Investigation into the impact of ICT in Aberdeenshire schools in Spring 2008

Background

Aberdeenshire, in common with all Scottish education authorities, is keen to know what impacts use of ICT is having on learning and teaching in their schools. In particular they were seeking the following

- Evidence of the impact ICT is making on learning and teaching before starting to roll out the uses of Glow

- Capture information and collate findings to inform planning for improvement and the key initiatives which they planned to take forward through use of Glow

- Assess the gap between where the majority of staff skills stand and where it would ideally be to take full advantage of Glow and other ICT opportunities

They decided to make a dual approach to these tasks

1 A short staff survey, which would gather a lot of statistical evidence, as a 'baseline' with which to make comparisons later

2 A series of structured interviews with staff, pupils and parent representatives in a cross-section of schools and with a small number of central support staff

Interviews

The structured interviews included questions about the following areas

- Gauging the impact of ICT to date in Aberdeenshire schools on a selection of key aspects of lifeskills: independent learning; exploratory learning; interdependent and collaborative learning; creative learning; reflective learning; structured learning MIICE was used as a starting point for many of these aspects of learning and teaching

- The development of ICT skills through programmes of study and through permeation of the curriculum

- The impacts on Aberdeenshire schools and learning of home use of ICT

- The infrastructure for application of ICT for learning in Aberdeenshire schools

- The system for training and supporting use of ICT in Aberdeenshire schools

In addition the staff questions included feedback about the success of a set of 5 local activities related to ICT

- Training in the use of interactive whiteboards (SMART Boards)

- The Aberdeenshire NGfL Programme of Study [primary only]

- The use of the RM Window Box collection of software [primary only]

- The work of the visiting ICT Specialists [primary only]

- Use of ICT to raise attainments in writing, especially to engage typical boy learners in writing [primary only]

Additionally, school managers and central staff were asked a couple of questions about major strategic issues

For the questions to professionals about the impacts of ICT on learning and teaching, there were scales to record staff judgement about the impact of ICT to date, and about their personal view of the importance of that aspect of learning for future policy and practice in Aberdeenshire schools. Pupil questions used only a single scale about impact to date

It was important that a range of perspectives was captured in the investigation. The following were agreed in the planning framework [with the number of individuals (staff) or groups (pupils and parents) in brackets]

- groups of pupils in P2 and/or P3 [2]
- groups of pupils in P4 and/or P5 [2]
- groups of pupils in P6 and/or P7 [2]
- groups of pupils in S1 and/or S2 [2]
- groups of pupils in S3 and/or S4 [2]
- groups of pupils in S5 and/or S6 [2]
- parent councils in primary schools [2]
- parent councils in secondary schools [2]
- classroom assistants in primary schools [2]
- SEN auxiliary in special or mainstream setting [1]
- librarians in secondary schools [2]
- nursery teachers [2]
- nursery nurses [2]
- teachers in SEN school [2]
- teachers in P1-P3 who are experienced ICT users [2]
- teachers in P1-P3 who are less experienced in using ICT [2]
- teachers in P4/P5 who are experienced ICT users [3]
- teachers in P4/P5 who are less experienced in using ICT [3]
- teachers in P6/P7 who are experienced ICT users [3]
- teachers in P6/P7 who are less experienced in using ICT [3]
- teachers of English, modern languages, support for learning who are experienced ICT users [2]
- teachers of English, modern languages, support for learning who are less experienced in using ICT [2]
- teachers of maths, science, technology, home economics, business education who are experienced ICT users [2]
- teachers of maths, science, technology, home economics, business education who are less experienced in using ICT [2]
- teachers of social subjects, religious/moral education who are experienced ICT users [2]
- teachers of social subjects, religious/moral education who are less experienced in using ICT [2]
- teachers of creative and aesthetic subjects who are experienced ICT users [2]
- teachers of creative and aesthetic subjects who are less experienced in using ICT [2]

- members of primary school senior management teams [4]
- members of secondary school senior management teams [3]
- central staff (QIOs or heads of service) [2]

These 68 interviews were shared across 14 primary schools, 8 secondary schools and 1 special school, in addition to the 2 central officers

In the selection of schools, the principle was again to incorporate a broad range, to take account of a range of factors, including the following

- Geography - all areas of Aberdeenshire from Fetterangus in the north to St Cyrus in the south, from Ballater in the west to Boddam in the east were represented

- Size - primary schools with rolls from 26 to 460, and secondary schools with rolls from 650 to 1240 were included

Samples of the wide range of questionnaires used accompany this summary
- Parents of primary school pupils
- Senior managers in primary schools
- Groups of pupils in secondary schools
- Staff in secondary schools

All 68 interviews took place between Monday 11 February and Tuesday 11 March 2008. A total of 52 professionals, 11 parent council members in 2 primary and 2 secondary schools and 67 young people from P2 to S6 in 6 primary and 6 secondary schools kindly gave their time and their views. A draft record of the main points of interviews was made and sent to those interviewed soon after each interview, to offer them the chance to comment and correct

Report

A report was drafted and discussed with members of the Aberdeenshire ICT team. Among the conclusions were the following

1 Clearly ICT has had a huge impact on teaching: web resources, word processing and email for preparation of materials and management of learning, interactive whiteboards for a range of approaches. But there has been less impact on learning. There is quite a wide discrepancy between the views of staff and the perception of young people about the opportunities young people get to be actively engaged in using ICT during the school day

2 Very many teachers already recognise that ICT has potential to help to deliver the new curriculum for Scottish young people aged 3 to 18 and almost everyone recognises that this is an important life skill for which schools have to take some responsibility. There was a lot of goodwill towards the more creative aspects of the new curriculum and the roles of ICT in this, although there is some justified scepticism about too glib an association between ICT and creativity. Like every other aspect of human endeavour, this needs to be worked on to ensure that deep learning is the goal, rather than just a presentational boost

3 There is a general feeling of optimism within the education service: staff, parent representatives and student groups all think that things are improving. There is

evidently also a lot of expertise within the system and many have given a lot of thought to how things can be made even better. It is vital that Glow and other methods are used to capture this goodwill and willingness to be involved which is surely the basis of the immense social capital within the education service in Aberdeenshire

The report also covered the following

- Using computers and ICT to help to learn

- Developing ICT skills in school and at home

- The operational infrastructure for schools

- The training and support infrastructure for schools

The benefits of using MIICE
- This was a speedy way to get some questions for the interviews with stakeholders to discuss and refine

- Using MIICE assured us that we were using a tried and tested tool, successfully used elsewhere for similar purposes

- It was useful to get to the core of learning and teaching, rather than being distracted into the sterile discussions about inputs and infrastructure, important though these are in support of one's educational purpose