

Effective Teaching and Learning Environments Report on Sabbatical 2 May – 8 July 2016

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Acknowledgements

Thank you to everyone involved in supporting principals' sabbaticals – they are invaluable. In particular, for this sabbatical, thank you especially to:

- The Ministry of Education for providing principal sabbaticals
- Onehunga High School students, staff and board – especially Gareth Leadbeater and Michelle Heather, who did my job as well as theirs in Term Two!
- Donna and Bruce Aitken, huge supporters and alumni of Onehunga High School
- David Ellery, Principal of Somerville Intermediate
- Kieu Vo, President of International College of Holistic Studies, Q International School and International Education Management Group Inc.
- Staff and students of High Tech High
- Terri Devine, Dean of College Counselling, Francis Parker School
- Brian Murphy, Director of Financial Assistance and Enrolment Management, La Jolla Country Day School
- Mark Wilson, Principal of Cashmere High School, whose sabbatical report (referenced in the links section) is an extremely well researched guide

Executive Summary

School design and best practice models of teaching and learning have been the subject of much consideration in New Zealand in recent years. Having read widely and now, having visited a range of schools with innovative learning environments serving diverse communities, we are agreed that **transparency** and **flexibility** are our fundamental design principles.

We appreciate the connection between teaching, learning, and environmental design principles. Inclusivity, collaboration, collegiality and honesty are key features of our school community; the design principle of **transparency** supports these. Innovation, and an appreciation that best practice is continually evolving, means that **flexibility** is a requirement of effective school design.

Greater use of glass rather than the more traditional opaque walls, as well as greater flexibility of space/s - including the ability to teach in a single class environment - are key to an improved environment for teaching and learning.

At the 2015 SPANZ conference, Dr Richard Elmore spoke of the “move from the accumulation and investment model of education to one that involves creativity, flexibility and innovation.” This sounds right to us – it is not now a new concept, and neither are our findings. What has been rewarding, is to confirm these views and extend them through others’ experience. Thank you all.

Purpose

The purpose of my sabbatical was to investigate environmental design and best practice models of teaching and learning in order that Onehunga High School successfully transitions from our current traditional physical school environment into a mixed model, comprising significant new build alongside many of the current school buildings, which are typical of those built in the 1950s and 1960s.

The Ministry of Education’s publication entitled The New Zealand School Property Strategy 2011-2021, states "It is widely recognised that school environments influence student learning and teaching practice. Therefore, we need schools that have appropriate physical infrastructure, ICT and environments that support the learning needs of all students." The Strategy further states "Principals and school boards of trustees, as the custodians of schools, will follow Ministry standards and guidelines to ensure their property ... supports the delivery of education by meeting the learning needs of the community in which their school is located." We are committed to researching and learning from others, in order to ensure that we afford our students effective teaching and learning, in an environment that is best suited to their needs, in order to maximise achievement.

Note: This brief report is of a general nature. Much of our learning has been in the detail of what is appropriate for our school community and on our site, and is not relevant or appropriate to publish. Rather, it will be used in our planning throughout the coming years.

Background

We have been working for many years towards a higher quality learning environment. Cabinet approved replacement of our original teaching block in 2013 and subsequently we have been working with project teams of architects, project managers and Ministry of Education personnel, to plan the redevelopment of much of our school site into an innovative learning environment.

We have read widely of the available material about learning environments and practices, and we have earlier visited and learned from staff and students at a number of other schools, including:

- Albany Senior High School
- Botany Downs Secondary College
- Hobsonville Point Secondary School
- Lynfield College
- Macleans College
- Ormiston Senior College
- Stonefields School

Discussions with teachers, students, architects and project managers, as well as observations in these learning environments, have been valuable. We are grateful for the generous time afforded us in each. However, we all serve unique communities, and each of these schools serves a different community to that of Onehunga High. Further, the schools that have been most recently built anew, are nowhere near capacity. We were keen to extend our understanding, and to observe and discuss learning practices in environments that closely align with Onehunga High School.

At the time of application and notification of my sabbatical proposal last year, we were fully involved in master planning as noted in the first paragraph of this section. Subsequently, along with many other schools, our plans have been put on hold by MoE. This meant that part of my original proposal about who was to be involved in this project, necessarily changed. Suffice to say, we are sufficiently far along with this work, that much of our thinking about what we do not want, had been done. So this sabbatical was happily engaged, mostly, in considering the possibilities that exist ...

I was first introduced to High Tech High when attending the 2015 SPANZ conference, at which Dr Richard Elmore was a keynote speaker. Dr Elmore's address was entitled "Designing Learning Environments for Inquiry, Innovation and Creativity" and he spoke to the question "How do we create more expansive models of learning?" I was fascinated with his descriptions of High Tech High, and talking with him further, learned that these schools are multi-cultural and at capacity. High Tech High's website reads:

High Tech High operates thirteen schools in San Diego County: four elementary schools, four middle schools, and five high schools. All of these schools serve a diverse, lottery-selected student population; all embody the High Tech High design principles of personalization, adult world connection, common intellectual mission, and teacher as designer.

We were fortunate to be introduced to Kieu Vo through a mutual friend and colleague. Kieu hosted us most generously in San Diego and gave us considerable time and energy in referring us to schools that met our criteria, including her own schools, and sharing her extensive understanding and experience of pedagogy and design.

Methodology

- Continue to read and research relevant literature, and engage in professional discussion
- Visit schools serving a diverse range of communities that incorporate effective practice in innovative learning environments, and talk and reflect with key staff and students. Schools visited:
 - High Tech High – we visited all seven schools on the San Diego site:
 - High Tech High
 - High Tech High International
 - High Tech High Media Arts
 - High Tech Middle
 - High Tech Middle Media Arts
 - High Tech Elementary
 - High Tech Elementary Explorer
 - The Rock Academy, San Diego
 - High Tech High Chula Vista in Chula Vista, California
 - Francis Parker School, San Diego
 - La Jolla Country Day School, San Diego
 - International College of Holistic Studies, San Diego
 - Q International School, San Diego
 - Somerville Intermediate, Manukau City

Findings and Implications – major and minor

As I understand it, from speaking with MoE representatives:

- it is acknowledged that different sectors have different needs
- the “bottom lines” for building include, as much as possible, non-load bearing internal walls to allow for flexibility and future proofing for different pedagogies
- priorities include acoustic, lighting, ventilation and heating considerations
- flexible spaces do not necessarily mean barns

Key ideas and features for us, many reinforcing previous experience, are:

- High ceilings so the eye soars, representing achievement potential

- Transparency of (nearly) **everything** including offices of all staff and all classrooms so that:
 - Teaching staff offices look onto common spaces e.g. corridors
 - Non-teaching staff are visible and accessible, at reception points and throughout buildings



- Flexible spaces - but not as flexible as some have proposed. Again quoting Dr Richard Elmore: “wise design has to be flexible enough to accommodate your mistakes ...” We agree. Of the people in the hundreds of classes we saw during Term Two, only one person ventured that the movable wall separating the (albeit relatively transparent) single cell class environment from others, was regularly open.

Every other person more routinely worked in single cell environments as a norm, with opportunities to mix this up with break out spaces, moving a wall etc. on occasion. The transparency of these single cell spaces opened up the ability to do this safely, most easily with a common space adjacent to, and shared between, several classes. Spaces to collaborate were universally appreciated e.g. At La Jolla Country Day School, the Director of Design and Innovation said “Our collaborative space allows students to think together, work as a team and innovate far beyond what one individual can do on his or her own.”

An effective design which was repeated throughout High Tech High in various representations, is illustrated in the following graphic:

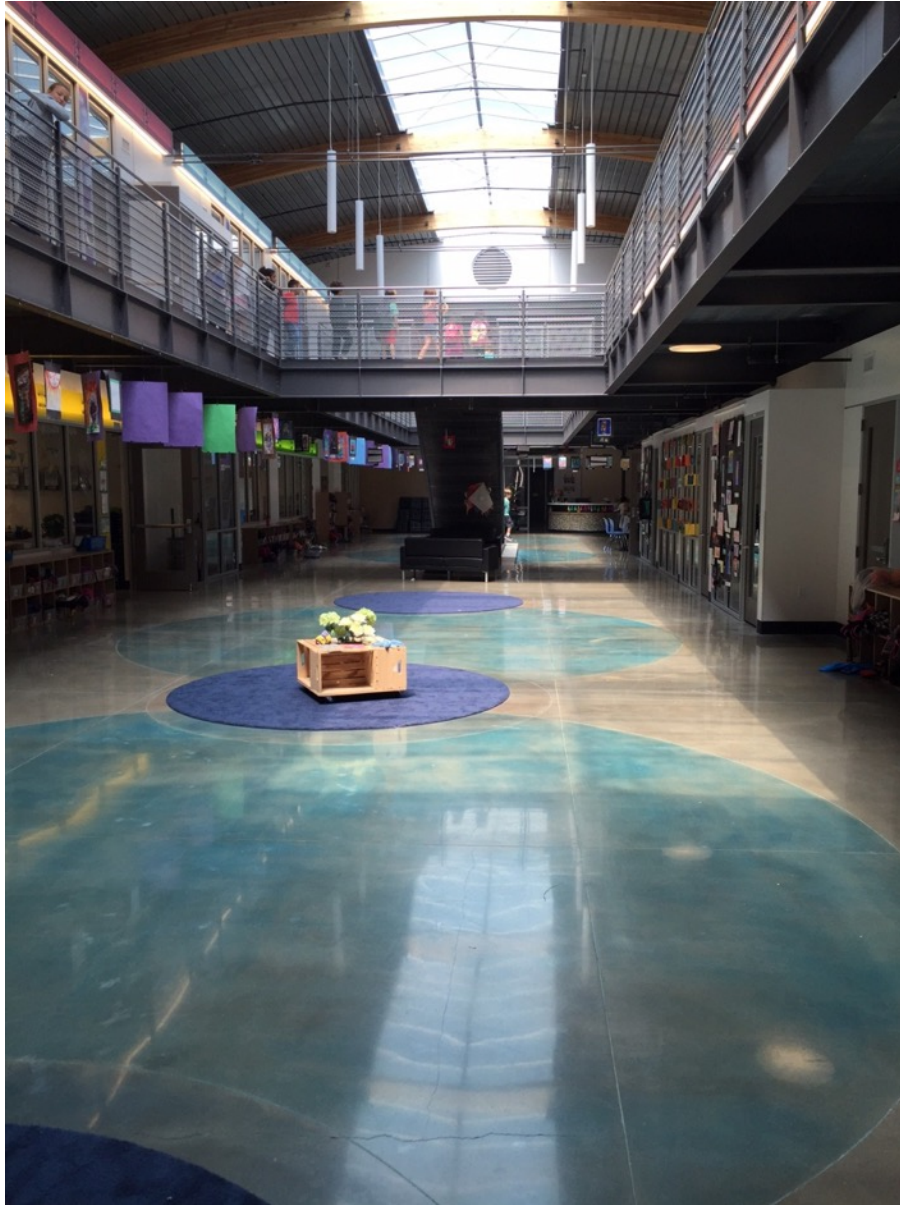


- Outdoor sitting/gathering/eating areas – a variety of different spaces

- Make explicit connections e.g. collaborative projects between Art and Science, Science and Technology faculties. In general, students were positive about a project based approach to teaching and learning but they were also clear that insufficient differentiation is a source of significant ongoing frustration with this approach as the main, or only, mode of teaching and learning



- KISS – minimalism in terms of décor/furniture/fittings, maximising the use of spaces



- Inexpensive possibilities include (painted) concrete floors, attractive student work, information displays etc. which then enables more money to be allocated to the purchase of quality furniture and fittings



- Student work displayed in common areas - quality work, presented in a quality manner, for all to appreciate, enjoy and/or aspire to



- Use colour/light well for impact/effect



- Whiteboard walls and/or desks are especially useful for innovation and creativity
- Develop exterior walkways/corridors that are not perfectly straight, creating interest and an invitation to sit and/or collaborate
- Utilise garage doors in rooms - especially those with equipment and/or practical components e.g. visual art, design technology - to extend and potentially vary the learning/working environment
- Consider an exhibition hall or gallery as a space for displaying student work, art collections, holding exhibitions/functions. This would be over and above MoE funding, but is a project worth considering as the design of the build could be simple and may be attainable through in-house capabilities and community support.



Conclusions

Paul Porteous, in his keynote address to the 2015 SPANZ conference, talked about “best current solutions”. This concept resonates and is a reminder to retain the things that work, while enabling flexibility to change and adapt to better models, as they develop over time.

As always, the driver is student learning and achievement. Kim Shannon offered the following comment at a meeting I attended “If you have a good learning philosophy, you have a right to build spaces accordingly.”

Through every step of our master planning, we are mindful of our wonderfully diverse community and beautiful, unique site. Situated on a hill overlooking the Manukau Harbour, we have the potential to develop a school with as much environmental character as we do cultural capital. This is our vision and our challenge, and we are up for it!

Useful links include:

<http://www.education.govt.nz/assets/Documents/Primary-Secondary/Property/SchoolPropertyStrategy201121.pdf>

<http://www.education.govt.nz/school/property/state-schools/design-standards/flexible-learning-spaces/>

<http://elearning.tki.org.nz/Teaching/Innovative-learning-environments>

[file:///N:/Mark%20Wilson%20Sabbatical%20Report%202015%20-%20Investigating%20the%20Effectiveness%20of%20Modern%20Learning%20Environments%20%20\(4\).pdf](file:///N:/Mark%20Wilson%20Sabbatical%20Report%202015%20-%20Investigating%20the%20Effectiveness%20of%20Modern%20Learning%20Environments%20%20(4).pdf)

<http://www.stuff.co.nz/national/education/73042309/Top-schools-give-multi-million-dollar-classrooms-a-fail-grade?cid=app-iPhone>

<http://www.hightechhigh.org/>

<http://www.ljcds.org/>

<http://www.francisparker.org/>