

# Practical ICT

For Leaders & Managers of Educational Technology

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## Information and Communications Technology in UK schools – characteristics of success

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### Introduction

This report is based on the Ofsted (Office for Standards in Education) report called “The Annual Report of Her Majesty’s Chief Inspector of Education, Children’s Services and Skills 2006-07, published on 17 October 2007 and available from <http://live.ofsted.gov.uk/publications/annualreport0607/>.

The original report summarises the outcomes of around 36,000 routine inspections and regulatory visits of services for children and learners. It looks at how to improve the life chances of children and older learners, particularly those from disadvantaged backgrounds; the contribution of education and care to an awareness of personal, cultural and national identity; and the effectiveness of education and training for young people and adults in work.

What I have done is to distil what the report says about Information and Communication Technology (ICT) – referred to in some countries as “educational technology” – and draw some conclusions about what it means for leaders and managers of ICT in schools, even those not working in England or Wales.

The original report bears reading, though – if and when you have the time to work through its 124 pages. It is set out well, and unlike some previous reports it is interesting to read in itself, with sections such as “Initial Teacher Training” and “Key themes – Improving life chances: narrowing the gap”.

## The report's findings

In each of the following cases I have taken an extract and then suggested what the key messages might be for ICT co-ordinators, technology facilitators and others responsible for leadership and management in this area. Regard these as starting points for your own lists, and for discussion in your team (if you are fortunate enough to have one). The discussion will also continue in the Practical ICT Ning community. If you haven't already joined this community, which is open only to subscribers to Practical ICT, go to <http://practicalict.ning.com> and apply to join.

### Extract 1: Future economic success

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“In less successful schools, the basic skills of literacy, numeracy and information and communication technology needed for future success are not acquired quickly enough. In areas of higher deprivation, pupils do least well in relation to achieving future economic well-being. This is because the good progress they often make is from a very low base and is sometimes insufficient to eradicate deep-seated problems in literacy and numeracy.”

There are a couple of significant issues in this statement about secondary schools. Firstly, it is encouraging to see ICT mentioned in the same breath as literacy and numeracy in the context of basic skills.

Secondly, note that the focus is not about academic achievement, but on future economic success. This is clearly based on the stipulations of Every Child Matters, one of the intended outcomes of which is that the pupil must achieve economic well-being<sup>1</sup>.

#### Key messages

- ICT has a wider impact than simply academic grades.
- The evidence suggests compelling reasons for schools to regard ICT as a basic skill.
- Digital literacy needs to be taken as seriously as “ordinary” literacy or numeracy.
- The skills need to be acquired quickly in order to ensure that pupils from disadvantaged areas are not disadvantaged in future in terms of their economic success.

### Extract 2: Independent thinking

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“In the most successful lessons, teachers are enthusiastic and knowledgeable, encouraging pupils to be independent learners and to think for themselves. Information and communication technology is often used well to support this work and to engage pupils.”

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<sup>1</sup> My booklet, Every Child Matters: What it means for the ICT Teacher” is available from Lulu (<http://www.lulu.com/content/513376>) for £5.07 plus postage and packaging (print) or £2 (download). One reviewer said:

“Freedman’s booklet is required reading. It is sad that it should be left to one individual to produce this response to Every Child Matters and ICT. It should act as a starting point for discussions in schools and ICT departments.”

The implication of this is clear: that ICT contributes to the success of successful lessons, because it lends itself to activities that encourage independent learning and the development of thinking skills.

Independent learning is related to the personalisation of learning whilst, again, the ability to think, ie solve problems, is an obvious essential component of economic success in the 21st century.

### **Key messages**

If part of your remit is to encourage the adoption of educational technology in all curriculum areas, this extract should help:

- ICT can help teachers devise or assess different learning activities going on in the same classroom at the same time.
- Pupils can work at their own pace, either through using educational technology in the context of their work, or through using specially-written applications that adjust their difficulty level in response to the pupil's input.

### **Extract 3: Links between subjects**

“In many good or outstanding primary schools, teachers make learning more meaningful by identifying helpful links between different subjects. They use information and communication technology well and take every opportunity to develop literacy and numeracy across the curriculum. Too often, however, these opportunities are not taken and learning is fragmented.”

Note that the extract relates to primary (elementary) schools, where, in the UK at least, most subjects are taught by one teacher. Indeed, it has often been said that the difference between primary and secondary schools is that in the latter, teachers teach subjects, whilst in the former, teachers teach children.

### **Key messages**

- As in the case of the previous extract, there are benefits to be enjoyed by using educational technology in a range of activities. Note that if we define ICT or educational technology broadly, we are talking about much more than merely computers: digital audio and video recording devices, digital cameras, the internet, and specialist control and monitoring hardware and software.
- Given that usually the same teacher teaches a range of subjects in primary, there is a clear implication of the need to provide first class training in the use of educational technology, and ongoing practical support.

### **Extract 4: Teacher expertise**

“The development of ICT skills to support learning across the curriculum remains too dependent on the expertise of individual subject teachers.”

This is unacceptable, if only from the point of view that all children should have the same opportunities – otherwise what does the Every Child Matters agenda actually mean in practice?

### Key messages

- Each teacher in a school should be expected to have a certain degree of proficiency in the use of ICT.
- This should be an entitlement as well as an expectation, which means that the school must provide a programme of in-service training that is supported, where necessary, by money to pay for cover teachers.

### Extract 5: Financial support and parental involvement

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There is an interesting case study of a school in Birmingham, England. The full case study of this primary school is on page 72 of the report, but this extract is the relevant part:

“The TILE project (Towards Improving Learning and Employability) involves at least one family member agreeing to undertake information and communication technology training with the Year 3 pupil as the educator. The families of Year 3 pupils (8 years old) pay a modest fee for a computer and broadband access with technical support provided by a school governor.

There is quantifiable evidence of the positive impact of the project on standards and particularly on boys’ literacy. It shows a clear link between engagement with information and communication technology and attainment in English and mathematics.”

### Key messages

- Owning a computer is a key element in becoming proficient in its use. This has been borne out by other studies, involving laptops for pupils. If you work in a disadvantaged area, can you access a scheme, or even create one, that will enable pupils to have their own equipment?
- Involvement by a family member is of vital importance. Although the Ofsted report does not go into this in any great depth, it is probably at least in part due to the role model effect.
- Your colleagues who teach English and mathematics may well benefit from the application of ICT in their subjects, because of the links in terms of attainment, mentioned in the very last sentence of the above extract.

### Extract 6: 21<sup>st</sup> century skills

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“The 2020 vision report made it clear that, as well as the vitally important literacy, numeracy and information and communication technology skills, children need the confidence and ability to respond creatively to new experiences, challenges and opportunities; be resilient in the face of difficulty; investigate problems and find solutions; work collaboratively and independently; evaluate information; persevere; and manage their own learning<sup>2</sup>.”

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<sup>2</sup> See 2020 vision: Report of the Teaching and Learning in 2020 Review Group, which you can download from here:

<http://publications.teachernet.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DFES-04255-2006&>

### Key messages

- When planning ICT suites (computer labs), don't be tempted to place all the computers in rows. There should be space for pupils to discuss things with each other.
- The sorts of skills mentioned in the extract can be acquired and honed through activities in **any** subject – especially if they are supported by the availability of mobile computing and a wireless network.

### Extract 7: Citizenship

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“In the schools in which citizenship was well taught, a core programme was evident. In addition, teachers in related subject areas had considered the implications of citizenship for their curricula. This was particularly evident in a sharper focus on relevant and topical issues and in subject content that drew from or augmented learning in citizenship. For example, information and communication technology was sometimes combined successfully with citizenship education, enabling pupils to have direct contact with communities very different from their own.

In one example, a city technology college was developing an e-citizenship course in which pupils linked with a South African township. They designed and used a website promoting pupils' voices and online feedback, met a member of parliament and were involved in the 'Make Poverty History' campaign.”

### Key messages

- Again, ICT or educational technology can provide the glue that binds different subjects together.
- What I particularly like about the example given in the second paragraph is that the activity was “real”. Too often, ICT teachers instruct their pupils to pretend that are setting up a website for a fictitious video rental store, or something equally banal (not to say pointless).

### Extract 8: Concluding remarks

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“New technologies are integral to the lives of many children and young people, in school and in their leisure time. Schools inspected were recognising that young people are making less use of traditional media in favour of online sources. Staff were using new technology with beneficial impact on pupils' attitudes to learning.

There were examples of schools using information and communication technology to provide more personalised approaches to learning, some of which enabled young people to continue their learning in their own time at home. For example, a project in Wolverhampton, known as 'Learning2Go', used handheld computers to extend learning opportunities by providing multimedia content and a range of software to individual learners in any place and at any time.

The staff and governors of one primary school in a challenging city area were placing greater emphasis on the use of information and communication technology in their work with the local community. They were involved in a number of collaborative information and communication technology projects, including the effective use of personal digital assistants to enhance learning for gifted and talented pupils.”

These examples reiterate what has been said already. In summary...

### **Key messages**

- Teachers should become proficient in their use of ICT (educational technology) in the classroom, not least because that can impact on pupils' attitudes to learning.
- Take into account the existence of mobile computing devices when planning your curriculum: you are no longer restricted by physical limitations – or at least, not to the same extent as previously.
- Involve other members of the school community: other teachers, school Governors, parents, members of the local community and even schools in other countries.

### **Conclusion**

I hope you have found this summary useful. As you can see, what I've done is to use the report's findings to draw my own conclusions about the implications for planning and practice at the school level. However, you may disagree with me, and that is fine. Use the report, and my interpretation of it, as a starting point for a professional dialogue with your colleagues, or with other subscribers to this journal through the Practical ICT Ning community mentioned earlier.

See if you can look at this summary, and use it as a checklist by which to benchmark what goes on in **your** school. If your conclusion is that the standard of ICT in your school is wanting, can you pinpoint the specific areas of weakness and suggest ways in which to address them? Can you identify any "quick wins".

And do bear in mind that, however dire you think the situation, it can always be improved!

*Terry Freedman*

*18 October 2007*