

# **THE EFFECTIVE USE OF ICT TO SUPPORT BEST TEACHING PRACTICE – IN UK SCHOOLS.**

## **Sabbatical Report – Barrie Eccles Term 2 2010.**

### **Acknowledgements**

- I would like to acknowledge first and foremost the Milson School Board of Trustees for supporting my application for sabbatical leave.
- I also acknowledge my senior staff and other school staff, who stepped up to carry out the extra duties in my absence.
- I acknowledge the Ministry of Education for making sabbatical leave available to principals. The opportunity to be able to take time out and look in depth at an aspect of our practice, and to have a period of refreshment is invaluable.
- My last acknowledgement is to the schools I visited, nine in total. The head-teachers, and in several instances other staff, gave me a large amount of their time in a generous and open manner, to share what their schools were doing with pride and enthusiasm.

### **ICT AND BRITISH SCHOOLS**

During the 2<sup>nd</sup> term of New Zealand school year I was granted a sabbatical and along with my wife we visited schools in England and Scotland to look at the use of ICT and the impact it was having on educational learning in those schools.

I was especially lucky to have had contact with Richard Chapman at Wedgnock House from the Warwickshire County Council in England where it was arranged for us to visit the centre and to visit 3 local schools – all of which have been involved in ICT developments. I also was given reference to a number of schools in Scotland through Annie Jarvis at the Training and Development Centre in Edinburgh and followed up with visits to three of these. We were also able to organise three other schools through various contacts including a teacher's exchange group in Scotland.

The schools visited are listed at the end. Most schools we visited have been recognised for work in the ICT area – although not exclusively, therefore we can only see it as a sampling of schools. My comments I have kept to being general rather than specific to various schools, but have tried where possible to include their web sites and other relevant web sites so if interested you could visit them for further information.

Obviously being a school principal (like any educator I guess) I looked wider than just ICT when visiting these schools and gained a lot of other information (although not specifically pertaining to this area of study necessarily) which will be of use also, in my understanding of

educational systems in a couple of other countries in relation to New Zealand systems and educational practices.

## **GENERAL OVERALL OBSERVATIONS AND FINDINGS**

In general we found far more similarities than differences. It is very obvious that the various Education Govt agencies and our Ministry of Education have been communicating a lot, and from curriculum, to support packages, to leadership advice many things are much the same in both countries.

In England, I found that the administration systems within schools was much more similar to ours than I had presumed, with head-teachers having similar roles to NZ Principals – especially in regard funding, staffing, decision making and local management. However the amount of support they were receiving for ICT was dependent on the county area they were in. In particular we visited a number of schools in Warwickshire and the impression gained is that the schools in this area that work with Wedgnoek House<sup>1</sup> (which was a part of Warwickshire County Council – although largely self funded) were gaining a lot of guidance and assistance that wasn't necessarily available elsewhere.

In Scotland schools seemed to be very dependent on the local county as to what their funding was like and what level of independence they did or didn't have. Many head teachers had little or no role in staff appointments for example and relied on ICT technology being supplied from the county – and had varied control over how much was supplied or when or what type.

In the five districts we visited in Scotland (including one private school) each had quite different levels of backup and support from local county's. However there were some Scotland wide initiatives (such as "**Glow**"<sup>2</sup>) that all schools were using.

With the new "*Curriculum for Excellence*"<sup>8</sup> in Scotland being implemented this was having an impact on how schools were working, and although different from our new curriculum there were many obvious similarities in the thrust of the document – which is to be implemented fully in the coming school year – 2010/2011. There were many web site supports being offered for teachers and leadership teams for this curriculum implementation.

The National Curriculum of England which in one of its summaries says "*Our National Curriculum sets out the knowledge and skills that are important for our children to become successful learners, confident individuals and responsible citizens. Schools bring learning to life, raise aspirations and help children meet the challenges of today and tomorrow.*" This sounds very similar to statements in our new revised NZ Curriculum. However the current curriculum in England was shortly to be completely changed, but with the elections this has all been put on hold and the new government may well come up with some large changes – they are waiting to see!

Therefore I guess it is no surprise when walking around schools in both countries that in most classrooms you could have easily been in a New Zealand school – if it wasn't for the various

accents! The content was very similar, literacy and numeracy focus, their focus on teaching and learning, children “citizenship”, and co-operative learning (a strong focus in some Scottish schools) was very similar to my own classrooms at home. Children’s interactions with teachers and each other were very similar implying similar relationships occurring between child and teacher. The only obvious difference being the supply of lunches in dining rooms in every school, increased security having to be “let in” from every front school door and often wearing security visitor badges, and one new school where the building was built by a commercial firm, then leased to the county (hence the school) for 30 years – this apparently is becoming quite common in Scotland.

## **THE ICT INFRASTRUCTURE**

From an infrastructure point of view this varied (like NZ schools) across all schools in both Scotland and England. It also depended on the size of the school and funding made available for purchasing etc. While most schools had interactive white boards it wasn’t available in all rooms and the previous impression I had that all schools had been provided these was not quite correct. Some were provided (but not all rooms) as were some computers for teacher use – but nothing quite the same as the TELA scheme seemed available. Most schools had “computer suites” with 1 to 6 computers in classrooms for children. However one school had 2 classrooms where every student had a Toshiba notebook – (this was the Yr 4 children) this was being expanded to other classrooms over the next 2 years. Wi-Fi or something similar was available in most schools but some were still developing this side since they weren’t using many laptops at that stage. PC’s (versus Apple) certainly dominated in the schools we were in.

The main assistance to help with the infrastructure and software available was to do with local county support – which varied depending on where the school was. The Warwickshire set up allowed for all schools to house their main information off site, allowed for the supply and licensing of software, setting up of servers with off-site maintenance being included as well as supplying hardware when required saving the schools carrying this out (although schools still paid for it). They also acted as “internet watchdogs” as well as assisting schools in setting up systems to report to parents on line etc. They also provided for Professional Development of staff and e-learning advisors as well as having “help lines” available (for both technical and educational purposes). The provision of Learning Platforms is a key to providing parents with secure access to information about their child’s progress and achievement. In most schools this side was still being developed and not fully completed yet. It was also leading to information being provided across schools about pupils when they transferred. To find out more about this group go to their website listed below.<sup>1</sup>

In Scotland local support, as mentioned above, depended to a large extent on local county authorities. But across Scotland schools have access to their Country wide “intranet” Platform called “GLOW”<sup>2</sup>. All schools were making use of this to share ideas, communicating to other schools and experts, using common software etc. It is written up as “*the world’s first national intranet for education.*” This is obviously in a development phase but schools were using it for a variety of purposes but it included such things as individual

and school wide planning, school calendar sharing, video conferencing, storage of teacher and pupil work. It looked like it had great potential – you can access it through the net<sup>2</sup> and find out more.

Standardisation of equipment obviously helped within schools – and this included software. Many schools seemed to own their equipment but in some (in Scotland) the equipment was owned by the local county who had control of when computers etc were replaced and also to a certain extent seemed to dictate how many computers schools got. In one case a school had purchased extra computers through its own funding and because the ownership of computers had been contracted out to a local business by the relevant county - they were now assuming control of the school owned machines and planned to take ownership of these machines and then not replace them when the time came to upgrade – this is an ongoing debate in the local area as you could understand!

## **POSITIVE USE OF ICT IN SCHOOLS**

**The following were some examples that we observed or were discussed that I saw as enhancing the use of ICT for pupil or staff learning.**

- 1) There was very high use of ICT for administration and management purposes, with things such as GLOW and other NEN structures assisting schools in having “off site” savings of many IT structures so that all staff could access them as well as having access off site – e.g. from home for such things as planning and assessment data. It also provides internet protection from SPAM as well as illicit sites.
- 2) A number of schools had developed (or were in the process of developing) matrix of learning goals and how ICT was to be used across the school, so there was a progression of skills and programmes being used across year levels.
- 3) Most schools had interactive whiteboards (although not necessarily in all classrooms) of various types – being used for formal teaching – to involve pupils actively with the learning as well as being part of rotational learning in reading or numeracy.
- 4) The schools where other Information Technologies were available for children to use obviously enhanced the learning – this included such things as flip video cameras; digital cameras; bee-bots; hand held microphones; talking videos and 3D viewers. The easy availability of this equipment seemed vital – and the open trusting of pupils to use the equipment independently and responsibly was needed for its use to be timely and effective.
- 5) Some schools also ran effective computer clubs as well as digital camera clubs to enhance the use of equipment in out of class times.
- 6) Schools that had effective “off site” storage facilities for data meant pupils and staff could access their information easily from previous years although one school had a “cap” on folder size with a maximum size available.
- 7) One school that had implemented individual laptops for every pupil in one year group meant regular ongoing access by all pupils – this included having software which allowed the teacher (or pupil) to display any pupil’s laptop on the interactive whiteboard at any time.

- 8) The use of a flat-board visualiser (allows you to project any image onto a screen – whether book, picture, photos, insect etc) in some rooms provided a quick and effective way of allowing children and teachers to share work, ideas with others – without the need to scan it into a computer first.
- 9) A number of effective computer programmes were being used – with many being internet based and also in some schools the programmes available had already been vetted by an outside educational agency to ensure they were safe as well as being educationally valuable – obviously saving teacher time. These ranged from use of PowerPoint, think-quest, audacity, mathletics, Honeycomb, My Space, Textease, Kar2ouche, Scratch (for designing games), paint, Easiteach (type of turtle), Do it Yourself [www.2simple.com](http://www.2simple.com) – for the making of games, Dreamweaver (in senior school for web development) and podium (recording sounds) to name a few we saw being used.
- 10) The NEN<sup>3</sup> (National Educational Network) provides free resources to most schools – a bit like tki in structure. The main site shows what systems are being used across UK – in Scotland for example it is **glow**. Each area has its own system. If you go to the above website<sup>3</sup> you can then link to each area to see what it is being used for.
- 11) In the South West (Warwickshire area that we visited) for example, SWGfL<sup>4</sup> are providers of the [NEN](http://www.nen.gov.uk)<sup>3</sup>, supplying schools throughout the South West with broadband connectivity and related services, E-Safety guidance and innovative E-Learning projects.
- 12) Becta's Schools website<sup>5</sup> offers advice and guidance to school leadership teams on how technology can be built into teaching, learning and management. It also offers advice and guidance to schools leadership teams on how technology can be used to can be built into teaching, learning and management.
- 13) Local areas have web site access to show what teachers and schools are doing to implement the curriculum – eg in the Falkirk area in Scotland<sup>6</sup>.
- 14) The most effective use appeared to be where the ICT was being used in conjunction with other classroom activities – this was most obvious in classes that had group activities going on (often obvious in infant sections of the school) where one group would be using some ICT to enhance the learning that was going on – whether using cameras, sound systems, computer programmes, researching using google etc – while others in the class were involved in non-ICT activities.
- 15) The access to extra personnel (often specialist) also had an impact on what could be offered. In one school they had a person available within the large computer suite (45 computers) to assist in taking groups or classes as well as a technical assistant who assisted with any hardware /software issues – meaning classroom teachers didn't have to deal with this (especially in the one very large school we visited that catered for up to 4,000 users!). One definite benefit of being in a larger school that could put resources (hardware and staffing support) into this area.

## **General Comment and Conclusion**

From viewing the schools we visited, I have made the following general summary about the use of ICT in schools generally.

- 1) The interest and attitude of the head-teacher was paramount in deciding the importance, place and promotion of ICT within the school.
- 2) However the effective use of ICT was highly dependent on teachers and staffs who worked collaboratively in sharing ideas and planning – and looking at best practice regularly.
- 3) It was also highly dependent on having strong outside agencies which supported the infrastructure; network base; hardware and software support – as well as fostering and developing staff professional development in this area.
- 4) The affect of the local/county support or otherwise was also critical in insuring schools had sufficient hardware and software support.
- 5) It seemed that the most effective use of ICT was when it was strongly integrated into the classroom programme in a way that supported the learning goals and was seen as part of the learning process rather than a separate process in itself.

## **CONCLUSIONS**

**For my own school therefore, as a result of this time to look and reflect on good practice, what conclusions have I come to:-**

- 1) It is vital if class teachers are to make effective use of the technology it must be readily available and “working” well.
- 2) ICT must not been seen as an add on but must be integrated into classroom programmes in a meaningful way.
- 3) The development of a learning platform within the school that will support student saved work which can be shared with parents, and to allow teachers access to files off site is something that we need to investigate, look at developing and implementing over the next year or so.
- 4) Regular opportunities need to be given for pupils and staff (in small groups and across the school, and with other schools) to share good ideas, programmes, sites, and best practice that supports learning.
- 5) To focus on the good things that are happening within our school and promoting these with other teachers and parent community.

## References - Schools and Places Visited (with key contact and web sites)

### England

- Colin Talbot – E learning Advisor/Sarah Fitzgerald. Wedgnock House – Warwickshire (email [colintalbot@warwickshire.gov.uk](mailto:colintalbot@warwickshire.gov.uk)).  
Web:[www.warwickshire.gov.uk/ictds](http://www.warwickshire.gov.uk/ictds)
- Telford Infant School Head teacher - Alison (Ali) Foster
  - Web site - [www.telford-inf.warwickshire.sch.uk](http://www.telford-inf.warwickshire.sch.uk)
- Wembrook Primary Head teacher - Simon Pearson
  - Web site - <http://www.wembrook.warwickshire.sch.uk>
- Michael Drayton Junior School Head Teacher – John Buxton
  - Web site - [www.mdjs.co.uk](http://www.mdjs.co.uk)
- Fairfield Primary School, Nottingham Head Teacher – David Howston
  - Web site - [www.fairfield.notts.sch.uk](http://www.fairfield.notts.sch.uk)

### Scotland

- Victoria Primary School, Falkirk Head teacher – Gillian Purves
  - Web site - <http://www.victoria.falkirk.sch.uk>
- Downfield Primary School, Dundee Head teacher – Olivia Menzies
  - Web site – n/a
- Leslie Primary School, Leslie Head Teacher – Lily Proudfoot
  - Web site - <http://www.fifedirect.org.uk/atoz/index.cfm?fuseaction=facility.display&facid=BA6EC4C9-FADA-420F-898BFB6DE863D5DF>
- Croy Primary School, Inverness Head teacher – Derek Martin
  - Main Contact – Alison Bone
  - Web site - [www.croy.highland.sch.uk](http://www.croy.highland.sch.uk)
- Jeremy Scott/David Porteous – George Herriot’s School, Edinburgh
  - Headmaster – Alistair Hector
  - Main contact – Jeremy Scott
  - Web site - <http://www.george-heriots.com/>

### References to web sites referred to above.

- 1 – [www.warwickshire.gov.uk/ictds](http://www.warwickshire.gov.uk/ictds)
- 2 - <http://www.ltscotland.org.uk/glowscotland/index.asp>
- 3 - <http://www.nen.gov.uk/>
- 4 - <https://www.bigdayout.swgfl.org.uk/home.htm> (South West Grid for Learning Trust).
- 5 - <http://schools.becta.org.uk/>
- 6 - [www.falkirkvtcstaff.org.uk](http://www.falkirkvtcstaff.org.uk) (Virtual teacher centre for use by Falkirk Schools) or <http://Falkirkvtc.org.nz>
- 7 - <http://www.hvlc.org.uk/hlp/> - to help out literacy teaching
- 8 - <http://www.ltscotland.org.uk/curriculumforexcellence/index.asp>