Harnessing Technology: Schools Survey 2008

Report 3: Executive summary

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Executive summary

Introduction

This report summarises the main findings from the Harnessing Technology Schools Survey 2008, a national survey of ICT (information and communications technology) in primary, secondary and special schools. The National Foundation for Educational Research (NFER) carried out the survey on behalf of Becta in December 2007 and January 2008. The annual, representative survey is intended to assess the 'state of the nation' in terms of the uptake and impact of educational technologies in maintained schools across England. The survey has been running since 2002 under different names.

One of the key aims of the 2008 schools survey was to collect information that will help Becta assess progress towards the aims and outcomes of the original Harnessing Technology strategy, devised by the DfES in 2005, the revised strategy – Harnessing Technology: Next Generation Learning 2008–14 – and the Children's Plan, published in 2007, and to make strategic decisions based on the latest developments in ICT related to schools.

Key findings

Technological infrastructure

There have been some improvements in the quantity of hardware provision. For example, average numbers of interactive whiteboards have risen considerably in both primary and secondary schools since 2007. Pupil–computer ratios (which can be defined in a variety of ways) have been improving. In primary schools in 2008, there was an average of 13.9 pupils to every desktop computer and an average of 31.8 pupils for every laptop. In secondary schools, there were on average of 4.3 pupils for every desktop computer, but an average of 61.4 pupils for every laptop.

The vast majority of teachers reported that their computers were connected to a network: this was true for 94 per cent of secondary respondents, 69 per cent in primary schools and 66 per cent in special schools. Respondents were mostly positive about the speed, reliability and file-handling capabilities of their networks. In addition, most schools had their own websites, and around four-fifths of schools reported using this to provide information and resources for parents.

Management, leadership and administration

Most schools had a written strategy or improvement plan for ICT and/or e-learning, and generally these were reviewed on an annual basis.

Using learning platforms was a priority over the coming year for just over half of secondary schools, just over one-quarter of primary schools, and just under one-third

of special schools. Improving communication with parents remained a high priority for around one-third of primary schools and just under half of secondary schools. Using technology for personalising learning was a priority area for 40 per cent of secondary schools in 2008 compared with one-quarter of primary schools.

Across each of the three school sectors, local authorities and ICT consultants/advisers were key sources of information for schools in terms of influencing their ICT strategies or improvement plans.

Using computers for teaching and learning

Interactive whiteboards are the dominant technology in schools, and technology continues to be used primarily for presentational purposes. Display technologies are important, but there is scope for encouraging more engaged and interactive forms of teaching and learning using ICT. Linked with this, there is considerable opportunity for the further development of flexible learning based on increasing the use of mobile devices.

There is also much scope for the development of the use of social software for learning; at present, social software is reportedly used in only one in 20 schools.

Over 90 per cent of secondary schools reported offering their pupils a secure area for storing their work; this was similar to the percentage in 2007.

Teachers' use of digital learning resources, especially self-created resources, is increasing, with a quarter of teachers uploading such resources at least once a week. There have also been increases in the proportions of teachers sharing digital resources.

In terms of access to ICT facilities, school populations appear to have good access, and there is flexibility to accommodate pupils' use of facilities outside normal lesson times, but community access to ICT facilities remains somewhat limited.

In many respects, at a national level, the development of e-assessment is still in its early stages. Technology tends to be used for reporting pupils' progress rather than for interactive forms of assessment.

Practitioners' perceptions and continuing professional development

The majority of teachers across all sectors are confident and enthusiastic about using ICT. The substantial majority of ICT co-ordinator respondents (77 per cent) reported that teachers in their schools were either very confident or quite confident with ICT. Similarly, this sample reported that all or nearly all teachers were enthusiastic in 20 per cent of schools, and that most were enthusiastic in 51 per cent of schools. Having dedicated on-site technician support in a school appears to have a positive effect: a statistically significant association was found between reported

teacher enthusiasm in using ICT to deliver the curriculum and the level of technical support available in a school.

Teachers were largely positive about the potential contribution of new technologies to learning. For example, around three-fifths of teacher respondents agreed with the statement that pupils enjoy lessons more if they use ICT than if they do not. Across all three sectors, there was agreement generally that ICT plays a positive role in engaging pupils in learning, having an impact on attainment and in terms of personalising learning.

With respect to training and support, informal, in-school ICT support from colleagues clearly emerged as the form of training rated most positively by teachers. Almost all teachers had accessed this form of support, and just fewer than nine out of 10 found it a good form of training.

Special themes: home access, learning platforms, personalising learning

According to school leaders' estimates, a digital divide still exists: the mean proportion of pupils across all three school sectors who did not have home access to a computer was 30 per cent. There were some differences between sectors: secondary schools had the highest levels of home access, with only 17 per cent of respondents reporting that their students did not have access; primary schools reported 27 per cent of pupils not having home access, and special schools reported 44 per cent of students not having home access.

The use of learning platforms by schools is increasing. In all sectors, the percentages of schools with learning platforms had increased from 2007: secondary schools experienced the biggest increase. The most common uses for a learning platform were, firstly, as a repository for documents for learning and teaching and, secondly, as a store for digital learning resources.

The use of technology to support the personalising of learning is important for school leaders, but it is not the most important consideration; ICT infrastructure and teacher skills appear to be more important priorities at present. Teachers have mixed views about the impact of ICT on personalising learning.

Overview: changing features

It seems that in many respects ICT across the school landscape has not changed dramatically since 2007. But where there have been changes, these have been important in that they reflect positive developments in the use of, and attitudes towards, technology for teaching and learning.

Several longer- and shorter-term trends have continued. One of the most noticeable of these is probably the continued improvement in the ICT infrastructure and in the

numbers of devices available to schools. For example, average numbers of interactive whiteboards have increased considerably in both primary and secondary schools since 2007, pupil–computer ratios have continued to improve, and the number of learning platforms in use has increased. In addition, more than nine out of 10 schools now have their own websites.

These technical developments have been accompanied by important ongoing changes in attitudes towards, and confidence in, the new technologies, particularly among teachers and school leaders. The survey findings revealed that the majority of teachers, across all school sectors, were confident and enthusiastic about using ICT. Perhaps one of the most significant survey findings was that teachers' use of digital learning resources is increasing, with one-quarter of teachers uploading such resources at least once a week.

Teachers are also positive about the benefits and the potential contribution of new technologies to learning. For example, a substantial majority of teacher respondents took the view that pupils enjoy lessons more if they use ICT than if they do not. Across all three sectors, there was agreement generally that ICT plays a positive role in engaging pupils in learning, having an impact on attainment and in terms of personalising learning.

Adoption or transformation?

The Harnessing Technology strategy has enabled schools and practitioners to make good progress through the adoption stage, but it seems that there are important barriers to overcome before the ambition of transformation can occur. Indeed, the research findings from these surveys of schools in England are consistent with the findings from a report into ICT use in schools in Wales, which concluded that there had been 'good progress… but not transformation' (Department for Children, Education, Lifelong Learning and Skills, 2008, pp.1–18). Other findings also suggested that schools' use of ICT is not yet at a transformational stage (and that the landscape, in some respects, is not changing). These findings were predominantly related to the special themes mentioned above, which are:

- **Home access**: The school leaders' survey revealed that the estimated mean proportion of pupils across all three school sectors who did not have home access to a computer was 30 per cent. There is a still a digital divide regarding home access to ICT, which is seriously hampering progress towards the goals of closing the gap between those from disadvantaged backgrounds and their peers, and bringing the full benefits of ICT to every child.
- **Learning platforms**: Although, as noted above, the use of learning platforms by schools is increasing, progress is limited. Substantial proportions of schools still do not have a learning platform. Furthermore,

the most common uses for a learning platform are as a repository for documents for learning and teaching and, secondly, as a store for digital learning resources, both of which could be seen as 'passive' uses. There is also evidence that the culture of classroom technology use is still geared primarily towards display and presentational functions.

- **Personalising learning**: Although most teachers were optimistic about the potential contribution of ICT to personalising learning, teachers have mixed views about this. Furthermore, although the use of technology to support the personalising of learning was important for school leaders, it was not their top priority.

Future priorities

These issues are not new to Becta or other stakeholders involved in this field of education. Indeed, it is important to acknowledge that, to some extent, these problems have already been recognised and measures have been initiated to address them. For example, the Computers for Pupils scheme was targeted at pupils from socio-economically deprived areas, and Becta has commissioned research on reducing social inequity with technology.

An overview of the Harnessing Technology Schools Survey findings for 2008 suggests some important areas that merit further attention. The two most prominent of these appear to be a need to:

- look further at how technology can be used for developing partnerships between parents and schools
- support and encourage teachers and schools to use technology in ways which are more engaging for learners.

Evidence from these surveys suggests that community access to schools' ICT facilities is still somewhat limited and that, even where technological and virtual forms of communications with parents exist, these tend to be one way and not interactive. The whole area of community–parent–child–teacher–school communication is important, especially in the current context of the Children's Plan and the Every Child Matters agenda.

Understandably, it takes time to embed new technologies, and the simpler technological functions will inevitably be used first, but there does seem to be evidence to suggest much potential for the more engaging use of learning platforms, school networks, and devices. Formal training sessions for school staff, greater use of mobile devices and of social software, and more active forms of assessment, for example, might help encourage better learner engagement.

There are some obvious barriers to developments in these areas: with regard to engaging learners, for example, teachers have frequently cited the need for more

time to try out digital resources and the technologies used to deliver them. But these barriers are not insurmountable, and it is hoped that the findings presented here will help Becta and others to take ICT in schools forward into the transformational stage of the Harnessing Technology strategy, for the benefit of both teachers and learners.