

Sabbatical Report

How does Teaching and Learning in a Modern Learning Environment enhance student achievement?

Background:

At the start of 2018 we at Liston College, opened a new building which was designed as a Modern Learning Environment – MLE. Other terms are used to describe a more open-plan environment for teaching and learning; Flexible Learning Environment,(FLE), Innovative Learning Environment,(ILE). For the purposes of this report I will use the term MLE as this is still widely accepted as the descriptor for this teaching and learning environment. This new building is two-storey with the equivalent of four traditional classrooms and a resource room on each level. The resource rooms have glass walls which means there is a clear view from one end of the building to the other. The design is effectively two double teaching spaces with two breakout spaces and a resource room on each level. The rest of the school is traditional in design with blocks of single classrooms.

The four Year 7 classes occupy the ground floor and the Religious Education Department the top floor. For all of these classes, the MLE represents a significant departure from the traditional classroom experience. A number of the Year 7 learners had experience of the MLE in their primary schools but most did not. The majority of learners in the MLE building had no experience of being taught or learning in a MLE. Similarly very few of the teachers in the building had any experience of teaching in a MLE.

The MLE offers the opportunity to develop a pedagogy which is student-centred. This involves the learner more directly in the teaching and learning experience. My research was directed at finding out what worked and what didn't work in schools which had MLE experience. I was especially interested in whether or not teaching and learning in this environment enhance student achievement.

The furniture in the MLE was selected to reflect the environment. This was chosen after visiting schools with MLE experience to see teaching and learning in action and how the furniture contributed to this learning experience. The key criterion was how the furniture enabled greater flexibility in the classroom for both teacher and learner.

Method:

I visited ten schools in Auckland, Wellington, Christchurch and Adelaide. Five were established as MLE schools and five had added MLE classrooms to existing traditional teaching spaces. I met with the Principal in nine of the schools and the Deputy Principal in the other. I was taken on a tour of each school and observed teachers and learners in the MLE setting. I asked the question "How does Teaching and Learning in a Modern Learning Environment enhance student achievement?" I deliberately left the interpretation of student achievement up to the individual school. I also assured the Principals that I would not identify individual schools in my report which would be public. I was impressed with the

openness of the responses to my questions. All ten schools discussed student success when answering the question. Student success was defined as individuals who are self-motivated, curious, life-long learners, who know how to learn and are prepared for life after school.

Two schools had data to show that student achievement had improved in the MLE. Three other schools pointed to the U.E. success rates as evidence of either improved or sustained student achievement. Three schools pointed out that the MLE was so relatively new that achievement data was not available. All schools reported that the MLE has increased student engagement and teacher collaboration. The literature shows that student achievement will increase when these two features are evident.

Findings:

One of the first things I realised was that the success of the MLE depends on how much the option for flexibility is taken. Where two groups of students are being co-taught by two teachers there are opportunities for greater differentiation of teaching and learning. The use of break-out spaces effectively added to the teaching options. Small groups of students could work either independently or with teacher support in these smaller areas. These spaces also allow for a quieter environment for students who may prefer to work alone.

The MLE almost inevitably requires more teacher collaboration. If two teachers are teaching in a shared space they have to have agreement on how the space is going to be used. This is the most basic form of collaboration. For effective teaching and learning teachers have to genuinely collaborate. This requires planning together and reviewing the effectiveness of the teaching.

All schools reported better student engagement in the learning process. There are several reasons for this. Students have greater freedom to choose the model for learning during the time available. Some prefer to work in groups, others as a pair and others as individuals. The MLE allows the flexibility for this to take place. Similarly, learners are more able to move to another activity if they have completed the required task. Once again, the flexibility of breakout spaces is necessary for this to be maximised.

Only two schools could show data to support enhanced student achievement but two others used U.E. statistics to show that their learners were successful. One school had three classes of the same year level. Two classes were co-taught in the MLE and the other was taught by another teacher in a traditional setting. The learners in the traditional classroom had performed better in assessments so far. The students had not been streamed by ability. The explanation which I was given for the differences was that the students in the MLE were taking time to adapt to the new environment while their peers were familiar with learning in the traditional setting. Interestingly, the students in the MLE were reported to be more engaged in the learning than their peers in the traditional classroom. One conclusion from this could be that if the students had not been better engaged, their achievement may have been further behind their peers. Another possible explanation could be that the

teacher in the traditional classroom was more effective with this group of learners than the teachers in the MLE.

It became very clear during my research that the relationship between teachers in the shared space of the MLE is critical to the success of teaching and learning. If the teachers do not have a solid working relationship then their individual and combined effectiveness will be reduced. I experienced very effective co-teaching where it was obvious that the teachers had carefully planned and were able to use their combined expertise to better engage with their learners. It was equally obvious that they knew the individual learners and their needs. I didn't experience ineffective co-teaching as a result of poor co-operation between the teachers but I could see how this would be counter-productive in the MLE context. I was told of situations in some schools where such teachers would resort to teaching their own students independently of the other students in the same learning space.

John Hattie in 2009 published *Visible Learning*. In this comprehensive review of hundreds of meta-analysis studies into factors influencing student achievement he concluded that the factor with the greatest impact on student achievement was the teacher. My study supports this finding.

All schools reported that in many cases, teachers are slow to adapt to the changes in pedagogy that are required to take full advantage of the MLE. Greater planning is needed to effectively co-teach a larger group of learners. This is understandable as many teachers have had their entire teaching experience in the traditional classroom model. The role of appropriate Professional Learning and Development (PLD) to help teachers make the adjustment to teaching in the MLE is vital. Several schools highlighted the extensive PLD programmes that have been developed to help teachers make the adjustment. Those schools which were established as MLE schools have the advantage of recruiting teachers who willingly apply for positions in MLE schools. It is more difficult for teachers in a traditional school setting to have to teach in a new part of the school which is an MLE. Several Principals reported success stories of experienced teachers who despite their own critical views in teaching in a MLE changed their practice to meet the requirements of the MLE and have become more effective overall. This perhaps reinforces Hattie's findings.

As stated previously, the use of furniture is important in helping to change pedagogy. In every school which I visited, furniture more conducive to flexible learning spaces was evident in the MLE. The furniture is designed to allow for multiple teaching and learning spaces with the flexibility to have small groups or larger groups. The furniture also enables different learning activities to take place. I saw groups of students working on a presentation while others were working individually on research for the presentation. Again, the flexibility of space helped to facilitate this process. The furniture also helps to encourage student collaboration. I saw students working on different aspects of an activity interacting with each other. In essence, the activity could not be completed without engaging with the other groups. It is a good example of problem-solving requiring the involvement of teams to provide the solution.

The use of technology in this environment was another feature which I witnessed in all schools. This was more than students using devices to assist in the teaching and learning. It

was the creative use of interactive smartboards by teachers and learners to engage with different groups for different activities. I saw in one school one teacher with 150 learners using a PA system to communicate instructions and to check for understanding. I would point out that there were four other teachers who were assisting students!

In all of the schools it was more likely that the teaching and learning made possible by the MLE took place in the junior part of the school. For those schools with Year 7 and 8 students and for others at Years 9 and 10. One possible explanation for this is that the potential for integrating studies from a number of subject areas is easier to implement at Years 7 – 10. I experienced the teaching of English and Science in one shared space with 60 Year 9 learners. They were working on an Environment Project and the two teachers were English and Science specialists who were successfully working collaboratively with the students. Each teacher clearly had a good understanding of the other's subject area. It was also evident that the planning of the programme was very thorough.

In most schools there was the same year level in the MLE. Several Principals commented that having multiple levels in a shared space created difficulties in terms of conflicting activities, noise levels and distractions. I did observe an exception to this. I saw Art classes at the equivalent of Year 11 and 13 in an Art MLE. Both teachers moved freely between both groups of learners and were genuinely co-teaching. They had good mutual relations with each other and it showed in their interactions with their learners.

One characteristic of the design of MLEs is the fact that teachers are visible to other teachers and other learners. In the traditional classroom the teacher is essentially hidden from other teachers and learners. There is no outside observation. In the MLE there is an inevitable openness for teachers particularly. In the shared space each teacher interacts with the other. In the design of the MLE with greater use of glass and less walls teachers can observe colleagues from some distance. This openness can provide more opportunity for collegial sharing of ideas and has the potential for assisting reflection on teaching practice. Whether it is successful or not depends on the willingness of the teachers to engage in the process.

The openness of the MLE for teachers is also true for learners. Students can be observed by other teachers in the space and may modify their behaviour as a result. This was described in one school as Passive Observation. One Principal noted that the number of behaviour referrals at Year 9 had dropped significantly with the move into the MLE. The Passive Observation was given as one explanation. Other Principals commented on better student engagement as another factor.

The timetabling of classes was another factor to be considered in maximizing the potential of the MLE. I commented previously on the preference for one year level to share the teaching space. In several schools up to 10 classes shared the teaching space and provided the opportunity for greater differentiation to meet the learning needs of all students in the space. In another school I observed learners from three year levels learning English in the same space with 4 teachers. The timetabling options to enable this to take place were identified as a high priority.

What have I learned?

I was struck by the vigour with which Principals of MLE schools promoted the philosophy of teaching and learning in this environment. There was a clear view that this was better than the traditional approach. My own view is that effective teachers are successfully working in both environments and ineffective teachers are also working in both. I am more convinced now that it is not a case of teaching in a MLE or a traditional model but having both options. Teachers and learners can successfully engage in either environment. In one MLE school I visited, the Principal showed me a seemingly contradictory situation. In the middle of a large open area were four rows of six traditional desks arranged in the traditional manner. The Principal was visibly annoyed and my immediate reaction was to share his disappointment that a teacher had obviously introduced a traditional setting into the MLE. However as I visited more schools particularly those which have a mix of MLE and traditional teaching and learning spaces, I could understand the reason for the traditional arrangement of desks. There is no single teaching style which is effective for all learners. It would be educationally unwise to prescribe one style of pedagogy for all teachers. Similarly I believe it is equally unsound to prescribe one style of teaching space for all learners. Flexible spaces provide excellent opportunities to differentiate to better meet the learning needs of all students. Traditional teaching spaces can be used to create greater flexibility.

Changing pedagogy takes time! In every school that had introduced a MLE to an existing plant there was frustration from the Principal that some teachers were continuing to resist changing their pedagogy to adapt to the MLE. For teachers who have had their entire career teaching in a classroom on their own with one group of students, the idea of co-teaching in a space with up to 60 learners could be daunting. I have mentioned previously that I did see unexpected examples of teachers successfully adapting their pedagogy. I recently read this quote from John Hattie in an interview with Justin Baeder in December 2017 – “That’s one of my frustrations in the business. Why don’t we start with acknowledging and recognising that we do have excellence all around us? Why would you take a teacher who uses a method that you may not like, who uses a method perhaps out of the 1970’s, but they’re having an impact on their kids – why would you change that? Some of those teachers with their arms crossed in the back of the room don’t need to change. Some of them do. Your first job (Principals) is to work out which camp they are in.” If the teacher who moved the desks into the MLE is one of the former he or she should be encouraged to continue doing this.

There are flexibility possibilities in a traditional learning environment – especially with the use of furniture. I observed creative use of furniture to provide more than one teaching space within a traditional classroom. While breakout spaces could not be created within the room the teacher was able to provide spaces for independent learning as well as co-operative learning. In every school which had added an MLE building, steps were being taken to modify existing teaching spaces to provide greater flexibility for teaching and learning.

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