

Secondary Principal Sabbatical Report Term 3, 2009

**Vivianne Murphy
Wanganui Girls' College**

Opportunities (and challenges) for schools making use of e-learning

Executive Summary

At the heart of successful learning is student engagement and ownership of learning. Exciting opportunities in the use of 21st technologies in New Zealand classrooms today can empower learners to reflect, discuss and create new understandings in collaboration with other learners both face to face and on-line.

This brief review of recent education initiatives in e-learning indicates that some schools and teachers are taking full advantage of current technologies and have an eye on the future but the challenges in terms of funding and resources continues to limit the opportunities available to all New Zealand students.

Purpose

The purpose of this sabbatical report was to reflect on the opportunities (and challenges) for schools as the use of ICT and e -learning becomes more accessible. Until recently the cost of resourcing schools in provision of the hardware, software and staff PD limited the adoption of the use of ICT. However recent ICT PD along with greater numbers of teachers now more familiar with the everyday use of the newer technologies drives change in teacher practice and learning opportunities for students.

Participation in the ICP Convention in Singapore and the Asia:New Zealand Principals' Forum in Singapore assisted with providing an international perspective to this report.

Background

As a small, secondary school, in a small New Zealand city, Wanganui Girls' College is well placed to benefit from the opportunities available through the use of data show projectors, interactive whiteboards, cameras and the internet, on-line resources, and video conferencing along with Web. 2.0 applications to deliver rich, engaging learning opportunities to its students.

As a recent school participants in the Ministry of Education's ICT PD programme Wanganui Girls' College school management and staff have developed a strong strategic direction in the use of ICT to support learning and teaching. Student and school data is managed through the MUSAC system, including electronic attendance

returns and the college is in the process of adopting, and adapting to the Ultranet learning management system.

The campus has a number of projectors installed in classrooms in all curriculum areas and the Board of Trustees fully funds staff who make use of the TELA leased laptops (as do 90% of school boards in New Zealand) provided the laptops are used daily in class with their students. Currently one interactive whiteboard is installed and this is fully utilised by college staff and plans are in hand to increase the number across the school.

Wanganui Girls' College has led the charge in the region for provision of fast fibre broadband for schools and the local community and in September 2009 the school was chosen, as first of fourteen schools, to receive funding to support a major upgrade to their ICT infrastructure as part of the government's \$34 million boost for broadband for schools.

The schools selected will be first to receive internal network upgrades of around \$5 million of the \$34 million allocated, providing opportunities for teachers and students to make greater use of digital learning technologies and improving access to online learning tools.

The Minister of Education confirmed this announcement by stating that "Ultra-fast broadband has the potential to enhance the teaching and learning experience for students in every New Zealand school. It will allow schools to access a wider range of online resources and tools, and deliver programmes that are relevant and engaging for students." She believes that ... "ultra-fast broadband will deliver a social and economic step change in New Zealand - schools are one of our first priorities as the benefits of greater broadband capacity will be felt very quickly."

Activities Undertaken / Methodology

This sabbatical began with attendance at the 9th World Convention of International Confederation of Principals (ICP) held in Singapore from Monday 6th July to Thursday 9th July. The ICP Convention was organised by the Singapore Academy of Principals and over 1500 principals and school managers from 60 countries were treated to an impressive line-up of keynote speakers and workshop presenters. Nearly 90 primary and secondary principals attended from New Zealand. In 2011 the ICP Convention will be based in Ontario and the 2013 convention to be in Dublin, Ireland.

Following this conference I joined Asia:New Zealand Foundation, along with 10 other New Zealand school principals at the Singapore Principals' Forum which concluded on Sunday 12th July.

Highlights of the Singapore Principals' Forum were visits to the Singapore Ministry of Education and to the National Institute of Education (NIE) which is Singapore's national teacher education facility and research institute. The NIE visit included a session in "The Classroom of the Future".

Review of current initiatives around e-learning was a focus of my thinking at both events and was followed up with a review of current activities in New Zealand schools with reference to recent international research.

Findings

Ministry of Education reports state that “e-learning typically involves some form of interactivity, including online interaction between the learner and their teacher or peers. E-learning opportunities are usually accessed via the Internet and its associated tools and software. However e-learning is evolving to include an increasing use of a wide and diverse range of other technologies and tools. These include video and audio conferencing, mobile phones, data projectors, digital cameras, global positioning systems and interactive whiteboards.”

Flexibility in terms of time, place and means of learning are key to the use, relevance and efficiency of e-learning. The use of e-learning has extended beyond being useful for distance learning and it is more about using the full range of relevant technologies to provide the best and most appropriate ways of supporting learners’ engagement and achievement. E-learning offers teachers new approaches to teaching that overcome barriers of distance and time. This provides expanded opportunities for learning beyond the classroom, and provides for more varied and deeper learning.

The Ministry of Education also state that “e-learning offers students opportunities to:

- become confident and skilled at using ICT now and in the future, at home, at work, and in the community
- develop literacies and competencies that are needed in order to contribute to and effectively participate in the 21st century society and workplace
- gain relevant and appropriate qualifications
- experience work-related learning and, for some, enter into specialised study and careers in digital technologies
- provide lifelong learning opportunities by making formal learning available at home as well as in the workplace and community; and
- make informed choices about how, what, where and when to learn.”

The Ministry of Education also supports boards, schools and teachers through the Virtual Learning Network (VLN) as schools and teachers work to combine traditional learning facilities with virtual environments. The Ministry facilitates online learning environments through the use of video conferencing and other technologies in both the school and tertiary sectors. There are a growing number of networked “communities” with the VLN and resources are being developed to “increase and enhance the capability of teachers, principals, education providers and Ministry of Education staff to work in a blended environment.”

Over 64% of New Zealand schools have been or are involved in the Ministry of Education’s ICTPD initiative, which receives approximately \$11 million per year.

Each cluster has up to \$120,000 available each year for the duration of the three year programme to support ICT professional development activities.

This school-based professional development continues to provide valuable learnings for teachers based on school needs and the sharing best practice. Enhancing teacher

capability is vital and the links developed beyond the schools assist in the sustainability of the professional discussions.

Te Kete Ipurangi (TKI) is an extensive site where a vast number of useful sites are collected and available for all involved in education – teachers, senior managers, boards, parents and school communities.

Improvements are planned for this site to allow more online collaboration while retaining the access to the huge resource base.

Curriculum resources are available online through The Learning Federation (TLF) which is a collaborative initiative between the New Zealand and Australian governments. This project has evolved over time and the future goals of this project focus on student access to appropriate, rigorous, stimulating courses and resources, anytime, anywhere. Collaboration between students, teachers and parents using digital technology is envisaged. Digistore, available through the TKI website, is the New Zealand repository, where this digital content is hosted.

Another very useful and extensive resource also available through TKI is the “Software for Learning” area. Quality software, reviewed by teachers, available at minimal or no cost is available for teachers to utilise as part of their learning and teaching programmes.

Internationally research is underway to ascertain the difference, if any, that online learning makes to students’ performance. Steve Lohr writes in the New York Times that a recent 92 page report into online education reached the conclusion that “... on average, students in online learning conditions performed better than those receiving face-to-face instruction”. Until fairly recently online education was not much more than access to electronic versions of correspondence type courses but with the arrival of web-based video and interactive and collaborative tools along with instant messages the learning is now more tailored to individual students than possible in conventional classrooms.

Other findings are that students are more likely to help each other learn through web discussion boards, instant messaging and social networking as part of learning communities. Numbers of students involved in e-learning will grow exponentially in the next three to five years as this paradigm shift occurs.

New Zealand Council for Educational Research (NZCER)’s 2004 paper “Critical Success Factors and Effective Pedagogy for e-learning in Tertiary Education” confirm that e-learning is attractive for learners as it allows for flexible time, pace and feedback of progress online. “It can also offer different activities and ways of gaining understanding to what are available through the printed or spoken word, and can allow more problem-solving, “real-life” activities, including some that involve working with others. It can free teacher-student shared time to focus on understanding, rather than skill-practice or the transmission of information.”

It is interesting that the NZCER report also found that “... learners largely do not want these gains to occur at the cost of interaction with others, particularly

teachers and fellow students. This is particularly clear for Māori students, but is not unique to them. The literature on effective pedagogy and learning underlines the importance of such interactions, and has led to more attention being paid to the nature of interactions that are most productive for student learning.

One of the ironies of e-learning is that while there may be fewer face-to-face same-room experiences, there can be more interaction through feedback, and the use of email and shared messages in discussion groups. But these do not supplant the need for some face-to-face contact, particularly at the start of courses. It is interesting to see the gradually more strategic use made of face-to-face contact, email, and discussion groups or bulletin boards in the evidence provided by teachers reflecting on changes they have made over the years in their courses.”

Schools and teachers must think carefully about the desired outcomes of e-learning courses, of the connections between course structure, resources, activities, and assessments and learning outcomes. The ability for teachers to be available out of teaching and learning time must be managed to ensure student expectations do not burden teachers.

Access to the technology be it hardware or fast speed internet is also an issue. School communities vary and access must be easy, reliable and inexpensive. Student needs should drive the move to “blended courses” and the focus should be on ways to engage students successfully in learning.

The recently published “ICT in Schools Report 2009” found that “schools spent approximately 10 percent of their total operations grant for 2008 on ICT related goods and services”. This report also concludes that “New Zealand teachers continue to be in the higher levels of ICT adoption” and there continues to be movement of teachers reported adoption of ICT from lower levels of awareness/avoidance to confidence, adaption to other contexts and creative applications.

New Zealand primary schools have on average one computer per four students and secondary schools one computer per three students. There seems to be little variance between high and low decile schools in the number computers available for student use.

Various initiatives are underway around New Zealand following the lead of the “The Loop” established in Nelson which now reached the consolidation stage and connects over 30 schools including a number of large secondary schools. The emergence of other community based projects similar to the loop has led to the creation of a Super Loop group to assist and help other Loops through support and guidance.

The long term goal is to be part of the Government’s KAREN project which links all the universities and research centres throughout New Zealand to the world’s universities through a dedicated ultra fast network.

The Wellington Loop is a learning community of (initially) six secondary schools connected by high speed fibre optic cable supplied by [CityLink](#) Ltd.

The Wellington Loop provides network, systems, and application IT services to form an exciting set of professionally managed and supported digital resources and services that would otherwise be too costly for individual schools to provide.

The advantages to schools to co-operate with local authorities and businesses include high speed, uncapped internet access, the availability of access to KAREN to access advanced education networks worldwide, the ability to store video resources and to view in real-time, connected Learning Management Systems reducing individual schools costs, and use of the web 2.0 platform.

The Interface magazine is a New Zealand publication which provides a wealth of ideas for school leaders and teachers as we move to this provision of this “blended classroom”. Recent articles on their website include how schools are making use voice-over-internet application Skype which is currently being trialled in New Zealand as a tool to assist struggling readers. The free service allows users to make voice and video calls on their computer, enabling one-to-one and even face-to-face tuition for students without access to a local teacher.

“Tutoring with Skype has enormous potential to lift reading levels of children who don’t have access to one-on-one tutoring,” says Professor Nicholson, a Literacy professor at Massey University who is trialling the software. Nicholson also plans to expand the programme, in partnership with schools.

Principals have also prompted Nicholson to look at developing a nationwide scheme for children with no access to reading tuition.

Other Interface magazine links detail how the “early adopters” are using e-learning in their teaching and learning programmes and sharing ideas and resources with their colleagues and peers. Principals are now appointing teachers to take responsibility for e-learning in their schools to model and share best practice. Making use of dedicated Learning Management Systems (LMS) and Virtual Learning Environments (VLE) in traditional classrooms is exciting and challenging for teachers who have taken up this opportunity.

Implications

At the heart of this discussion is student engagement and ownership of learning.

On-going challenges to schools continue to involve the funding of the physical equipment, the maintenance of networks and systems and the provision of appropriate professional development of teachers who have been in the profession for some years. Younger teachers coming into the profession are more able to integrate ICT into their classrooms and do not feel threatened by the new challenges. In most schools some more experienced staff are now moving to integrate the new technologies into their teaching programmes.

The MOE ICT PD has been invaluable to school communities as it has enabled learning networks to be set up in and across schools based on interest and skills of key staff.

New Zealand schools have been encouraged and in some cases supported by the MOE to provide a minimum standard of network facilities. With the move to instant availability of data and information through the internet and other instant communication devices schools and communities are moving to develop strategies to meet this changed approach to education. The discussion should be about how student

learning can be enhanced and new and relevant information produced not about information reproduction and how to resource the necessary equipment and professional learning needed.

Funding for property upgrades, network provision, and support personnel is critical for success in implementing new approaches for teaching. Schools built when older technologies and teaching approaches were in vogue are not ideal suited to this 21st century approach.

Acknowledgements

I would like to thank the Board of Trustees, Wanganui Girls' College for their support of my sabbatical leave application and the Senior Management Team who ensured the college ran smoothly during my absence. I would also like to acknowledge the Ministry of Education for the provision of this valuable professional opportunity. It is vital for principals to take time to review, reflect and refresh and then return to the key task of leading learning and teaching in their schools.

References

Anne Tolley's announcement of commitment to fast fibre for schools

<http://www.scoop.co.nz/stories/BU0911/S00415.htm>

E-learning MOE link

<http://www.minedu.govt.nz/NZEducation/EducationPolicies/TertiaryEducation/E-learning/WhatIsE-learning.aspx>

MOE ICT e-learning Action Plan

http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/Initiatives/ICTInSchools/ICTInitiativesAndProgrammes/OverviewOfICTProgrammesForSchools09/The_E-learning_Action_Plan.aspx

MOE Virtual Learning Networks

<http://www.minedu.govt.nz/NZEducation/EducationPolicies/Schools/Initiatives/ICTInSchools/ICTInitiativesAndProgrammes/OverviewOfICTProgrammesForSchools09/EffectiveTeaching.aspx>

<http://www.virtuallearning.school.nz>

National Institute of Education's Classrooms of the Future

<http://teachers.nie.edu.sg/portal/page/portal/TeacherPortal/ContentDetails?paramMainTab=2¶mNodes=603>

Asia:NZ Foundation

<http://www.asianz.org.nz/our-work/educating-asia/success-stories/singapore-principals>

Te Kete Ipurangi (TKI)

<http://www.tki.org.nz/e/tki/>

The Learning Foundation link

[Learning Federation website](#)

Digistore website

<http://www.tki.org.nz/r/digistore/>

Software for Learning link

<http://softwareforlearning.tki.org.nz/>

New York Times article link

<http://bits.blogs.nytimes.com/2009/08/19/study-finds-that-online-education-beats-the-classroom/>

Link for New Zealand Council for Educational Research's 2004 paper "Critical Success Factors and Effective Pedagogy for e-learning in Tertiary Education"

http://www.minedu.govt.nz/NZEducation/EducationPolicies/TertiaryEducation/PublicationsAndResources/~/_media/MinEdu/Files/EducationSectors/TertiaryEducation/NZCERFinalReport.pdf

ICT in Schools Report 2009 published October 2009 was commissioned by the 2020 Communications Trust

Website for National Education Network re KAREN

http://www.wiki.karen.net.nz/index.php/National_Education_Network#Outcomes

Wellington Loop link

http://www.wiki.karen.net.nz/index.php/Wellington_Loop

Interface magazine link

<http://www.interfacemagazine.co.nz/>

Interface articles link

http://www.nz-interface.co.nz/articles.cfm?c_id=&id=247

<http://markcallagher.com/>

Blogs available through Interface Magazine

<http://www.interfacemagazine.co.nz/teacherblogs/index.cfm?id=2>

The Nelson Loop link

<http://www.theloop.school.nz/>

<http://www.waimea.school.nz/index.php?pid=113>