Sabbatical Report

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2015

Professional learning activity

To explore *the most effective use* of budgeted expenditure on furniture, fittings, equipment and resources for Modern Learning Environment spaces within New Zealand Primary schools, (specifically in general classroom use, years 5 – 8), in order to maximise the benefits of the MLE spaces and effect positive outcomes for student achievement, in particular Maori, Pasifika and students with special needs or those at risk of not achieving national standards (the target group).

Purpose of sabbatical

The professional learning undertaken will be the investigation and exploration on the most effective use of budgeted resource expenditure (including extra staffing where applicable) in relation to the furniture, fittings, equipment and resources for MLE catering specifically for years 5 – 8 and the impact of such on learning for the target group.

This professional learning will include visits to five full primary schools (where years 5 – 8 are utilising the space for general curriculum delivery) in New Zealand.

During the visit, to record and photograph the school's provisions within the MLE with regards to furniture, fittings and equipment available to the spaces. At the commencement of each visit, to identify with the teacher(s) those students within the classroom who meet the target group for this sabbatical.

Observe and note how the furniture, fittings, equipment and resources (including extra staffing where applicable) are utilised during core curriculum delivery by the target group, and to meet with key staff, Principal/Senior Managers to determine an understanding of initial expenditure and ongoing costs in relation to the capital expenditure and resources for these areas.

Investigate any specific expenditure on furniture, fittings, equipment and resources purchased by each school in order to specifically meet the needs of the target group, and to conduct own observation as well as obtain the teacher's/management perspective on the effectiveness of these.

Conduct (where possible) student and teacher/Principal interviews to gain their perspective as to what they consider to be the most effective provision within the MLE (including reasoning) in relation to achieving a fully inclusive environment.

Collate and develop a report from the findings detailing the most effective use of resource expenditure (including extra staffing where applicable) to achieve a fully inclusive environment within the MLE for the target group.

To make the report available to Principals and Boards of Trustees through TeachNZ website for their use in order to identify effective expenditure on furniture, fittings, equipment and resources (including extra staffing where applicable) that impact positively on student achievement for those within the target group.

To present the report to the Board of Trustees of Sandspit Road School, along with recommendations for future budget provisions in relation to resources and additional staffing provisions (if any) in terms of the fit out of the new Modern Learning Environment building due to be completed at Sandspit Road School, end of 2015.

New Zealand research articles tend to focus on the best practice of design rather than the best practice of use. The 2004 AC Nielson report available on the MOE website is an opinion poll reporting on how teachers/students consider the impact of the learning environment on learning outcomes, prior to utilisation. Recent sabbatical research available in New Zealand has had a focus on either leadership of MLEs, Design of MLEs (architecture rather than utilisation of space), and 21st Century Learning philosophy. There is no current literature relevant to the New Zealand education system detailing the effective use of budgeted expenditure for resourcing the MLE spaces, specific to the target group.

The aim of this sabbatical is to explore *the effective use* of the furniture, fittings, equipment and resources within the MLE spaces, by the target group, in order to identify most effective capital expenditure and to maximise the benefit of such. Further, for that information to be specific to the New Zealand culture and educational system.

Methodology

At each of the schools visited I undertook an initial discussion with the principal to ascertain the rationale and pedagogy that underpinned the decision that were made when purchasing furniture, fitting and equipment for their modern learning environments.

Following the initial discussions each principal conducted me on a tour of their school giving me a general overview of how their schools and various areas were organised.

After the tour I then spent time in the teaching spaces observing how the students worked in that space, how they used the supplied furniture, fitting and equipment and how the use of these affected their learning. Particular attention was given to how students from the target group operated within the teaching space.

During the observation period I recorded the furniture, fitting and equipment being used and conducted interviews with students about their experiences in using the furniture, fittings and equipment supplied.

After spending time in the teaching spaces I concluded by school visit with a final discussion with the principal of the school to seek any additional clarification and information.

School A

School A is a full primary school in a rural service centre community.

The Year Seven and Eight area of the school had been developed into a modern learning environment by removing the walls between three older classrooms. The space created was divided and used as a quiet space, group co-operative space and a creative space. Approximately eighty students were working in the space with three teachers.

The school had been working with a Modern Learning Pedagogy for at least three years within the Year Seven and Eight area of the school.

Within the Year Five and Six area of the school the pedagogy was similar. In this area of the school the students were working in a more closed environment. The school has plans to remove several walls in this area so that the spaces become more open and therefore more flexible in the way the space could be used.

In order for the modern learning pedagogy to operate effectively the teaching teams needed to have a shared teaching philosophy and professional trust in one another. Considerable time was allocated for the teams to discuss their programmes and planning. Use of Google Docs was extensive and shared with students and parents

Students in the Year Seven and Eight area of the school were working with a variety of devices either as part of the BYOD programme or with school supplied chrome books. All students were working with a device. All work except for Mathematics was done on the device.

Each student developed their own daily and weekly schedule. Group meeting times were initially scheduled and then students were responsible for allocating time to complete their expected learning objectives for the week. Time was allocated on a Monday morning for students to set up their programme for the week.

Student learning was also shared with parents as each child shared their personal blog with their parents.

Students requiring additional assistance were able to book in conference time or to book in workshop time with their teacher. There was choice about which teacher they booked in with as different students related better in some cases to one teacher over another.

Decisions regarding furniture, fittings and equipment had been based on flexibility and the need to provide a variety to suit differing learning styles.

Quiet Space

Within the "Quiet Space" students were expected to work silently and the furniture supplied in this space provided students with the opportunity to work in cave spaces, individually or alongside other students. A homemade swinging space was also within this area.

Cave space created with tent (foreground) net curtains (background)

Home made swinging chair made from mussel net float. Students commented that this was one of the most popular places to work quietly.

Cave spaces and group seating in quiet space.

Individual seating in quiet space. Jelly bean seats used extensively.
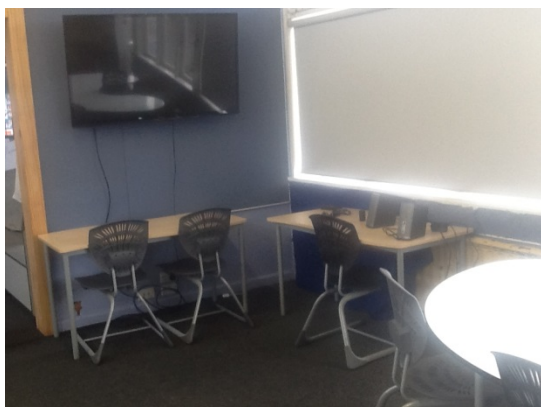
Cooperative space

Within the "Cooperative Space" groups meet with their teachers or worked with others on collaborative tasks. Furniture was arranged around a variety of tables so groups of various sizes could meet. Furniture within this space was regularly moved depending on group size and the task being undertaken. Students were responsible for deciding where they would meet with their teachers within this space. Teachers moved from space to space depending on where the group had decided to work. Within the space teachers were also conferencing with individual students.

Group seating (top left)

Teacher/students conferencing (top right)

Collaboration (front)

Cooperative space within middle space.

Cooperative space created within previous corridor space.

Creative Space

In the "Creative Space" activities like art were carried out. The furniture was arranged so students could work at a range of heights depending on their preferences.

Creative space with students working at a range of heights, dependent on personal preference and activity being undertaken.

Much of the furniture supplied by the school had been sourced through Furnware. Students expressed their preference for the Furnware seating as there was flexibility in the seat and back so these parts of the chairs moved and were comfortable to sit at. A range of different sized seating was provided to match a variety of table sizes.

The range of soft furnishing was also supplied by Furnware and chosen for flexibility of use and ease of movement. It was also noted by the school that the supplier was able to adapt its range of soft furnishing to incorporate the schools requirements such as including additional storage within the furniture.

Additional tote tray storage incorporated at school's request.

Summary School A

The Modern Learning Environment at school A is being driven by a pedagogical basis rather than the physical environment. The physical environment, furniture, fittings and equipment worked to support the pedagogy. Students demonstrated high levels of independence and self-management and were able to use the different spaces provided for different purposes. The flexibility of furniture meant they could redesign their working space dependent on the activity.

Students within the target groups expressed an appreciation of the ability to work collaboratively when they needed to or to be able to work independently if they chose to. Within this environment a student with special needs was able to be supported to self-manage their own learning with the support of additional staffing. They were however still very much in control of their own learning and time management.

Considerable work had been done by the staff and students developing a respectful working environment and what it meant to be part of the learning community. It was through these discussions that expectations of noise, on task learning and personal responsibility for learning were reinforced. Relationship building was also an important focus for the whole learning community.

Staff were not anchored to one part of the learning space but moved to work with groups to spaces that the group collectively decided was the best place for the purpose.

There was a high level of trust both on the students to meet their learning expectations and between the staff on how they operated at a teaching team. Students were able to book themselves out of the immediate spaces if they needed to work in another space within the school such as the library or outside if they needed to take a short break from their learning.

When purchasing furniture the feeling was the "less was more". There was no need to supply one chair and one table space per child and that as long as the furniture supplied was flexible in its use then the students were able to decide how and when to use different furniture depending on the activity.

Students noted that everyone had their preferred working space- be that on the jelly bean seats, bean bags, high tables of kneelers. They appreciated the fact that they had options and that there was flexibility in how and when the furniture was used.

At School A modern teaching pedagogy drives the modern learning environment within a modified traditional classroom space.

School B

School B is a rebuilt school on a new school site. The school has been built in several stages with the last stage currently under construction. The current new school has been relocated from the previous school site. The school is a full primary school.

The construction consists of two storey buildings. On each storey of each block there are two to three individual teaching spaces linked by a connecting shared space towards the front of the building, a walkthrough space shared between two teaching spaces and teachers shared office space in the rear that also connects with two teaching spaces.

The majority of the classes in the new blocks were operating more closely to a "single cell" pedagogy with the shared spaces being predominately used for breakout spaces for students. Some evidence of modern learning furniture was evident but predominately the furniture on display was more traditional desks and chairs or group tables and chairs.

Three, Year Four and Five classes had not yet moved into the yet to be completed new teaching area and were currently working in several joined relocatable classrooms. These teachers and students were working with a modern learning pedagogy. Three teachers shared the learning areas with approximately eighty students.

The school had purchased furniture, fittings and equipment from Furnware. The decision to purchase through Furnware had been made based on the research that Furnware had done to ensure that its furniture meet the physical and postural needs of students. Management of the school noted that while the Furnware products were more expensive that other suppliers they felt that the Furnware produces had a longer life.

Furnware "caterpillar" tables used to vary the shape and size of work space. Note that the chairs are not the Furnware product as these classes have not yet moved into the new building so are currently using older furniture from the previous school.

"Caterpillar" tables arranged in different formations.

Furnware "lily pads".

Summary School B

At School B a modern learning physical environment had been provided but in most areas there was traditional "single cell" pedagogy being applied. The school is slowly transitioning towards applying the modern learning pedagogy with several teams of teachers beginning to discuss how they can use the provided space in a more flexible manner.

In the Year Four and Five classes where the teachers were applying modern learning pedagogy they were using the space and furniture to provide flexibility for their students. In this space students were using their furniture and rearranging it to suit different purposes as required.

Students in the Year Four and Five classes expressed that they enjoyed the opportunity to work in different spaces and to have the choice about how they used the furniture and fittings dependent on the task assigned.

Teachers in the Year Four and Five area also expressed that their students fully used all of the furniture supplied and that different students certainly had their preferred furniture that they tended to use. They commented that their students made regular use of floor space and liked to use the "lily pads" and low bench tables. They also commented that there was no need to have one chair and one table for each child as this not only took up considerable space in the teaching space but only a few of their students had a preference for using them on a regular basis.

School C

School C was a brand new school constructed in a new housing area. The school consists of an number of innovative learning spaces both single level and double story. Prior to establishing the new school the Principal and senior management team had the opportunity to design the buildings and were able to employ staff who were open to working in a collaborative learning environment. They were able to view what other new schools had done and had the opportunity to view the different types of furniture that other similar schools both in New Zealand and overseas had utilised.

To support the idea of collaboration teachers coming into the innovative teaching spaces were told not to bring any resources with them as the thinking was that these would be co-constructed by the team and eventually with the students. The focus was very much on "We not Me" and "we go not ego". Teachers did not have their own Desk or designated space as this allowed greater flexibility in how the spaces were used and assisted in encouraging the "our space" concept.

In terms of furniture there was very much a focus on less furniture rather than filling the spaces and providing one space per student.

The furniture was sourced from Furnware as if was felt they offered better after sales support as well as a quality product that met the needs of the school. There was some issues over bean bags and their tendency to pop when the older students flopped down into them so more durable furnishing such as cubes were purchased. There were still a number of bean bags being used but as they wore out they were not replaced.

Bean bags were still in use but replaced with cubes and stools as they wore out.

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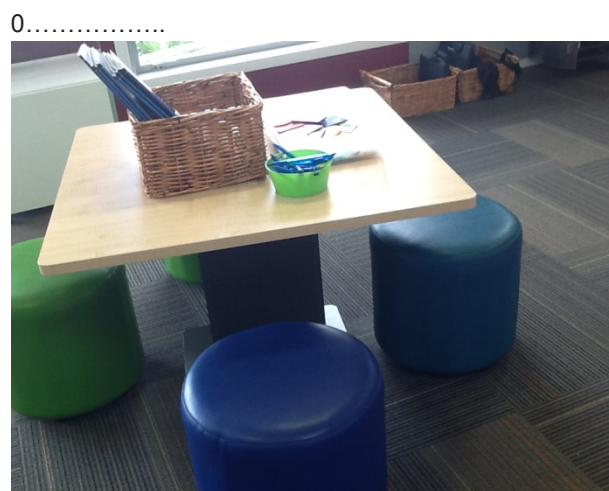
Tables

A range of different shaped tables were used throughout the innovative learning spaces and they were arranged in different formats depending on the use at the time and activity being undertaken by the students.

Soft Furnishing

A range of soft furnishings including ottomans, sofas and seats were used and arranged in a variety of ways. Students were able to arrange this furniture as they felt they needed to depending on their activity at the time.

Mobile Teaching station

Mobile teaching stations with in build digital screens assisted the mobility of teachers to teach in the most appropriate space rather than having that dictated by having a fixed screen.
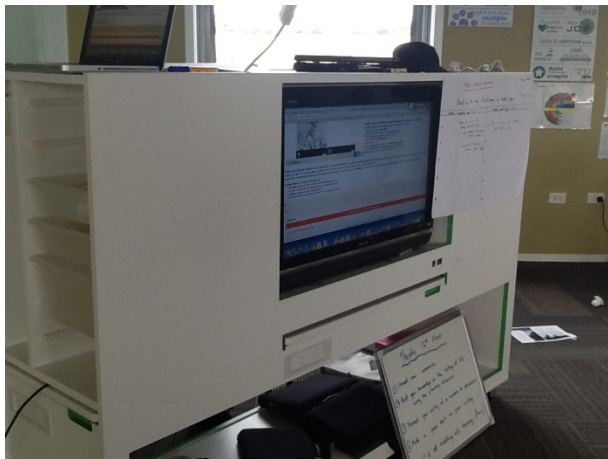
School C Summary

School C were fortunate in being able to have a considerable lead in time to develop a real plan into how their buildings would reflect Innovative learning spaces and how the furniture purchased would assist in collaborative teaching and learning.

The use of one to one digital devises ensured that students and teachers were less anchored to one space and allowed for greater flexibility in where students worked.

The flexible use of the furniture both hard and soft, mobile teaching stations and philosophy of no ownership of individual spaces ensured that the space used was constantly being rearranged and utilised to ensure flexibility.

The students reported that they enjoyed the opportunity to move furniture to work collaboratively or if they wanted to work in isolation the furniture allowed them this opportunity as well.

School D

School D was a new school resulting from the moving an existing school from its previous country site to a new subdivision. The formation of the school required two communities – one from the former rural school and one from the new subdivision to come together to form the new school.

The principal had the challenge of pulling together these two diverse communities with different ideas about school into the new innovative learning spaces. One community were used to a traditional learning environment and the other were buying into the new development with the understanding that there would be a new school featuring innovative learning spaces.

Administration Area

In line with the open working environment the administration areas were flexible in their use and doors were only closed when privacy was required. The Deputy Principals and Principal shared their working space.

Tables

A range of table shapes, sizes and heights were used to create flexibility and versatility. Chairs were chosen to match the heights of the tables and so they to could be used in a versatile manner.

Soft Furnishings

Different types of soft furnishings were purchased and distributed throughout the innovative teaching spaces. The students were abl to move these throughout the space according to need and purpose.

Unique Furniture

The school had developed and had made up saddle seats. They were custom made for the school and students said they were comfortable and they enjoyed the opportunity to work at these seats.

Summary School E

By approaching the design plan from the beginning the principal and design team had successfully managed to mix two quite diverse school communities. The new learning environment gave all learners furniture that was able to be moved depending on purpose and need. The students demonstrated ownership of their learning space and were comfortable with the flexibility of their space.

Teachers I spoke to enjoyed the opportunity to create learning spaces that allowed for collaborative teaching and learning and they were enjoying the flexibility that being in a innovative teaching space allowed them.

While the new school had only been opened for less than a year the amalgamation of the two communities was appearing to be going well. There was a willingness of the community to embrace the best of the old school with the best that the new innovative teaching spaces allowed.

The target groups of Māori, Pacifica and special needs students were catered for in the inclusive nature that the learning environment allowed. There were the spaces to be collaborative as well as to work in isolation if desired. Special needs students were able to be caters for within the learning space and not withdrawn or taught away from the main learning spaces.

A range of hard and soft furnishings were provided and yet there was no need to provide every student with a seat. Students found the place they felt most comfortable working in and this changed depending on the activity and organisation of the learning groups.

School E

School E was 4-5 years old and had been one of the first of the new schools build under the Innovative teaching space pedagogy.

The double story construction allowed the playground to be sheltered from the prevailing winds as well as provide an area that was easily supervised.

Each of the Innovative teaching spaces had four teaching spaces that were joined with a shared work space to the front.

The school had run a BYOD programme for the past year.

Outdoor learning spaces

Tables and Soft Furnishings

As with previous school using innovative learning spaces a range and variety of tables and soft furnishings were used with a high degree of flexibility.

The students were comfortable moving the furniture as required and again as with the other spaces viewed there was no need to provide every student with something to sit on.

Summary School E

School E had some specific environmental factors that impacted on the learning environment. The school design had allowed for these to be minimised while t the same time enhancing other aspects of the site.

Furniture purchased was used by the teachers and students in a variety of ways depending on the purpose of the learning activity.

Sabbatical Summary

The purpose of this sabbatical was to explore *the most effective use* of budgeted expenditure on furniture, fittings, equipment and resources for Modern Learning Environment spaces within New Zealand Primary schools, (specifically in general classroom use, years 5 – 8), in order to maximise the benefits of the Modern Learning Environment spaces and effect positive outcomes for student achievement, in particular Maori, Pasifika and students with special needs or those at risk of not achieving national standards (the target group).

What I found is that the flexibility of the furniture available if used the way it is designed to be used caters for the particular learning needs and individual learning styles of all identified priority groups.

In terms of budgeting, schools do not need to stay with the old thinking where every student needs to have a specific chair/table /desk. But they do need to ensure that they have a range of furniture that can be used in a variety of ways depending on the specific learning activity.

As a general rule when schools are setting up a Modern Learning Environment the thinking should be less furniture rather than more. Schools need to avoid overcrowding learning spaces with unnecessary furniture that isn't needed.

Modern Learning Environments provide a great opportunity to provide innovative spaces and teachers need to develop a pedagogy around they use the space and furniture to enhance the learning opportunities for their students.