

Sabbatical Report
Technology Enabled Learning Programmes, Victoria, New South Wales
Term Two 2013

The sabbatical initially involved three focus areas:

- Attendance at Middle Years Schooling (MYSAs) conference, and contact with the Australian Publishing Association (APA)
- Pathways from senior school to work or further training
- Impact of several years of one to one device on teaching and learning programmes

MYSAs Conference

MYSAs is a group we keep an engagement with, and have done since our transition to a Year 7 to 13 school in 2005. We presented at this conference on our BYOD journey, and I attended several sessions, the most interesting one being on future mega trends by Donna Pendergast, Griffin University.

She noted:

Ageing / Demographic changes
Globalisation
Technology Development
Prosperity
Individualisation
Commercialisation
Health and Environment
Acceleration

and linked those with the OECD global trends shaping education:

Global World
Living Well
Labour and Skill Dynamics
Modern Families
Infinite Connection

Out of all these, many questions arise, including:

Are our students internationally competitive?
Are our students culturally sensitive?
How can schools maintain and enhance a sense of community?
Are we fostering innovation?
How can education shape professional and educational choices?
What is the role of education in challenging social, race, gender stereotypes?
How connected are employers to education systems?
Do educators and employers work together?
What is lifelong learning in an ageing population?
Is the shortage of trades skills ... connected to the status of vocational education?
What is the role of government in knowledge economies?... What are the strategies to support research?

So that gave a somewhat big picture of societal issues that impact on schools. Further information is on the MYSAs website (MYSAs now renamed as Success for Adolescents). I would recommend schools with Year 7 to 10 students keeping a link with the association. It includes schools from across Australia in both state and private sectors.

Senior Pathways and Technology Enabled Education

I visited a number of schools in Victoria and New South Wales, and contacted regional professional development and university personnel.

The schools were government, catholic, independent, senior, full secondary, selective, and comprehensive.

General Comments across all schools visited:

The provision of senior vocational courses is much enhanced by the regional TAFES, accessible in all districts, and fairly consistent in the courses offered.

Some researchers and theories were widely used and quoted. In particular, Hattie, Marzano, Dylan Williams, Julia Atkins, Timperley, Robinson, Vygotsky.

Some schools are still quite paper based, others consciously not so eg Marist Parramatta, St Columba Springwood, Coburg Senior.

Physical spaces varied. Customised MLEs were not always apparent in schools with effective, modern learning programmes.

Schools demonstrating effective teaching and learning programme had several factors in common:

INFRASTRUCTURE

In place and worked consistently well, therefore no barriers to ICT use. The SAMR (Puentrdura) model was evident with effective schools moving well beyond substitution.

PURPOSE

There was a clear purpose underpinning the programme and its delivery.

PEDAGOGY

Teacher Professional Development, grouping of students, spatial organisation of learning places all contributed to an effective pedagogical programme. Waterholes, caves, campsites, mountain tops (Thornburg)...were evident.

While schools differed markedly in size, physical layout, and demographics, the above were demonstrated strongly across the range. The on-going training and support of teachers was strong and grounded in research models.

The schools I found particularly relevant to our own progress in the one to one device use that underpinned and enabled learning were:

Victoria

Coburg Senior High School, small co ed, state
Glen Waverley Secondary, co ed state

New South Wales

St Columba's High School, Springwood, co ed, catholic
Marist Parramatta, boys, catholic.

Other schools of interest were:

Victoria

Dandenong High School, Dandenong, co ed state
Santa Maria, Northcote, girls' catholic
Bendigo Senior, Bendigo, large co ed state

New South Wales

Northern Beaches Christian School, co ed private
Southern Cross, vocational co ed catholic senior
St Mary's Senior, St Mary's, state co ed

St Paul's Boys, secondary, catholic
St Augustine's, boys, secondary, catholic
Northern Beaches Secondary (five schools in a cluster)

Discussions were held with Professor Jenny Gore, University of Newcastle, re the Quality Teaching Framework for New South Wales.

Meetings with representatives of the Australian Publishing Association, Bella Kamas, re involvement in their educational conference

Schools of Particular interest

VICTORIA

Coburg Senior High School

New facilities, modern learning environment, BYOD MacBooks.

The school was rebuilt five years ago, has flexible open spaces, and has a very independent student centred learning programme. Students were all confident and could articulate what they were doing and why. Depth of understanding well demonstrated. They used MacBooks throughout the programme, used wikis and blogs, had digital portfolios, and teachers worked effectively to support them. Feedback was done very well with wikis / personal devices.

Teachers were not expected to respond to online requests after 6pm but could if they wished to. No worries about security, no thefts because everyone has a device.

Small groups (tables not desks) worked on problems, most work was on screen rather than on paper. There was strong collaborative learning, tutorial systems, as well as direct teaching and questioning.

The Principal was in the process of developing a full secondary school at the request of the Education Department. The plan is for the whole school, middle and senior sections, to work along the same lines. At present, it has an adult feel with senior students, small numbers, excellent facilities, and effective teachers. There are no feeder schools so the school gets student enrolments based on the programme it offers.

The Principal says the model used for learning prepares students exceptionally well for University.

Next steps for us

Keep in touch as school takes on middle school levels to see if there are ideas and programmes we could work with here.

Glen Waverley

The school has eight periods per day, including before and after the conventional school day. They are able to do before and after school option lines with free time during the day because public transport is excellent.

Marzano (Art and Science of Teaching) was used to develop the pedagogical framework. Attention is mostly on the how, not the what, of teaching with a mixture of explicit teaching and student guidance. The aim for all is an effective teacher in an effective school.

They have a clear focus strategically and have not changed that for some years. They use Vygotsky (learning and development) as a research resource and have two after school PD meetings each week.

Parents are highly aspirant around education and there is a large Asian intake.

Students are not accelerated even if top students eg Mathematics Olympiad Gold winner in Mathematics was not accelerated. Enhancement Mathematics has a couple of periods a week where students work with a senior teacher, out of the curriculum. There are all mixed ability classes until Year 11 and 12. There is unsupervised study, lots of space and a purposeful atmosphere.

There is no form period; Students who need learning support come early. Heads of learning take responsibility for leading and PD and they have worked with Julia Atkins over a number of years They reflect on students' evaluation, What Helped Me to Learn?

They have worked with Patrick Griffin, Melbourne University and use his work.

Next steps for us

Maintain contact especially with regards to research based PD.

NEW SOUTH WALES

Parramatta Marist

Technology was used everywhere and essential to the learning programme. All devices supplied by the school, not BYOD.

The school had investigated the use of one to one devices when the government funded laptops for each Year 9 student some years ago. They looked at international models and settled on the Tech High Schools/Bucks Institute Technology in the US / education model.

This involved them changing the learning programme to project based learning in middle school, moving to problem based learning in Year 11, with a conventional delivery in Year 12, the final external assessment year.

The soft skills developed in the project based learning were focussed strongly in Year 11.

For the problem based learning, each course is divided into big problems to investigate.

The school runs a ten day timetable. For Year 11. Monday and Fridays run separate periods in the conventional sense. For the other six days in the cycle (Tuesday, Wednesday, Thursday), each course has one complete day. The students thus spend all day with their teacher, working in structured groups, following a model of investigating and presenting back at the end of the day. So each course has one full day a fortnight, plus some periods across the Mondays and Fridays.

What I saw worked extremely well. There is a lot of preparation to be done moving into this model, both in developing the questions, twenty per year to cover the course, and the teacher training and support to deliver it. While the learning programme was not conventional, the spaces were, so future focussed, authentic learning was effectively being delivered in quite conventional spaces. It was a model that has a lot of potential, combining independent learning, employment and tertiary work habits, with preparation for standard external assessments.

At this point the school uses a conventional timetable for its final year, but period length has been extended to ninety minutes to maximise the earlier programmes and skills. The final year programme uses a flipped classroom approach , with google forms used for each period.

Next steps for us

Research the Problem Based learning model in 2014 with a view to incorporating it within a five year timeline.

St Columba, Springwood, Blue Mountains

The school provided MacBooks (750) for almost the whole student population and had extensive use of Apple TV. The system was cloud based. They used the work of Hattie, Timperley and Robinson in their pedagogical planning.

They had established consistent practices eg screens down when teacher is talking. While the buildings were old and historic, some spaces had been modified internally with free flow between, variety of sizes, closed and open options. Glass walls had optional blinds. This was not always helpful as there was a tendency to close off.

The staff resource/workroom was all one large space with each curriculum area in its own bay to encourage mixing. PLGs and student led conferences were becoming well established.

Next steps for us

Maintain contact with regard to programme development and staff PD.

Quality Teaching Framework (QTF)

Jenny Gore, University of Newcastle

This was developed to support great teaching and lift the quality of teaching and student learning. It is not mandatory, but a framework with rubrics, assessments, judgements, able to be made. It gives an opportunity to have professional discussions using an agreed framework. It has similarities to Instructional Rounds (Harvard Educational Letter, 2007, Ellwood) and has been trialled in schools such as St Pauls, Manly. As with many Australian initiatives, the funding for schools to implement it was fully covered. It is unlikely it could, or would, continue without that funding. It has been modified at St Pauls to allow three staff to be released at one time for observations and feedback on teaching, facilitators to be trained to enable this to be done consistently, and pre and post judgements made.

The idea is for it to cascade throughout the school. School feedback is that the facilitator needs to be working for the school, rather than the University, and funding needs to be assured. With all that in place, it is useful.

Other Schools of Interest:

Victoria

Dandenong High School

This was the merge of three schools with a complete rebuild and transformation. It is a large, multi-cultural, low decile school, with significant numbers of families who are welfare recipients.

The school physical structure is based on Alfriston after visiting a number of schools internationally. Seven houses each with about 300 students, with 50 at each year level, so students stay in one place and teachers move round. Each house has a plant and a colour link.

It is all eco designed with each having a water tank, and solar heating so very energy efficient. Well provisioned with technology but not embedded across all classes.

Year 7, 8, 9,10 are in integrated classes in the whanau (not called whanau) with 50 students and 3 teachers covering Humanities, Mathematics, Science, Technology. Students go out for specialist subjects.

Next year will do 7, 8, 9, in whanau and 10 with the seniors as many students in Year 10 do some VCE courses.

The model has double rooms. It is a school requirement that the doors are open for juniors. When seniors taught, the doors can be shut. It has needed to be mandated, as there has been a tendency for some teachers to close the spaces

Each house has an Assistant Principal who teaches one class. There are curriculum leaders and house leaders.

Santa Maria, Northcote

Girls school 900

iPads provided by school through state funding. iPads chosen after surveying parents.

Still in preliminary stages of whole school use.

Bendigo Senior Secondary School

An original navigator school, Bendigo is a large school, 1700 students, non-uniformed, and two year levels. When students enrol, they choose a pathway.

There is an extensive curriculum, large spaces, some traditional classroom spaces. Students have six option lines and mostly do five subjects. English is the only compulsory subject.

There are 8 (vocational) pathways, with each pathway group, meeting as needed for specific presentations to that group eg. Elite Sports, Liberal Arts, Commerce. Within that pathway are small groups who each have an advisor with whom they meet. All staff eg Librarians, Principal, DPs, have an Advisory Group meeting once per week. All Senior Management involved. Technical courses are done at school or through a link with the TAFE.

Bendigo is working with the State government as part of the broadband rollout to develop a virtual learning school for the state.

It has been set up by Bendigo in an unused historic building with lots of useful space, a programme manager, plus teachers preparing the courses and teaching it. Prior to setting it up they visited the Florida online school and the Idaho online school.

Staff from Bendigo were given time to prepare courses in advance and trial them with their own class over the prior year. Specialist senior Mathematics and Science is the starting point with the idea to expand it to meet needs. They prepare videos for each lesson which has an accompanying paper workbook, and use text, narrated videos, quizlet and other resources. It is very professional.

Students enrolled have orientation in November for the following year, which is done in two places across the state because of distance.

As with the VLNs in NZ, students have the course as one option line. They can contact the teacher via phone, Skype, email. The teacher visits each student twice during the course to support and get feedback. Each school has a support person, as with our VLNs. The course outline is very structured, lessons plans laid out, workbook and text books used. Assessments all done just as in a face to face class.

The teacher keeps an eye on when and how often students are logged in and can see if particular aspects of the course are difficult. They can make changes / reinforce some content. Some Bendigo students are working in this way by choice for Mathematics, even though the course is the same as their face to face class, they just prefer the independent learning.

The online classes are about 20. Running a second class is no problem. The course is all developed, quality assured, so another teacher would deliver that same material.

Bendigo also runs an alternative school in the town for alienated students eg teenage mothers, students who have dropped out for some years, with the idea that students will transition into school.

With regard to devices, students freely use netbooks and laptops but not all work is digital, a mix of paper and digital. There are a number of handbooks that are paper based. They currently have no intranet and are planning to develop their own, plus a social media strategy. They are developing apps to give push messages, personalised information for students.

Heads of curriculum learning are currently working through Hatties 'Visible difference' with their group. They have a Trade School shared by other local schools. It is large and well resourced. They have a large Language Centre funded by the stimulus package during GFC and the Confucius Institute, but few language students.

New South Wales

St Augustine's, Sydney

There is a one to one laptop programme, school owned and managed. School owned iPads are used in Languages and Science. There is an interesting programme for the Year 9 cohort (UNITAS) on a fortnightly community service module, which was presented at the MYSA conference.

Each group (pastoral) took part in an afternoon activity connected to improving the community or self-awareness. The boys had two sessions of each activity (ten activities over year), which varied from beach clean-ups, to helping at the neighbouring state primary school, to meditation, to yoga. The activity that gained them unexpected national publicity was teaching the boys how to iron shirts and sew on buttons.

Southern Cross Vocational College, Burwood

This was set up recently in the grounds and buildings of an existing old school. Its purpose is to provide senior vocational training for a number of the catholic schools in the district. It has been custom retrofitted, is solely vocational and does not prepare students for university entrance. Models of similar types had been researched, including the secondary tertiary high school in Manukau.

It was an outstanding example of a well-resourced, focussed learning environment tailored to vocational training. The specialist facilities were excellent. The training covered hair and beauty therapy, retail, early childhood, nursing, carpentry and construction, furniture making, automotive, audio engineering/media, catering and hospitality. The school is designed for 400 students

There was no form class but a mentor group met once a cycle to monitor progress, and follow up issues. Regular home contact was maintained.

They had established Enterprise activities eg commercial catering, making furniture to order etc. English was compulsory. Students chose their particular vocational course plus English and a couple of other courses that aligned with their pathway, with the business systems course strongly advised. For OSH, students were getting a repeat in each of their subjects, so now a generic delivery with the more specific part done in each course. Curriculum maps had been done to avoid overlap.

Students developed strong interest and self-belief as part of this approach. They use their own internet capable device in all courses. Teachers did not need to be qualified as secondary teachers, but were all highly qualified in their field.

Study areas were large with a variety of spaces within eg. quiet, individual study, group work, teacher help work. Mostly students get the course choice right, with advice at the beginning, and good advice on website. It has been designed for a maximum of 400 students.

All courses are online so if away at work experience or TAFE, they can continue to do the work from there or home so there is not the sense of having to catch up on lots of missed work. Very impressive. This was an outstanding example of a senior vocational school.

Northern Beaches Secondary College (various campus sites)

This is comprised of five secondary schools

Girls, Boys, Comprehensive, Senior Vocational and Selective

So five campuses exist within the same set up, can share expertise and opportunity if required. But main reason is that there is a variety of options from selective to vocational and single sex for parental choice. The intake across the state into selective schools is based on tests sat the year before set by ACER (Australian Council for Educational Research). Students choose their priority schools so each selective school has a different academic cut off point.

I visited Northern Beaches Selective. They have used the QTF in rubrics, judgement on teacher observations, and have found it to be a useful framework.

Northern Beaches Christian

Flexible spaces within conventional shaped buildings. Students independently working. Collaboration and individual project based learning. They have worked with Albany Senior, Hobsonville Point, Stonefields. They visit internationally regularly to keep updated and run workshops.

Functional spaces, similar to the caves, campsites, watering holes, mountain tops (Thornburg) with each space serving a different purpose. They have a business that hosts tours and workshop days and they go overseas to run courses and workshops eg Albany Senior, Hobsonville Point. Direct teaching for literacy numeracy at Year 5 and 6 ...180 students in a large two level ex library space, with six teachers. Staff PD every week after school.

St Marys Senior, St Marys

Started in 1989 as the first Senior High School in state

No contributing school, so conscious choice to enrol. Must be hard working, motivated, as noted by their previous school. Conventional spaces, high achieving, low decile. It was a particular culture, with first name basis between staff and students. They have made some flexible, comfortable spaces available as the opportunity came up.

There is an action research group on staff developing the pedagogy around the tablet programme. They have already done one action research project using student feedback which showed that the relationship between teachers and students was the most significant factor in student achievement.

There were mentor groups (maximum size 8) Years 11 and 12 with the Year 12 students choosing their mentor.

Tutorials after school each day are free and well attended. Teachers have made videos of difficult Science concepts on the intranet for student revision.

St Paul's, Manly

They have worked with Jenny Gore (QTF) and are a centre of excellence because of this link. They have refined the instructional rounds to groups of three teachers, with one day, all day, preparation, then three half days while each pair observes the other one.

This is done over one semester. It is funded by the government as part of an incentive to increase quality of teaching.

Their next step is working with Vivianne Robinson on a further Professional Development programme for the diocese schools. Neither appraisal or involvement in the QTF is compulsory.

Conclusions

The school provision is varied with a large range of both private and state schools, including selective state schools. State and region wide policies give schools less autonomy than ours.

Senior pathways from school were best demonstrated in the fully vocational school or special senior schools, and greatly enhanced with the easy access to local TAFEs. Schools with little technical vocational provision still had access to TAFE classes. None of these scenarios are easily replicated here. Industry qualified staff were able to be employed in the senior schools.

Schools that had had one to one devices for several years were not all at the same point in effective use. Unless underpinned by an across the school clear purpose and pedagogy, they had not changed the programme significantly. BYOD was not the common model because of previous government funded provision, but access to one's own device was the norm. Research, evidence base, reflection and regular Professional Development were hallmarks of the most effective school programmes.

Staff training and support was on-going and extensive.

As an aside, I found the provision of second languages weak, with most schools I visited offering few languages, and those were not strongly taken up by students. Either as a response or a consequence, there are regular Saturday Language classes in most places.

The schools I found most useful to our own progress are Coburg Senior and Glen Waverley in Melbourne, St Colombas Springwood, and Marist Parramatta in Sydney. Their (Marist) programme of both project and problem based learning developed deep and relevant learning outcomes, and used technology as an essential enabler for this. We intend to further research this learning programme.

Contacts for all my visits are available .My thanks to the Ministry of Education for the opportunity to undertake this sabbatical. It is excellent Professional Development for Principals. I wish it was more freely available to all senior leaders in schools

Kate Shevland
October 2013