

21st Century Classroom

Keynote Address

Waimarino ICT cluster mini conference: August 30th 2007

The year is 2007, the millennium party was seven years. For some of us the memories of that party were vague or non-existent on the 1st of January 2001. For the rest of us the seven intervening busy years have further dimmed whatever memory we had. But this tells me that we are now seven years into the journey of working with 21st century learners and running 21st century classrooms. The journey has more than begun and I believe we should be challenging ourselves about what we are doing in our classrooms and how effective those things are. However I don't think we should do this in a way that turns the journey into a guilt trip. But rather in a way that helps us to be more effective as we move further into the 21st century and as we try and do our best for the students in our care.



As I look at the vast amount of material already published by people around the world there seems to be a number of common aspects being addressed amidst a large amount of fascinating, but not necessarily accurate, predictions of future life and technologies. Under the broad heading of 21st century schools there are issues of:

the 21st century learner and how they differ from earlier generations

21st century skills

21st century learning, and new understandings of the learning process

21st century classrooms.

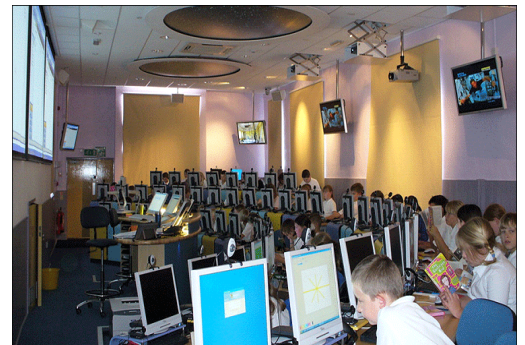
In an in depth look at the 21st century classroom, and what happens in it we would invariably touch on all of these aspects, but I want to primarily focus on the 21st century classroom, and look at those classrooms in terms of the New Zealand context.



Firstly let us consider the physical environment of the classroom. On this theme there are some amazing predictions. We can find images of futuristic architecture and rooms filled with vast amounts of technology. As I consider these predictions in the light of the combination of a bit of scepticism mixed with a dash of reality I would say ‘dream on’ New Zealand. Dream on because while we have an education system that is driven and dominated by politics, while we have an education system that is funded on a ‘sausage sizzle’ mentality there is no likelihood that the average classroom in our public schools is going to look like these predictions. We are a long way from that happening.

Not only are we a long way from looking like this, I am not sure that we

want to have classrooms that look some of the predictions I see on the internet. On the right is a predictive picture of the classroom of the future. As I look at it I start to feel very uncomfortable, it concerns me, it unsettles me and the more I look at it the more sure I am that if this is a 21st century classroom, then I don’t like the story it tells me.



I will try and enunciate my concerns. I see room full of today’s technology mixed with yesterday’s pedagogy. I see rows of pupils all facing forward. I see a teacher’s desk (maybe throne would be a more appropriate word) placed front and centre in the classroom. The desk looks like a command post, a place of authority and power, a position from which one exercises control and directs learning. I see children isolated from each other with a primary focus on individual learning and work. Take away the fancy technology and it looks remarkably like a classroom from the



1950’s. If this is a vision of a 21st century classroom then the very thought scares and worries me. I am also reminded of an equation I coined while I worked as an ICT adviser to schools a few years ago. $PL + ICT = EPL$
The equation when translated into English says “Poor Learning plus ICT equals Expensive Poor Learning”. I believe you can place all sorts of fancy

technology into a classroom but technology is not the cure for poor teaching and learning, all it does is make poor teaching and learning more expensive poor teaching and learning.

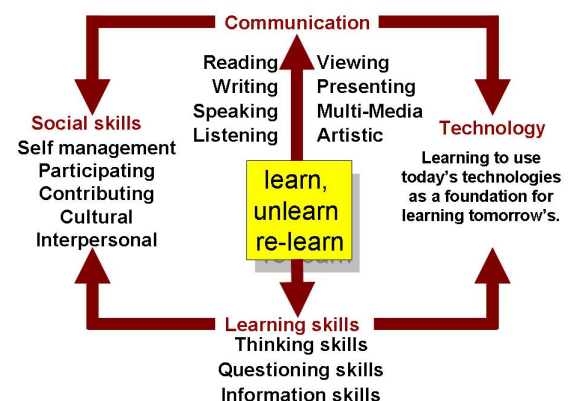
The picture of our average New Zealand classroom is currently a very different reality from the 21st century predictions. This reality consists generally of old rooms, which are overcrowded, poorly funded, and under resourced. Fortunately there is one other aspect that is common to our average classroom, they are generally staffed by dedicated teachers who are passionately committed to doing the best possible for the children in their care. These classrooms are also changing, the blackboard has long gone from most rooms, replaced by whiteboards, and those are now being replaced by interactive whiteboards, mimio technology and data projectors. (It is interesting to note that this technology is often dropped into rooms with no quality light shading over windows and bright sunlight limits the usefulness of the equipment, hullo! Is anyone really thinking out there?)



Thank goodness that the vast majority of our teachers are creative, energetic, professional and dedicated people who work with ingenuity and creatively use whatever resources they can get their hands on.

From this arises another issue with our current classrooms. Even with dedicated teachers we could look at classrooms that are seemingly identical but when we look below the surface we see two very different things.

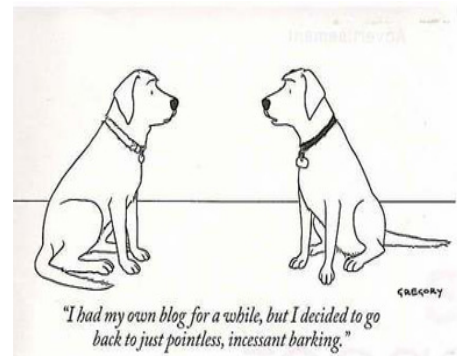
In one we see a classroom where pupils are being empowered as independent learners. In the other room we see a teacher doing an excellent job of preparing the students for the 1990s. The most important things we need to consider as we think about moving our classrooms to being places that are empowering for our students are captured in this diagram. It was Alvin Toffler who said “*The Literate of the 2000s is not*



the person who can read and write, the new literate is the person who can learn, unlearn and re-learn.” This in no way denies the value of the traditional literacies of reading, writing, and speaking. This view values these traditional literacies highly as basic tools of learning, and then adds to them the digital and artistic literacies. This is the field of communication which empowers learners. Following this we need to realise that communication and learning most often take place in environments where there is interaction with other people and this requires social skills. In today’s age we cannot separate communication, learning, and social life from technology. Technology totally pervades our world. This means that we also have to teach Technical skills. It is important we look at each of these aspects in a bit more detail if we are serious about empowering our students for their future lives and empowering them as learners.

Communication

I remember as a teacher looking at my classroom with the students displayed work filling the walls and realising that despite all the effort, the quality of my students' work wasn't really engaging and the learning was limited. I now wonder if this is because my students were not well supported or instructed in how to engage an audience. I suspect that I had a captive audience, and I didn’t model how to engage an audience and deliver meaningful, appropriate and challenging messages.



I wonder if we will look back on some of the hours spent video editing, pod casting, and blogging with concern about how much of it was just a shifting of information from one place to another, and question the quality of learning. I wonder if we will also realise that our students’ having a voice on the web, delivering powerpoints, creating podcasts, and sharing MP4s don’t provide good answers to the ‘But what did they learn?’ question. I wonder if this is because our students are still not well supported or instructed in how to engage an audience. I suspect that we have a captive audience, and that

perhaps we still don't model how to engage an audience or deliver meaningful, appropriate and challenging messages. Perhaps we need to re-look at our literacy programmes and once students are competent readers spend a lot more effort on enhancing their ability and strategies to create powerful messages that engage their audience.

Social skills

Considering learning and communication generally occur in social settings, surely it is important for us to consider the school's role in helping students to develop their social skills. Schools themselves are very social places and this provides us an ideal environment for social skill development. It is important to note the emphasis placed on social skills by the new draft curriculum. In our schools we need to be far more deliberate and targeted in addressing the skills of self management, participating, contributing, cultural awareness and appropriateness, and interpersonal skills.



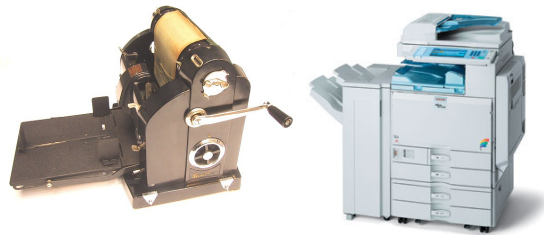
Learning skills

If we want our students to be effective learners we need to model effective learning. To do this we also need to be clear about what those skills are and be deliberate in providing learning experiences that scaffold our pupils towards skill development. The major skills are those of thinking, questioning, and Information literacy. (more information may be found on <http://ictnz.com> and the associated questioning wiki.



Technological skills

The idea is not that learners gain tools they use for the rest of their lives. That's not realistic! Take my generation as an example. At teacher's college and in my first few



years of teaching I learned how to use a Gestetner, a banda machine, a spirit duplicator and a Bell and Howell projector. Nowadays I use photocopiers, data projectors, mimio, school pad, pen drives and a laptop. All of these were beyond my imagination in those early years of my teaching career. What was powerful for me as a learner was not learning how to use those tools, because the tools vanished over time. The powerful aspect was that by learning how to use them I was developing the skills of how to learn to use new technology. This suggests to me that learners should use tools at school in ways that enable them develop the ability to learn new tools. To do this they need to be able to

- break a complex problem into parts,
- identify familiar patterns,
- identify information needs
- ask relevant questions
- and solve the issues in a manner that allows them to move onward.

All this provides a number of challenges for today's teachers.

Technological challenge:

I believe that today's teachers have a professional responsibility to be familiar with today's technologies, and to construct learning experiences where students can use these technologies in real ways to communicate and solve problems. In 1982 I had the choice to use or ignore the Commodore 64 computer, I don't believe we have that choice in terms of today's technologies, society, and learners.

Skill Challenge:

As individual teachers, and within schools as a whole, we need to have a clear idea of the skills we are trying to develop for our pupils. To help clarify our beliefs I would pose the following questions.

- If Monday was the last day of your life, and you had to spend it with your class, what would you teach so that you made a difference?
- If you could give your students one skill to take with them, what would it be?
- If you had to walk ten years into the future with one of your students by your side what skills would you want them to bring on that journey?

Perhaps our pupils might also have some contributions to add to the discussion (as expressed on thinklab.typepad.com/.../index.html)

- If you're so smart, why are you asking me to give you the answers?
- More importantly, are you teaching me how to ask great questions?
- I can tell you an answer. But my future isn't going to care for what I memorised. It's only going to care if I can adapt.
- Are you ready to help me?
- And can I trust you to help me get there?



Change:

Society isn't what it was!

Children aren't like they used to be!

Schools shouldn't be the same as they were!

We can put our heads in the sand and just carry on doing what we have always done or we can respond to the changes that are all around us and the ones that are coming.

We also need to understand clearly that the most important thing that will turn your classroom into a place that truly empowers these children for their future is you.

