Harnessing Technology School Survey: 2010

May 2010

Infogroup/ ORC International

Contents

1. Introduction

This report presents the findings of the 2010 Harnessing Technology School Survey conducted by Infogroup/ ORC International on behalf of Becta. Becta is the government agency which supports the effective and innovative use of technology for management, learning and teaching across schools and FE and skills. To support this, Becta has an extensive research programme assessing levels and use of technology and its impact within the education and skills system.

1.1 Background and context

The Harnessing Technology School Survey (HTSS) is an annual, nationally representative survey of schools in England. It assesses the uptake and use of technology in schools across England. The surveys cover school leaders, ICT coordinators, teachers and learners in three school sectors: primary, secondary and special schools.

The wider context for this survey is the interface of technology, education and society. The HTSS takes place against a background of rapid technology development, change in education in general, and the realm of educational technology in particular.

1.2 Aim and objectives of the research

The purpose of the 2010 HTSS was to collect information on technology provision and use in schools with the aim of understanding schools' capabilities in harnessing technology for the benefit of learners. The survey captured measures in five broad areas:

1. Improved personalised learning experiences.
2. Confident system leadership and innovation.
3. Technology confident effective providers.
4. Engaged and empowered learners.
5. Enabling infrastructure and processes.

1.3 Survey methodology

Full details of the methodology used to gather the data, and the sample achieved, can be found in the Technical Report.

2. Summary

2.1 Provision

- Within primary schools, the median pupil: computer ratio is 7:1, for secondary the median pupil: computer ratio is 3:1 and for special schools the median pupil: computer ratio is also 3:1. These remain broadly similar to those of last year.

- The devices that teachers said they have most access to include interactive whiteboards (IWBs), desktops and digital cameras. Most teachers did not have access to handheld devices (PDAs), netbooks or mobile phones within their schools.

- Provision of assistive technology devices to support physical, sensory and cognitive access differed by school sector with 67 per cent of special schools reporting they have devices to support physical access, 65 per cent reporting access to devices to support sensory access and 60 per cent for cognitive access.

- School network access differed across groups with just over one in ten schools allowing parents/carers access to the curriculum network.

- On average, secondary schools employed 2.8 technical support staff, primary schools 0.8 staff and special schools 1.0.

- Nearly all secondary schools reported they had a learning platform (93 per cent), compared with 67 per cent of primary schools and 56 per cent of special schools. The majority of both secondary and primary school teachers can access their school's learning platform from their home (69 per cent and 64 per cent respectively), with 44 per cent of special school teachers reporting this sort of access. These figures indicate a decrease on last year's learning platform home access figures (76 per cent for secondary, 68 per cent for primary and 56 per cent for special).

- Twenty-two per cent of primary, 39 per cent of secondary and 22 per cent of special school teachers reported being able to access school Management Information Systems from home. This indicates an increase on last years MIS home access figures (29 per cent for secondary, eight per cent for primary and nine per cent for special).

- All but one ICT coordinator reported that their school's Management Information Systems had some access restrictions in place. The most frequently used method for of restricting access was a login or password system.

2.2 Leadership and management

- The majority of schools had an ICT strategy embedded within their whole school development/ improvement strategy (71 per cent of primary, 74 per cent of secondary and 76 per cent of special schools). Most schools did not have an environmental sustainability policy that included ICT (72 per cent of primary, 81 per cent of secondary and 75 per cent of special schools).

- Those most likely to have main responsibility for developing the school's ICT strategy were ICT coordinators/ subject leaders/ heads of ICT in primary schools (51 per cent) and special schools (40 per cent). In secondary schools, the school leadership team were most likely to have overall responsibility (56 per cent). In all schools, a wide range of groups were involved in the ICT strategy; in around a third of schools this included pupils.

- The most frequently identified high priority for improvement/development in secondary schools was 'improve communication with parents' (46 per cent), in primary schools it was 'to extend learning beyond the classroom (30 per cent). Amongst schools with an ICT strategy, the most frequently mentioned strategic priorities for all three sectors of school was use of a learning platform; primary schools (66 per cent), secondary schools (73 per cent) and special schools (59 per cent).

- Investment in ICT equipment was most likely to be ranked first out of seven possible areas for investment by a large margin in all school sectors. Schools were most likely to state they would use the Local Authority purchasing framework to save money (59 per cent of primary, 40 per cent of secondary and 53 per cent of special schools were likely to use this procurement method to save money).

2.3 Teaching and learning

- Looking at change over time, there is an increasing trend for teachers to use ICT in lessons to be creative. In primary schools 99 per cent of teachers used ICT to be creative in 2009/10, compared with 86 per cent in 2008/09, 67 per cent in 2007/08 and 56 per cent in 2006/07[1]. In secondary schools, 90 per cent of teachers used ICT to be creative in 2009/10 which is higher than in previous years; 80 per cent in 2008/09, 50 per cent in 2007/08 and 32 per cent in 2006/07.

- Technology was more likely to be used at least monthly for assessment activities in secondary and special schools than in primary schools. The task technology

[1] In surveys from 2006/07 to 2008/9 the categories were often, sometimes and never. The categories were changed to 'all/most lessons', 'more than half of lessons etc in 2009/10 to be more quantifiable and therefore discussion of trends for these questions is indicative.

was most likely to be used for across all sectors of school was to analyse and/or report assessment data (74 per cent of secondary schools, 82 per cent of primary schools and 77 per cent of special schools reported doing this at least monthly).

- Over half of teachers reported they are using ICT for uploading and storing digital learning resources for lessons and homework most days each week (55 per cent primary school teachers, 52 per cent secondary teachers and 58 per cent special school teachers).

- The majority of secondary school teachers said that they use a learning platform to upload and store digital learning resources for lessons and homework (64 per cent of respondents.

- There has been an increase in the proportion of primary and secondary school teachers setting homework that requires use of a computer or access to the internet compared with last year; in secondary schools 96 per cent of teachers set homework that required the computer and 97 per cent set homework that required the internet. These figures are 77 per cent and 78 per cent respectively for primary.

2.4 Staff confidence and competence

- Teachers reported the two most frequently identified technology-related activities they need additional training for are ‘personalising learning’ and ‘using particular applications and devices’ across all school sectors.

- Teachers identified a need for training on more specialist devices to support learning and teaching, for example digital video cameras (78 per cent primary teachers, 62 per cent secondary teachers and 91 per cent special school teachers) and audio equipment (83 per cent primary teachers, 64 per cent secondary and 83 per cent special). Teachers in special schools were more likely to need training to use the full range of devices compared to primary and secondary school teachers (statistically significantly more likely for desktops, laptops, portables, digital cameras and visualisers).

- The most frequently mentioned area of ICT leadership training undertaken by senior leaders in the past two years was ‘safeguarding children online’. This was less likely of secondary school leaders than those from primary or special schools. This was also regarded as priority training for other school staff in the next 12 months.

2.5 Parents and extended learning

- Senior leaders estimated that 70 per cent of their learners had access to a computer at home. This was estimated as 83 per cent amongst secondary school

learners and 57 per cent for learners at special schools. The Harnessing Technology learner survey found 98 per cent of secondary school learners and 97 per cent of primary school learners had access to a computer at home.

- Sixteen per cent of primary school ICT coordinators reported their learning platform is used by parents to access pupil information at least once a term. This figure was 38 per cent for secondary schools. This shows an increase on previous years: in 2007/08, zero per cent of primary and seven per cent of secondary schools reported parent access to pupil information via a learning platform at least once a term and in 2008/09 six per cent of primary and 18 per cent of secondary reported so.

- Secondary school teachers were more likely (64 per cent) to use technology to communicate with parents day to day than in special (50 per cent) or primary (25 per cent) schools. Approximately half of primary and secondary schools were able to provide a range of information including attendance, behaviour and achievement to parents electronically either in real time or on an 'as and when' basis. Slightly fewer than half of special schools could provide the full range of information.

2. 6 Benefits

- Teachers were positive that ICT was helpful at supporting the diverse needs of learners (85 per cent primary, 70 per cent secondary, 79 per cent special), at helping them personalise the learning of each pupil (64 per cent primary, 57 per cent secondary, 79 per cent special) and at giving individualised feedback to pupils (44 per cent primary, 62 per cent secondary, 53 per cent special).

- A quarter of primary school teachers reported technology saved them at least an hour a week doing marking and assessment in 2009/10 compared to nine per cent in 2008/09 and seven per cent in 2007/08.

- School leaders reported technology had improved communication with parents mostly in secondary schools, particularly about progress and achievement (82 per cent), attendance (82 per cent) and behaviour (73 per cent). Secondary school heads were most positive about the impact of ICT on all areas of communication with parents when compared to primary schools and special schools.

3. Key findings

3.1 Provision

3.11 Number of computers

Using the survey data[2], calculations have been made to estimate the median pupil: computer ratio for primary, secondary and special schools which remain broadly similar to those of last year:

- Within primary schools the median pupil:computer ratio is 6.9:1[3]
- Within secondary schools the median pupil:computer ratio is 3.4:1[4]
- Within special schools the median pupil:computer ratio is 3.0:1[5]

In line with school size, secondary schools had more desktop and laptop computers than primary or special schools.

- The survey indicates that almost all secondary schools have at least 50 networked desktop computers, with a large majority stating they have over 200 (72 per cent). Two fifths of secondary schools had at least one desktop which was not networked (39 per cent) and 69 per cent have at least 50 laptops.
- Just over half of primary schools (51 per cent) had between one and 25 networked desktops and 35 per cent had 26 to 50. Just under a third (32 per cent) had one desktop which was not networked and the majority of primary schools (63 per cent) had between 11 and 50 laptops.
- Special schools followed a similar pattern to primary schools with 42 per cent stating they had between one and 25 networked desktops and a further 32 per cent had 26 to 50, 52 per cent had at least one non-networked desktop and 64 per cent with between 11 and 50 laptops.

3.12 Access to equipment

ICT coordinators were asked which types of equipment their staff can access, and when access can be gained. One hundred per cent of ICT coordinators in primary schools stated interactive whiteboards (IWBs) could be accessed all or most of the time (compared with 84 per cent in secondary and 91 per cent in special schools).

[2] Methodology can be found in the technical appendix
[3] Estimated median with a 95% confidence interval (+/-0.46) percentage point margin of error
[4] Estimated median with a 95% confidence interval (+/-0.21) percentage point margin of error
[5] Estimated median with a 95% confidence interval (+/-0.31) percentage point margin of error

Eighty eight per cent of ICT coordinators in primary schools believed desktops and laptops are available most or all of the time (compared with 91 per cent and 72 per cent in secondary respectively). (See Tables 14 – 16 in the appendix for full results per school sector).

Teachers were also asked which types of equipment they can access, and if they can access them when they need to. Access levels were rated lower than those stated by ICT coordinators although access to IWBs in primary schools was again rated highly (99 per cent of teachers stating they can access then most or all of the time). (Tables 17-19 in the appendix show the full breakdown of results for each school sector).

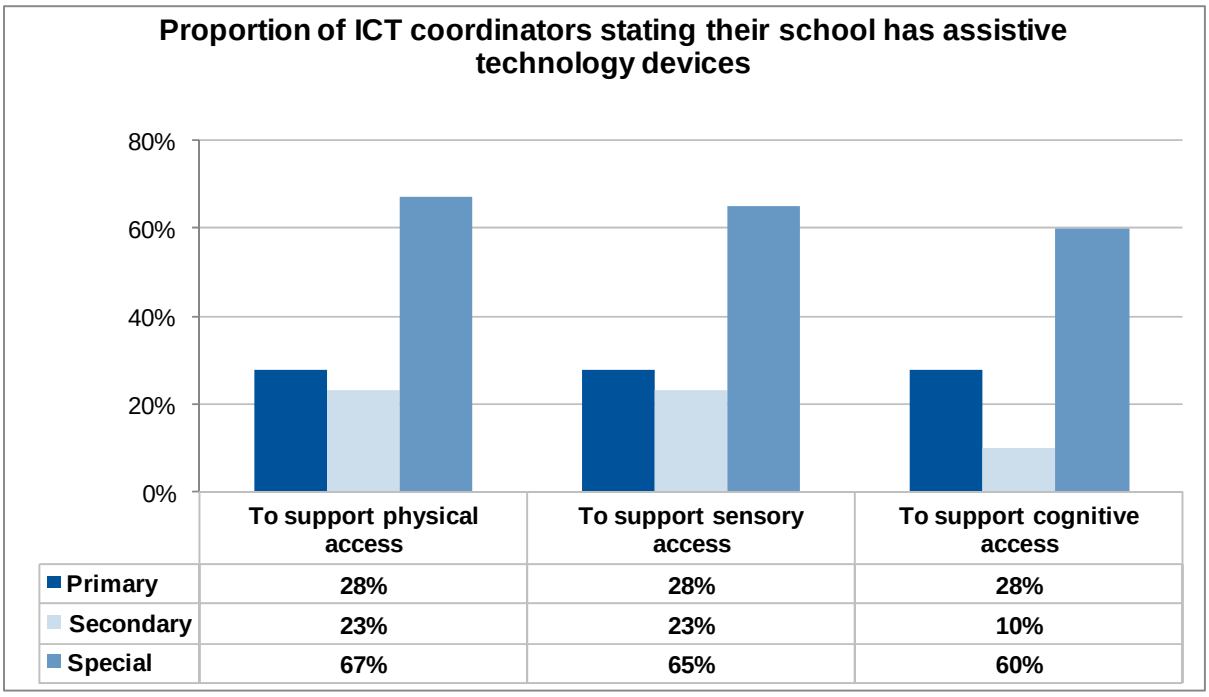
The devices that teachers said they have most access to include IWBs, desktops and digital cameras, which reflects the findings from the ICT coordinator results.

Most teachers did not have access to handheld devices (PDAs), netbooks or mobile phones within their schools.

3.13 Assistive technology

ICT coordinators were asked whether their schools had assistive technology devices to support physical, sensory and cognitive access. Special schools were most likely to have all types of devices (see Figure 1).

Figure 1



	To support physical access	To support sensory access	To support cognitive access
Primary	28%	28%	28%
Secondary	23%	23%	10%
Special	67%	65%	60%

Teachers were asked whether they felt pupils with special educational needs could access these assistive technology devices when needed. Teachers from special schools were most likely to feel pupils with educational needs have access at least some of the time to all these devices.

3.14 Network access

According to ICT coordinators, school management had the most access to the various networks, in particular the administration network (see Table 1). Overall, a small minority of schools gave parents/carers access to the networks. The most distinctive difference by school sector was that 60 per cent of secondary schools gave teaching staff access to the administration network compared to 21 per cent of primary schools and 23 per cent of special schools.

Table 1: Access by different groups to various networks

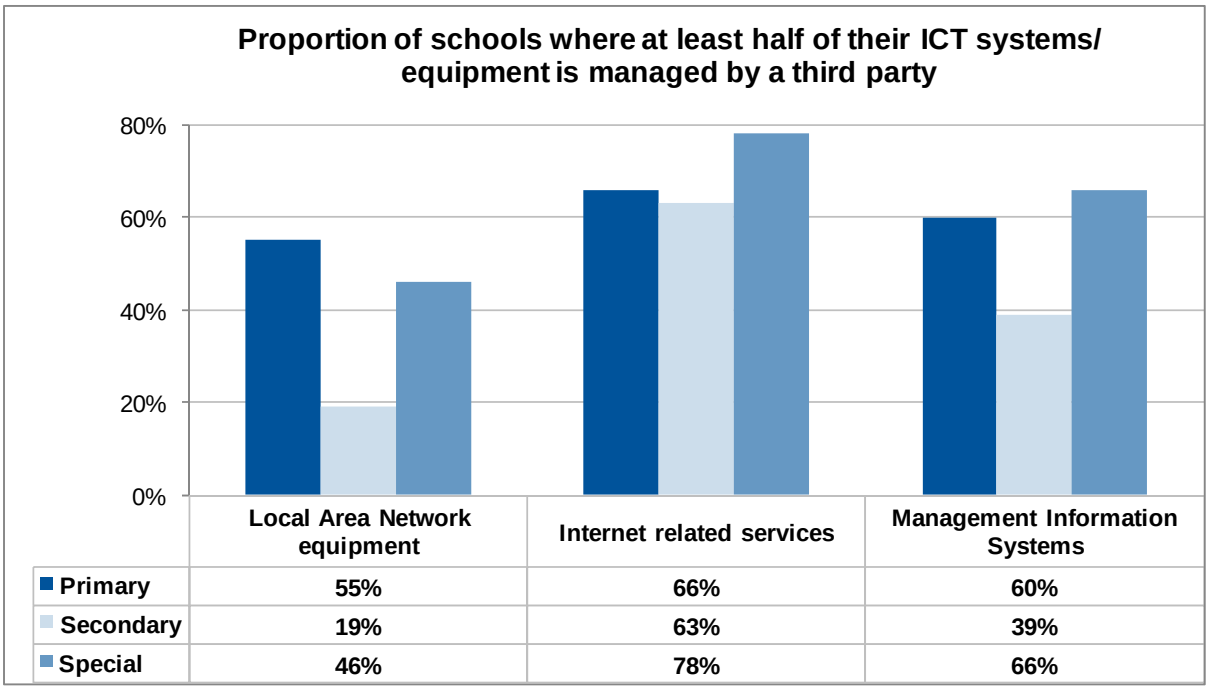
	Curriculum Network			Administration Network			Whole school Network		
	Primary	Secondary	Special	Primary	Secondary	Special	Primary	Secondary	Special
Management	76%	78%	78%	97%	82%	97%	66%	83%	70%
Teaching staff	90%	80%	91%	21%	59%	24%	62%	83%	74%
Learners	72%	74%	76%	0%	5%	0%	44%	65%	61%
Parents/ carers	11%	15%	10%	0%	0%	0%	3%	11%	2%
Don't have one	5%	16%	6%	2%	17%	3%	26%	10%	18%
Don't know	3%	0%	1%	1%	1%	0%	0%	0%	1%

The day-to-day maintenance and support for the school's network was carried out by a dedicated school-based ICT technician that was not shared with another school in 88 per cent of secondary schools. This figure was lower in both primaries (18 per cent) and special schools (39 per cent). Almost a third of primary schools shared an ICT technician with another school (26 per cent), and a similar proportion used 'a teacher/ICT coordinator' (28 per cent).

3.15 ICT systems and equipment management

Primary schools and special schools were more likely to have at least half of their ICT systems/equipment managed by a third party than secondary schools (Figure 2). Overall, schools were most likely to employ a third party to manage their internet related services.

Figure 2



	Local Area Network equipment	Internet related services	Management Information Systems
Primary	55%	66%	60%
Secondary	19%	63%	39%
Special	46%	78%	66%

All secondary schools surveyed employed at least one technical support staff. More than a fifth of both primaries (29 per cent) and specials schools (21 per cent) did not employ any. On average, secondary schools employ 2.8 technical support staff, primaries employ 0.8 staff and specials employ 1.0 technical support staff.

Around four fifths of schools rarely/never provided technicians to other schools or colleges for any data management/MIS support, network support, generic technical and hardware support or learning platform support. Where support is provided, it was slightly more likely to be from secondary schools.

The two most common suppliers of ICT equipment and support were Local Authorities and ICT suppliers/other independent suppliers. Secondary schools were slightly more likely to purchase equipment and support from an ICT/independent supplier than from a Local Authority, with the exception of internet connectivity. The majority of schools in all sectors purchased internet connectivity from a Local Authority while a minority purchased it from Regional Broadband Consortia.

The majority of both primary and special schools surveyed had purchased all types of ICT equipment and support listed in the questionnaire. Approximately a quarter of secondary schools had not purchased technical support (27 per cent), ICT maintenance (22 per cent) or advice about ICT infrastructure (24 per cent).

The person or team responsible for deciding what ICT equipment and services schools purchased varied across school sectors (see Table 2).

Table 2: Person responsible for deciding what ICT equipment and services school purchased

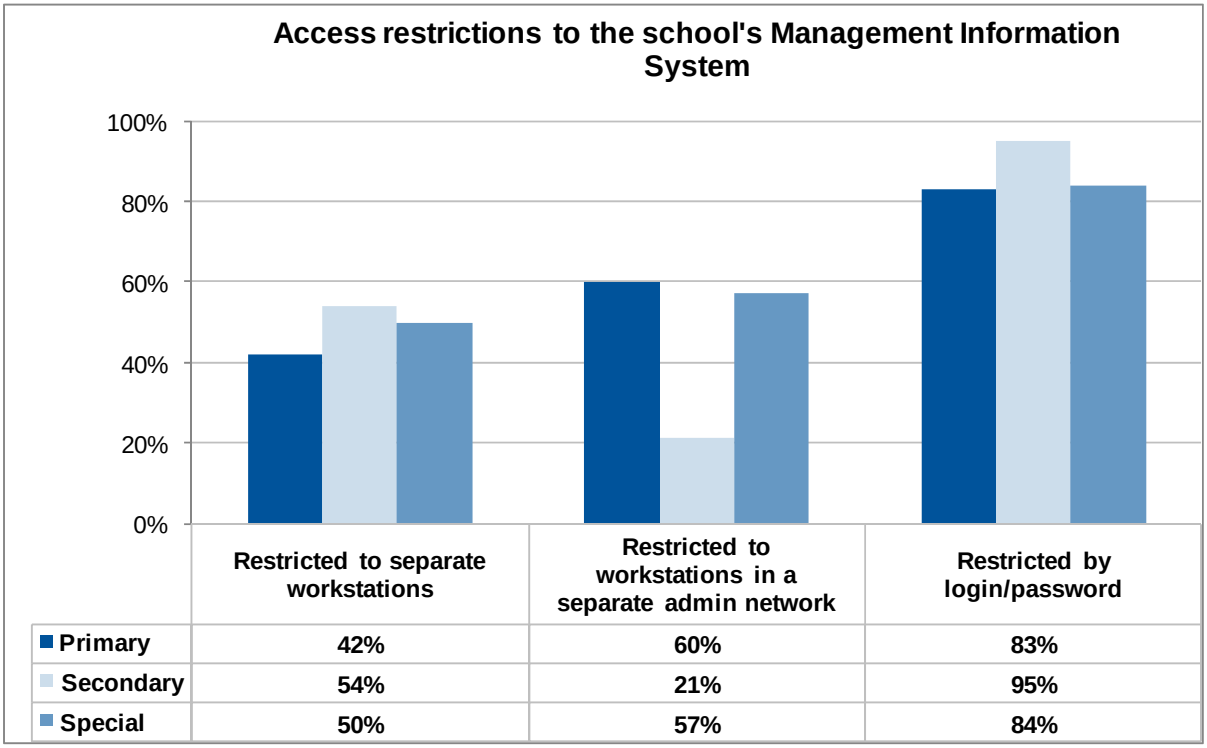
		Headteacher / SLT	ICT coordinator	ICT manager/ technician	Department/ key stage heads
ICT hardware	Primary	**55%**	30%	12%	0%
	Secondary	28%	23%	**44%**	3%
	Special	**35%**	**35%**	**28%**	1%
ICT software and digital learning resources	Primary	24%	**67%**	6%	2%
	Secondary	13%	**32%**	17%	**36%**
	Special	14%	**59%**	8%	15%
ICT networking equipment and cabling	Primary	**43%**	23%	29%	0%
	Secondary	14%	18%	**66%**	0%
	Special	**37%**	15%	**45%**	0%
ICT technical support and maintenance	Primary	**53%**	18%	26%	0%
	Secondary	19%	15%	**63%**	0%
	Special	**38%**	13%	**47%**	0%

3.16 Management Information Systems

Almost all ICT coordinators reported that their school's Management Information System had some access restrictions in place (see Figure 3). The most common method for restricting access was a login or password system.

Looking at trends over time in primary schools, there has been no change in the proportion that allow access via a separate admin network but an increase on 2007/08 (22 per cent) and 2008/09 (28 per cent) on the proportion that allowed access from a specific workstation (42 per cent). In secondary schools, slightly fewer this year restricted access via a separate network (21 per cent) compared with 2008/09 (26 per cent) and 2007/08 (27 per cent). Restriction via work stations has shown a slight upward trend from 43 per cent in 2007/08, to 51 per cent in 2008/09 and 54 per cent in 2009/10 for secondary schools.

Figure 3

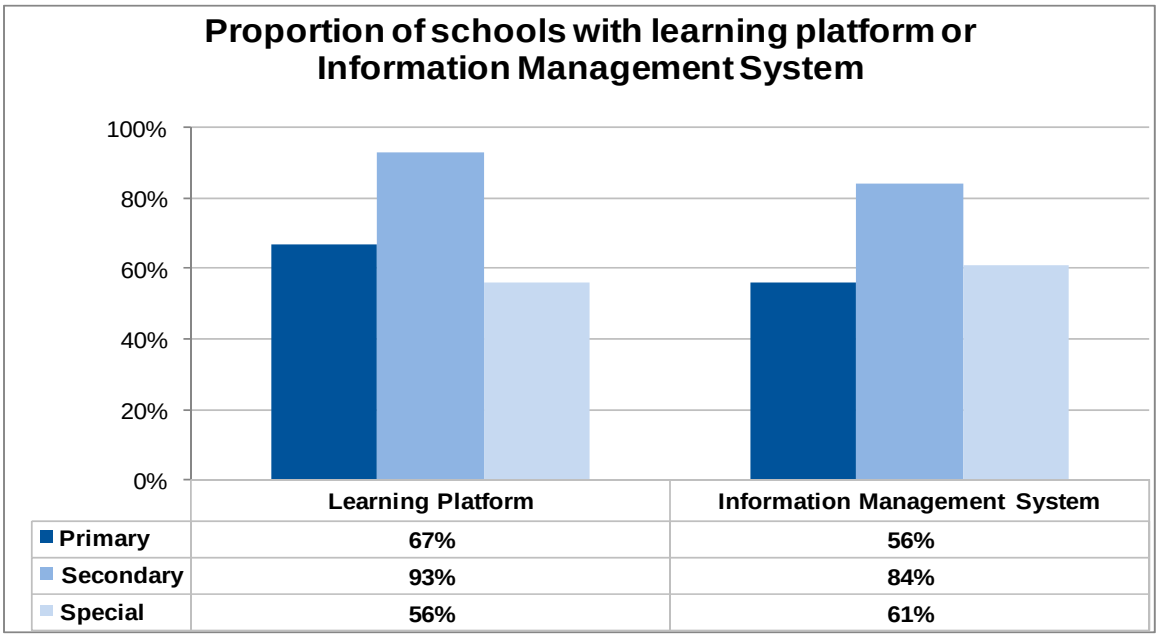


	Restricted to separate workstations	Restricted to workstations in a separate admin network	Restricted by login/password
Primary	42%	60%	83%
Secondary	54%	21%	95%
Special	50%	57%	84%

3.17 Learning platforms

ICT coordinators at most secondary schools reported that their school had both a learning platform and an Information Management System. These figures were lower amongst primary and special schools, although a majority did have both systems in place (Figure 4).

Figure 4



	Learning Platform	Information Management System
Primary	67%	56%
Secondary	93%	84%
Special	56%	61%

There has been a statistically significant increase in schools having a learning platform over time for both primary and secondary schools (Figure 5). In 2006/7 11 per cent of primary schools had a learning platform. This had increased to 22 per cent in 2007/08, 40 per cent in 2008/09 and to 67 per cent in 2009/10. In 2006/07 46 per cent of secondary schools had a learning platform. This increased to 63 per cent in 2007/08, 79 per cent in 2008/09 and then to 93 per cent in 2009/10.

Figure 5

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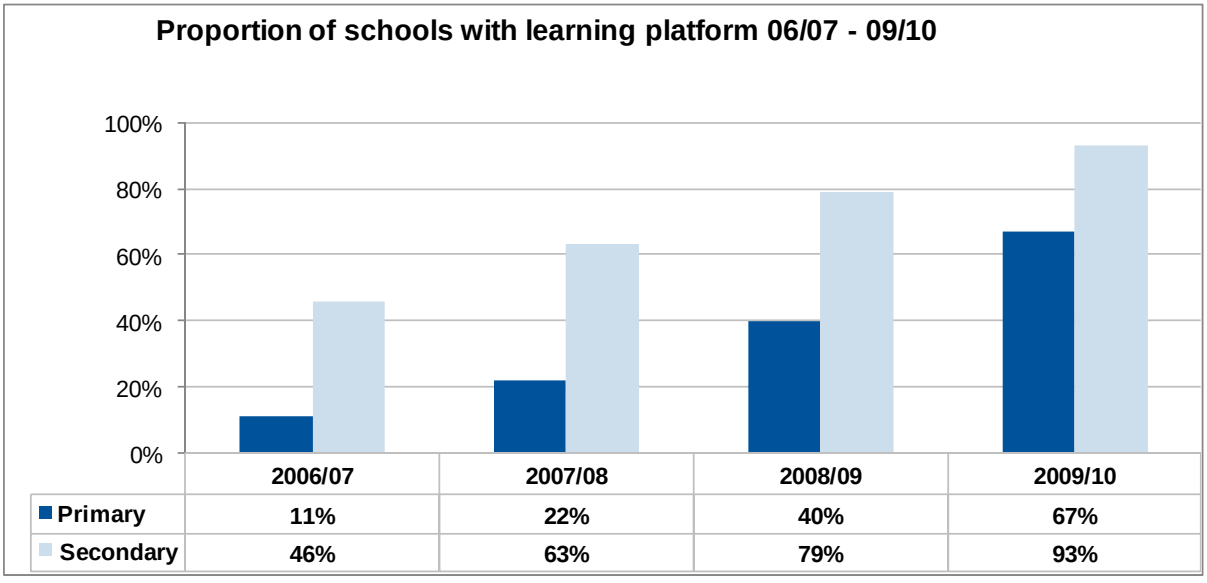


	2006/07	2007/08	2008/09	2009/10
Primary	11%	22%	40%	67%
Secondary	46%	63%	79%	93%

The majority of both secondary and primary school teachers can access the learning platform from home (69 per cent and 64 per cent of respondents respectively). Forty four per cent of special school teachers reported that they could access the learning platform from home.

Teachers were less likely to be able to access Information Management Systems from home, with 22 per cent of primary, 39 per cent of secondary and 22 per cent of special school teachers reporting they were able to do so.

The majority of all ICT coordinators said their school purchased their learning platforms within the last five years (71 per cent of primary, 90 per cent of secondary and 91 per cent of special schools). Thirty per cent of primary schools, 17 per cent of secondary schools and 24 per cent of special schools purchased their learning platforms within the last 12 months. Twenty two per cent of primary schools did not know when their learning platform was purchased.

Almost three-quarters of senior leaders from secondary schools saw the use of learning platforms as one of their top priorities in their ICT plan for the next three years (73 per cent). Learning platforms were a priority for slightly fewer primary school and special school senior leaders (66 per cent and 59 per cent respectively).

Schools are using learning platforms or other online information management system for a variety of activities. The most common activity conducted via a learning platform is uploading and storing digital learning resources for lessons and homework (see Table 3). Secondary schools were more likely to use these platforms to carry out all activities included in the survey than primary and special schools.

Table 3: Activities for which learning platform or other online information systems are used

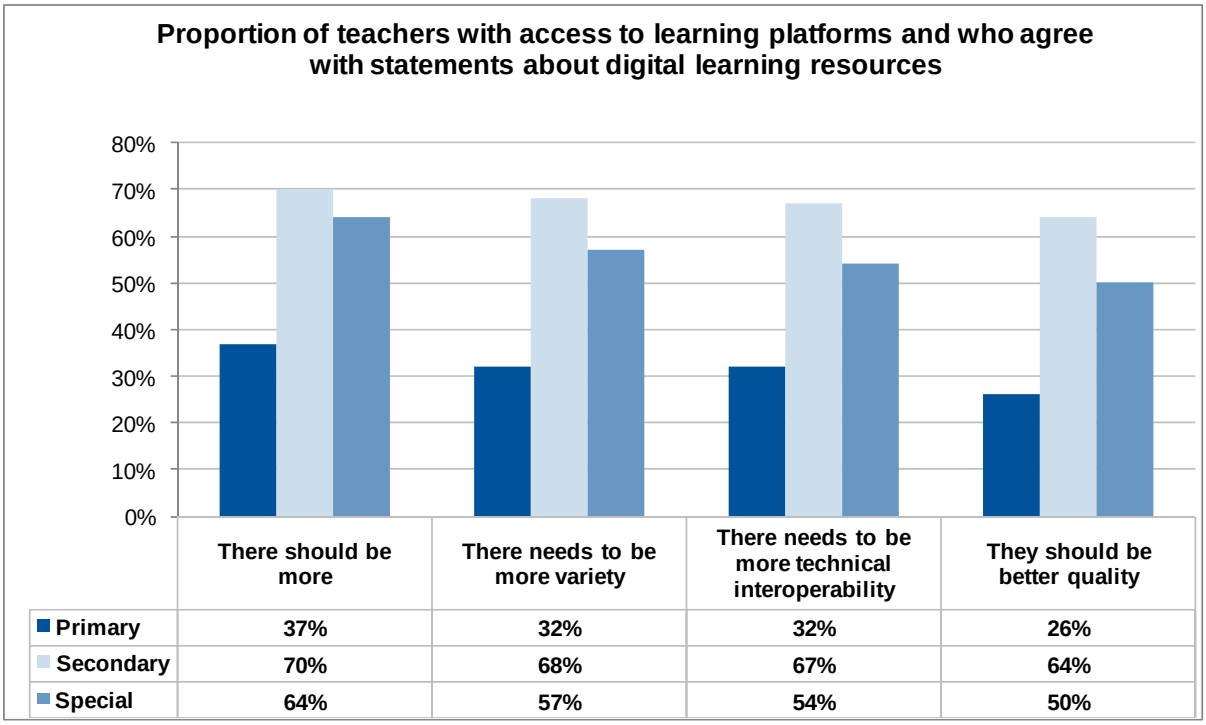
	Primary	Secondary	Special
Delivering lessons	63%	75%	45%
Planning work	59%	68%	33%
Assessment	45%	70%	39%
Personalising learning	52%	70%	30%
Communicating with learners	59%	70%	33%
Communication between learners	51%	55%	29%
Reporting to parents	12%	36%	13%
Communicating with parents	34%	45%	18%

Table 3 (continued): Activities for which learning platform or other online information systems are used

	Primary	Secondary	Special
Communicating with staff	47%	70%	43%
Uploading and storing digital learning resources for lesson and homework	74%	86%	55%
For learners to download and upload homework	53%	81%	19%
Live chat and discussion forums	40%	38%	15%
Accessing management information	33%	58%	24%

Figure 6 shows teachers' levels of agreement with various statements about learning platforms.

Figure 6



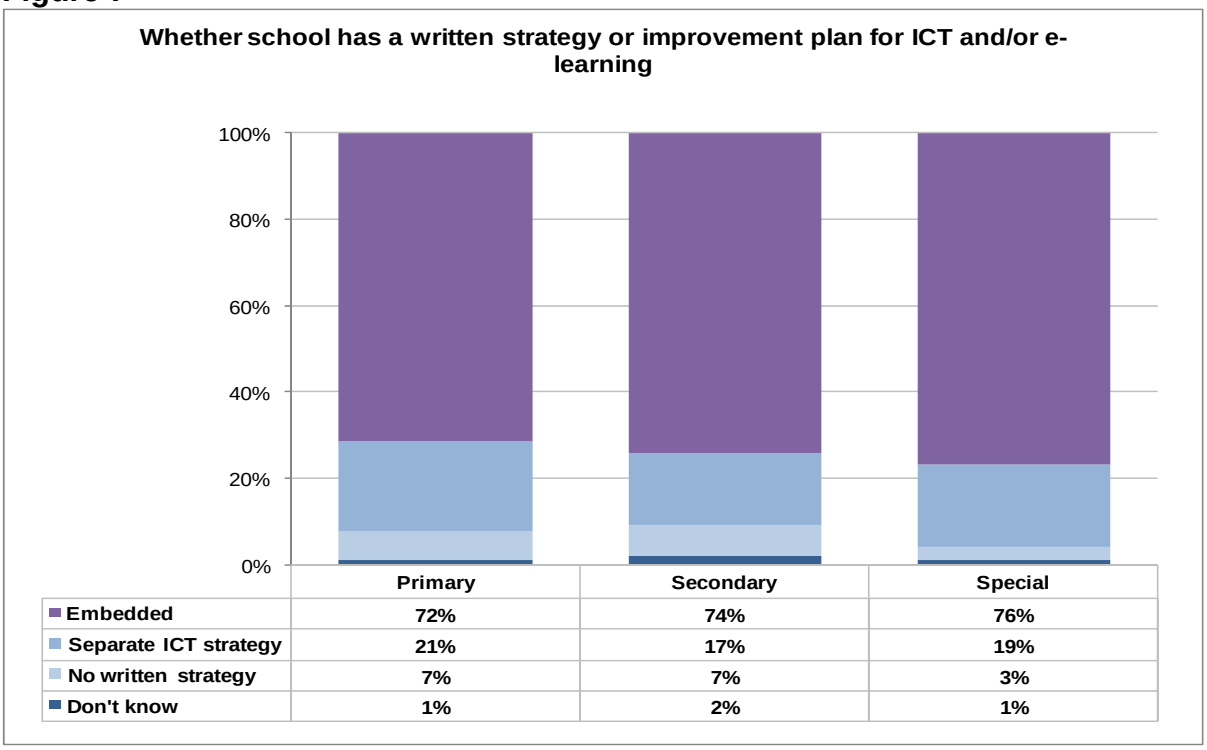
3.2 Leadership and management

3.21 ICT strategy

As Figure 7 shows, the majority of school senior leaders reported that their school had a written ICT strategy or improvement plan (93 per cent of primary schools; 91 per cent of secondary schools; 95 per cent special schools).

The majority of schools had an ICT strategy that was embedded within the whole school development/ improvement strategy. Most other schools had an ICT strategy but it was separate from their whole-school strategy. There was no difference between primary, secondary and special schools

Figure 7



	Primary	Secondary	Special
Embedded	72%	74%	76%
Separate ICT strategy	21%	17%	19%
No written strategy	7%	7%	3%
Don't know	1%	2%	1%

At least half of these strategies or plans were partly aligned with their Local Authority's ICT strategy (54 per cent of primary, 57 per cent of secondary and 50 per cent of special schools). Almost a fifth of senior leaders of secondary schools (19 per cent), and 17 per cent of primary and 18 per cent special schools had adopted an ICT strategy or plan that was different to that of their Local Authority.

In terms of who was involved and who had main responsibility for the ICT development strategy, there was typically a range of groups involved in all school sectors. In primary schools, overall main responsibility sat with ICT personnel (51 per cent) or headteacher (26 per cent). In secondary schools overall responsibility sat with the school leadership team (56 per cent) or ICT personnel (27 per cent). In special schools the person with main responsibility was mixed: ICT personnel (40 per cent) headteacher (23 per cent) or school leadership team (33 per cent).

In all schools where there was an ICT strategy, school leaders were asked to detail the contents and priorities of those strategies. Tables 3 to 5 in the appendix show each of these results split out by primary, secondary and special schools.

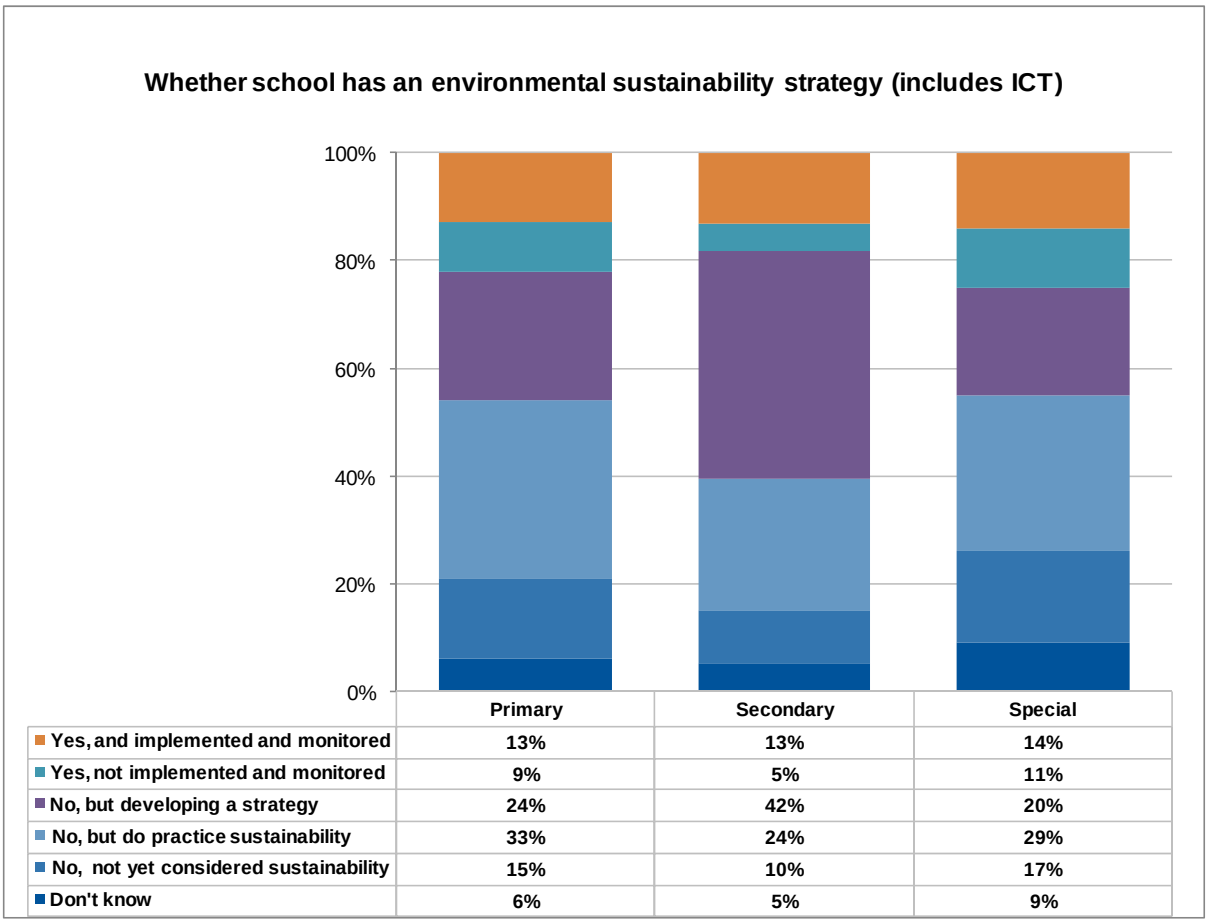
The most frequently identified area for improvement or development amongst primary schools was e-safety/acceptable use policy (included in 97 per cent of primary plans). Amongst secondary school senior leaders, the most frequently identified area was the use of a learning platform (mentioned by 98 per cent), and in the special schools it was staff development in the use of ICT (96 per cent).

Most likely to be prioritised in each school sector was use of a learning platform.

3.22 Environmental sustainability strategy

All school leaders were asked whether they had an environmental sustainability strategy which includes ICT. As Figure 8 shows, most schools did not have an environmental sustainability policy including ICT.

Figure 8



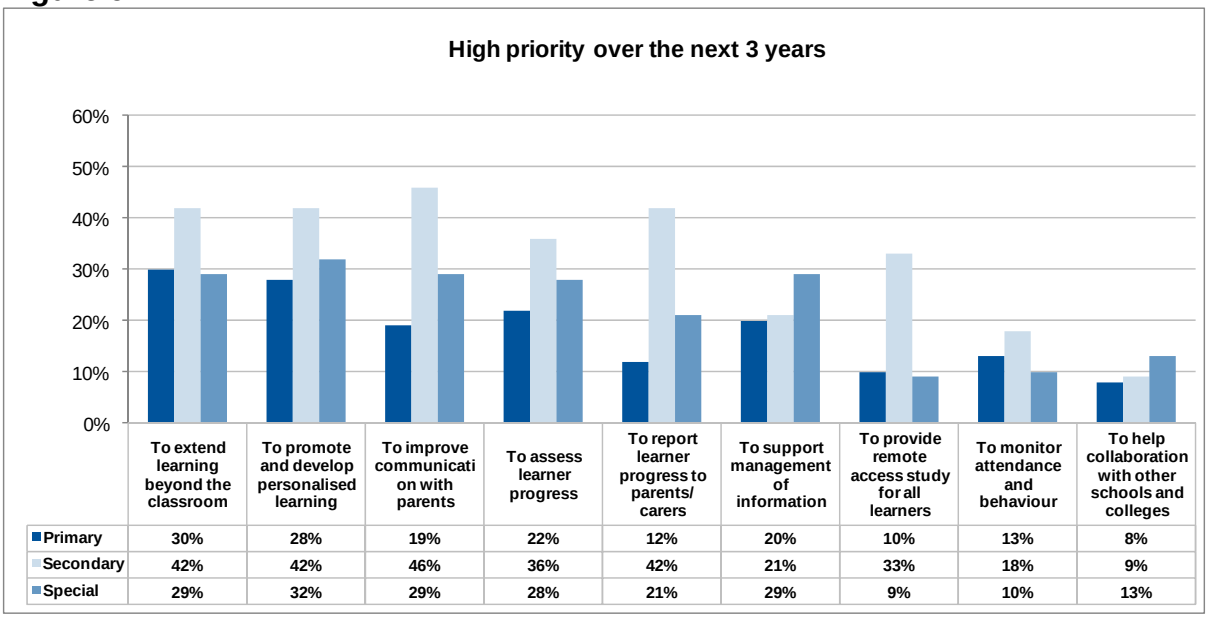
	Primary	Secondary	Special
Yes, and implemented and monitored	13%	13%	14%
Yes, not implemented and monitored	9%	5%	11%
No, but developing a strategy	24%	42%	20%
No, but do practice sustainability	33%	24%	29%
No, not yet considered sustainability	15%	10%	17%
Don't know	6%	5%	9%

3.23 Leadership priorities

When asked about priorities for areas of school management, secondary schools identified more high priority areas than primary schools or special schools as shown in Figure 9. The top priority areas were extending learning beyond the classroom, to develop personalised learning and to assess learner progress. Improving communications with parents and reporting progress to parents was also a high priority for secondary schools.

Less likely to be a priority for all school sectors were: collaboration with other schools and monitoring attendance and behaviour, and for 10 per cent primary and 9 per cent special schools, remote access study for all learners.

Figure 9

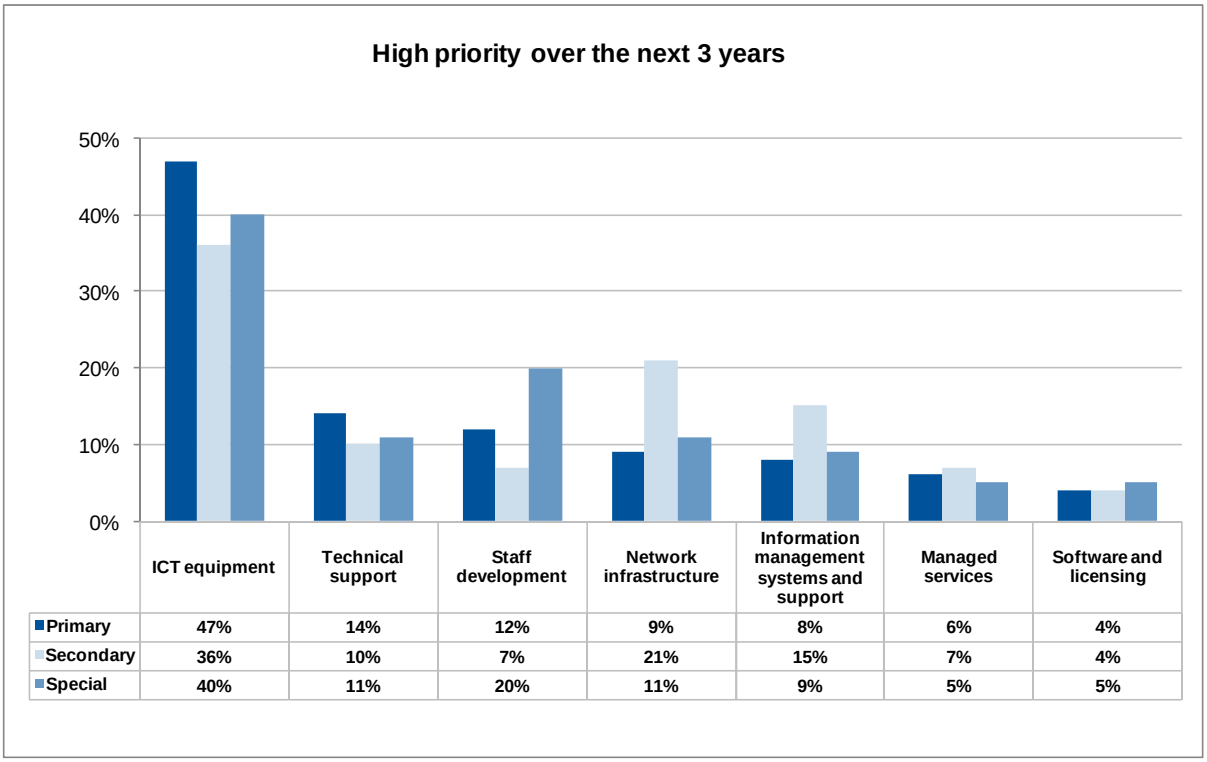


	To extend learning beyond the classroom	To promote and develop personalised learning	To improve communication with parents	To assess learner progress	To report learner progress to parents/ carers	To support management of information	To provide remote access study for all learners	To monitor attendance and behaviour	To help collaboration with other schools and colleges
Primary	30%	28%	19%	22%	12%	20%	10%	13%	8%
Secondary	42%	42%	46%	36%	42%	21%	33%	18%	9%
Special	29%	32%	29%	28%	21%	29%	9%	10%	13%

3.24 ICT budgets

All headteachers were asked to rank the relative priority of seven areas of possible investment over the next three years with the most important priority ranked first and the least important ranked seventh. Figure 10 shows the proportion of school leaders ranking each of the seven areas as first priority. ICT equipment was most likely to be ranked the top priority in all school sectors and therefore also had the highest average ranking.

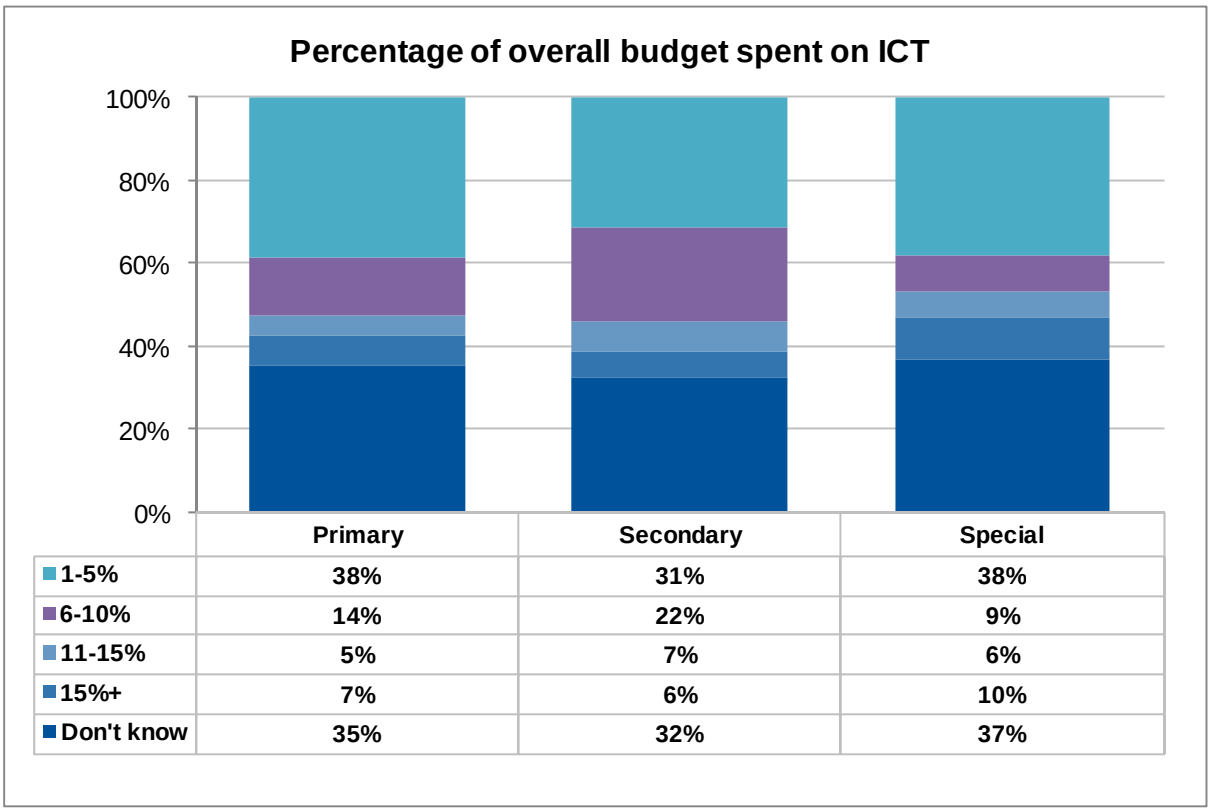
Figure 10



	ICT equipment	Technical support	Staff development	Network infrastructure	Information management systems and support	Managed services	Software and licensing
Primary	47%	14%	12%	9%	8%	6%	4%
Secondary	36%	10%	7%	21%	15%	7%	4%
Special	40%	11%	20%	11%	9%	5%	5%

The overall proportion of school budget spent on ICT as approximated by school leaders is shown in Figure 11. Around a third of school leaders did not know in primary schools (35 per cent), secondary schools (32 per cent) and special schools (37 per cent).

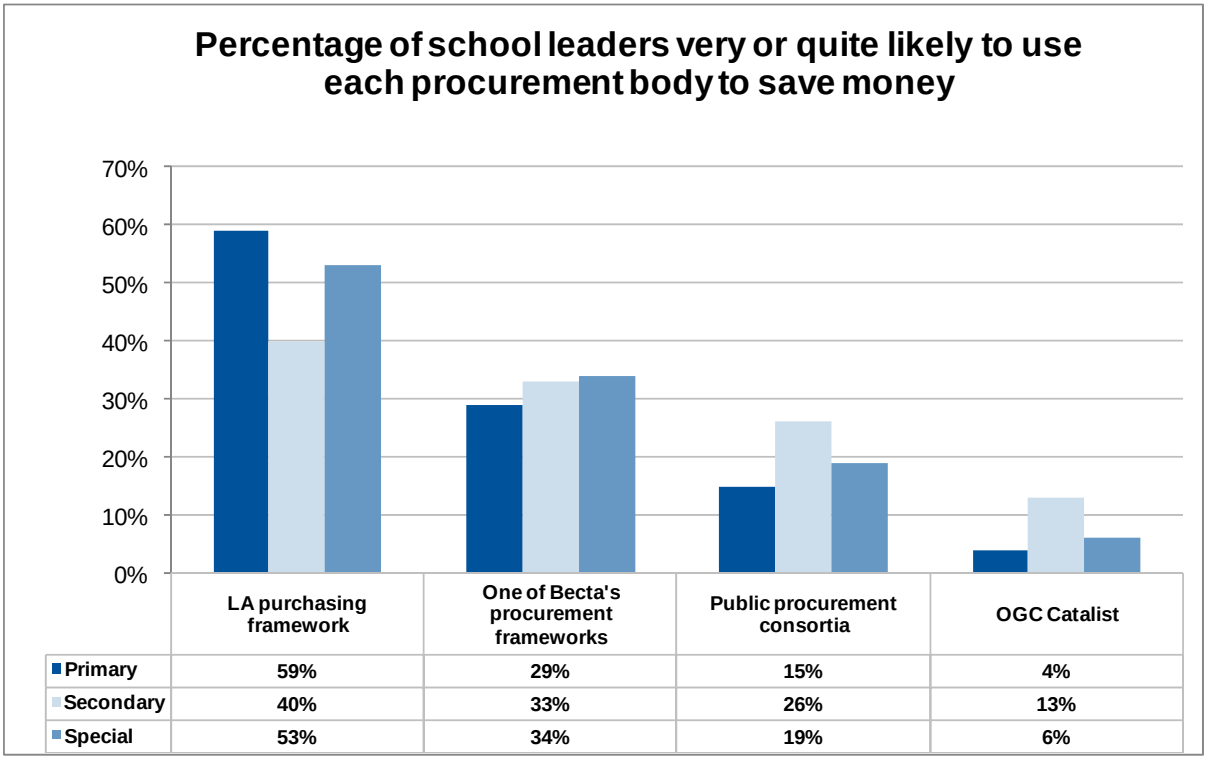
Figure 11



	Primary	Secondary	Special
1-5%	38%	31%	38%
6-10%	14%	22%	9%
11-15%	5%	7%	6%
15%+	7%	6%	10%
Don't know	35%	32%	37%

All school leaders were asked how likely they would be to use one of the following procurement bodies to save money when purchasing ICT: Local Authority purchasing framework, Becta's procurement framework, public procurement consortia and OGC Catalist. As Figure 12 shows, all three sectors of school were most likely to use the Local Authority purchasing framework.

Figure 12



	LA purchasing framework	One of Becta's procurement frameworks	Public procurement consortia	OGC Catalist
Primary	59%	29%	15%	4%
Secondary	40%	33%	26%	13%
Special	53%	34%	19%	6%

3.25 Electronic monitoring systems

The schools leaders' survey asked whether schools had electronic systems for monitoring aspects of school and pupil management. These could be real time or 'as and when' systems for reporting the various types of data.

- At least half of secondary and primary schools had an electronic system to share information with parents about each aspect of school management listed in the survey.
- Primary and secondary schools were most likely to have electronic systems for extra curricular activities (68 per cent and 80 per cent respectively) and school rules and governances (67 per cent and 84 per cent respectively).
- Primary schools were least likely to have a system to communicate progress and achievement (37 per cent of primary schools do not have an electronic system).
- Secondary schools were least likely to have a system to inform parents about how they can support learning (37 per cent did not have an electronic system).

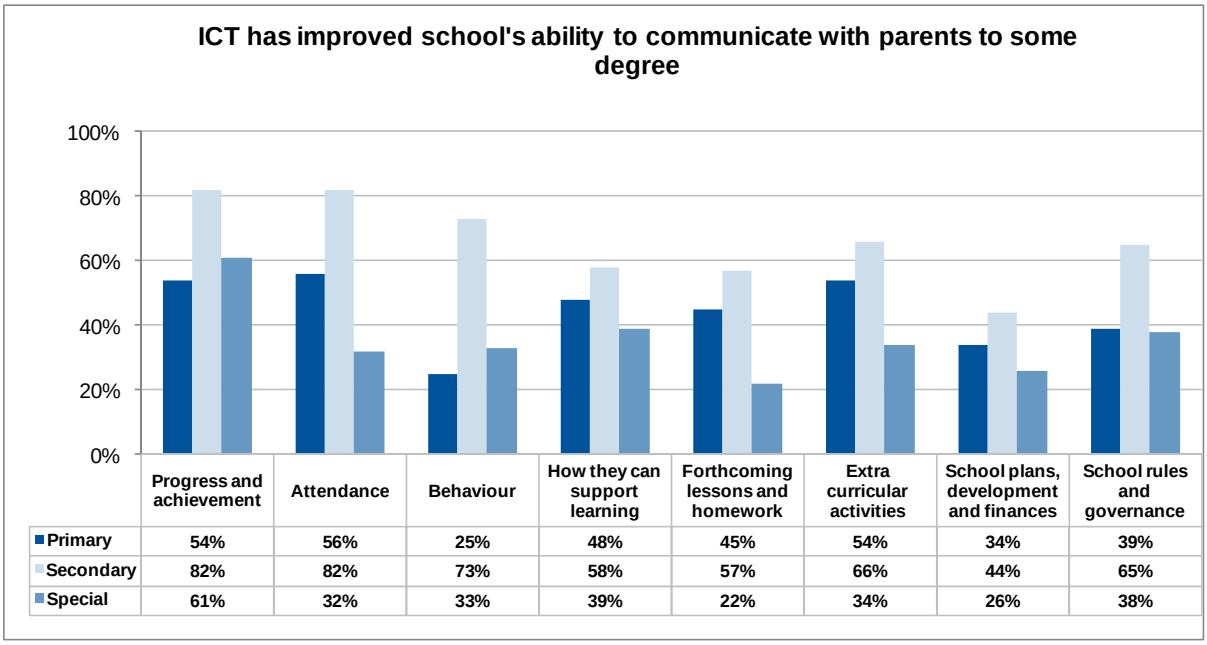
- Special schools were most likely to have an electronic system for progress and achievement (55 per cent) but least likely to have one to inform parents about forthcoming lessons and homework (39 per cent).

Data tables 20 to 22 showing the full responses for primary, secondary and special schools can be found in the appendix.

3.26 Communication

For each of these nine areas of school management, school leaders were asked how far using technology had improved their ability to communicate with parents and results are shown in Figure 13. Secondary school heads were most positive about the impact of ICT on all areas of communication with parents when compared to primary schools and special schools.

Figure 13



	Progress and achievement	Attendance	Behaviour	How they can support learning	Forthcoming lessons and homework	Extra curricular activities	School plans, development and finances	School rules and governance
Primary	54%	56%	25%	48%	45%	54%	34%	39%
Secondary	82%	82%	73%	58%	57%	66%	44%	65%
Special	61%	32%	33%	39%	22%	34%	26%	38%

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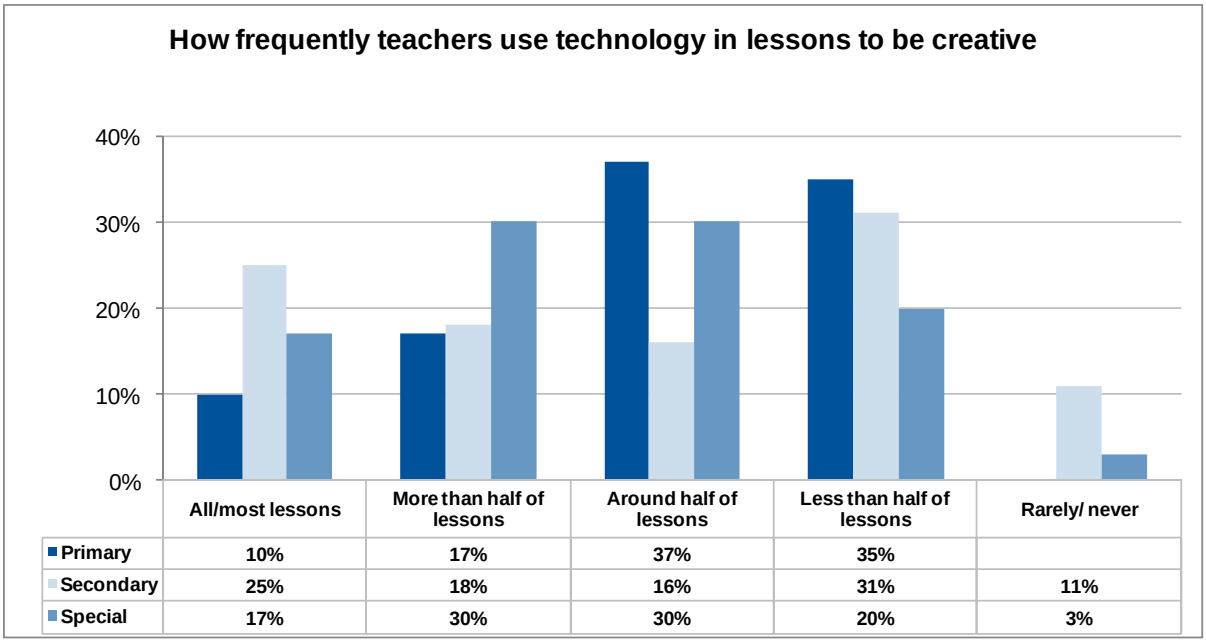
3.3 Teaching and learning

3.31 Creativity and problem solving

Teachers were asked how frequently they used ICT in lessons to help pupils to: gather information; analyse information; be creative; problem solve; work with others or share information between pupils in the school. Figure 14 shows that the majority of teachers (63 per cent) reported that they were using ICT to help pupils to be creative in at least half of their lessons.

Approximately half said that they were using ICT in at least half of their lessons to: gather information (56 per cent); analyse information (47 per cent); problem solve (50 per cent) or work with others (55 per cent). Fewer (27 per cent) were using ICT to share information between pupils.

Figure 14



	All/most lessons	More than half of lessons	Around half of lessons	Less than half of lessons	Rarely/ never
Primary	10%	17%	37%	35%	
Secondary	25%	18%	16%	31%	11%
Special	17%	30%	30%	20%	3%

Looking at change over time, there is an increasing trend for teachers to use ICT at all in lessons to be creative. In primary schools 99 per cent of teachers used ICT to be creative in 2009/10, compared with 86 per cent in 2008/09, 67 per cent in 2007/08 and 56 per cent in 2006/07[6]. In secondary schools, 90 per cent of teachers used ICT to be creative in 2009/10 which is higher than in previous years; 80 per cent in 2008/09, 50 per cent in 2007/08 and 32 per cent in 2006/07[1].

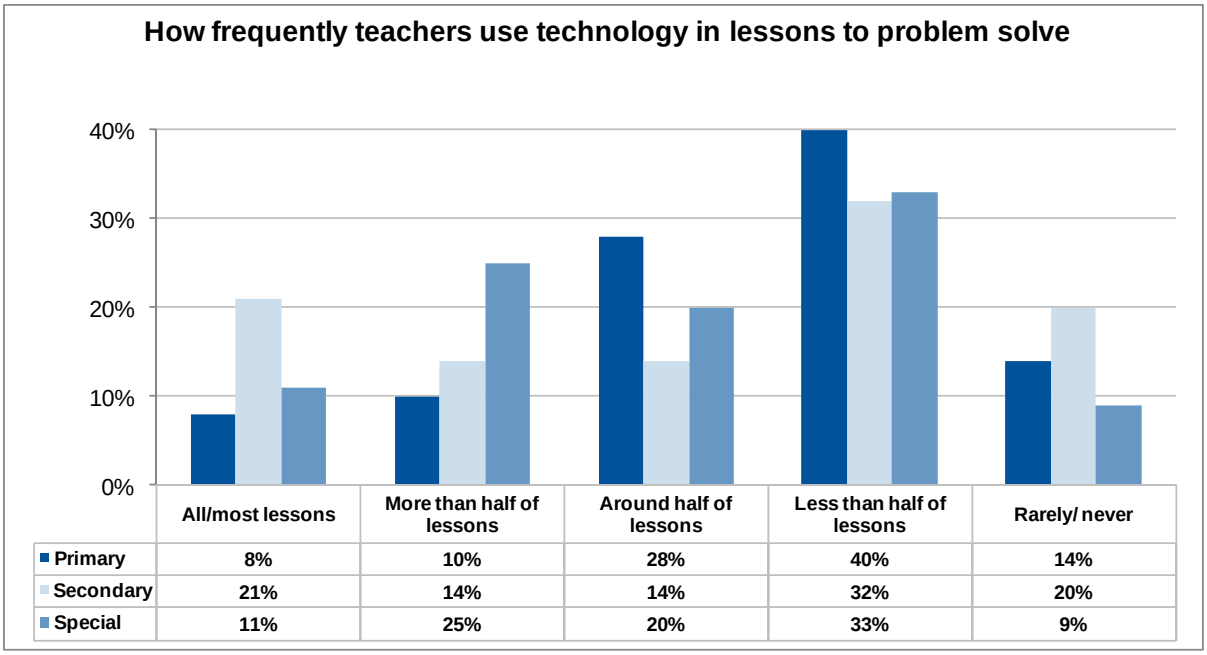
Teachers were slightly less likely to use technology with pupils to problem solve than to be creative (in at least half of lessons). See Figure 15 for detail of the frequency with which teachers use technology to problem solve in lessons.

Teachers were more likely to report using technology to problem solve than in previous years. Amongst primary school teachers 86 per cent used technology at all in lessons to problem solve compared to 76 per cent in 2008/09, 67 per cent in 2007/08, and 70 per cent in 2006/07[1]. There was also a trend for increased use of

[6] In surveys from 2006/07 to 2008/9 the categories were often, sometimes and never. The categories were changed to 'all/most lessons', 'more than half of lessons etc in 2009/10 to be more quantifiable and therefore discussion of trends for these questions is indicative.

technology to problem solve amongst secondary school teachers with 81 per cent of secondary school teachers using technology in lessons for this purpose compared to 68 per cent in 2008/09, 49 per cent in 2007/08 and 31 per cent in 2006/07[1].

Figure 15



	All/most lessons	More than half of lessons	Around half of lessons	Less than half of lessons	Rarely/ never
Primary	8%	10%	28%	40%	14%
Secondary	21%	14%	14%	32%	20%
Special	11%	25%	20%	33%	9%

3.32 Assessment

More than three quarters of teachers in primary, secondary and special schools used technology at least fortnightly for assessment. ICT subject teachers were more likely to use technology for assessment at least fortnightly than other subject teachers (93 per cent compared with 69 per cent).

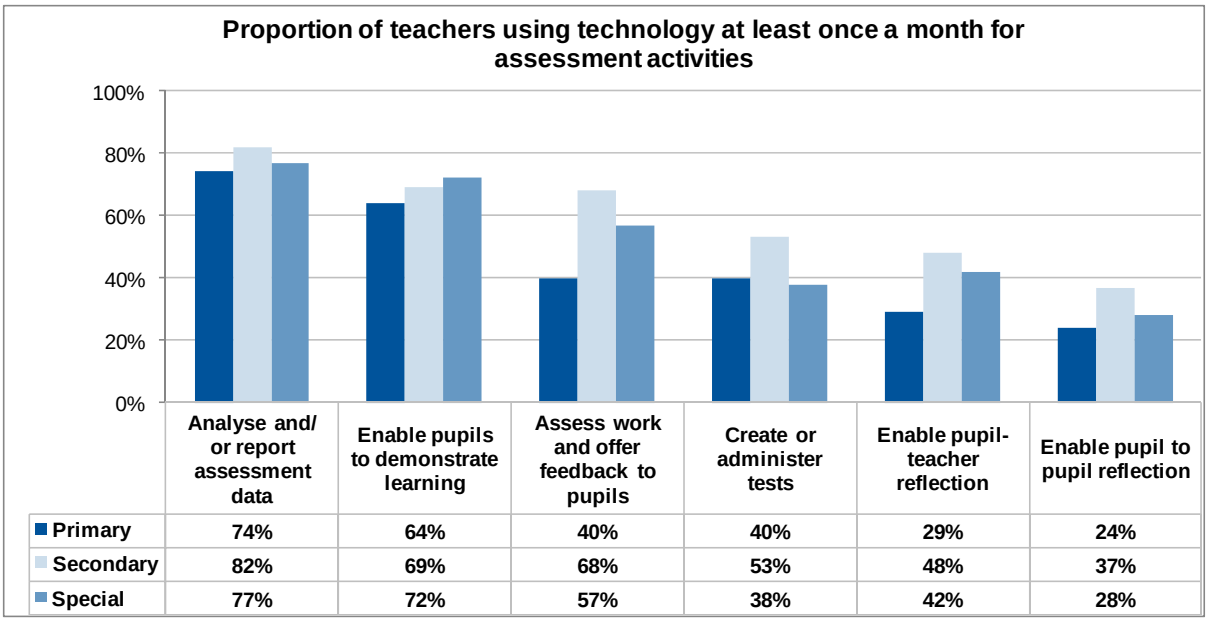
The majority of teachers agreed that ICT helped teachers undertake a wider range of assessment tasks. Agreement was slightly higher amongst primary schools (63 per cent) and special school (66 per cent) teachers than secondary teachers (54 per cent).

Agreement was more likely amongst male teachers than female (66 per cent compared with 55 per cent). ICT subject teachers were more likely to agree than other subject teachers (78 per cent compared with 50 per cent).

Technology is more likely to be used at least monthly for assessment activities in secondary and special schools than in primary schools. As Figure 16 shows, the task

technology is most likely to be used for across all sectors of school, is to analyse and/or report assessment data.

Figure 16



	Analyse and/ or report assessment data	Enable pupils to demonstrate learning	Assess work and offer feedback to pupils	Create or administer tests	Enable pupil-teacher reflection	Enable pupil to pupil reflection
Primary	74%	64%	40%	40%	29%	24%
Secondary	82%	69%	68%	53%	48%	37%
Special	77%	72%	57%	38%	42%	28%

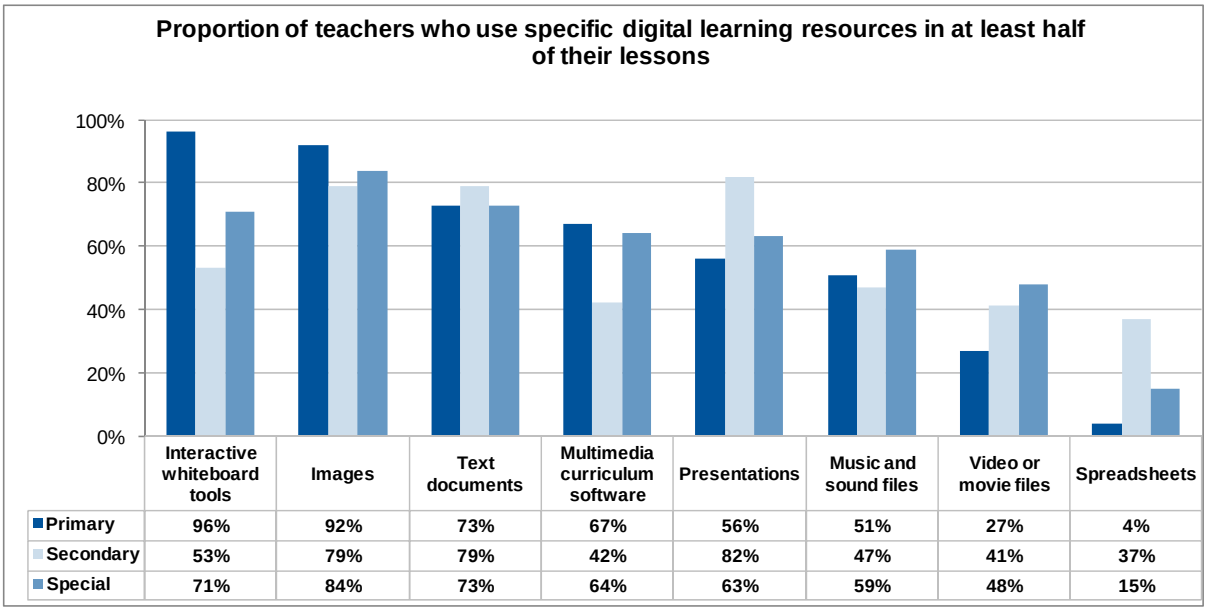
3.33 Pupils own devices

In general, pupils are not allowed to use any of their own devices for learning in lessons with the exception of laptops, which are allowed in a minority of schools rarely or in less than half of lessons. Teachers reported that pupils are allowed to use their own laptops in 23 per cent of primary schools, 41 per cent of secondary and 39 per cent of special schools.

3.34 Digital learning resources

Teachers report using a variety of digital learning resources in their lessons, and the most frequently used resources are content from interactive whiteboard tools, images and text documents, and in secondary schools, presentations (Figure 17).

Figure 17



	Interactive whiteboard tools	Images	Text documents	Multimedia curriculum software	Presentations	Music and sound files	Video or movie files	Spreadsheets
Primary	96%	92%	73%	67%	56%	51%	27%	4%
Secondary	53%	79%	79%	42%	82%	47%	41%	37%
Special	71%	84%	73%	64%	63%	59%	48%	15%

Teachers were asked to rank ten statements regarding digital resources in order of importance, where one was most important and ten was least important. Table 4 shows the ranking for each statement by school sector, based on the average ranking given.[7]

Overall, teachers said that addressing the curriculum and ease of use were the top two most important factors when looking for a digital learning resource. Cost was also important. Endorsement from exam boards and the publishing/ supplier source were least important overall.

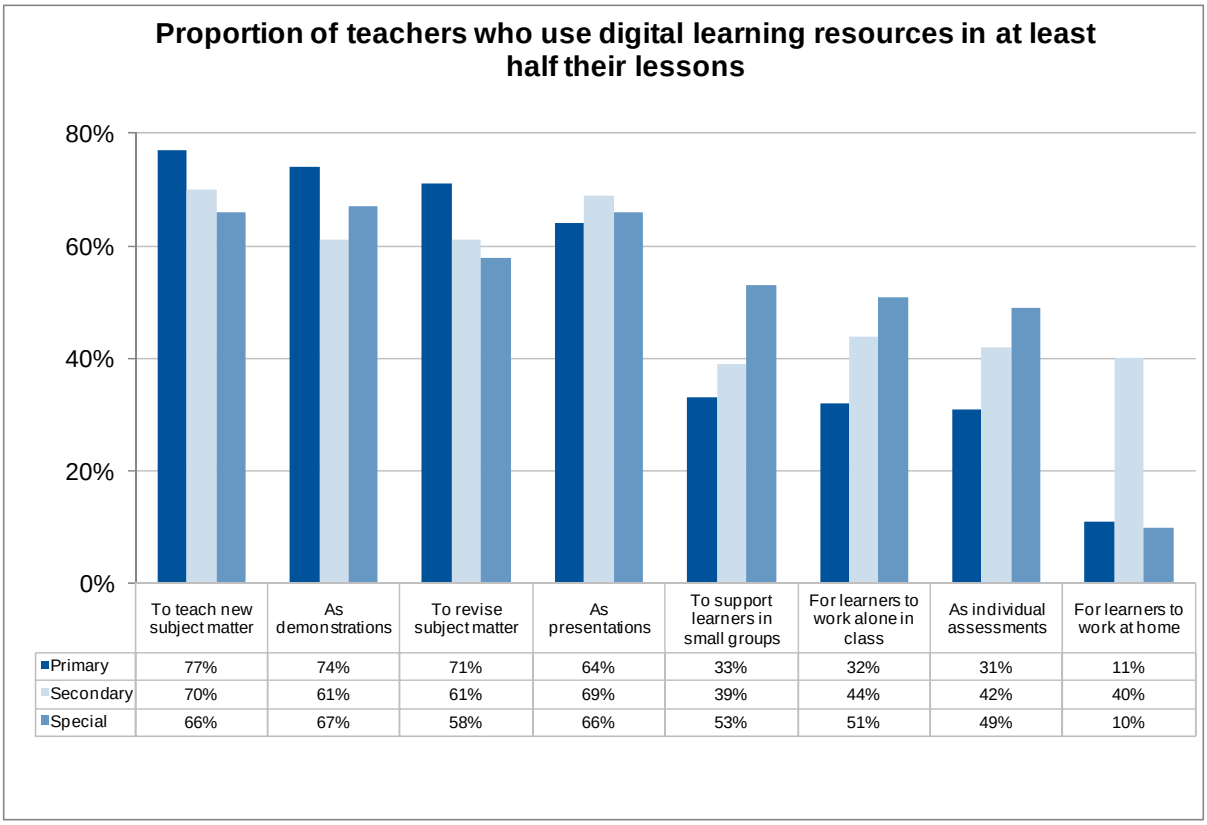
[7] Teachers were asked to rank the statements from 1 to 10 according to importance (where 1 was the most important, and 10 the least important). The average rank was then calculated. The lower the average, the more important the aspect.

Table 4: The ranking for each statement by school sector, based on the average ranking given

Average rank	Primary	Secondary	Special
1	It must address specific parts of the curriculum	It must address specific parts of the curriculum	It must address specific parts of the curriculum
2	It must be easy to use	It must be easy to use	It must be easy to use
3	It must be easy to install	It must be low cost	It must be low cost
4	It must be low cost	It must be a specific type of resource	It must meet accessibility standards
5	It must meet accessibility standards	It must meet technical requirements	It must be easy to install
6	It must meet technical requirements	It must be easy to install	It must meet technical requirements
7	It must be a specific type of resource	It must meet accessibility standards	It must have a flexible license
8	It must have a flexible license	It must have a flexible license	It must be a specific type of resource
9	It must be from certain publishers/suppliers	It must have endorsements from exam boards	It must have endorsements from exam boards
10	It must have endorsements from exam boards	It must be from certain publishers/suppliers	It must be from certain publishers/suppliers

Teachers are using digital learning resources for a variety of teaching and learning activities, the most common being teaching new subject matter (Figure 18). Digital resources are most often used in class, particularly as presentations or demonstrations. Secondary school teachers were more likely to use these resources for learners to work at home than either primary or special school teachers.

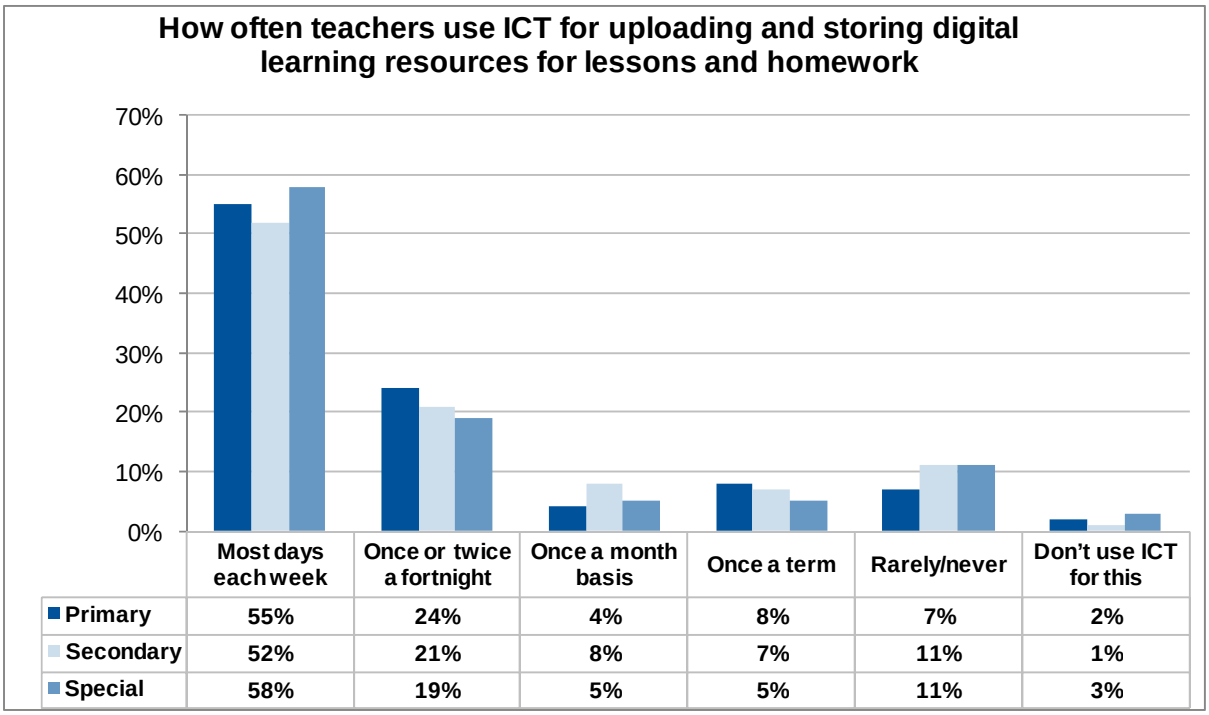
Figure 18



	To teach new subject matter	As demonstrations	To revise subject matter	As presentations	To support learners in small groups	For learners to work alone in class	As individual assessments	For learners to work at home
Primary	77%	74%	71%	64%	33%	32%	31%	11%
Secondary	70%	61%	61%	69%	39%	44%	42%	40%
Special	66%	67%	58%	66%	53%	51%	49%	10%

Over half of teachers reported they are using ICT for uploading and storing digital learning resources for lessons and homework most days each week (see Figure 19). There is little difference between school sectors.

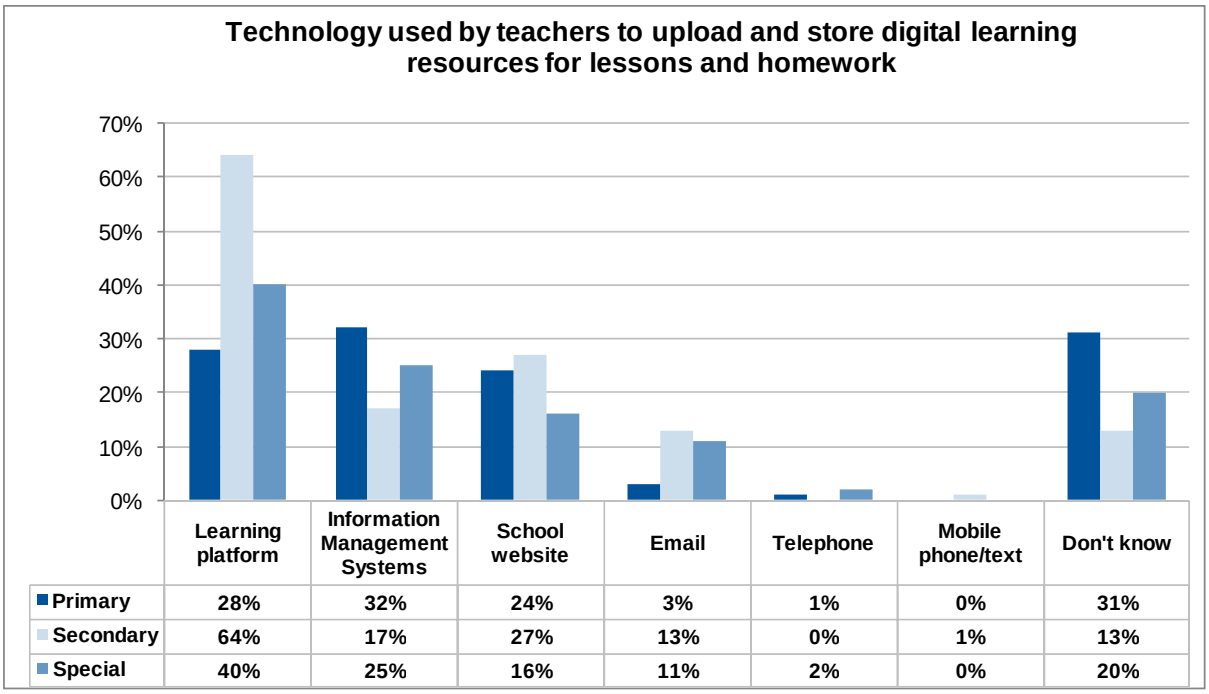
Figure 19



	Most days each week	Once or twice a fortnight	Once a month basis	Once a term	Rarely/never	Don't use ICT for this
Primary	55%	24%	4%	8%	7%	2%
Secondary	52%	21%	8%	7%	11%	1%
Special	58%	19%	5%	5%	11%	3%

As Figure 20 shows, the majority of secondary school teachers said that they use a learning platform to upload and store digital learning resources for lessons and homework (64 per cent of respondents). This figure was lower amongst both primary teachers (28 per cent) and special school teachers (40 per cent).

Figure 20

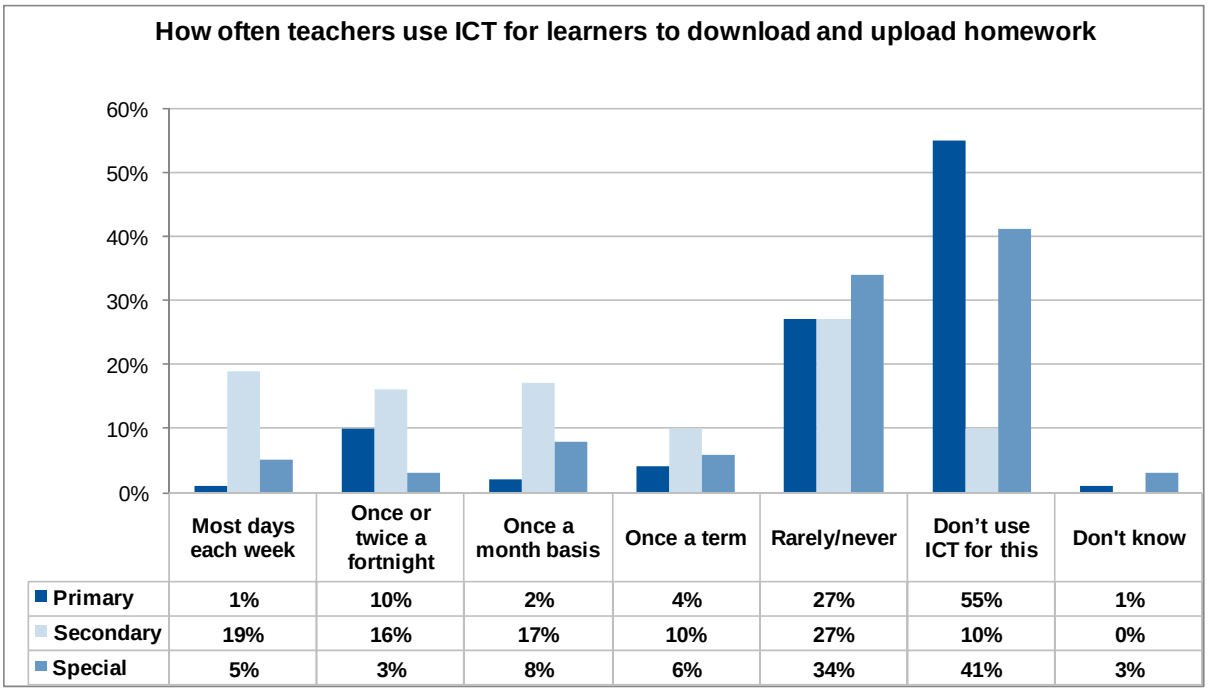


	Learning platform	Information Management Systems	School website	Email	Telephone	Mobile phone/text	Don't know
Primary	28%	32%	24%	3%	1%	0%	31%
Secondary	64%	17%	27%	13%	0%	1%	13%
Special	40%	25%	16%	11%	2%	0%	20%

3.35 Homework

Teachers were unlikely to use ICT for learners to download and upload homework (Figure 21). Just over half of primary school teachers do not use ICT for learners to do this.

Figure 21



	Most days each week	Once or twice a fortnight	Once a month basis	Once a term	Rarely/never	Don't use ICT for this	Don't know
Primary	1%	10%	2%	4%	27%	55%	1%
Secondary	19%	16%	17%	10%	27%	10%	0%
Special	5%	3%	8%	6%	34%	41%	3%

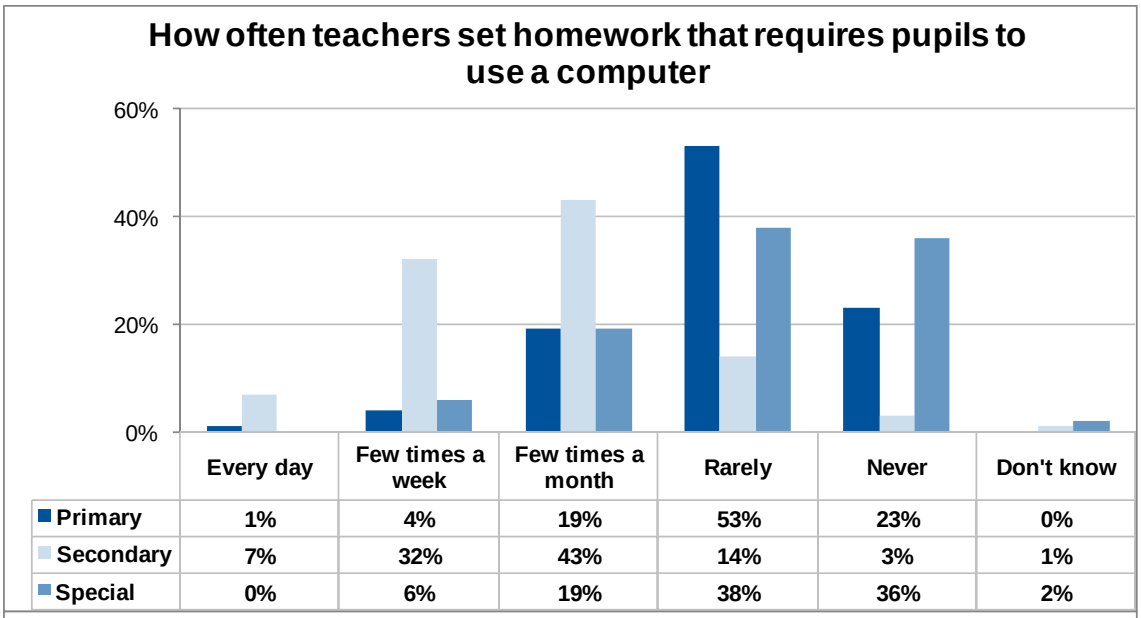
Of those teachers who use ICT for learners to download and upload homework, the majority of teachers said they used a learning platform for this activity (68 per cent of secondary school teachers, eight of the 12 primary teachers and six of the 14 special school teachers).

Teachers were asked how often they set homework that requires either the use of a computer or access to the internet. Secondary school teachers were more likely to set homework on a more regular basis that requires the use of a computer or access to the internet than teachers from primary or special schools (see Figure 22 below).

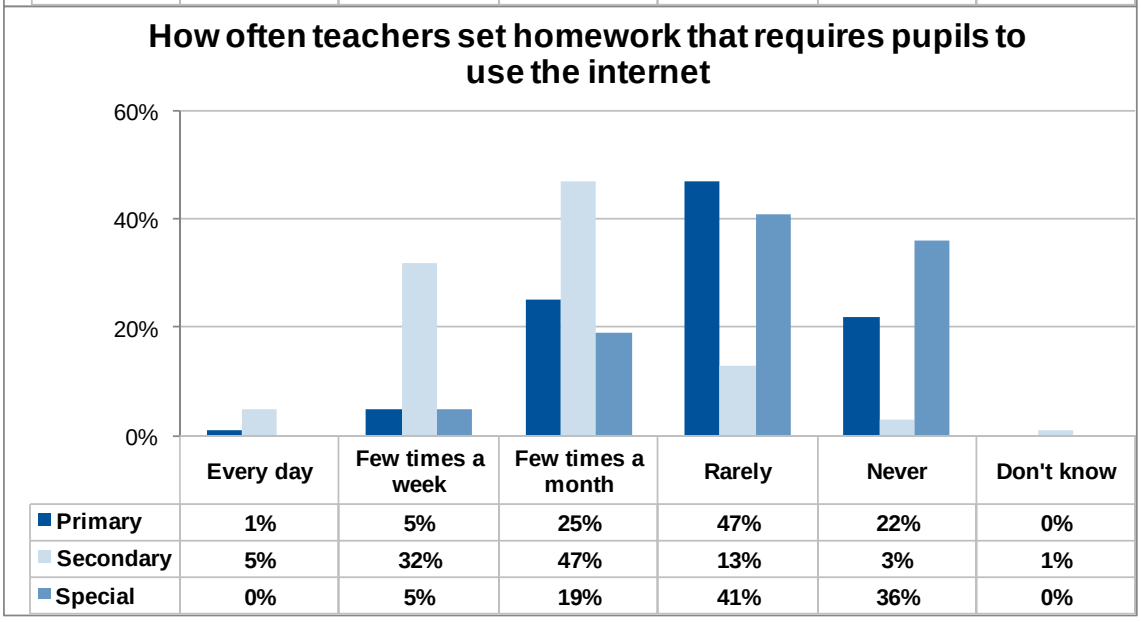
There has been an increase in the proportion of primary and secondary school teachers that set homework that requires use of a computer or access to the internet since last year; the increases were larger for primary than secondary schools.

- In 2008/09, 51 per cent of primary school and 91 per cent of secondary school teachers set homework that required a computer compared to 77 per cent and 96 per cent respectively in 09/10.
- Similarly, in 2008/09, 58 per cent of primary school and 93 per cent of secondary school teachers ever set homework that required use of the internet compared to 78 per cent and 97 per cent apiece in 2009/10.

Figure 22



	Every day	Few times a week	Few times a month	Rarely	Never	Don't know
Primary	1%	4%	19%	53%	23%	0%
Secondary	7%	32%	43%	14%	3%	1%
Special	0%	6%	19%	38%	36%	2%

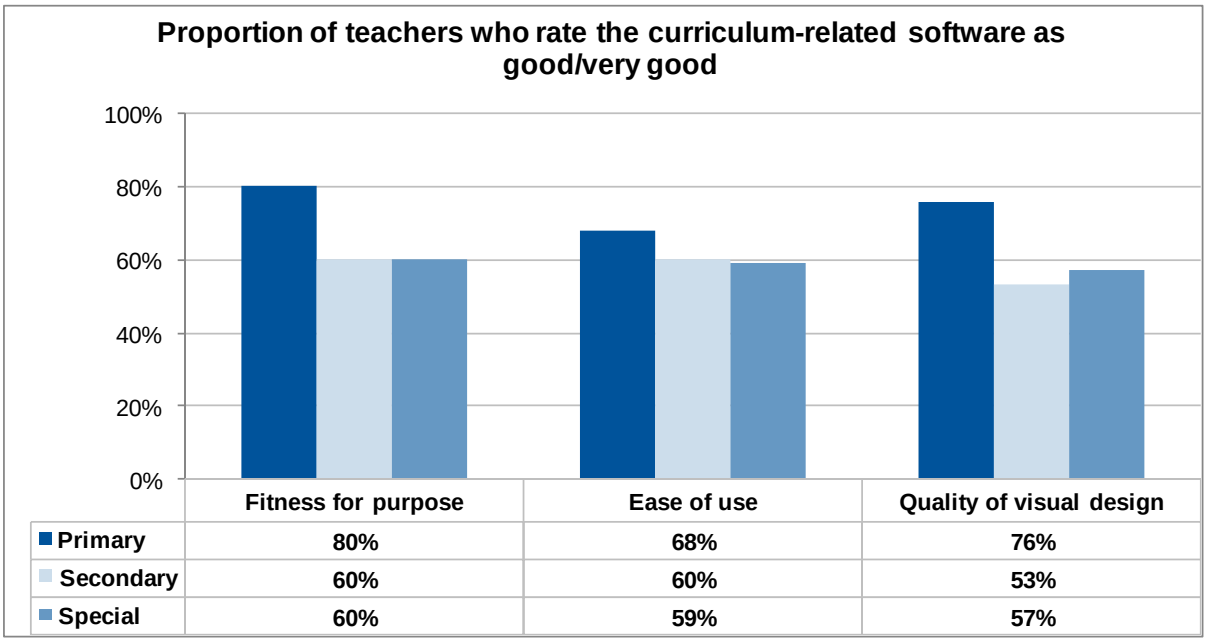


	Every day	Few times a week	Few times a month	Rarely	Never	Don't know
Primary	1%	5%	25%	47%	22%	0%
Secondary	5%	32%	47%	13%	3%	1%
Special	0%	5%	19%	41%	36%	0%

3.36 Curriculum related software

Primary school teachers were most positive about aspects of the curriculum-related software, in particular with regards to fitness for purpose (Figure 23).

Figure 23

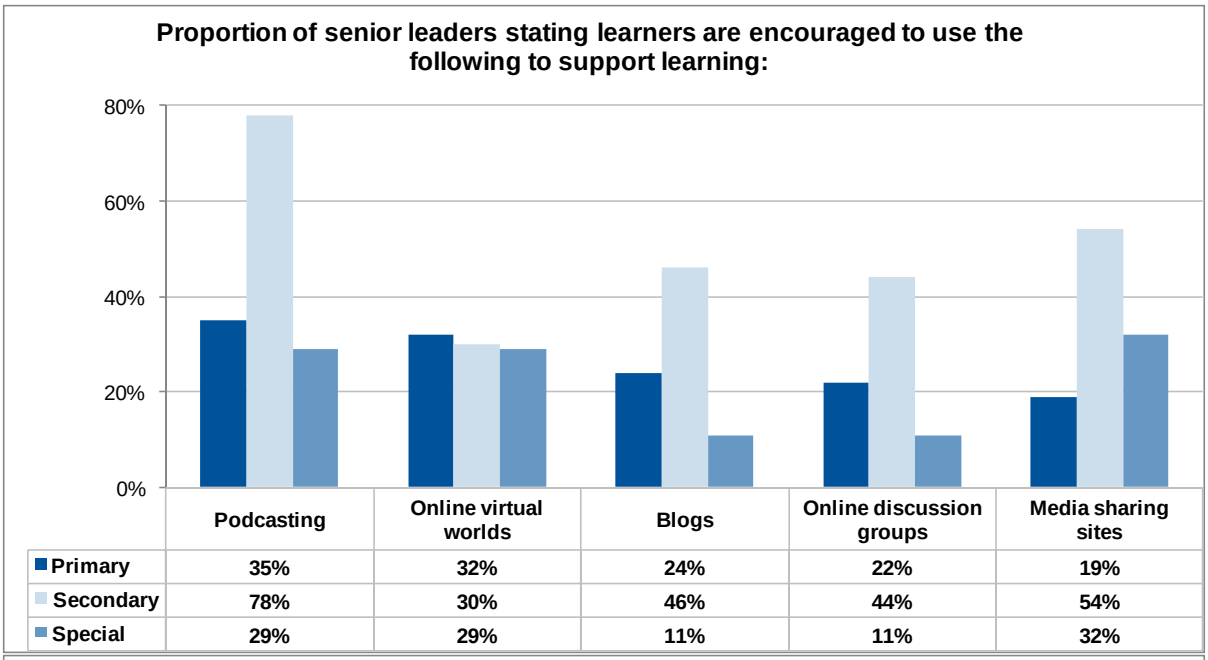


	Fitness for purpose	Ease of use	Quality of visual design
Primary	80%	68%	76%
Secondary	60%	60%	53%
Special	60%	59%	57%

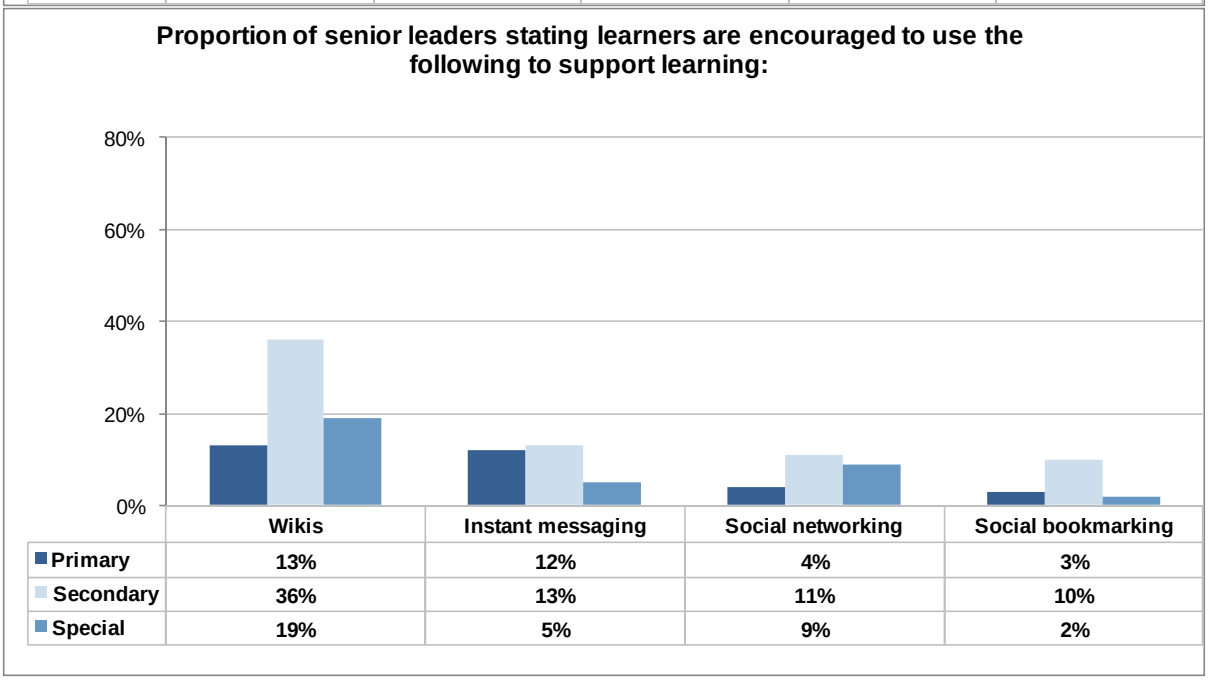
3.37 Internet based tools

Senior leaders were asked whether the learners in their school were encouraged to use Web 2.0 tools, such as social networking sites, podcasting and blogs, to support their learning (see Figure 24). Overall, senior leaders from secondary schools were more likely to say that learners were using these tools than those from primary or special schools, particularly podcasting and media sharing sites.

Figure 24



	Podcasting	Online virtual worlds	Blogs	Online discussion groups	Media sharing sites
Primary	35%	32%	24%	22%	19%
Secondary	78%	30%	46%	44%	54%
Special	29%	29%	11%	11%	32%



	Wikis	Instant messaging	Social networking	Social bookmarking
Primary	13%	12%	4%	3%
Secondary	36%	13%	11%	10%
Special	19%	5%	9%	2%

3.38 E-safety

The majority of ICT coordinators reported that their internet content was filtered by a third party, either through a third party provider filtering service or a by a third party filtering system that is enhanced by their own in-house system:

- Fifty per cent of primary, 27 per cent of secondary and 66 per cent of special school ICT coordinators said their school employed a third party provider filtering service.

- Thirty nine per cent of primary, 61 per cent of secondary and 28 per cent of special school ICT coordinators said their school employed a third party provider filtering service which is enhanced by their in-house system.

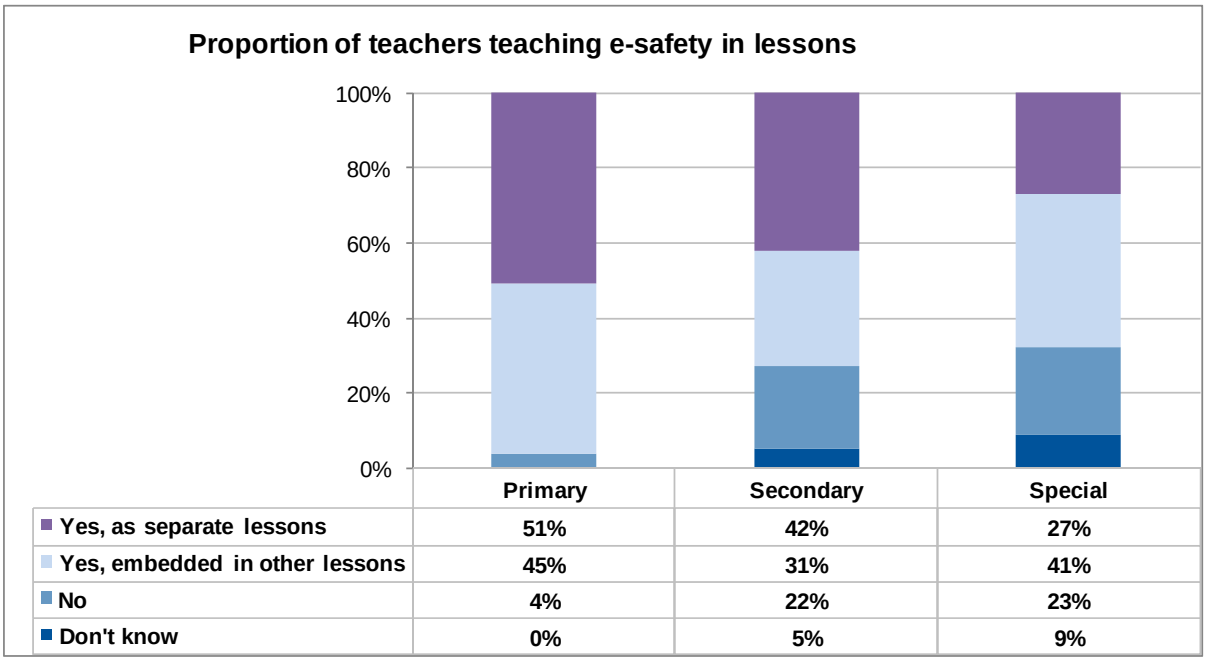
Secondary schools were significantly more likely to have software that allowed them to track online behaviour and flag violations: 75 per cent of secondary ICT coordinators said they had this facility compared to 40 per cent of primary and 29 per cent of special school ICT coordinators.

Eight out of ten teachers said that they found legitimate sites were blocked by filters set by their schools (79 per cent primary teachers; 81 per cent secondary teachers; 80 per cent special school teachers).

Senior leaders were asked whether their school used software to monitor individual users' activity on the internet. The results varied by school sector: 88 per cent of secondary school senior leaders did have this software compared to 36 per cent of primary and 45 per cent of special school senior leaders.

The survey findings suggest that lessons on e-safety were more prevalent in primary schools than in either secondary or special schools (Figure 25). Four per cent of primary teachers surveyed reported that they did not teach e-safety, compared to 22 per cent of secondary and 23 per cent of special school teachers. For those that did teach e-safety, there was a broadly equal split between those that teach it as a separate lesson and those that teach it as content embedded in other subject lessons.

Figure 25



	Primary	Secondary	Special
Yes, as separate lessons	51%	42%	27%
Yes, embedded in other lessons	45%	31%	41%
No	4%	22%	23%
Don't know	0%	5%	9%

3.4 Staff confidence and competence

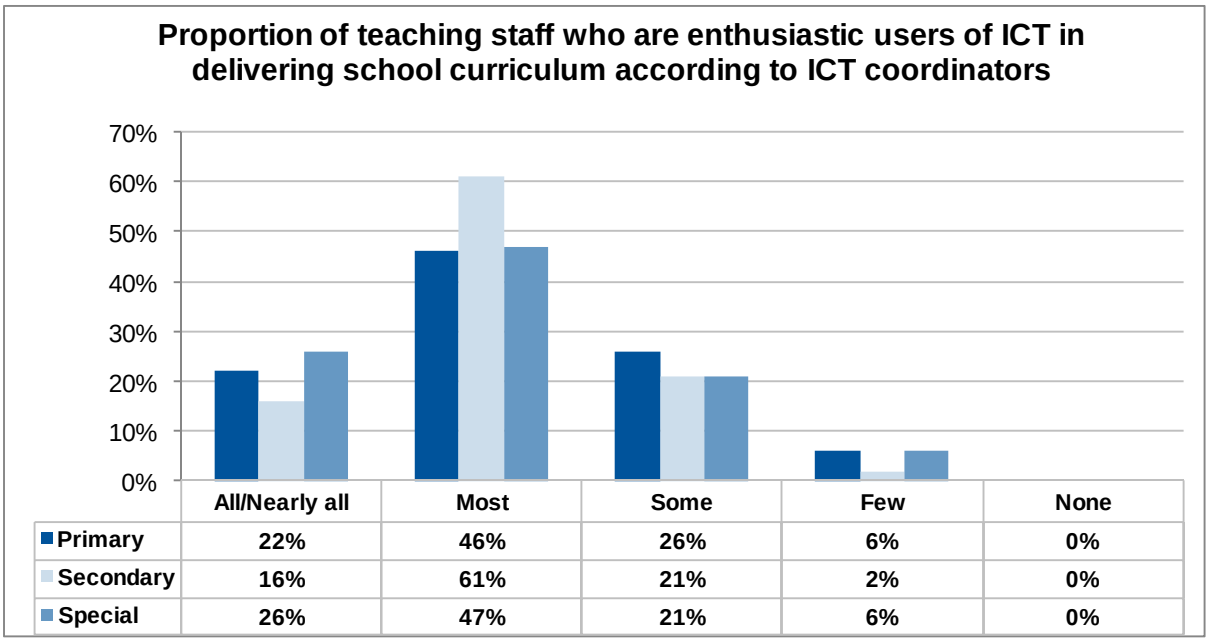
3.41 Teacher enthusiasm

According to ICT coordinators, teaching staff were generally enthusiastic users of ICT (see Figure 26) but skills gaps exist and most would benefit from further training in the use of ICT for most activities and further development to use most technological devices to their full potential.

- Over three-quarters of secondary school ICT coordinators reported that either most or all of the teaching staff at their school were enthusiastic users of ICT in delivering the school curriculum (77 per cent). This figure was slightly lower amongst primary (68 per cent) and special school ICT coordinators (73 per cent).

- In 2006/7, 77 per cent of ICT coordinators within primary schools, and 64 per cent of ICT coordinators in secondary schools felt that teachers were enthusiastic users of ICT. These figures rose slightly to 78 per cent and 81 per cent in 2007/2008 and 2008/2009 respectively for primary, and to 70 per cent and 77 per cent respectively for secondary.

Figure 26



	All/Nearly all	Most	Some	Few	None
Primary	22%	46%	26%	6%	0%
Secondary	16%	61%	21%	2%	0%
Special	26%	47%	21%	6%	0%

3.42 Perceptions of teacher competence and training

ICT coordinators reported that teachers required further training in using ICT for many of their regular activities, particularly in personalising learning. ICT coordinators said teachers were most adept at using ICT for report writing. Primary school teachers were also perceived to be more adept at using ICT for lesson planning than those in secondary or special schools.

ICT coordinators in secondary schools were most likely to say that some/all teachers needed further development to use most technological devices to their full potential (see Table 5). In particular, most ICT coordinators across all school sectors reported that some/all teachers needed further development in the use of digital video equipment and digital audio equipment.

Table 5: Percentage of ICT coordinators who felt that some / all teachers would benefit from further training with specific devices.

	Primary	Secondary	Special
Desktops	56%	81%	70%
Laptops	61%	79%	71%
Netbooks	56%	70%	53%
Handhelds (PDAs)	53%	70%	54%
Mobile phones	40%	70%	50%
Digital cameras	61%	85%	70%
Digital video camera and editing equipment	90%	95%	94%
Digital audio recording and editing equipment	88%	96%	93%
Video conferencing	76%	89%	74%
Voting pads	73%	92%	60%
IWBs	61%	83%	81%
Visualisers	76%	80%	63%
Other devices, e.g. digital microscopes, data loggers, GPS devices	87%	84%	77%

Teachers said that they could benefit from further training in how to use specific devices, in particular newer or less ordinary technological devices. They reported more confidence in using ICT for specific activities than with specific devices.

Teachers were asked if they felt they could learn more about how to use specific technological devices in order to support learning and teaching (see Table 6). Overall, respondents were less likely to feel they needed to learn more about widely used established devices, such desktops, laptops and digital cameras than newer or more specialist technology such as netbooks and voting pads. In line with the results from the ICT coordinators' survey, teachers reported that they would benefit from further development or training in using digital video and audio equipment.

Table 6: Percentage of teachers who felt they would benefit from additional training relating to specific technological devices.

	Primary	Secondary	Special
Desktops	33%	32%	52%
Laptops	30%	36%	56%
Netbooks	66%	59%	81%
Handhelds (PDAs)	85%	66%	80%
Mobile phones	49%	57%	50%
Digital cameras	20%	42%	58%
Digital video camera and editing equipment	78%	62%	91%
Digital audio recording and editing equipment	83%	64%	83%
Video conferencing	82%	66%	83%
Voting pads	75%	63%	80%
IWBs	31%	58%	66%
Visualisers	65%	63%	83%
Other devices, e.g. digital microscopes, data loggers, GPS devices	81%	54%	80%

Table 7 shows the proportion of teachers feeling they would benefit from additional training relating to specific activities. The two most frequently identified activities requiring additional training were 'personalising learning' and 'using particular applications and devices'.

Secondary school teachers said that they did not need as much training in using ICT as teachers from primary and special schools. However, primary school teachers reported confidence in using ICT for lesson planning, with eight per cent reporting that they could benefit from training in this area (28 per cent of secondary and 33 per cent of special school teachers).

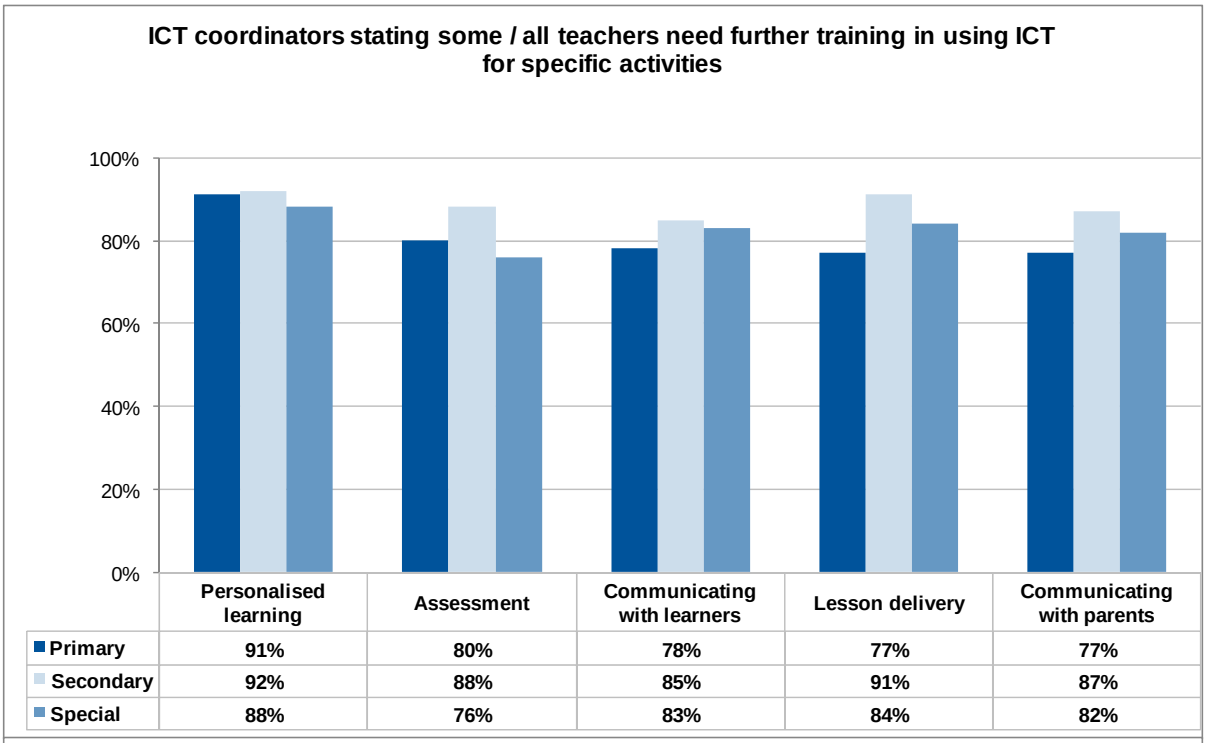
Table 7: Percentage of teachers who felt they would benefit from additional training relating to specific activities.

	Primary	Secondary	Special
Lesson planning	8%	28%	33%
Lesson delivery	44%	44%	61%
Use of assessment data	62%	53%	67%
Personalising learning	79%	68%	78%
Communicating with staff	15%	18%	47%
Communicating with learners	52%	43%	67%
Communicating with parents	59%	35%	56%
Reporting online to parents/carers	68%	41%	61%
Report writing	20%	24%	42%
Setting homework	40%	41%	34%
Safeguarding children online	39%	47%	66%
Data protection and security	53%	45%	72%
Using ICT to support administration, management and recording	64%	48%	69%
Using particular applications and devices	75%	67%	84%

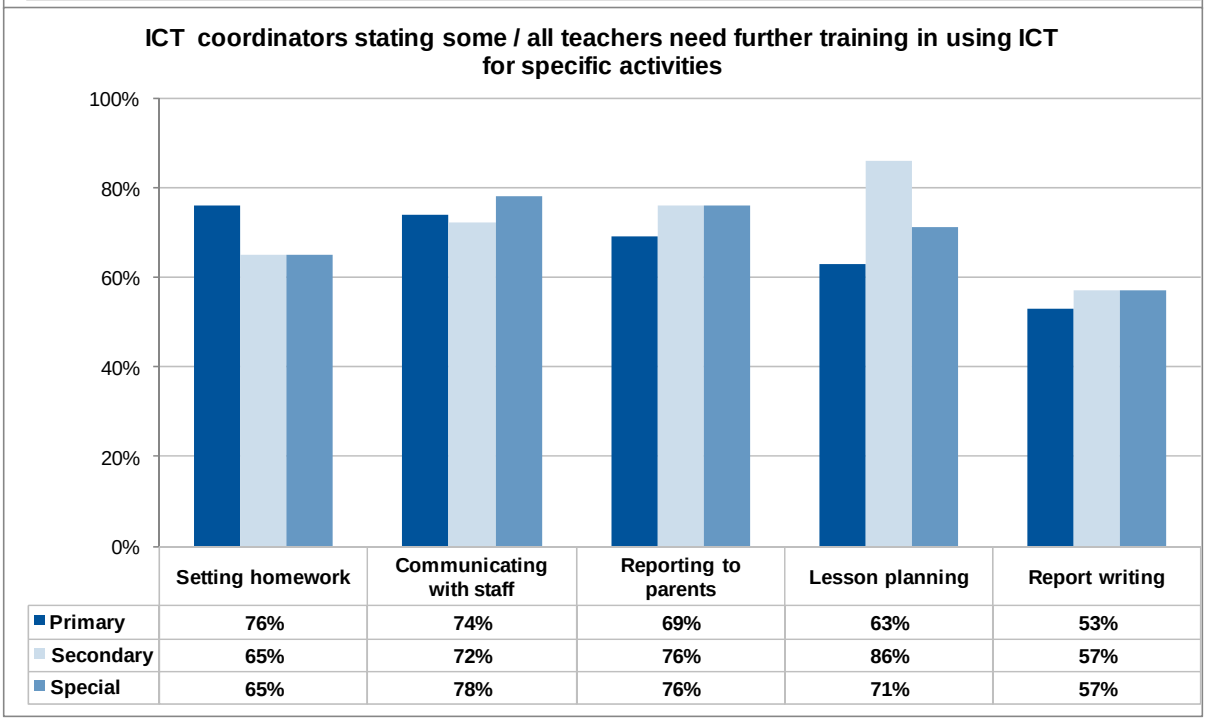
Teachers were asked which ICT CPD activities they found helpful (Figure 27). Teachers found in-house training with colleagues to be the most helpful such as whole school ICT sessions and collaborative learning with colleagues in their school.

- Whole school ICT sessions were very/quite helpful for 71 per cent of primary school teachers, 47 per cent of secondary school teachers and 62 per cent of special school teachers.
- Collaborative learning with colleagues in the school were very/ quite helpful for 70 per cent of primary school teachers, 65 per cent of secondary school teachers and 68 per cent of special school teachers.
- The least helpful CPD activity across all school sectors was participation in action research, however the majority of teachers in primary (73 per cent), secondary (64 per cent) and special schools (66 per cent) had not been involved in this form of CPD.

Figure 27



	Personalised learning	Assessment	Communicating with learners	Lesson delivery	Communicating with parents
Primary	91%	80%	78%	77%	77%
Secondary	92%	88%	85%	91%	87%
Special	88%	76%	83%	84%	82%



	Setting homework	Communicating with staff	Reporting to parents	Lesson planning	Report writing
Primary	76%	74%	69%	63%	53%
Secondary	65%	72%	76%	86%	57%
Special	65%	78%	76%	71%	57%

With regards to specific training needs on the legalities and risks around data protection and security, four in ten senior leaders reported that they and their staff were well informed overall. About half said they and their staff were informed but

could know more (55 per cent primary, 56 per cent secondary, 50 per cent special schools).

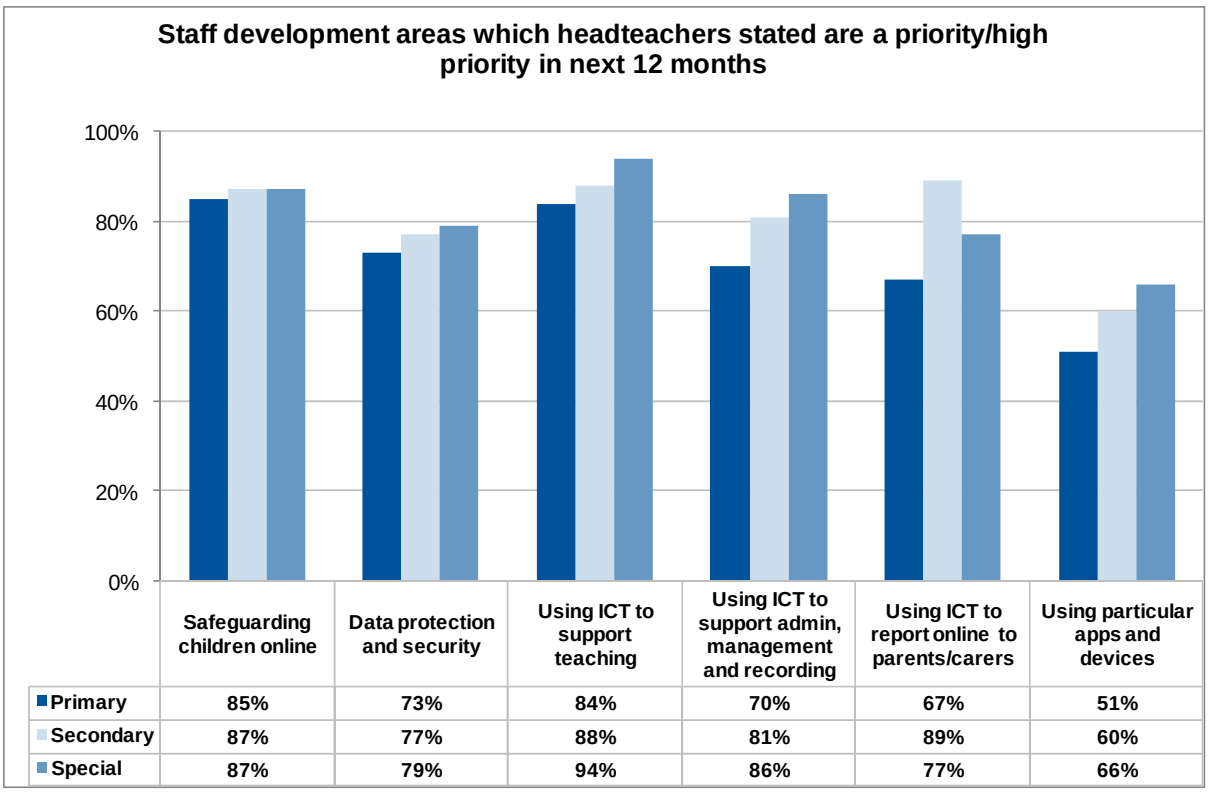
The most common ICT leadership training for senior leaders over the past two years was 'safeguarding children online' training, although this was less likely of secondary school leaders than those from primary or special schools.

Training in 'getting value for money from your school's ICT' was of most interest to primary school senior leaders (33 per cent had not participated but would like to), whereas 'data protection and security' training was of most interest to secondary school senior leaders (26 per cent). Training in 'delivering an ICT vision for your school' was of particular interest to special school leaders (43 per cent).

3.43 Staff development priorities

Senior leaders were asked to indicate which areas of staff development were priorities in the next 12 months (see Figure 28). Nearly nine out of ten senior leaders stated that safeguarding children online was a priority for staff development. Using ICT to support teaching was more frequently identified as a priority by special schools.

Figure 28



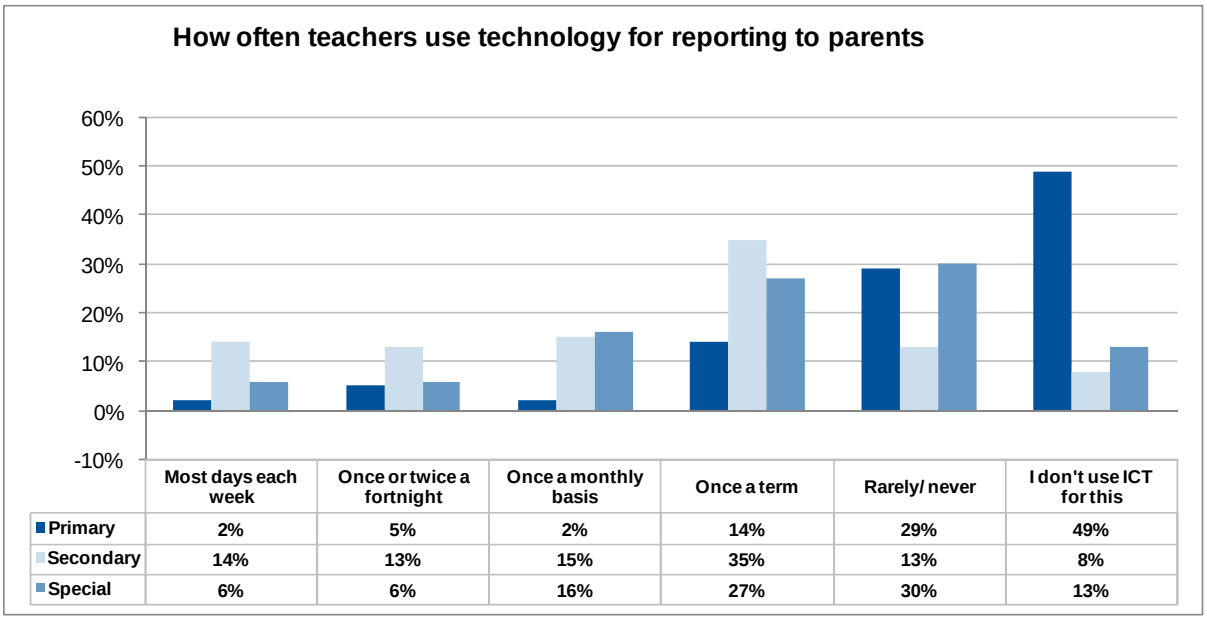
	Safeguarding children online	Data protection and security	Using ICT to support teaching	Using ICT to support admin, management and recording	Using ICT to report online to parents/carers	Using particular apps and devices
Primary	85%	73%	84%	70%	67%	51%
Secondary	87%	77%	88%	81%	89%	60%
Special	87%	79%	94%	86%	77%	66%

3.5 Parents and extended learning

3.51 Reporting to parents

Technology was used for reporting to parents at least once a term in over three quarters of secondary schools (77 per cent), just over half of special schools (55 per cent) and less than a quarter of primary schools (23 per cent) (see Figure 29). These differences are significant.

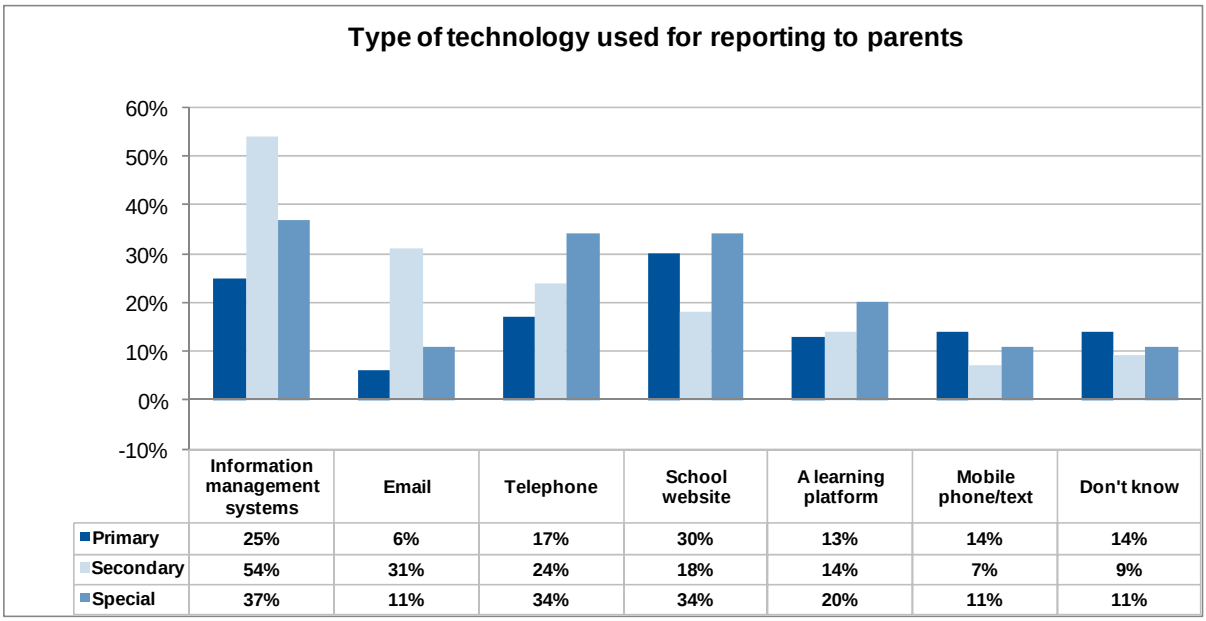
Figure 29



	Most days each week	Once or twice a fortnight	Once a monthly basis	Once a term	Rarely/ never	I don't use ICT for this
Primary	2%	5%	2%	14%	29%	49%
Secondary	14%	13%	15%	35%	13%	8%
Special	6%	6%	16%	27%	30%	13%

All teachers that used technology at least once a term for reporting to parents were asked what types of technology they used. Teachers could select more than one type of technology and therefore percentages add up to more than 100 per cent. Results are shown in Figure 30.

Figure 30



	Information management systems	Email	Telephone	School website	A learning platform	Mobile phone/text	Don't know
Primary	25%	6%	17%	30%	13%	14%	14%
Secondary	54%	31%	24%	18%	14%	7%	9%
Special	37%	11%	34%	34%	20%	11%	11%

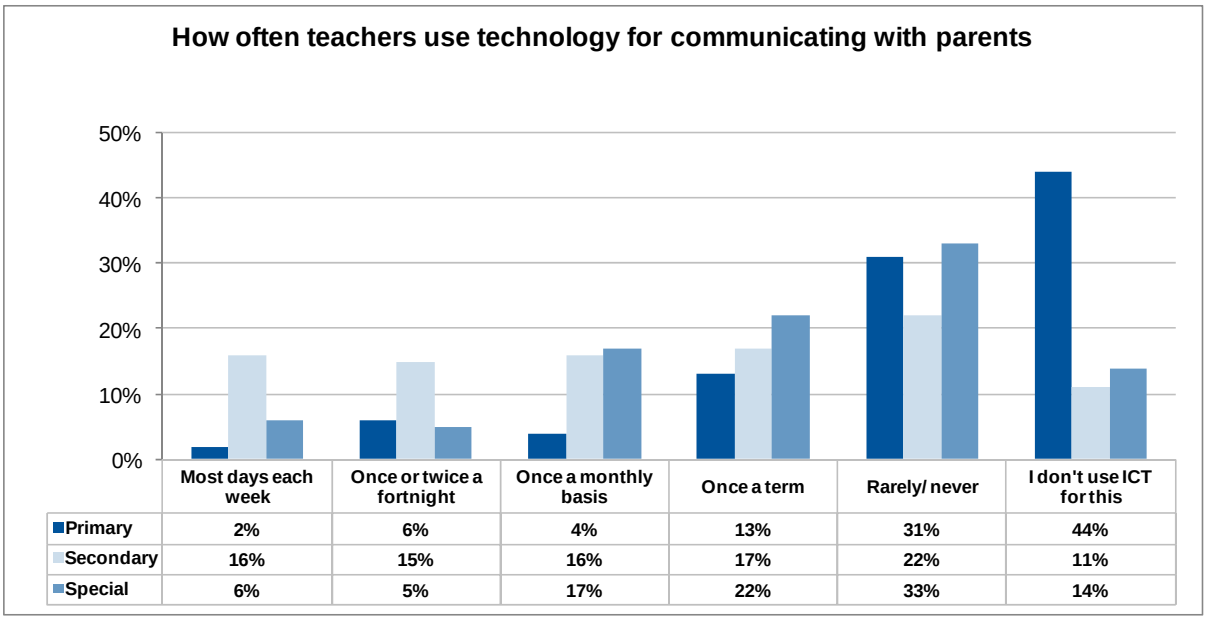
ICT coordinators were asked how often their learning platform was used by parents to access pupil information. Sixteen per cent of primary school ICT coordinators reported the learning platform is used by parents to access pupil information at least once a term. This figure was 38 per cent for secondary schools. This shows an increase on previous years: in 2007/08, zero per cent of primary and seven per cent of secondary schools reported parent access to pupil information via a learning platform at least once a term and in 2008/09 six per cent of primary and 18 per cent of secondary reported so.

School leaders were asked whether technology was used for reporting to parents. Just under three-quarters (74 per cent) of secondary school leaders indicated that they used technology for this compared to 59 per cent of primary school leaders and 56 per cent of special school leaders. The majority of schools that did not currently use technology planned to do so in the future: secondary (24 per cent), primary (31 per cent) and special schools (31 per cent).

The results for using technology to communicate with parents were similar to that of online reporting to parents (see Figures 31 and 32) in that secondary school teachers (64 per cent) were more likely to do this at least once a term than teachers in special schools (50 per cent) or primary schools (25 per cent).

Male teachers were more likely to use technology for this compared with female teachers (62 per cent compared with 50 per cent). Teachers with between 11 and 20 years professional experience were more likely to use technology for reporting to parents at least once a term compared to teachers with five or less years experience (73 per cent compared with 45 per cent).

Figure 31

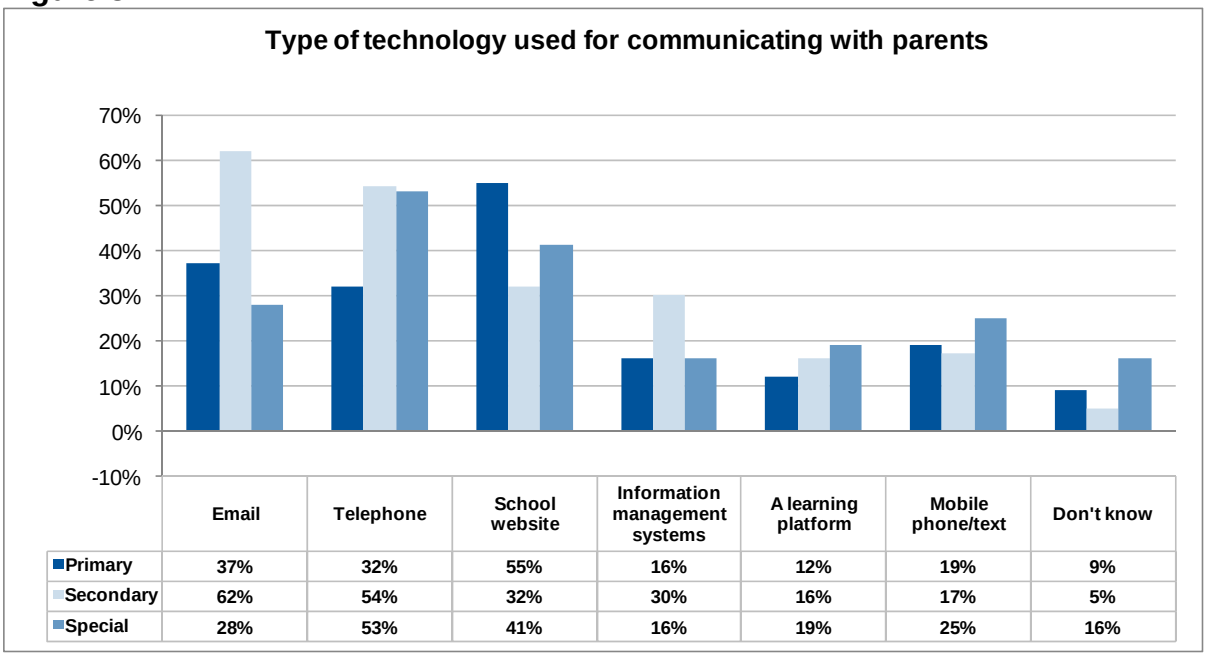


	Most days each week	Once or twice a fortnight	Once a monthly basis	Once a term	Rarely/ never	I don't use ICT for this
Primary	2%	6%	4%	13%	31%	44%
Secondary	16%	15%	16%	17%	22%	11%
Special	6%	5%	17%	22%	33%	14%

All teachers that used technology at least once a term for communicating with parents were asked what type of technology they used and the results are shown in Figure 32. Teachers could select more than one type of technology and therefore percentages add up to more than 100 per cent.

A different medium was most popular in each of the school sectors; school website was most widely used in primary schools (55 per cent), whilst email was most popular in secondary schools (62 per cent) and telephone in special schools (53 per cent).

Figure 32

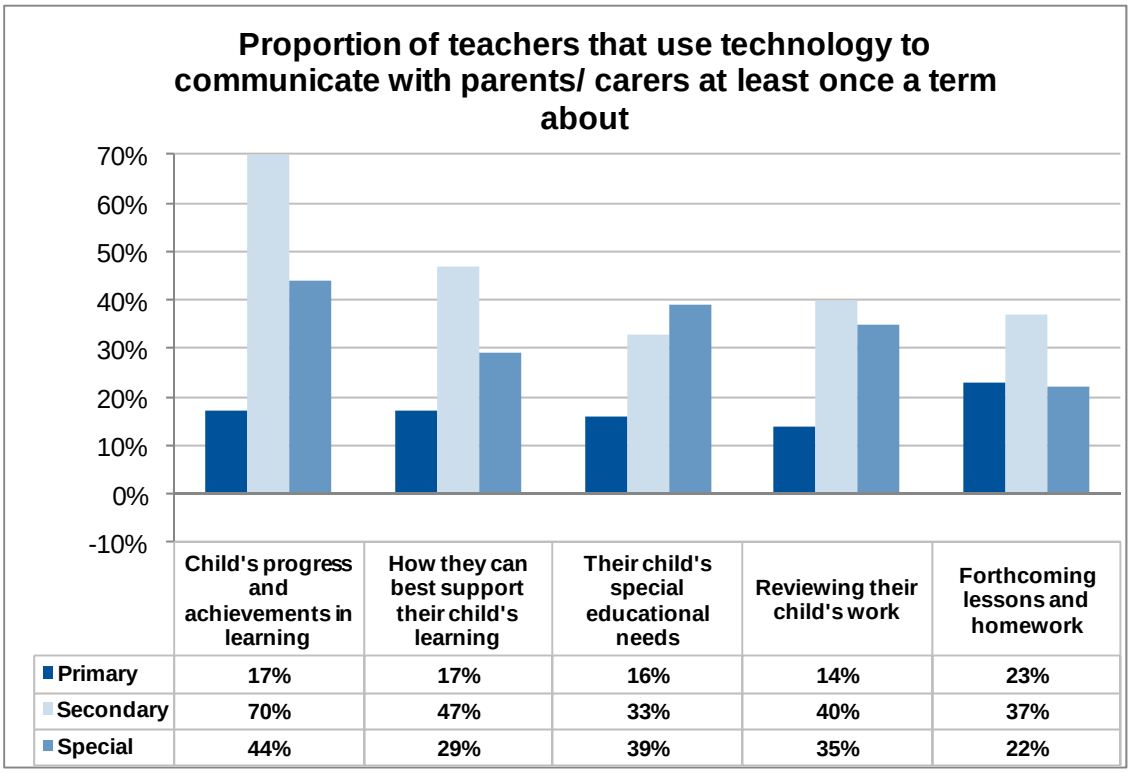


	Email	Telephone	School website	Information management systems	A learning platform	Mobile phone/text	Don't know
Primary	37%	32%	55%	16%	12%	19%	9%
Secondary	62%	54%	32%	30%	16%	17%	5%
Special	28%	53%	41%	16%	19%	25%	16%

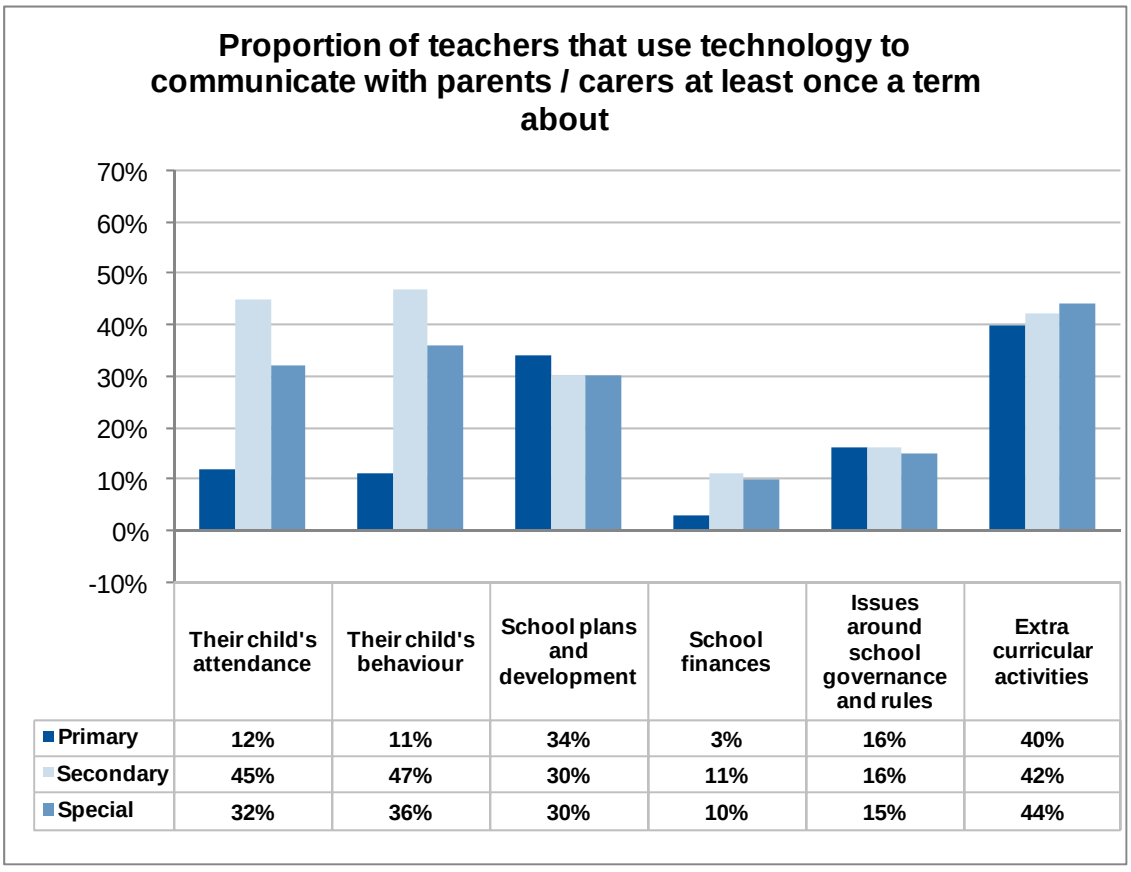
All teachers were asked how often they used technology to communicate with parents about a range of topic areas including their child's achievements and how they can best support their child's learning. The 11 different topic areas are shown in Figure 33 with figures showing the proportion of teachers that use technology at least once per term.

All sectors of schools were least likely to use technology to communicate to parents about school finances.

Figure 33



	Child's progress and achievements in learning	How they can best support their child's learning	Their child's special educational needs	Reviewing their child's work	Forthcoming lessons and homework
Primary	17%	17%	16%	14%	23%
Secondary	70%	47%	33%	40%	37%
Special	44%	29%	39%	35%	22%



	Their child's attendance	Their child's behaviour	School plans and development	School finances	Issues around school governance and rules	Extra curricular activities
Primary	12%	11%	34%	3%	16%	40%
Secondary	45%	47%	30%	11%	16%	42%
Special	32%	36%	30%	10%	15%	44%

Teachers were asked about the types of technology used to communicate with parents. Apart from 'other' the technology most likely to be used was telephone. Least likely to be used was mobile phone/text followed by learning platform. Full results are shown in Table 8 (which can be found in the appendix) broken down by school sector.

School leaders were also asked whether technology was used for communicating with parents day to day. Just less than two-thirds of secondary school leaders (64 per cent) and primary school leaders (65 per cent) indicated that they did use technology for this compared with 34 per cent of special school leaders. The majority of schools that did not currently use technology did plan to do so: secondary (30 per cent), primary (25 per cent) and special schools (39 per cent). Just under one quarter of special schools (24 per cent) did not plan to introduce technology to communicate with parents.

3.52 Access at home

Primary senior leaders estimated that 70 per cent of their learners have home access to a computer. This was estimated as 83 per cent amongst secondary school learners and 57 per cent for learners at special schools. .

Senior leaders were asked if their school had participated in any home access initiatives. The results are shown in Table 9.

Table 9: ICT initiatives leaders are aware of or taken part in.

Computers for Pupils			
	Taken part in	Aware of	Don't know
Primary	20%	55%	25%
Secondary	45%	38%	17%
Special	29%	54%	17%
e-learning foundation			
	Taken part in	Aware of	Don't know
Primary	11%	41%	48%
Secondary	17%	38%	44%
Special	8%	52%	40%
Home Access for Targeted Groups			
	Taken part in	Aware of	Don't know
Primary	17%	55%	28%
Secondary	28%	35%	37%
Special	26%	48%	26%
Access to Technology at Home			
	Taken part in	Aware of	Don't know
Primary	6%	41%	52%
Secondary	16%	34%	50%
Special	12%	40%	49%
eLAMP			
	Taken part in	Aware of	Don't know
Primary	1%	11%	88%
Secondary	0%	19%	81%
Special	0%	7%	93%

In general, senior leaders did not get notified when a learner gained access to a computer through one of the above schemes (67 per cent of primary, 57 per cent of secondary and 73 per cent of specials school leaders did not get notified). Thirty per cent of primary, 25 per cent of secondary and 11 per cent of special school leaders were unaware of whether they were notified.

3.6 Benefits

3.61 Saving time

Using technology was most likely to help teachers save time when lesson planning and report writing. For both of these tasks it was more likely to be used in such a way by primary than secondary school teachers (special schools were also significantly more likely to use technology for lesson planning than secondary

schools). Using technology was more likely to save time when communicating with staff in secondary schools than in primary or special schools. All of these differences were statistically significant.

Similar numbers of primary, secondary and special school teachers reported that they lost time from using technology for each of the tasks. More than 10 per cent of secondary school teachers reported losing time for lesson planning, marking/ assessment and report writing.

For primary school teachers there has been an increase in the proportion of respondents saying that using technology saved at least an hour a week on lesson planning from 41 per cent in 2007/08 and 46 per cent in 2008/09 to 54 per cent in 2009/10. A quarter of primary school teachers saved at least an hour a week doing marking and assessment in 2009/10 compared to nine per cent in 2008/09 and seven per cent in 2007/08.

In secondary schools, 37 per cent of teachers saved at least an hour per week on lesson planning in 2009/10 which is slightly lower than in 2008/09 (41 per cent), but slightly higher than in 2007/08 (28 per cent). With regard to marking and assessment, 18 per cent of secondary school teachers saved at least an hour in 2009/10 compared to 21 per cent in 2008/09 and 13 per cent in 2007/08.

3.62 Supporting pupils' learning needs

As Table 10 shows, primary and special school teachers were less likely to agree that ICT helped give individualised feedback to pupils than agree that ICT helped them support diverse learning needs or personalise learning.

Secondary school teachers were more likely to agree that ICT helped them give individualised feedback than were primary or special school teachers.

ICT subject teachers were more likely to agree that ICT helped them give individualised feedback than were other subject teachers (74 per cent compared with 49 per cent).

Table 10: Teacher agreement with three statements on ICT

ICT is particularly useful in helping me to support the diverse learning needs of pupils					
	Agree	Neither/nor	Disagree	Don't know	N
Primary	85%	13%	0%	2%	68
Secondary	70%	25%	4%	1%	230
Special	79%	16%	5%	0%	64

ICT helps me to personalise the learning of each pupil					
	Agree	Neither/nor	Disagree	Don't know	N
Primary	64%	33%	2%	2%	68
Secondary	57%	35%	7%	1%	230
Special	79%	16%	5%	2%	64

ICT resources can help in giving individualised feedback to pupils					
	Agree	Neither/nor	Disagree	Don't know	N
Primary	44%	28%	18%	11%	68
Secondary	62%	27%	7%	3%	230
Special	53%	34%	9%	3%	64

4. Appendix of charts

Table 8: Types of technology used by teachers to communicate with parents

		A learning platform	Management information systems	Mobile phone/ text	School website	Email	Tele-phone	Other	Don't know
Their child's progress and achievements in learning	Primary	3%	9%	0%	5%	2%	10%	53%	32%
	Secondary	14%	41%	8%	8%	21%	34%	22%	14%
	Special	5%	28%	5%	3%	5%	31%	42%	11%
How they can best support their child's learning	Primary	11%	2%	1%	16%	3%	7%	46%	27%
	Secondary	11%	16%	5%	12%	23%	31%	23%	21%
	Special	3%	11%	8%	5%	11%	34%	45%	17%
Their child's special educational needs	Primary	1%	3%	0%	2%	2%	12%	57%	29%
	Secondary	10%	12%	6%	3%	16%	26%	27%	32%
	Special	3%	20%	6%	2%	6%	28%	48%	14%
Reviewing their child's work	Primary	2%	3%	1%	3%	2%	4%	58%	35%
	Secondary	11%	14%	2%	6%	16%	23%	27%	29%
	Special	5%	13%	5%	3%	5%	19%	50%	25%
Forthcoming lessons and homework	Primary	14%	2%	1%	16%	2%	3%	48%	24%
	Secondary	17%	6%	1%	13%	14%	14%	17%	31%
	Special	5%	11%	2%	3%	2%	9%	44%	34%
Their child's attendance	Primary	0%	5%	3%	1%	3%	22%	48%	28%
	Secondary	6%	25%	6%	4%	14%	34%	20%	23%
	Special	0%	16%	9%	2%	8%	30%	42%	22%
Their child's behaviour	Primary	1%	4%	1%	2%	2%	23%	50%	27%
	Secondary	5%	23%	3%	3%	18%	41%	21%	20%
	Special	0%	13%	9%	2%	8%	48%	36%	17%
School plans and development	Primary	10%	3%	2%	37%	3%	3%	32%	28%
	Secondary	5%	6%	0%	28%	5%	5%	21%	40%
	Special	2%	11%	3%	19%	2%	8%	41%	34%
School finances	Primary	2%	2%	-%	5%	2%	0%	43%	48%
	Secondary	1%	3%	1%	7%	2%	4%	18%	67%
	Special	0%	8%	2%	3%	2%	3%	34%	55%

Table 8 (continued): Types of technology used by teachers to communicate with parents

		A learning platform	Information management systems	Mobile phone/ text	School website	Email	Tele-phone	Other	Don't know
Issues around school governance and rules	Primary	1%	2%	0%	16%	10%	2%	36%	39%
	Secondary	3%	3%	1%	15%	5%	4%	19%	57%
	Special	0%	9%	3%	13%	2%	11%	34%	42%
Extra curricular activities	Primary	12%	3%	5%	28%	6%	7%	43%	29%
	Secondary	9%	4%	4%	39%	18%	16%	28%	22%
	Special	0%	9%	8%	17%	5%	33%	47%	19%

Table 11: Contents and priorities of ICT strategies within primary schools

Primary	Appear in ICT strategy	Priority for next 3 years	Would de-prioritise in times of financial difficulties
E-safety/acceptable use policy	97%	42%	6%
Staff development in use of ICT	91%	42%	6%
Replacement of existing equipment	88%	52%	26%
Investment in new ICT infrastructure and services	86%	40%	17%
Use of a learning platform	84%	66%	18%
Data protection and security	84%	9%	
Technical support	70%	9%	2%
Software and licensing	69%	2%	1%
Network infrastructure and connectivity	65%	6%	3%
Information management strategy and support	49%	4%	1%
Online reporting to parents/carers	30%	19%	7%
Web 2.0	8%	1%	
Don't know		1%	11%

Table 12: Contents and priorities of ICT strategies within secondary schools

Secondary	Appear in ICT strategy	Priority for next 3 years	Would de-prioritise in times of financial difficulties
Use of a learning platform	98%	73%	16%
Investment in new ICT infrastructure and services	93%	46%	30%
E-safety/acceptable use policy	93%	15%	1%
Replacement of existing equipment	92%	39%	19%

Table 12 (continued): Contents and priorities of ICT strategies within secondary schools

Secondary	Appear in ICT strategy	Priority for next 3 years	Would de-prioritise in times of financial difficulties
Staff development in use of ICT	83%	31%	4%
Data protection and security	80%	7%	
Technical support	80%	5%	2%
Information management strategy and support	77%	17%	5%
Network infrastructure and connectivity	77%	12%	2%
Software and licensing	76%	1%	
Online reporting to parents/carers	71%	48%	16%
Web 2.0	20%	2%	
Don't know		1%	6%

Table 13: Contents and priorities of ICT strategies within special schools

Special	Appear in ICT strategy	Priority for next 3 years	Would de-prioritise in times of financial difficulties
Staff development in use of ICT	96%	55%	8%
E-safety/acceptable use policy	95%	30%	3%
Investment in new ICT infrastructure and services	91%	40%	15%
Replacement of existing equipment	90%	46%	20%
Software and licensing	87%	7%	4%
Data protection and security	85%	8%	0%
Use of a learning platform	81%	59%	20%
Technical support	76%	7%	1%
Network infrastructure and connectivity	69%	8%	1%
Information management strategy and support	60%	7%	4%
Online reporting to parents/carers	30%	16%	5%
Web 2.0	12%	0%	0%
Don't know	0%	1%	19%

Table 14: Equipment teachers can access, according to primary ICT coordinators

Primary	Yes, all of the time	Yes, most of the time	Some of the time	Rarely/ never	Have them but don't use them	No, don't have them
Desktops	71%	17%	9%	1%	0%	1%
Laptops	68%	20%	12%	1%	0%	0%
Netbooks	3%	2%	11%	1%	1%	82%
Handhelds (PDAs)	0%	0%	0%	2%	0%	98%
Mobile phones	11%	2%	6%	4%	4%	74%
Digital cameras	74%	18%	8%	0%	0%	0%
Digital video camera and editing equipment	35%	24%	19%	3%	2%	18%
Digital audio recording and editing equipment	29%	14%	18%	3%	0%	36%
Video conferencing	6%	3%	3%	9%	5%	73%
Voting pads	6%	4%	4%	2%	3%	81%
IWBs	96%	4%	0%	0%	0%	0%
Visualisers	20%	8%	12%	5%	1%	55%
Other devices, e.g. digital microscopes, data loggers	42%	16%	22%	6%	2%	12%

Table 15: Equipment teachers can access, according to secondary ICT coordinators

Secondary	Yes, all of the time	Yes, most of the time	Some of the time	Rarely/ never	Have them but don't use them	No, don't have them
Desktops	70%	21%	9%	1%	0%	0%
Laptops	46%	26%	23%	4%	0%	1%
Netbooks	11%	8%	17%	6%	0%	59%
Handhelds (PDAs)	6%	3%	7%	15%	2%	66%
Mobile phones	17%	8%	11%	16%	1%	47%
Digital cameras	33%	41%	23%	2%	0%	0%
Digital video camera and editing equipment	27%	33%	29%	5%	1%	5%
Digital audio recording and editing equipment	28%	26%	34%	7%	1%	4%
Video conferencing	12%	6%	20%	18%	9%	34%
Voting pads	15%	8%	26%	10%	7%	33%
IWBs	67%	17%	13%	1%	0%	2%
Visualisers	11%	7%	21%	15%	0%	46%
Other devices, e.g. digital microscopes, data loggers	13%	23%	33%	13%	0%	18%

Table 16: Equipment teachers can access, according to ICT coordinators in special schools

Special	Yes, all of the time	Yes, most of the time	Some of the time	Rarely/ never	Have them but don't use them	No, don't have them
Desktops	74%	20%	6%	0%	0%	0%
Laptops	58%	20%	19%	3%	0%	0%
Netbooks	5%	2%	6%	1%	0%	86%
Handhelds (PDAs)	2%	0%	4%	4%	2%	87%
Mobile phones	15%	9%	19%	5%	6%	46%
Digital cameras	67%	26%	7%	0%	0%	1%
Digital video camera and editing equipment	32%	33%	24%	5%	0%	5%
Digital audio recording and editing equipment	25%	16%	28%	9%	3%	19%
Video conferencing	1%	1%	6%	9%	12%	71%
Voting pads	1%	1%	8%	2%	2%	85%
IWBs	73%	18%	7%	0%	0%	2%
Visualisers	5%	3%	7%	3%	3%	79%
Other devices, e.g. digital microscopes, data loggers	19%	9%	28%	8%	2%	34%

Table 17: Whether equipment can be accessed when it's needed – primary schools

Primary	Yes, all of the time	Yes, most of the time	Some of the time	Rarely/ never	Have them but don't use them	No, don't have them	Don't know
Desktops	54%	18%	17%	2%	0%	8%	0%
Laptops	50%	27%	15%	0%	0%	8%	0%
Netbooks	4%	2%	1%	1%	2%	81%	9%
Handhelds (PDAs)	1%	0%	0%	4%	2%	88%	5%
Mobile phones	5%	1%	2%	1%	2%	82%	7%
Digital cameras	76%	20%	2%	1%	0%	0%	0%
Digital video camera and editing equipment	34%	17%	14%	8%	2%	21%	3%
Digital audio recording and editing equipment	29%	23%	15%	8%	2%	18%	5%
Video conferencing	0%	8%	2%	12%	8%	51%	19%
Voting pads	6%	9%	8%	4%	9%	58%	6%
IWBs	97%	2%	2%	0%	0%	0%	0%
Visualisers	16%	13%	7%	5%	2%	28%	29%
Other devices, e.g. digital microscopes, data loggers	24%	21%	18%	4%	1%	16%	16%

Table 18: Whether equipment can be accessed when it's needed – secondary schools

Secondary	Yes, all of the time	Yes, most of the time	Some of the time	Rarely/ never	Have them but don't use them	No, don't have them	Don't know
Desktops	51%	22%	17%	6%	0%	3%	1%
Laptops	35%	16%	26%	14%	3%	4%	2%
Netbooks	0%	1%	5%	15%	3%	55%	20%
Handhelds (PDAs)	3%	0%	1%	13%	5%	62%	16%
Mobile phones	12%	4%	7%	16%	7%	46%	9%
Digital cameras	29%	23%	26%	11%	7%	3%	2%
Digital video camera and editing equipment	15%	21%	24%	16%	8%	8%	9%
Digital audio recording and editing equipment	13%	17%	18%	17%	10%	12%	13%
Video conferencing	4%	5%	9%	17%	11%	33%	22%

Table 18 (continued): Whether equipment can be accessed when it's needed – secondary schools

Secondary	Yes, all of the time	Yes, most of the time	Some of the time	Rarely/ never	Have them but don't use them	No, don't have them	Don't know
Voting pads	6%	5%	13%	19%	16%	25%	17%
IWBs	59%	12%	13%	5%	5%	4%	2%
Visualisers	5%	2%	7%	14%	7%	24%	41%
Other devices, e.g. digital microscopes, data loggers	2%	6%	12%	15%	5%	23%	37%

Table 19: Whether equipment can be accessed when it's needed – special schools

Special	Yes, all of the time	Yes, most of the time	Some of the time	Rarely/ never	Have them but don't use them	No, don't have them	Don't know
Desktops	77%	14%	9%	0%	0%	0%	0%
Laptops	58%	19%	13%	5%	0%	5%	2%
Netbooks	3%	0%	2%	13%	3%	63%	17%
Handhelds (PDAs)	2%	2%	2%	11%	2%	66%	17%
Mobile phones	17%	6%	9%	11%	3%	50%	3%
Digital cameras	69%	20%	8%	2%	0%	0%	2%
Digital video camera and editing equipment	30%	16%	25%	8%	3%	9%	9%
Digital audio recording and editing equipment	22%	8%	22%	20%	2%	16%	11%
Video conferencing	3%	2%	5%	19%	6%	47%	19%
Voting pads	2%	3%	2%	14%	2%	55%	23%
IWBs	75%	13%	9%	2%	0%	2%	0%
Visualisers	3%	2%	2%	9%	3%	47%	34%
Other devices, e.g. digital microscopes, data loggers	16%	5%	19%	11%	5%	22%	23%

Table 20: Whether electronic systems exist to share school information with parents in primary schools

Primary	No electronic system	Information available as and when	Communicate this to parents in real time	Don't know
Progress and achievement	49%	21%	29%	1%
Attendance	39%	27%	33%	1%
Behaviour	45%	12%	42%	2%
How they can support learning	38%	22%	39%	1%
Forthcoming lessons and homework	36%	30%	32%	2%
Extra curricular activities	31%	35%	33%	1%
School plans, developments and finances	40%	29%	30%	2%
School rules and governance	32%	40%	27%	1%

Table 21: Whether electronic systems exist to share school information with parents in secondary schools

Secondary	No electronic system	Information available as and when	Communicate this to parents in real time	Don't know
Progress and achievement	32%	41%	21%	6%
Attendance	22%	39%	36%	2%
Behaviour	30%	43%	25%	2%
How they can support learning	37%	40%	16%	7%
Forthcoming lessons and homework	30%	43%	21%	6%
Extra curricular activities	16%	51%	29%	4%
School plans, developments and finances	34%	42%	15%	9%
School rules and governance	14%	62%	22%	3%

Table 22: Whether electronic systems exist to share school information with parents in special schools

Special	No electronic system	Information available as and when	Communicate this to parents in real time	Don't know
Progress and achievement	44%	20%	35%	1%
Attendance	43%	21%	33%	2%
Behaviour	46%	14%	36%	3%
How they can support learning	44%	19%	34%	2%
Forthcoming lessons and homework	53%	13%	26%	8%
Extra curricular activities	46%	17%	36%	1%
School plans, developments and finances	48%	25%	21%	6%
School rules and governance	41%	26%	27%	5%

5.0 Glossary

Definitions for Harnessing Technology School Survey

Learning platform

A learning platform is an integrated set of interactive online services that provide teachers, learners, parents and others with information, tools and resources to enhance educational delivery and management.

Management Information Systems

A computer system which provides tools to help with the management and administration of a department or organisation, such as data resources, or financial management.

Assistive technology

'Assistive technology' refers to computer software or devices which enable people with special needs to use ICT. Examples include Text to Speech (TTS) screen readers for the unsighted/partially sighted, alternative keyboards and mice for people with hand-eye coordination problems etc.

Devices to support sensory access

Assistive technologies which provide access to learning for children and young people who have a sensory impairment (i.e. learners who are deaf/have a hearing impairment or blind/visually impaired).

Devices to support physical access

Assistive technologies which provide access to learning for children and young people with physical disabilities.

Devices to support cognitive access

Assistive technologies which provide access to learning for children and young people with learning disabilities.

Digital learning resources

DLRs include digitised information sources such as documents and presentations and extend to interactive and multimedia resources. They enhance the learning experience with images, sound, animation and response to human interaction. DLRs can be simple assets such as images, movies and text, or the combination of these.

Social networking

The use of a platform such as Facebook or Myspace which allows users to interact virtually and share a range of media online such as photos, videos etc.

Netbooks

A netbook is a small portable computing device which may have capabilities such as wi-fi, Ethernet and USB ports, but not a CD or DVD drive.

Handhelds (PDAs)

A ‘personal digital assistant’: a handheld device with computing, telephone/fax and Internet capabilities.

Voting pads

Remote devices which can be used to collect responses from an entire class. These are then analysed and can be displayed.

Handheld games consoles

Consoles such as the Nintendo DS and PSP are increasingly offering games with an educational element, such as ‘Brain Training’.

IWBs

Interactive whiteboards

Digital audio recording and editing equipment

Software and online tools and applications which allow users to record audio (e.g. sound) and edit it.