6 in other roles within a school. This questionnaire saw "over all positive responses", along with a "clear influence of experience on these views". In other words, if you were working in this kind of environment, and had had access to Professional development, you were more likely to be supportive of these environments. Interestingly also, the questionnaire identified a higher rate of return from higher decile schools, than from lower decile, and 50% of responders were from schools with over 70% of the roll being comprised of New Zealand European pupils. The questionnaire identified challenges in the development of modern learning environments including:

- difficulty changing practice if there is the perception of losing control;
- being confronting when others watch your practice;
- fear of the unknown, anxiety and individual teacher beliefs;
- mismatch of teachers with different and dominant personalities;
- disparate mindsets; time available for teachers to get to know each other;
- limited professional development opportunities;
- teacher's being told to change rather than being a part of the change;
- lack of adequate professional development for principals to lead the change;
- Building effective relationships, and the time needed to do this;
- not knowing the learners as well as you would in a single cell environment and the effect this has not only on learning, but on reporting to parents/caregivers;
- pupils not having the skills to work in such an environment;
- parents needing to be on board with all the developments (especially the sceptical ones);

- concerns over students being lost in large groups;
- lack of resources (laptops etc) especially in low income areas;
- lack of research that confirms the superiority of this type of environment;
- a desire for the pace of change to slow to allow time to research, plan and set up systems; and
- resourcing and support from the Ministry of Education – particularly with community consultation.

An interesting quote from this study is “*The belief was expressed that co-teaching and flexible learning spaces are not what makes learning work and are at best part of a range of strategies teachers and schools might use to support better quality teaching and learning*” (p4). To me this highlights a major concern. I believe some may be looking at environments as the panacea for a range of perceived problems in the education system. Rather, I believe we should be looking more clearly at pedagogy, and at what actually is working and building on that. It seems clear to me that the focus of schools should be on positive relationships across the school, high expectations (both behaviour and achievement) at each pupil’s level, highly skilled and highly trained teachers, and a curriculum that suits the needs of the pupils. Buildings may enhance, but will not teach.

In the area of Technology, I have seen a range of tools being used in various ways. Often these tools are being used for accessing the internet for research, for emails and for recording through the likes of google docs. At times, pupils are using these tools to access the curriculum at home – along the “flipped classroom” line, where pupils are encouraged to learn at home, and then share their learning, and implement their learning collaboratively at school. This does put a large emphasis on the need for all pupils to have equal access to resources such as devices and access to the internet. It may also allow differences in parental willingness to assist affect school performance

Many of the schools I visited use technology for part of the day – generally up to 50% of the day. Exercise books are still frequently used, and there is still merit seen in developing a hand writing style.

The range of devices seems to vary by the economic ability of the parents. One school I visited used solely Mac Air Books, with the pupils being advised to update every three years. No provision was made for children who could not afford these, rather they were a requirement. Most schools however, used multi platforms. Chrome books seemed to be the technology of choice – especially when provided by the school. Many schools asked children to bring their own technology but had back ups for those who could not afford them, or for those who forgot or had broken theirs. Talking with teachers, most would prefer technology with more grunt than a chrome book, but realised this was not fiscally sensible.

In my survey of our parents it was clear that many (around 50%) would be prepared to purchase a device for their children. However, they were clear that they would only do so if the school specified which device, if the device would then be able to be used at high school, if the school would ensure identical devices were available for those children who could not afford to buy their own, and if the school would ensure the devices were used enough, but not too much. Social inequity really concerned our parents, and I do understand why.

Implications:

As discussed earlier, Kirkwood is on the cusp of change. We need to decide what kind of teaching model best suits our pedagogy and the wishes of our community – staff, parents, children and the wider family that makes Kirkwood what it is. Our second area of change needs to be a clear plan for future development in Information Technology.

It was not the purpose of this report to make the final decisions on these issues, rather it should be a starting point in developing our future plans. It is clear to me however, that the current community does not see great value in barn-like learning environments. To be able to develop flexible learning spaces which make the most of our current practice, and allows for future development in collaborative practice would seem to make sense. However it is clear that there is no space within our current footprint to enable this, and no opportunity to add the space needed to make this a success. With Information technology, it seems that our community is keen for us to continue to move towards more use of computer type devices, as long as they are not used exclusively, and as long as all pupils have equitable access. The community seems clear that all children should be given equal opportunities.

Conclusions:

This sabbatical has given me time to reflect on a range of current practice, and time to talk with practitioners in New Zealand and Australia. It is clear to me that the kind of shift that is happening to education in New Zealand will not be sustainable unless key criteria are met. I remain doubtful of the worthiness of the move to MLE, ILE or FLS as there remains no solid evidence of improved student learning outcomes, rather a lot of anecdotal stories of oppressive workloads, potentially harmful relationship conflicts, a lack of direction, and an overwhelming lack of support. I fear that the experimentation being implemented in our education system is unsustainable, and eventually will be seen to be a step too far. It seems on later reflection that others feel similarly. Of interest is the article recently from the PPTA questioning the effectiveness of recent changes, and the recent challenges that face Cathedral Grammar as they seek to implement more modern teaching practices.

However, there does seem to be a middle way. In all of my research, I did find some schooling structures that I think could well work at most schools. If you start, as I did, from the basis that at the Year 7 – 10 level, relationships between children and one main teacher are paramount, and if you then believe, as I do, that children benefit from having one person who knows them in detail, knows their background, knows their family/whānau, and knows their academic ability and needs, and then you add opportunities for flexible learning spaces, I do believe that you could have a system that would help learners, whilst continuing to support and value teachers. The only difficulty with this is that in a state school, there is not the funding to provide spaces that are flexible enough, with a sufficient footprint. I look with admiration at the learning environment provided by Medbury Preparatory School for Boys in Christchurch, where the principal has clearly established the very best of both worlds, and regret that this could never be achieved at a state school.

The use of Technology continues to be a source of concern. I can clearly see how technology can enhance teaching and learning. I have seen some outstanding examples of where technology has supported learning programmes and has had a positive effect on a teacher's life. The TELA laptops for teacher's scheme has been a real success in allowing teachers to become familiar with the use of laptops in schools. I think we now need to have clear direction from the Ministry as to how to further develop this within schools. It is not good enough, in my opinion, to expect parents, caregivers or whānau, to supply a device for their children. Funnily enough, in many low decile schools, there is much financial support from the community to allow pupils to have devices, but in many medium and high decile schools there is an expectation that parents will be able to fund these. When we live in a time where the Ministry is saying that schools need to be very mindful of the Education Act when charging for materials, it seems inconsistent that the Ministry is allowing BYOT or BYOD to become a feature of so many schools.

I believe that as a state school it is our obligation to provide devices for children to use. The difficulty remains choosing which device. This is an area that needs further exploration, but the onus I believe remains on each school to provide the devices needed to access the curriculum, and to be mindful of what devices children will be likely to use in later life. A multi-device platform, whilst expensive and difficult to maintain, may well be the best answer.

In conclusion, I believe that this sabbatical has given me a tremendous opportunity to look into areas of current interest to our school. It has also reminded me of the saying, and I am not sure who to attribute this to, that, in education, everything works somewhere, but nothing works everywhere.

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