

THE MODERN LEARNING ENVIRONMENT (ILE) AND THE PEDAGOGICAL CHANGE REQUIRED TO TEACH EFFECTIVELY IN THAT ENVIRONMENT

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Executive Summary

Successful implementation of the modern learning environment in any setting from primary to secondary is dependent on the following:

- An introduction period of at least 2 years to become familiar with the pedagogy of teaching in the environment
- Focussed PLD for staff required over a period of time
- Planning for change that involves gathering voice from staff, BOT, parents and students as to what they see as important in future focussed education
- Careful selection of teachers who are willing and able to teach in a collaborative and collegial environment
- The demands of NCEA at senior level
- Consideration for "at risk" and "gifted" learners at both ends of the spectrum.

Purpose

- To investigate the parameters around the introduction of the Modern Learning Environment in traditional and refurbished settings
- To examine the change to pedagogy that is necessary to ensure that the needs of the learner are met adequately
- To visit schools and talk with colleagues who are introducing MLEs or currently working and leading in the MLE setting
- To become familiar with studies around the introduction of MLE

Background and Rationale

As a school, we approach the curriculum in a traditional way and our approach to our teaching is traditional. I was interested in the MLE/ILE approach that could be a possible springboard for our thinking at our College. We are constantly told that our students will be doing jobs that are not even invented yet and working in ways we cannot imagine. As educators we have the responsibility to prepare our students to be the very best they can be and ready to take on the challenges and opportunities that they will be faced with as they enter the workforce:

The child starting kindergarten this year will graduate in the third decade of the 21st century. All we know about the world she will step into is that it will have challenges and opportunities beyond what we can imagine today, problems and possibilities that will demand creativity and ingenuity, responsibility and compassion. Whether this year's kindergarten student will merely survive or positively thrive in the decades to come depends in large measure on the experiences she has in school. Those experiences will be shaped by adults, and ultimately by places, by the physical environments where she does her learning. United in the conviction that environment is our children's third teacher, we can begin anew a vital mission: designing today's schools for tomorrow's world. – The Third Teacher, Abrams, New York.

The pedagogical change to teaching in a Modern Learning environment must require a change in the way teachers collaborate and plan together. This is probably easier in a primary setting but a secondary setting faces a number of changes and thinking to enable a successful implementation, not only for the teacher but also the students.

Methodology

Interviews with principals, senior teachers, teachers and student.

Key questions asked:

1. What does a 21st Century Modern Learning Environment look like?
2. What are the key factors that need to be addressed for the successful implementation of a Modern Learning Environment?
3. What were the necessary changes to pedagogy in the schools visited that enable effective teaching and learning in the MLE and create a 21st Century future focussed learning classroom?
4. What do you like about learning in this MLE classroom?
5. Are there any particular things that would help you learn in an MLE classroom?

Research:

Reading literature and reports on Modern Learning Environments (ILE) - see bibliography.

As mentioned before visits to schools that either have Modern Learning Environment facilities or have refurbished areas to allow for the introduction of the pedagogy.

Site visits:

I visited a number of Colleges in both New Zealand and Australia. I also visited a couple of local primary schools in Auckland.

Three primary schools and four high schools who are currently working in a new build Modern Learning Environment and/or had adapted some of the pedagogy but did not yet have physical Modern Learning environment.

Findings:

In two of the schools that were visited, new build schools, the foundation principals had had the opportunity to literally start from the ground up as they were able to have input into the design of the school which was obviously a bonus in that they were able to have a purpose built environment. They were also able to appoint staff who wanted and had the passion to teach in a MLE and they were able to design curriculum and a culture that was all encompassing of the MLE.

The timetable in these schools was totally different from the conventional timetable in a secondary school and they were teaching a holistic integrated curriculum which focussed on the development of skills and competencies as found or adapted from the NZ Curriculum.

I found that the students in these schools were articulate and resourceful and fully engaged in their inquiries – and used the teacher as a reference point. The buildings were well designed and resourced and enabled an ILE/MLE focussed programme to be fully implemented.

In another school about to move into an MLE building, the staff had been undertaking PLD and using the pedagogy in their individual classrooms for 2 years in preparation for the move. These teachers were well prepared and that the preparation was well considered and embedded.

Another consideration for shifting to an MLE teaching space is student achievement, and the impact of the new buildings or refurbishments

One of the research reports, particularly relevant to my sabbatical topic, was called Modern Learning Environments: Impact on student engagement and achievement outcomes (Wall, 2015). The conclusions Wall (2015) collated from available studies clearly show there are strong links between the inadequate provision of overall facility quality and design features (e.g. lighting, heating, ventilation and acoustics) and low student achievement. There were clear improvements with student achievement when facilities are improved to meet adequate

standards and student wellbeing. Although, as Wall (2015) noted also, it is difficult to try and directly attribute specific student achievement to property improvements alone, when there are often numerous strategies and factors that can contribute.

However, many of us are in schools that are in the traditional setting and have staff who need to be willing to make a pedagogical shift to teach in an integrated and collaborative manner.

The positive link to enhanced physical environments certainly does contribute to making a real difference to the learning and achievement outcomes. Therefore, we need to understand what good learning looks like and ensure our new and older buildings can best support this. The findings by Wall (2015) are endorsed by the research work of Barrett, Zhang, Davies and Barrett (2015) from University of Salford, who studied 27 primary schools across the United Kingdom. Barrett et al., (2015), looked at the three factors of naturalness (e.g. light, temperature, air quality), individualisation (i.e. ownership and flexibility) and stimulation (i.e. complexity and colour). Their research concluded that simple changes in classroom design can account for 16% of a student's progress over the course of a year. The factor of particular influence was naturalness – accounting for at least half the learning impact. Whole-school factors (e.g. play grounds, size, specialist facilities) had virtually no significant impact on student achievement compared to the quality of the individual classrooms.

In the second report by Wall (2015) called *Modern Learning Environments: Open Learning Spaces*, (part of the Ministry commissioned series of five publications by Wall, 2015), the following relevant conclusions were made:

- There are no consistent findings whether open learning spaces influence student achievement or engagement either negatively or positively. This lack of conclusive empirical evidence is due to the variety of teaching and learning programmes being delivered within open learning spaces.
- Open learning spaces can accommodate a range of different learning activities and groupings, allows flexibility in instruction or learning style, and supports student-centred pedagogies. John Hattie's *Visible Learning* (2009) meta-analysis of research studies supports the same conclusions as Wall (2015), in that too often classroom architecture may be open but that is no guarantee that the principles of open learning teaching are present. So while MLE open plan education programmes are based on common underlying philosophical assumptions, they can vary widely in their implementation. In terms of overall effect size, Hattie (2009) concluded open classrooms made little or no real difference to student learning outcomes.
- Studies showed that in traditional classroom structures students performed slightly better in achievement tests, while slightly worse in creativity tests. Open education programmes also showed slightly higher performances with student self-concept and positive attitudes.
- Despite the flexible benefits of MLE open learning environments there is growing criticism of these spaces from other sectors of the community. Wellington audiologist Richard Bishop, who specialises in working with children with Auditory Processing Disorder (APD), has commented that modern open learning spaces are “hostile auditory environments” for students. Recent comments from principals (TV1 News 2017) acknowledged that collaborative learning spaces may have their advantages, but are

poor listening and working environments. Up to 10% of children, in particular have difficulty listening, concentrating and therefore learning in such open spaces. This was supported by one school I visited who acknowledged that there were issues for students with Asperger syndrome (AS) not coping in the MLE open learning space and for students with ADHD.

Implications

There is a need to plan and prepare carefully for the Modern Learning Environment, some of the preparation requires the obvious areas eg focussed PLD that supports and encourages collaboration and development of units and subject areas that are integrated; consideration for preparation for NCEA in secondary level and also personnel who are able to work in teams.

This of course implies and places an expectation on the PLD programme in the school. It requires a careful review of what the PLD programme currently focuses on. In one school they have been preparing their staff for 2 years for the new MLE building they were opening, in another their PLD no longer supports one day courses, teachers are expected to up skill in the use of technology and post graduate courses. The school is able to bring the PLD to the staff by negotiating with providers to deliver the courses in-house. This school also has a list of points/actions that they have implemented to enable teachers to teach and create a 21st Century future focussed learning environment:

- Research encouraged PLD time is given every week
- Faculties are encouraged to visit other schools that have a new MLE build
- Budget investment
- Work together in cross curricular teams

These help to build up knowledge and skills and inform further decisions/steps towards a fully functioning MLE school.

Benefits

There are obviously benefits for the Modern Learning Environment:

- Learning is connected
- Teachers work collaboratively
- Integrated modules of study can lessen the assessment load on senior students
- Students learn self-management
- Students have greater ownership of their learning
- For some student's teachers changed pedagogical approach and use of devices can make a positive difference to student achievement
- Leadership comes from both the student and the teacher

Conclusions:

As with every “new” innovation in education there are the usual early adopters, those who sit in the middle and the resisters!

From my observations when considering the Modern or Innovative Learning Environment there are factors that need to be taken into account. These include the design and resourcing of the innovative classroom, the staffing, and the PLD that is necessary to introduce and embed the pedagogy. If this is not addressed we could be left with the perception that the 1970s Open Plan classrooms filled with 75-100 students who can learn from each other with three teachers to keep them on task are being re-visited. This model failed in the past and there is a concern that this is being re-introduced as an economic cost saving relating to new builds and reduced staffing levels.

In saying this, there are some positive aspects and it is not the buildings that count, (although new buildings are always good to have) it is the teachers, the pedagogy and the building of positive relationships between students, teachers and parents.

As stated in the article from the [www.ile.education.govt](http://www.ile.education.govt.nz) website:

Regardless of the educational vision and the approaches, employed teachers and leaders should reflect what the evidence says about quality learning and teaching by:

- *Constantly reviewing the impact of their practice on learning*
- *Actively seeking external observation and critique by colleagues and more experienced teachers and leaders*
- *Seeking and contributing to evidence of what works to improve learning outcomes and how they can apply that to their day-to-day practice*
- *And innovating when “what works” doesn’t work for all learners or all the time (The Local Context)*

References:

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