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in Education**

2004 Report: ICT in schools – the impact of government initiatives

Secondary history

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Introduction

This report is based on subject-specific evidence from visits to secondary schools made as part of the inspection of the impact of government ICT initiatives between April 2002 and December 2003 and supplemented by evidence from other school visits where appropriate. This contributed to the main report, *ICT in schools*, which is available from the Ofsted publications centre (07002 637833) or via the Ofsted website (www.ofsted.gov.uk).

Main findings

- This sample reflects the national picture as shown in section 10 inspections: in three schools in ten, good use is made of new technology. In approaching three schools in ten its use remains unsatisfactory.
- This shows a little improvement on the situation two years ago, but with a stubborn minority of schools where ICT in history is very limited, either because of poor access to computers or negative attitudes towards their use.
- Although the majority of history departments did not find that the New Opportunities Fund (NOF) training met their needs, in most cases teachers' competence using ICT was taken forward by other school-based initiatives.
- There is strong evidence of improved quality and range of resources as a consequence of the ICT initiatives, but relatively few history departments have reached a situation where teaching and learning using ICT is consistently good, with a positive impact on pupils' progress and achievement.

The impact of the initiatives

Teaching and learning in history

In this sample of schools there was evidence of productive use of ICT to improve resources for lessons or the presentation of information or activities by teachers. However, it was rare to find pupils' learning enhanced by their use of computers, or of systematic use in school to underpin pupils' progress.

The majority of teachers now have sufficient personal competence in using computers to locate resources and/or devise materials such as resources and worksheets for use in lessons. Some of these materials are excellent, and serve to engage pupils' interest and bring the subject to life. In a minority of the schools visited, about one in five, teachers were using either data projectors or interactive whiteboards to present the lesson, and at best this was very effective. Very occasionally, this technology was very well used to involve pupils and develop their understanding. Sometimes this makes low-level use of ICT but effectively develops pupils' knowledge and understanding, as in this example:

In a Year 9 top set, a very well planned lesson involved pupils in work on aspects of trench warfare. The lesson was influenced by the methodology of the foundation subjects strand of the Key Stage 3 Strategy, but with more, smaller segments than the conventional three-part lesson. The lesson began with pupils' use of an interactive whiteboard to contribute to a sorting task, matching definitions with words to do with trench warfare. The task was slower than other methods, but with good gains in acquisition of knowledge. This was followed by a video clip of a night patrol and the accompanying worksheets. Use of the whiteboard enabled the teacher to make the explanation of task and consolidation absolutely explicit. The clarity of signposting of tasks was excellent. For example, when watching the video (twice) the datacapture sheet went up on screen for pupils to fill in their ideas on what the narrator was feeling. This supported very good vocabulary development: one student used 'intrepid' which then found its way into other pupils' work. The same worksheet had four sections – 'saw', 'said', 'heard' and 'felt' – in relation to the soldiers' reactions: this was particularly strong in bringing out the importance of sounds, and helped students to empathise strongly.

Key strengths of this lesson were pupils' involvement, utilising the interactivity of the whiteboard; the teacher's ability to pull up files swiftly, allowing clarity of signposting of tasks so pupils all knew what they were doing and to draw upon previous work/learning; and the quality of video presentation utilised a digital projector with broadband connection.

The following example demonstrates the benefits of good planning and a secure grasp of what can be achieved using ICT:

Pupils were enquiring into the question 'whom can we blame for the death of Thomas Becket?' The teacher modelled all tasks at each stage using the interactive whiteboard, and was thereafter in discussion with individual pupils and resolving any ICT problems. The task was very well planned, drawing upon materials from a history website, and with built-in progression. First, pupils highlighted words and phrases in a fictional news account of a battle between Henry II and the French king to identify fact and opinion. This was then consolidated in a whole-class discussion. Pupils then had to amend a neutral account of the murder of Thomas Becket to support either the King or the archbishop. Pupils were applying directly what they had just learned, and additionally the higher attainers drew upon the idea of censorship to cut details such as the armour and weapons of the knights in order to weaken the argument. Finally, all pupils saved their ideas at whatever point they had reached and then copied and pasted their article into a template using Publisher, selecting either of the Royal Herald or the Church Times. Such was the quality of the teacher's planning that these fitted exactly into the box in the template. Very good learning gains were made in knowledge of events, historical enquiry and communication skills. There was very good pace and a good focus on word use.

Even well-planned lessons using ICT can go wrong, and it is a characteristic of the most competent teachers that they have a suitable back-up. Thus, for example, when an internet link failed, making the planned evaluative activity impossible, a teacher produced paper copies of three selected sites so that pupils, working in groups, could

complete their work and comment both on the usefulness and reliability of evidence and, in some cases, on interpretations of history.

More generally, however, ICT use achieved little beyond what might have been expected of other resources, although it contributed in other respects such as motivating pupils. In a few cases its use was an impediment to the lesson. This was usually where the ICT was being used for its own sake. For example, in several lessons where databases were used, both the history and the ICT capability were at too low a level. This almost entirely arose from inadequate planning where, for example, the pupils' ICT skill levels were not known to the teacher, and the data were too limited or the database used was unfamiliar to the pupils. It remains a problem that some teachers have lower expectations of what pupils can achieve using ICT than for their normal working, and in some schools much of the work seen involved low-level word-processing including copy-typing or material mainly regurgitated from websites or CD-ROMs.

Some teachers find difficulty in working with computers; not knowing when to intervene, missing opportunities to make teaching points to individuals or whole classes. Sometimes the pitch of work is too low.

Although it generally remains the case that working on computers is motivating and can engage pupils in learning, there was some evidence in this sample of groups of pupils being off task, possibly because of poorly pitched materials (too low level or too difficult with over-complex activity) or because the computer had lost novelty appeal.

Standards and achievement in history

A broad range of applications was observed in this sample of schools. The most common use was in research and enquiry, either open or guided. The following is an example of good achievement in a carefully structured evidence-based task:

Year 8 pupils worked on computers to answer the question 'How united was the United Kingdom in 1707?' Pupils were directed towards a stored file that dealt with the general issue of bias, providing pointers. Pupils were then presented with seven quite challenging sources about the Act of Union. Drawing on their prior knowledge, pupils had to make inferences in order to decide which of the sources showed the United Kingdom to be disunited. The task was effective in itself, making pupils think about the sources and their origin. The gain from the use of ICT was in the encouragement to read at length, to use links to find out more about the origins of the source, and to cut and paste significant phrases.

The second part of the lesson gave pupils the opportunity to use word-processing or desktop publishing for reporting or persuasive writing. Some pupils demonstrated commonly held misconceptions about historical evidence ('it may not be reliable because it was written recently'). However, most applied their understanding of the use of evidence and produced a sensible argument. Some pupils went further than required, bringing textbooks to bear as well as using new websites. Overall this was a productive session. The first part could have been equally well done as a card sorting exercise, but this would not have had the same potential for extension or using links for research.

In this example, an enquiry was taken one step further, using ICT as the hub for research, establishing hypotheses and communicating findings. Pupils were given a block of time when the timetable was collapsed for work which developed both their history and their ICT capability.

Pupils were introduced to the task in a whole-group session. With the good use of presentation hardware the instructions were clear and pupils quickly proceeded to their tasks, working individually or in pairs. On screen, pupils were given a blank chart to complete to show military and civilian casualties respectively for participant countries in each of the two World Wars. They were given website references to use as a starting point in their search for data.

Over the whole two-hour period, pupils were fully engaged. Teachers were in support, responding to questions and prompting with ideas. The ICT teacher solved some minor technical problems, but taught ICT by enabling pupils to tackle what they were doing better, and teaching some specific skills where the need/readiness was identified.

Pupils found some of the data straightforward to locate and enter, but in other respects they found the data gathering to be problematic. For example, one site gave a total for 'GB and Empire Countries'; some sites disagreed on the numbers; some countries were absent from lists, for example Australia; and in general it was more difficult to find details for civilian casualties in the First World War. Pupils therefore had to search further to resolve these issues. Once a suitable site was found, the news quickly spread and others pursued the same search. Although this took some time, it was a worthwhile activity in using different search engines, in the rapid evaluation of the usefulness of different sites, and in the discussion which the findings promoted.

This led naturally to the next activity, started off with a plenary, to put up some hypotheses and to widen the search to test them out. At this stage, pupils branched into a wide range of enquiries, approved by the teachers who were in support. Some chose the theme modelled in the background papers for this task, improvements in technology, and focused on the impact of aircraft. Others began to resolve the problems of 'absent' nations by looking at maps to find why some countries (for example Yugoslavia) did not feature in 1914.

As the session progressed, pupils began to assemble material to contribute towards the project that they were to produce at the end of this block. They were encouraged to use word-processing, but desktop publishing or presentational software was also admitted. Some made rapid progress, for example in juxtaposing visual images and drafting explanatory and comparative text.

Overall this was a very productive session, to be followed up with five more hours on computers.

The two examples above demonstrate good use of ICT for research and enquiry, and consequent high achievement. In both, word-processing software was significant in improving pupils' thinking about history as an integral part of a broader activity. More often, pupils produced particular pieces of work using ICT to create an 'end product'. This is helpful where word-processing tools are used to compose, assemble, shape and

redraft text. However, the use of word-processing software did not always add to the history being taught, and occasionally it slowed it down, with laborious copy-typing when tasks could have been completed much more effectively by hand.

Other examples were observed where achievement was low, including low-level information transfer, and answering low-level questions from worksheets or published material (including some published using ICT).

Occasionally use is made of simulations. In the single example seen in this inspection, that of a factory owner in the industrial revolution, the history was fairly irrelevant as pupils treated the activity as a game. However, there are examples of worthwhile simulations where ICT enables pupils to place themselves in a past situation to make decisions or ask questions, for example as the interviewer of an historical figure.

Presentation software can sharpen pupils' thinking, forcing them to analyse and focus on particular issues or arguments. In the following example, a higher-attaining Year 9 pupil made a presentation on a subject of her own choosing, Elizabethan portraiture.

The pupil made sophisticated use of presentational software. The presentation was structured into sensible questions about the problems facing Elizabeth, leading towards the need for propaganda. A wide range of media was used in the presentation, including photographs, a timeline/family tree, 'scrolls' with the main points of the talk. The pupil read a complex accompanying text, showing good interpretation. Other pupils praised the presentation and made suggestions about how it could be improved further.

Relatively little work was seen using data handling, and this was generally at low level.

Many schools make direct use of revision programs. Although these can be motivating, this cannot be taken for granted and some pupils were disengaged during such work.

More broadly, in those schools where there is no entitlement to ICT in history, there is no significant impact on achievement, and no discernible progression is made over the key stage.

Implementation in schools

Leadership and management

The proportion of departments where ICT initiatives are well managed has increased since 2002, although in some of these the benefits to teaching and learning in history are, as yet, limited. In some schools, history departments were in the vanguard of innovation, with tangible support from the school in terms of resources and further training. Thus, for example, in one school the history department was taking the lead in a distance learning project to provide access for Traveller pupils. In another school, where all departments had been given a target for the proportion of teaching to be undertaken using ICT, the history department had gone further than planned, and were already at a stage of evaluation and refinement of tasks to be incorporated into the scheme of work.

However, in one fifth of the schools the history departments were among the weakest in terms of ICT development. In one case, misguided enthusiasm had taken the department in an unproductive direction, but in other cases this was the result of lack of understanding of what might be achieved using ICT, or positive resistance to its use.

These proportions are reflected in the extent to which use of ICT is established in the schools' history curricula. In over one third of the schools, ICT is well established either within the scheme of work or as a separate appendix cross-referenced to the scheme. In some of these there is a minimum requirement in the form of mandatory tasks that all pupils undertake, and usually these have been introduced after experimentation, evaluation and modification. In one school, for example, there is a significant piece of work using ICT in seven of the nine terms of Key Stage 3. In another school, these activities are specifically linked to both the ICT and English schemes. In one school where ICT is provided for across the curriculum, history has both core time and some full days when, with specialist help from ICT teachers, ICT capability is taught alongside history. One school has a mandatory assignment in Key Stage 4, linked to independent learning, and this is now planned additionally for Key Stage 3. In one school where history is expected to deliver enquiry-based learning using ICT this is not happening in all classes, with negative consequences for the ICT as well as the history curriculum.

Sometimes the planned ICT element is so insubstantial, for example a single lesson in each of Year 8 and Year 9, that it is unlikely to make a significant contribution to pupils' progress or learning.

In a few schools there is provision for use of ICT in the curriculum, but this is neither mandatory nor in some cases possible, because of lack of facilities. In one of the departments where the lead had been taken by an individual teacher who had since left the school, there was a vacuum. In several schools there is occasional ICT use, but this tends to be low-quality, unsustainable activity that fails to add to the quality of history in the school. For example, in one school ICT work consists mainly of the completion of low-level cloze exercises, and in another the work done is the same as if it were by hand, with ICT adding no value. In a small number of schools, there is minimal or no reference to ICT in the scheme of work. In most schools, pupils are encouraged or allowed to use ICT for particular pieces of work including homework.

Some well-managed departments are making use of ICT for assessment, using systems for recording and analysing assessment data. Most departments have not yet come to grips with the difficulties of assessing pupils' work formatively when it is produced using ICT. Very few history departments are assessing ICT capability, and in one of these the assessments were invalid.

Staff development

In only a small proportion of schools in this sample was the NOF training well targeted and effective in delivery. Usually this was where, from the outset, a high level of control was taken by the school in delivering the training itself or working very closely alongside external tutors. However, in most of the schools, including those where clear benefits from the use of ICT are yet to be felt in teaching and learning, subsequent action taken by the school has been beneficial in improving at least the personal competence of staff.

For example, in one school where the training was perceived to be unsatisfactory, only the assessment methodology of the training programme was used.

The school has used the assessment device from the training pack as a record of skills acquired and evidence, but this is the only item from the training programme that has been used. The school encouraged the humanities faculty to adopt its own parallel training programme, working to the prescribed skills through collaborative development of teaching materials and production of a portfolio of evidence. Other departments have followed suit. In 2000–01, 15 hours were set aside for this by the disaggregation of two training days, with the rest of the time made up by departmental working. The encouragement for this work and the resources of time and equipment (laptops) were instrumental in the evident success of the project. The department decided to develop a unit of work which would develop teachers' skills of using ICT in the classroom. Training included, for example, the use of interactive whiteboards and the development of an enquiry with taught elements and research. This was handled by taking the 'core professional skills' and adapting them to contribute to the department's development project. In each case, the evidence required for completion was stipulated, taking course completion very seriously as a goal. Evidence of a completed teacher's portfolio suggests that the training was excellent. The portfolio consists of:

- *unit plans showing subject-specific skills to be developed, using a format which records such things as internet sites to be used; in the planning teachers have to show which NOF skills they will have tackled. The plans also have to record aspects such as organisation of pupils in the computer room*
- *evaluation sheets for all internet sites used*
- *the materials developed for the selected topic, the Holocaust. All teachers in the department had to prepare a part of this work, and these in turn were evaluated collaboratively and adjusted in preparation for teaching*
- *typically this involves a series of ICT-based activities with references, all of which can be undertaken on screen. The objectives are mainstream National Curriculum history, evaluation of evidence and communication of knowledge and understanding*
- *the program also has 'help screens' to which pupils can refer if they want an explanation of the objectives or terminology, or guidance on the presentation of their work*
- *there are also 'help screens' for pupils who need support with the ICT, for example use of multimedia presentation software*
- *there is an onscreen device for assessment*
- *the portfolio also contains an evaluation of the project. This includes reflection on matters such as the use of ICT for differentiation*

- *finally, it contains the use of a database showing pupils' achievement in the project.*

A general weakness in the training was in the failure to address the pedagogical aspects of teaching history using ICT. As a consequence, in many schools teachers feel individually competent, but do not see themselves as having the necessary skills to teach history using computers. The schools furthest forward are those where teachers in departments have worked together to devise, try out and evaluate ICT lessons, incorporating them into the history curriculum as a part of the regular teaching programme.

In a small number of schools, the negative reaction to training that was perceived to be poor has not been addressed subsequently, and so no progress has been made in the use of ICT in history. In these schools, history teachers remain unclear as to the range of potential benefits of ICT use, limiting their own activity to areas such as the use of websites.

Resources and accommodation

Over one third of the history departments had access to resources and accommodation that supported regular planned use of ICT. In some cases this consisted of a dedicated suite of computers in the faculty, or a guarantee of arbitrated access to computer rooms as part of a 'contract' to deliver an aspect of ICT capability. In one school this meant that, as well as dedicated time in history lessons, full days were also used. Other departments used a set of laptops (although in one case shortening battery life was becoming an impediment to their use). In a few cases, history departments were making effective use of data projectors and interactive whiteboards, so that ICT was having a positive effect on teaching. In one school the use of National Grid for Learning funding to provide an additional bookable computer room made a significant difference to previous inadequate provision with the scope to enable all classes access to computers for some history lessons.

In some of the schools, problems of access to computers were being addressed so that departments could now foresee the possibility of periodic planned access as an entitlement. In one school a start had been made through the issue of a laptop to each teacher in the department. In another, where access was difficult for whole classes, the department had been given an interactive whiteboard. In other schools there was regular access to a smaller number of computers, and good use was made of these and of the potential of computer use at home or in school outside lesson time; but there was still no guarantee of computer access for all classes to fulfil the scheme of work.

In around one third of the schools, access was still unsatisfactory. In one of these the amalgamation of business studies into the humanities faculty, and the impact of this on the faculty suite, meant that ICT provision in history had declined. In another school a similar situation resulted from sharing facilities with the design and technology department. In one school the department was keen to develop ICT but low in the school's priority; in another there was a coincidence between lack of interest and low priority. In some of the schools, use within the department was patchy – keen individuals found time on computers, others did not, so that there was no entitlement overall.