

Harnessing Technology School Survey: Learner Report, 2010

May 2010

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Summary

ORC International conducted a large-scale national survey with primary and secondary school learners in England about their use of technology. The self-completion survey was completed online between September 2009 and March 2010. In total 949 primary pupils, 2074 Year 8 pupils and 1636 Year 10 pupils completed the survey. At the same time, surveys were carried out with teachers, ICT coordinators and headteachers, which are reported in the Harnessing Technology School Survey: 2010.

The following section summarises the key findings of the survey which can be found in Chapter 2.

Access to technology

Access to a computer in the home has increased from the previous year's survey, as has internet access in the home, rising from 94 per cent to 97 per cent for secondary school respondents, and from 91 per cent to 94 per cent for primary school children.

Nearly four in ten primary school respondents accessed their learning platform from home to show adults what work they had been doing at school, compared to a quarter of Year 8 and a fifth of Year 10.

Although use of technology did not differ much by gender for primary school children, secondary school boys and girls demonstrated quite different use. Among the differences were boys tending to use games consoles and handheld computers more than girls, and girls using DVD, webcams, digital music players, cameras and videos, mobile phones and computers more than boys.

Technology skills and competencies

Since the 2008-09 survey, the proportion of primary respondents knowing how to send an attachment in an email, and the proportion of primary respondents knowing how to upload a picture or recording increased significantly.

Girls are closing the gap with boys in terms of their knowledge of how to create a podcast. The number of girls knowing how to create a podcast increased significantly in both school phases, to match or close the gap with boys' skills (the latter being previously much higher). Girls have also caught up -considerably with boys in their use of 'web 2.0' such as contributing to a wiki or a blog.

Thirty percent of young people reported that they found it difficult to find useful information online. Despite 79 per cent of Year 8 and 83 per cent of Year 10 knowing to use keywords, at least a quarter believed that they should use all the information they found, rather than being selective. Around a fifth believed that when

seeing information for a presentation they should use the first option from the search engine as it must be the most important.

Acting safely online

Year 8 respondents demonstrated greater consistency in terms of acting safely when online than those in Year 10. Overall young people were the most cautious about telling new friends where they lived or giving out their phone number. However, between 10 per cent and 15 per cent of young people reported they had carried out one or more activities online that may have put them at risk.

Girls tended to behave more safely online than boys across most of the scenarios presented.

When learning how to act safely online, young people in Year 10 preferred to learn by working with the technology on their own, whereas Year 8 preferred to learn from teachers or parents/carers.

Boys were more interested in learning about safe practice by playing games or working with technology on their own than were girls, who preferred to learn by talking to parents or friends or hearing other people's stories.

1 Analysis

When comparing findings for different sub-groups (i.e. between genders, or between primary and secondary years) in the narrative which follows, the only differences mentioned are those which are statistically significant, apart from three areas where trend data is discussed (internet access, computers at home, and activities respondents knew how to do).

Significance testing had not been carried out on trend data.

Some questions were asked to primary respondents only, some to secondary only and some to both.

Detailed information regarding the methodology undertaken can be found in the accompanying Technical Report.

1.1 Gender

Table 1

Phase	Respondent gender breakdown
Primary	53% Male 47% Female
Year 8	50% Male 50% Female
Year 10	51% Male 49% Female

2 Key findings

2.1 Home access

Ninety eight per cent of secondary school respondents said they had at least one computer at home, a small increase on 96 per cent in the previous survey. Ninety seven per cent of primary school respondents said they had at least one, an increase against 94 per cent in the previous survey. The average number of computers in respondents' homes was 2.2 for primary children, 2.5 for Year 8 and 2.7 for Year 10.

Forty nine per cent of Year 10 and 44 per cent of Year 8 respondents had three or more computers in the home, whereas 33 per cent of primary school respondents had three or more. These figures seem quite high but may be due to a loose interpretation of the word "computer". Thus there is evidence of slight increases in home access since last year, and of older children having more computers in the home than younger children.

Figure 1 shows the location of the main computer that the respondent used at home. For primary school respondents and Year 8, the most common location for the main computer used was the living room (34 per cent and 30 per cent respectively). By contrast, for Year 10 the most common location was their own bedroom (37 per cent), although 18 per cent of primary respondents and 27 per cent of Year 8 respondents did have their main-use home computer in their own bedroom.

Figure 1

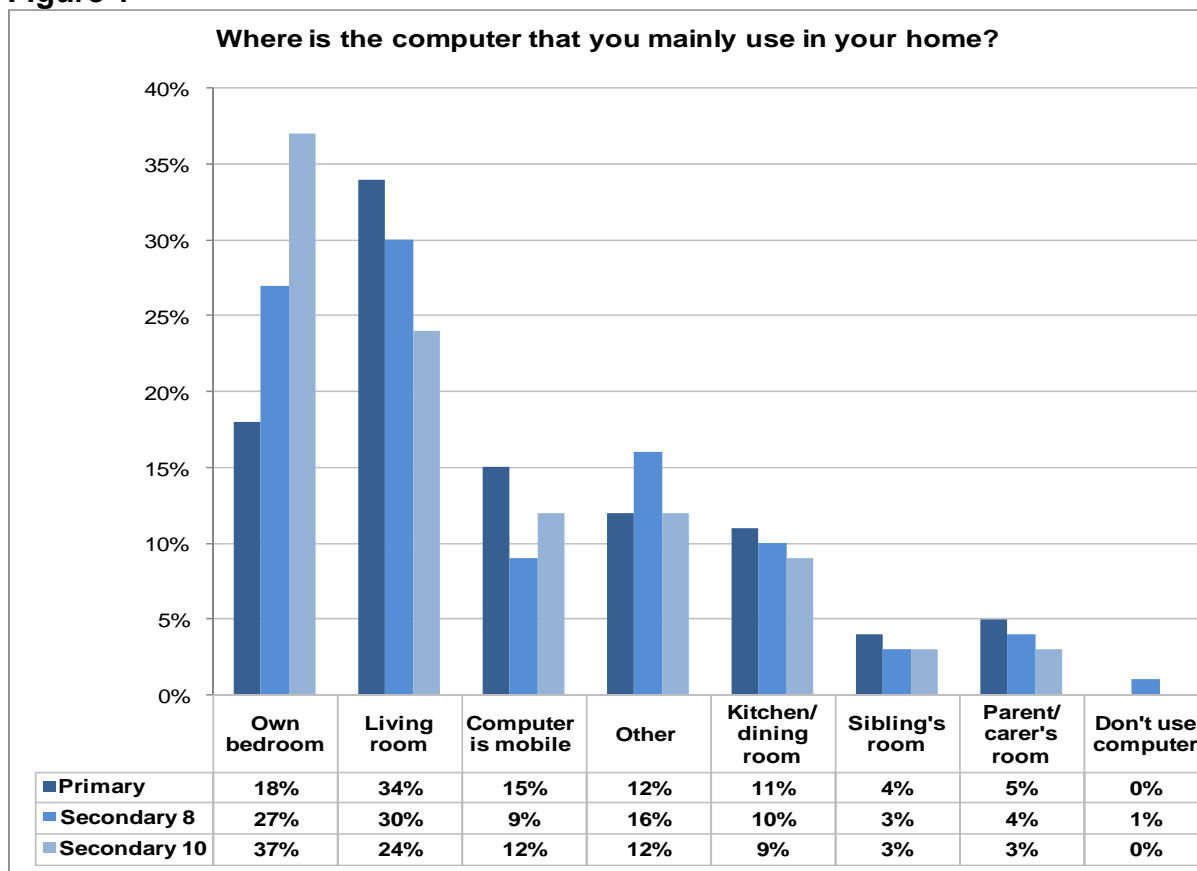


Figure 2 shows the proportion of respondents with internet access at home. Ninety seven per cent of secondary school and 94 per cent of primary school children said they had internet access at home, an increase from the 2008-09 survey where results were 94 per cent and 91 per cent respectively.

Figure 2

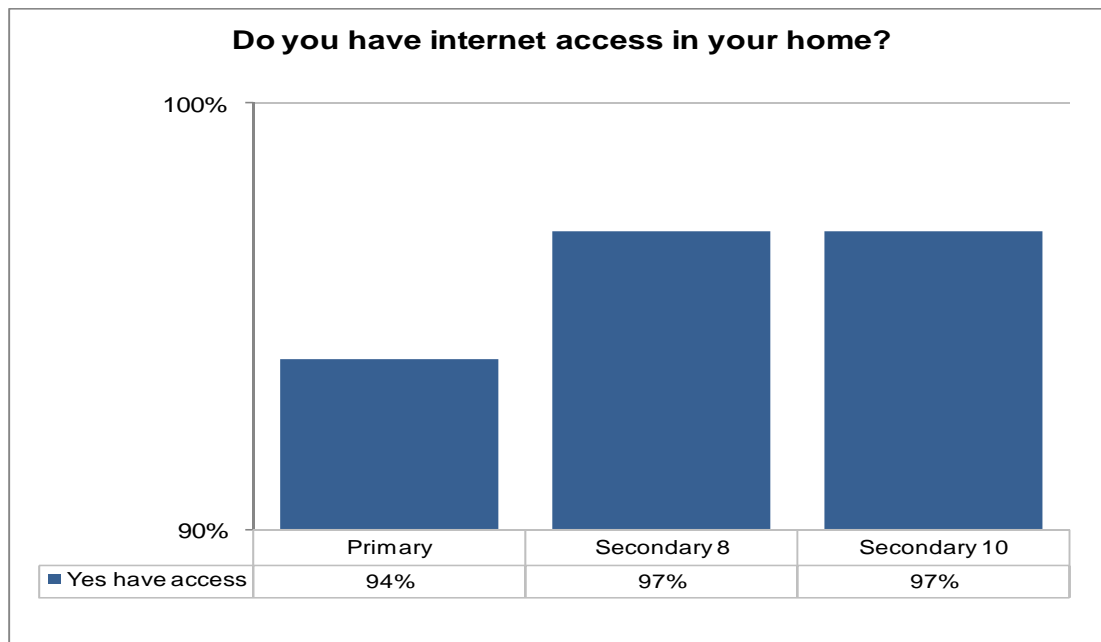
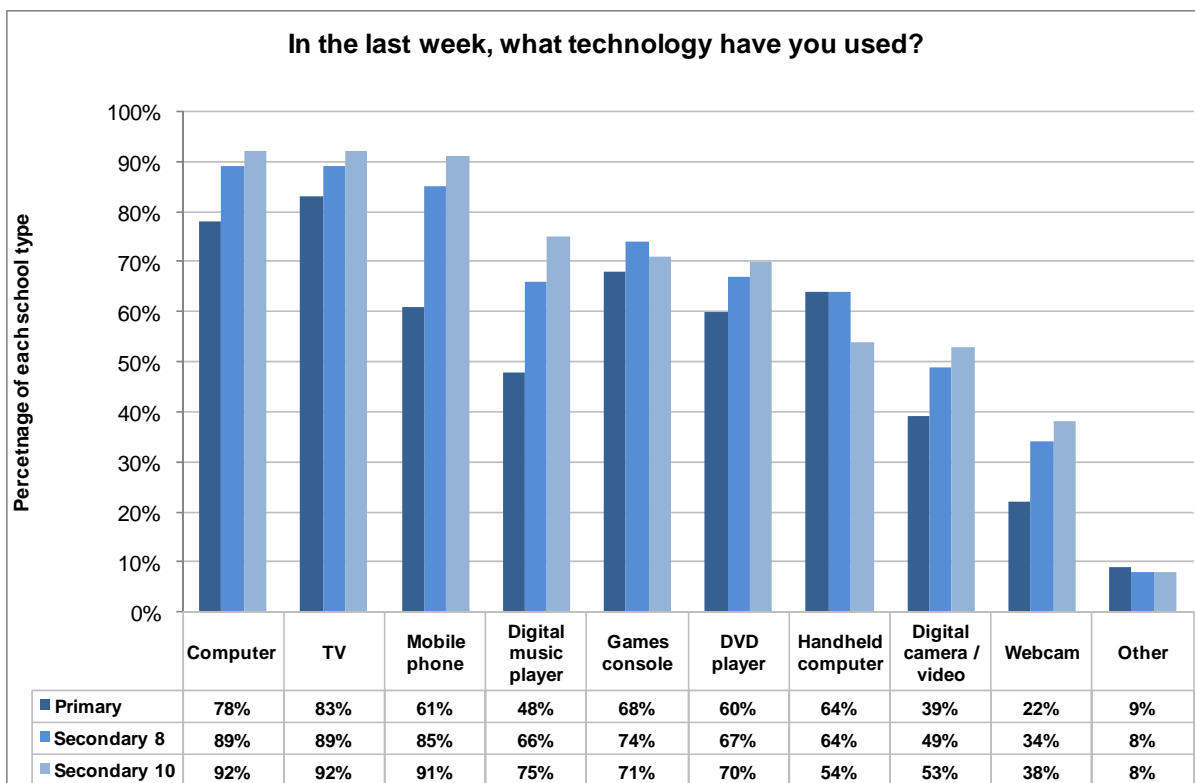


Figure 3 shows what technology respondents had used at home, at school or elsewhere in the last week. The most common technologies used were TV, mobile phones, computers and games consoles.

The greatest variation by phase of school was with mobile phones and digital music players, 91 per cent of Year 10s had used a mobile phone and 61 per cent of primary school respondents had. Seventy five per cent of Year 10s had used a digital music player and 48 per cent of primary school respondents had done so.

Figure 3



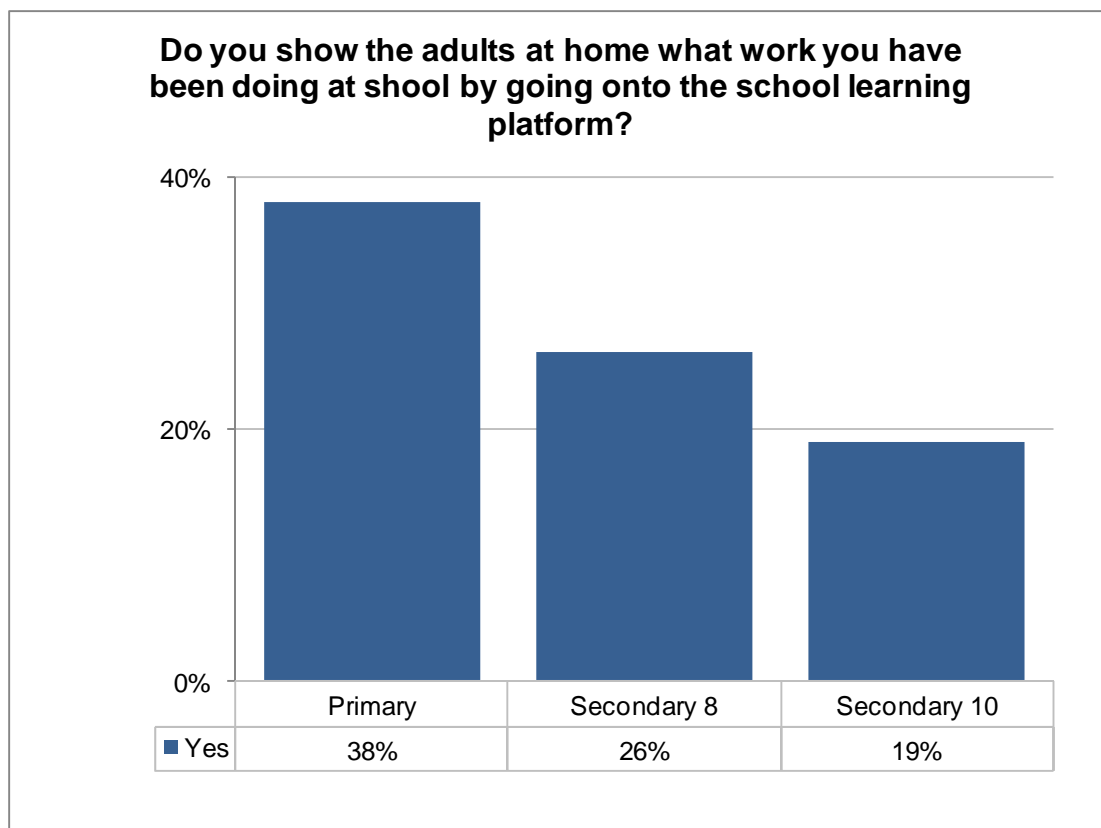
Among primary school respondents, boys were more likely to use games consoles and those with internet access at home were more likely to use the TV, a computer, a mobile phone, digital music player or webcam anywhere than those without.

For secondary school respondents the technology used anywhere in the last week was different by gender, but this was not the case with primary respondents. Computers, mobile phones, digital music players and digital camera/videos, DVD and webcams were used more by secondary school girls than boys. Games consoles and handheld computers were used more by secondary school boys than girls.

Figure 4 shows the proportion of respondents who showed their school work to adults at home through accessing the school learning platform.¹

Figure 4

¹ A learning platform was described to pupils as ‘an online place where your school work is stored. This might be called your school’s website, portal, online work area, intranet, VLE’.



Use of the school learning platform was more prevalent among primary school pupils (38 per cent) than Year 8 (26 per cent) and Year 10 (19 per cent) pupils. There were no significant differences by gender for primary school respondents, but secondary boys were more likely to use the platform at home than were girls for both years.

Figures 5, 6A and 6B show the activities respondents had used technology or the internet for in the previous week at home. The activity for which most had used technology at home was to do their homework, followed by to write something, or to take a photo or create a video/film (see figure 5).

Figure 5

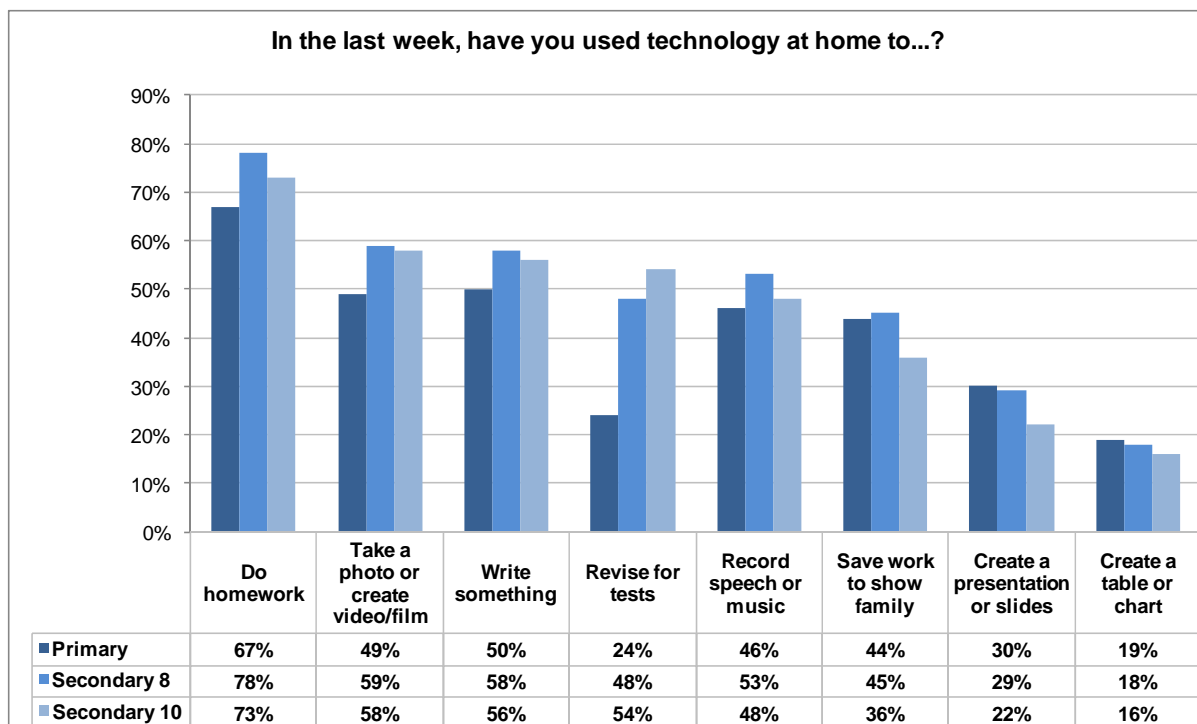


Figure 6A

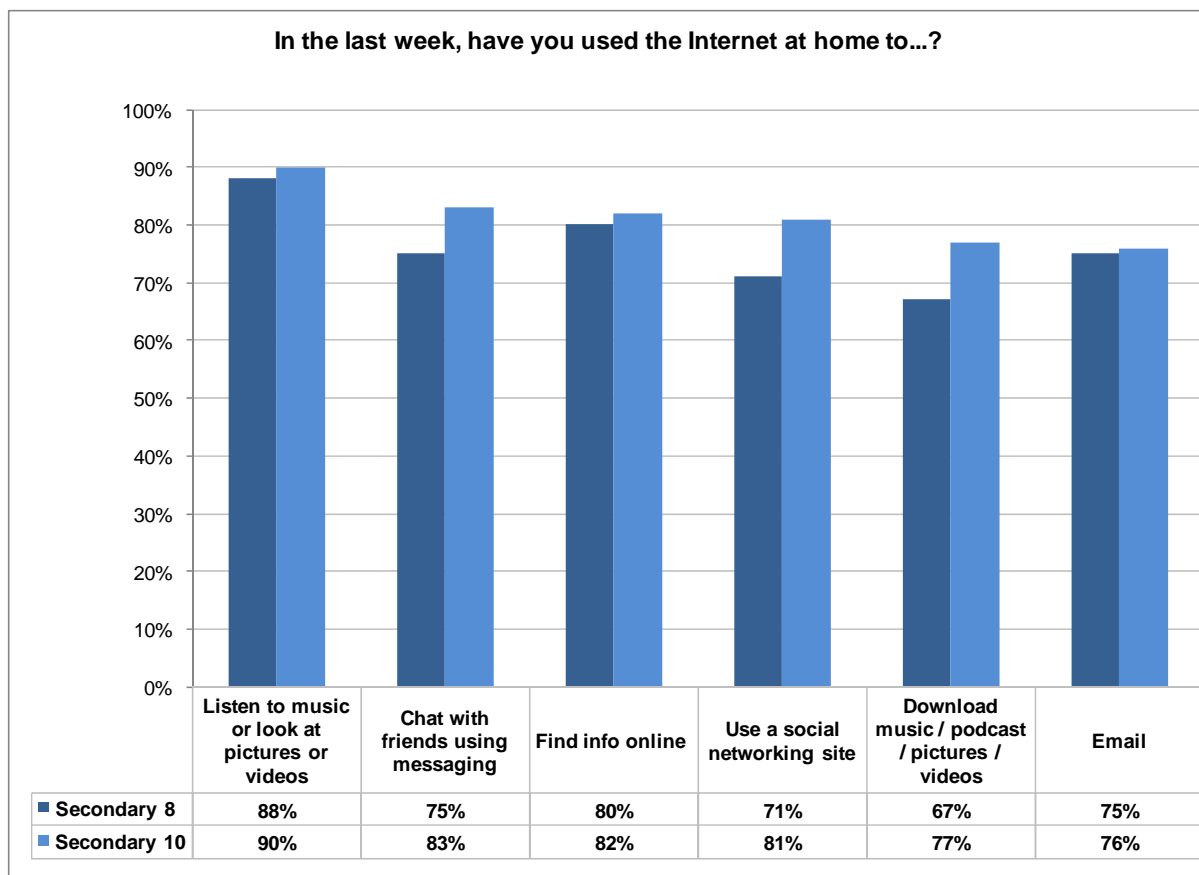
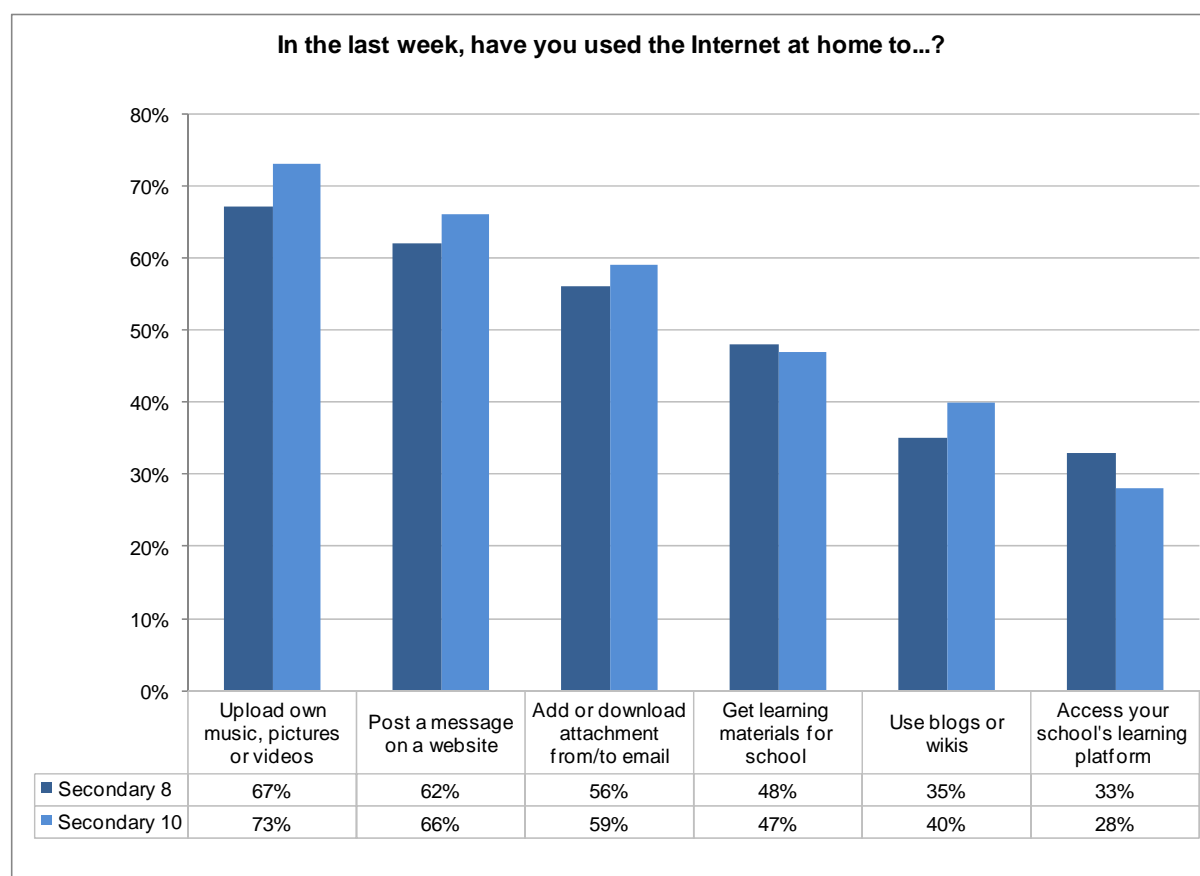


Figure 6B



The greatest variation by school phase was in revising for a test, with 54 per cent of Year 10 respondents using technology for revising at home and 24 per cent of primary respondents.

There were considerable gender differences among secondary respondents in the use of technology in-home for various activities. Secondary girls were more likely to use technology at home for many of these activities, particularly for homework, revising for tests, and for taking photos/creating videos/films, whereas secondary boys were more likely to use technology for these activities at locations other than their own home and school. Secondary girls were more likely to write something at home using technology compared to boys, whereas boys were more likely to write something using technology at school than at home or elsewhere.

In primary schools, boys were more likely to access technology to do homework when on the school site than were primary school girls.

Figure 6A shows high levels of secondary respondents' use of the internet to listen to music or look at pictures or videos, with approximately 9 in 10 doing this². Four fifths

² Primary respondents were not asked this question.

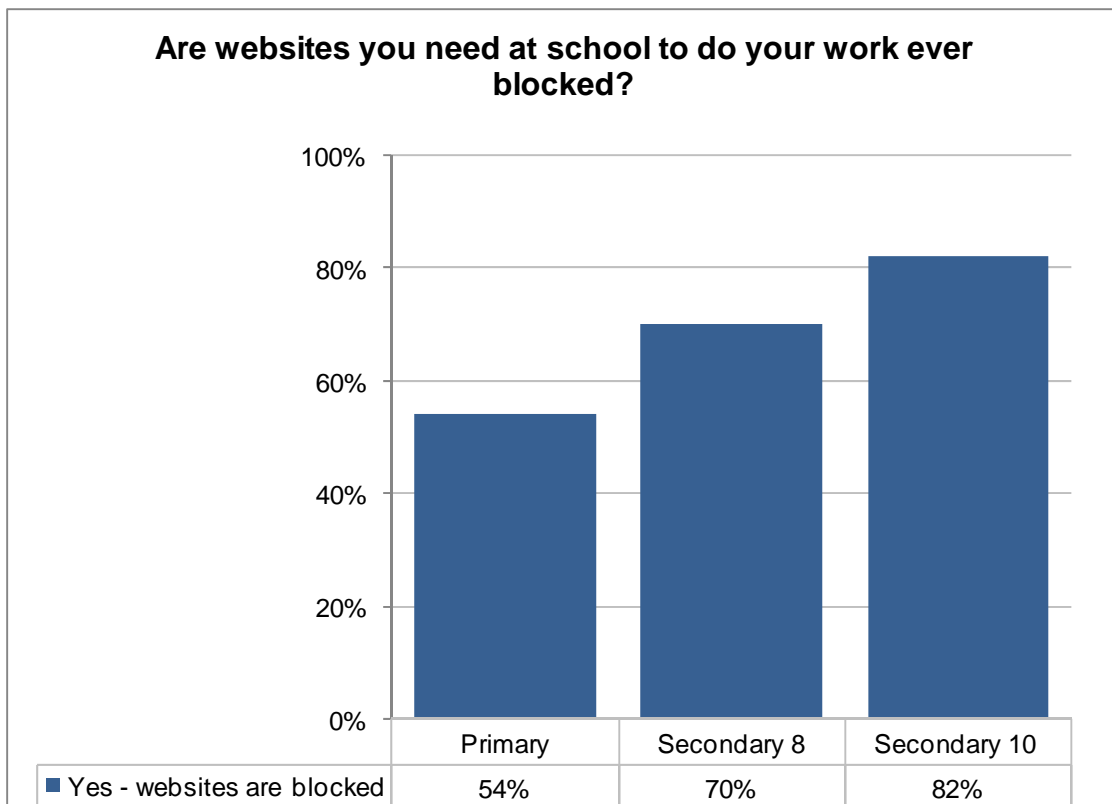
had found information online, at least three quarters had chatted with friends using messaging, and at least three quarters had used email. Figure 6B shows a smaller proportion (48 per cent of Year 8 and 47 per cent of Year 10) had used the internet to get learning materials for school.

Secondary school girls were more likely to use the internet at home to listen to music or look at pictures/videos, email, post a message on a website. This pattern was the same for chatting with messaging software and uploading music, pictures or videos, with secondary girls more likely to do these at home and secondary boys more likely to do them at school.

By contrast, secondary boys were more likely to use blogs or wikis at home (and school) than were girls, though girls were more likely to use these at locations other than school or home. Boys were also more likely than girls to access the school’s learning platform at home.

2.2 Access at school and outside the home

Figure 7

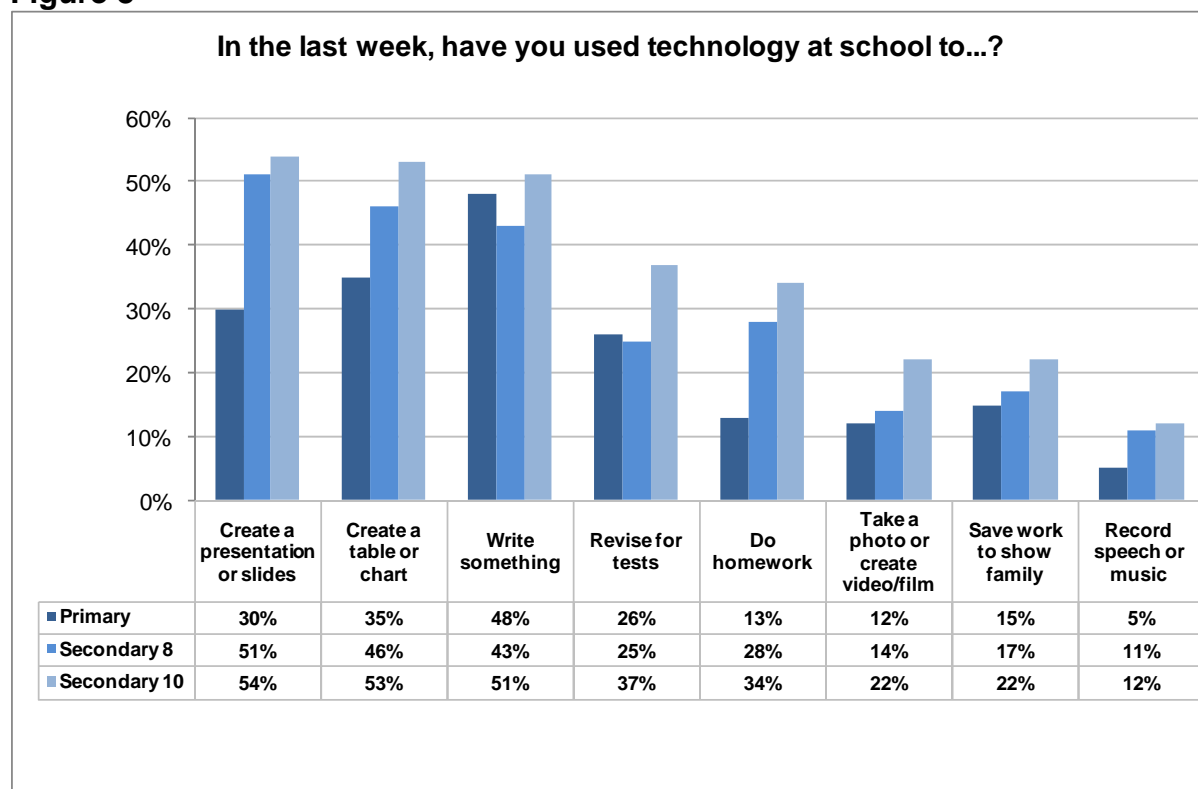


Whether respondents reported websites being blocked at school varied by year: 54 per cent of primary respondents, compared to 70 per cent for Year 8 and 82 per cent for Year 10.

Figure 7 shows the proportion of respondents saying that the websites they needed were blocked at school. More Year 10 girls reported website blocking than did their Year 10 male counterparts, although there were no significant gender differences for Year 8. By contrast, more primary school boys said websites were blocked at school than did primary school girls.

Eight per cent of Year 8, and nine per cent of Year 10 said that the school unblocks websites for them if necessary.

Figure 8



Respondents were asked what activities they had used technology for at school in the seven days before completing the survey, and, as figure 8 shows, primary school respondents were most likely to use technology to write something (48 per cent), followed by to create a table or chart (35 per cent). Secondary students were most likely to have used technology in the previous week to create a presentation or slides (51 per cent of secondary Year 8 and 54 per cent of secondary Year 10).

Least used in this list of activities was recording speech or music, by all years.

Figure 9A

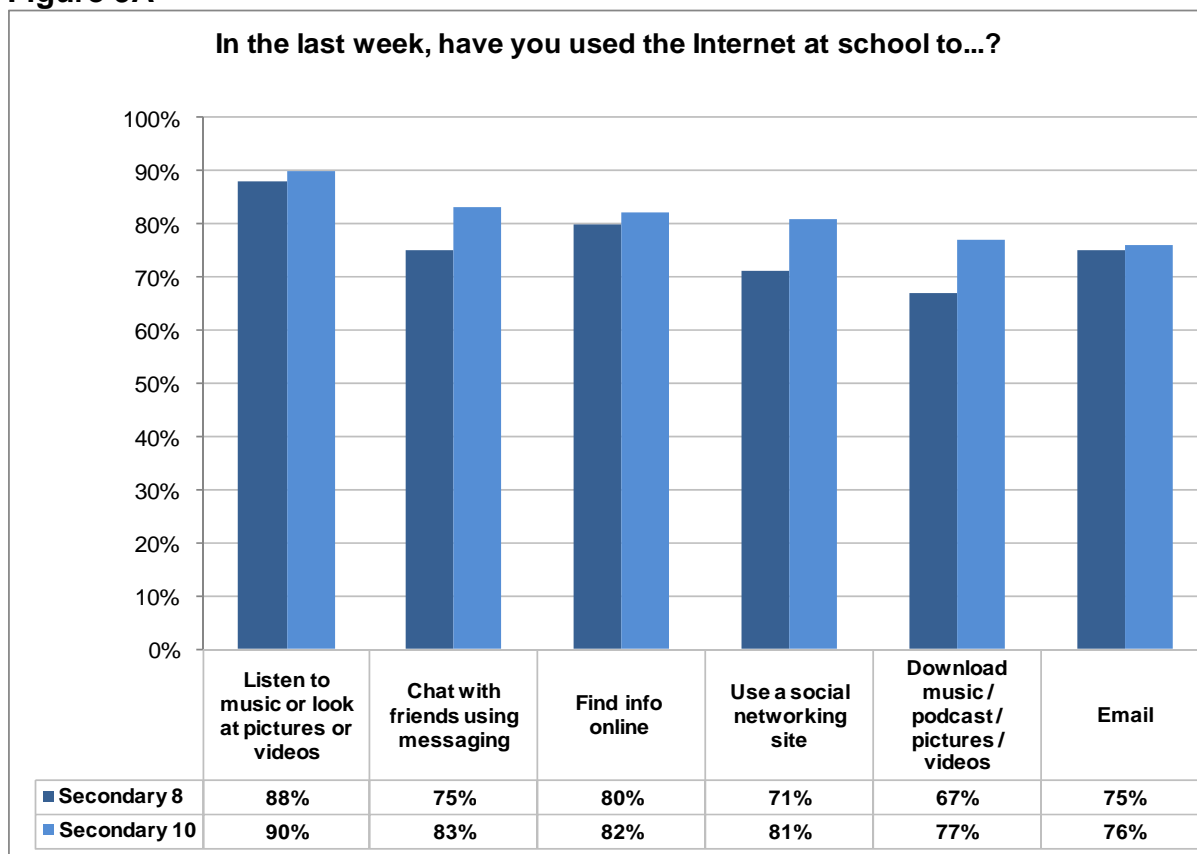
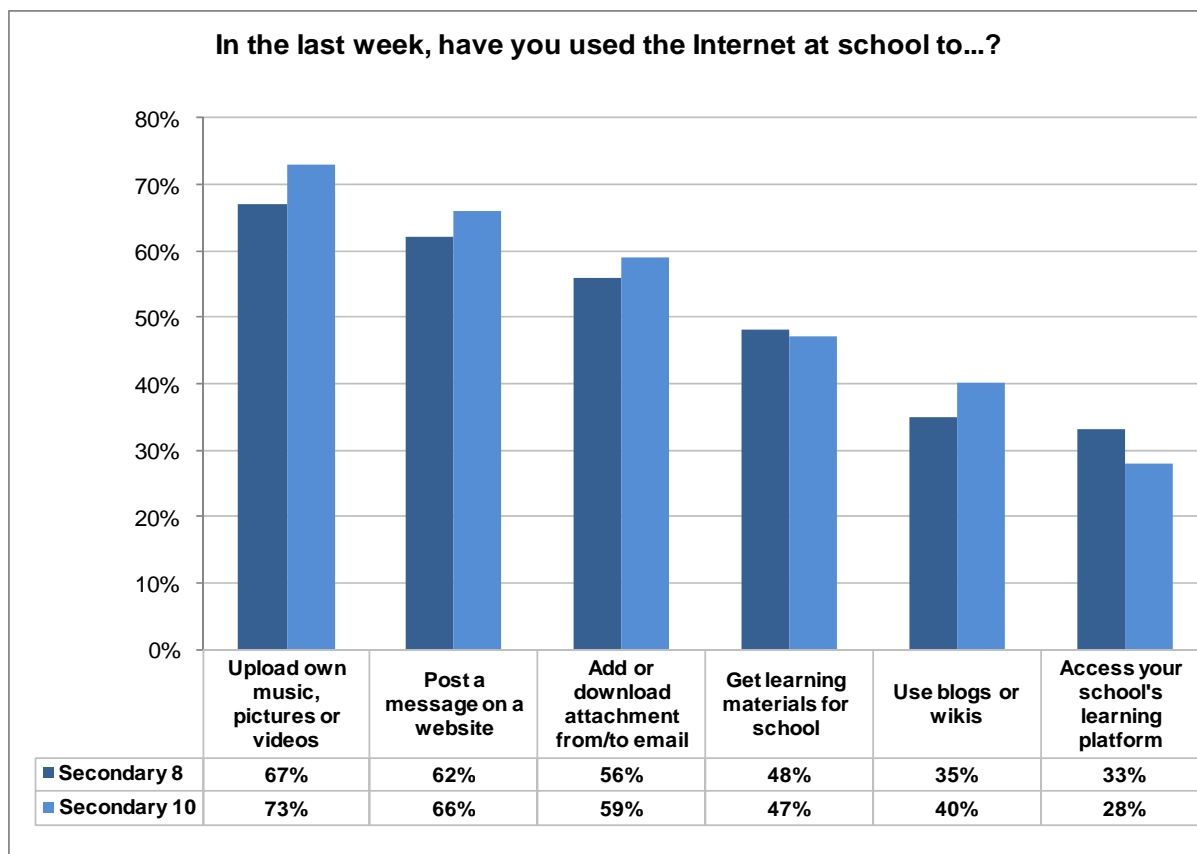


Figure 9B



Figures 9A and B show answers to the second set of activities that secondary school respondents were asked if they had performed at school in the last week. Here, the activities that technology was most used for were listening to music and looking at pictures or videos, followed by finding information online and chatting with friends using messaging. Activities least mentioned were accessing the schools learning platform, and using blogs or wikis.

Secondary boys were more likely to download music, podcasts or pictures and videos at school, albeit from a low base, as they were also more likely to chat with friends using messaging software, and using social networking.

Figure 10

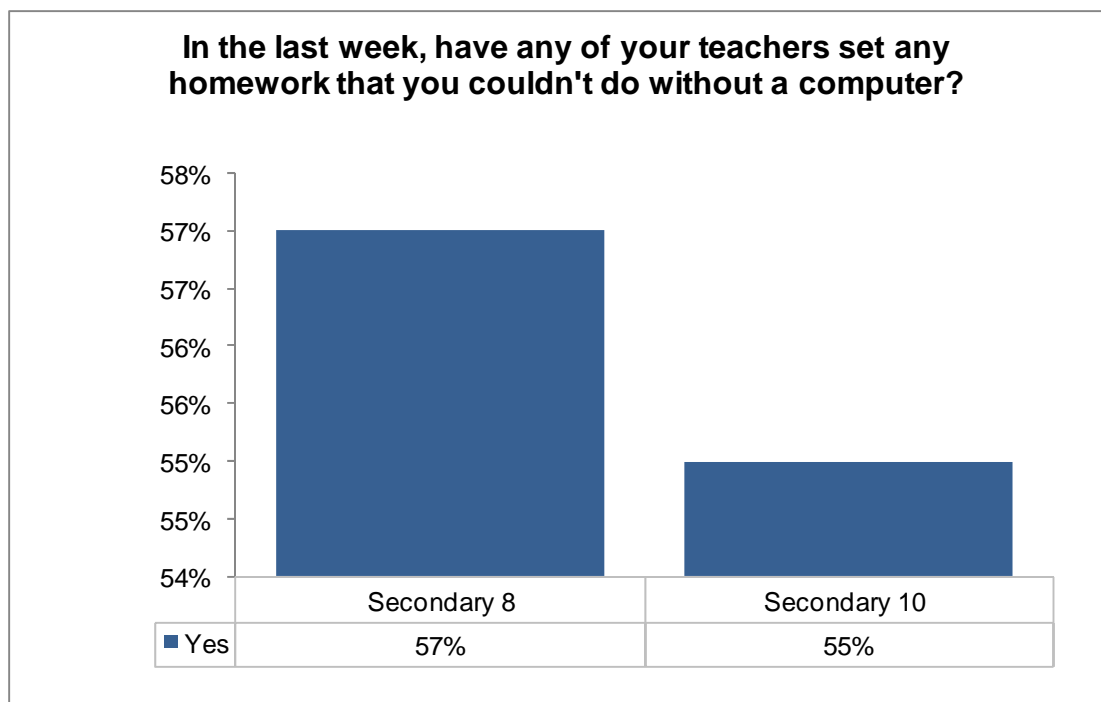


Figure 10 shows the proportion of secondary respondents who had been set homework which could not be done without the computer, in the week prior to completing the survey.

Over half of both secondary school years who were asked this question said that teachers had set homework which could not be done without a computer.

Twenty one per cent of both Year 8 and Year 10 reported being allowed to bring their own devices into lessons for learning.

Figure 11

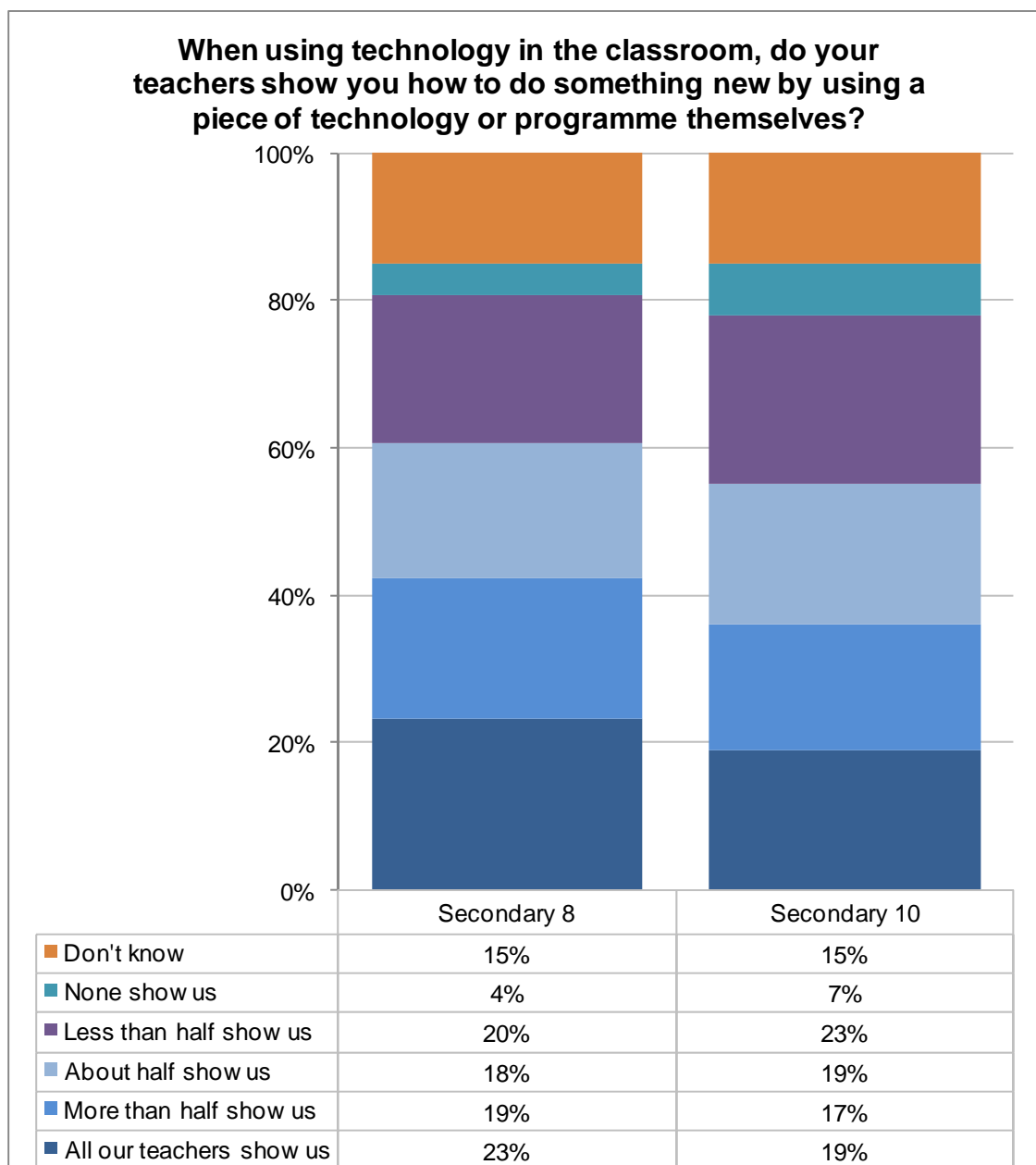


Figure 11 shows the proportion of respondents saying their teacher showed them something new by using a technology or programme themselves. More Year 8 teachers than Year 10 teachers were reported to show their pupils something new by using a technology or programme themselves.

Forty two per cent of Year 8 pupils reported that more than half of their teachers did this, compared to 36 per cent for Year 10 pupils. Boys tended to report more teachers doing this, than did girls, especially in Year 8.

2.3 Confident and proficient users of technology

The survey included a range of questions intended to gauge whether respondents made effective use of technology to improve their educational outcomes. These included asking them whether they knew how to do various tasks, and also explored their possible actions in a range of situations. These were intended to establish their digital literacy.

Figures 12A and 12B show the proportions of respondents who knew how to do each of a list of technology-based tasks or skills.

Figure 12A

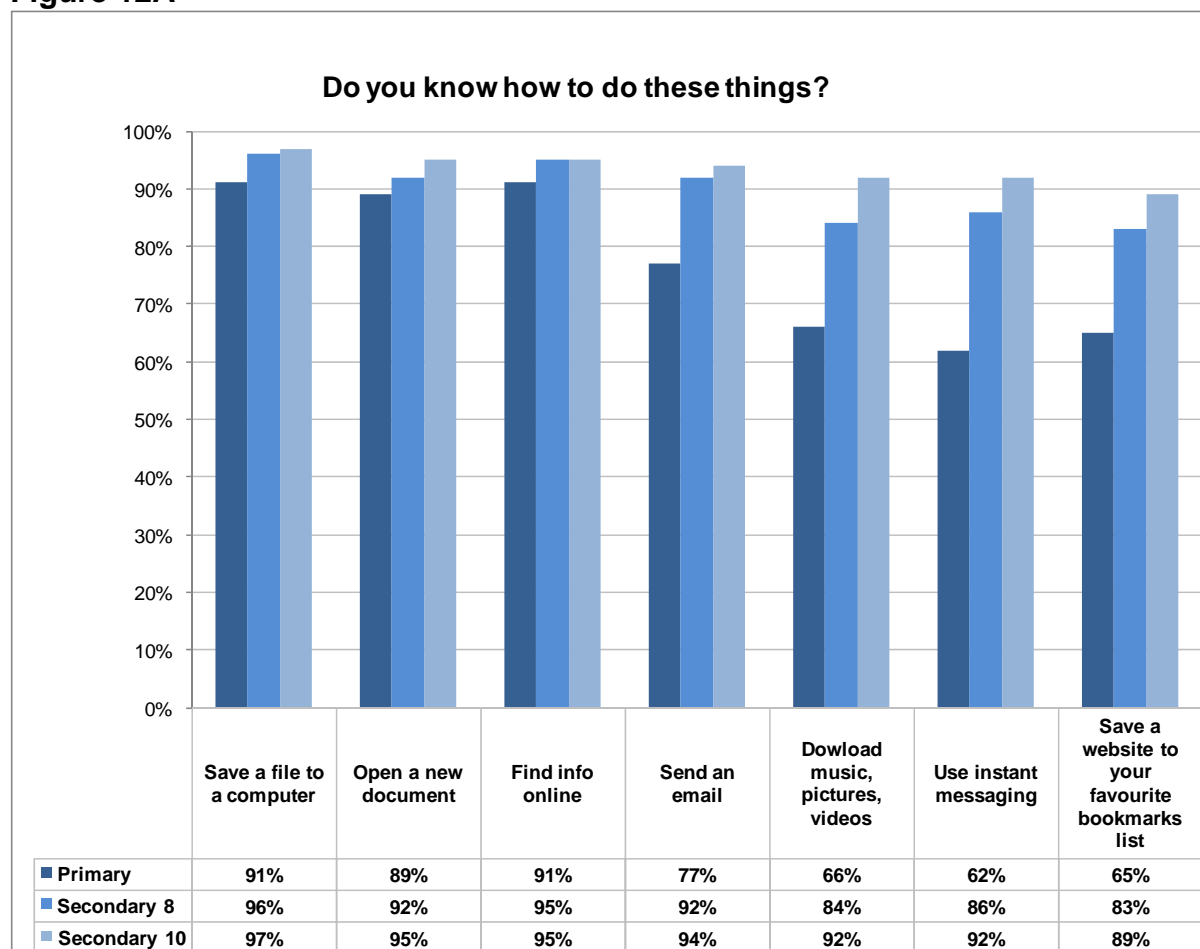
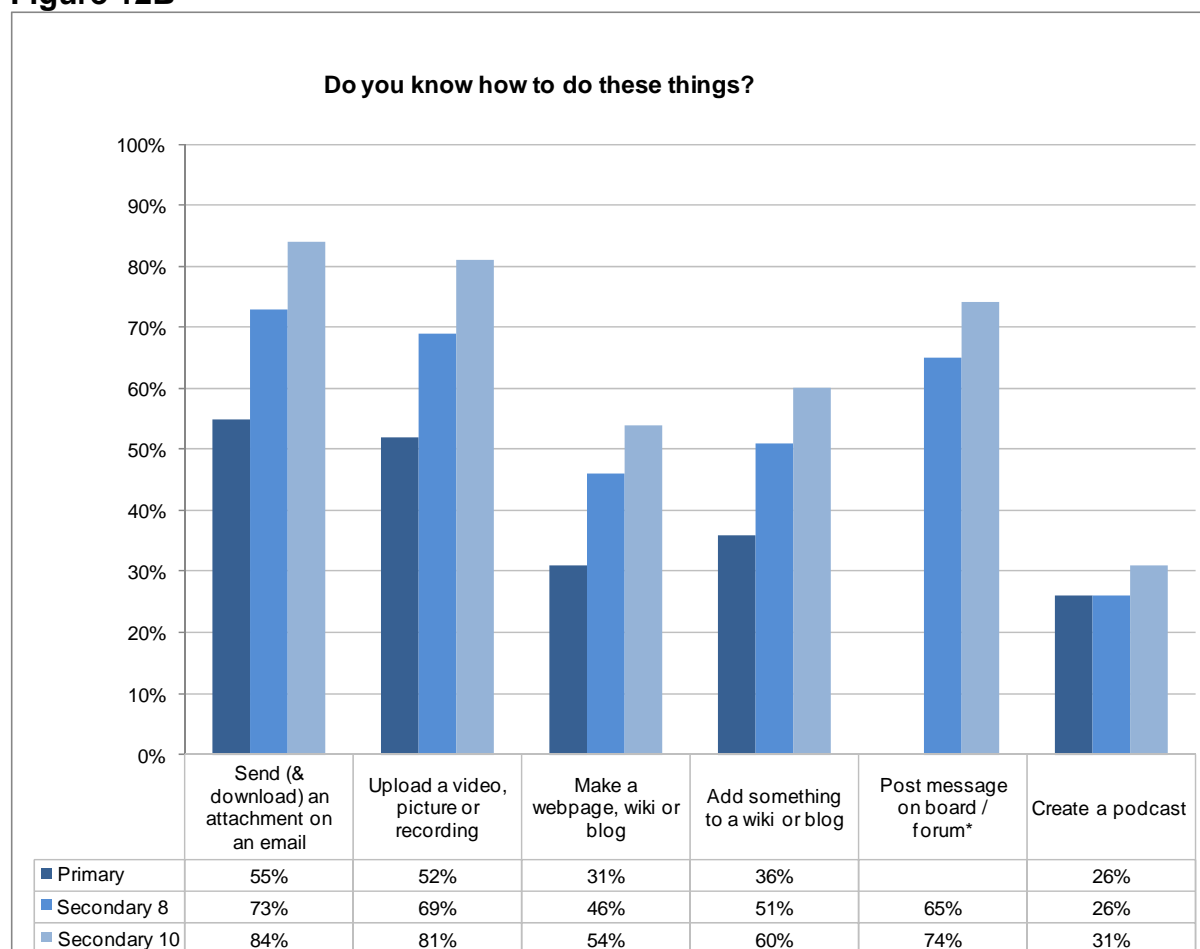


Figure 12B



* Question not set to primary respondents

Figures 13A, 13B, 14A and 14B show how pupils' competency and knowledge compares to that in the previous surveys by gender, with both the two secondary years combined. Previous data was not available to carry out significance tests on year-on-year differences.

Figure 13A

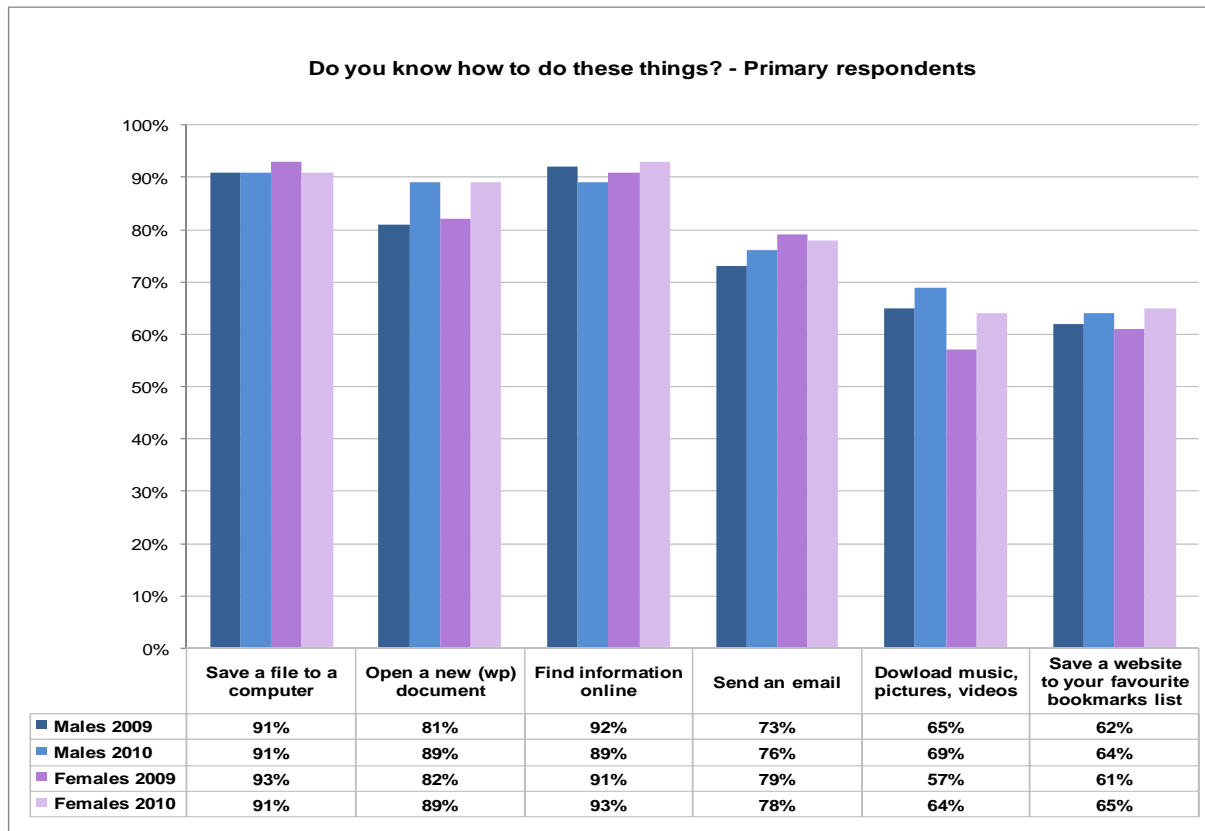


Figure 13B

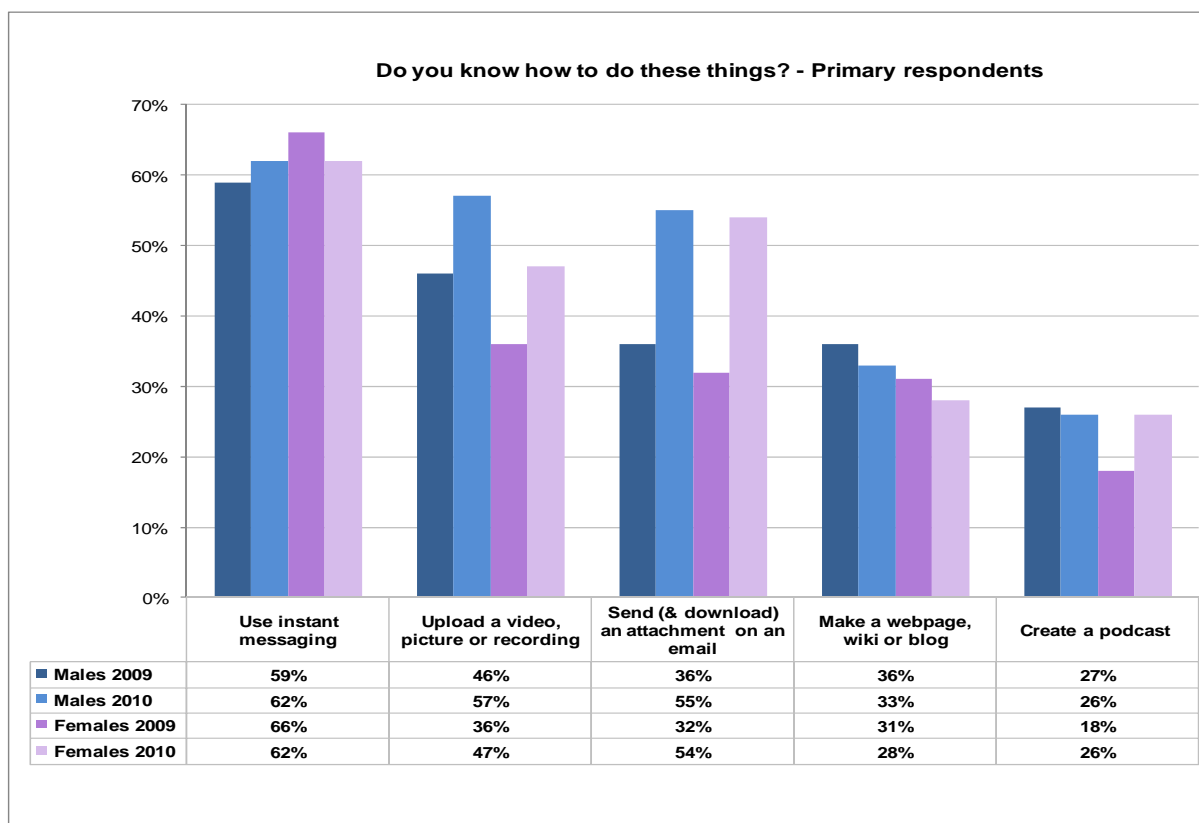


Figure 14A

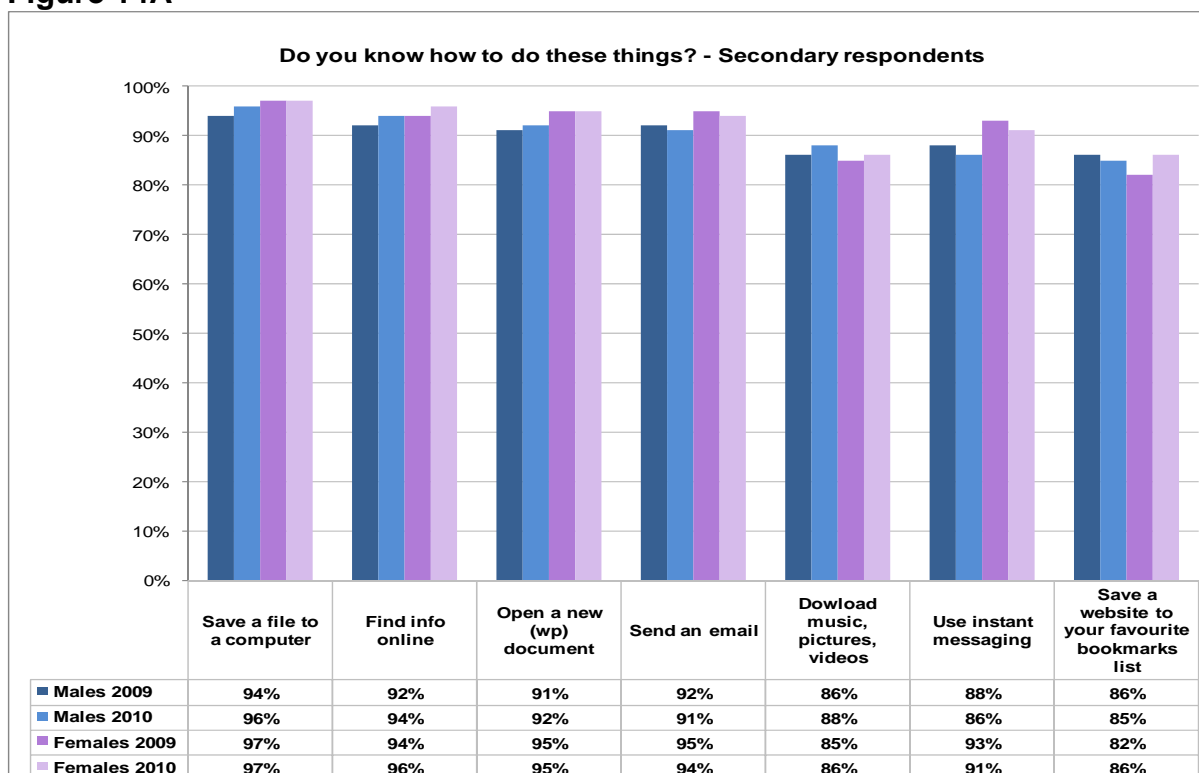
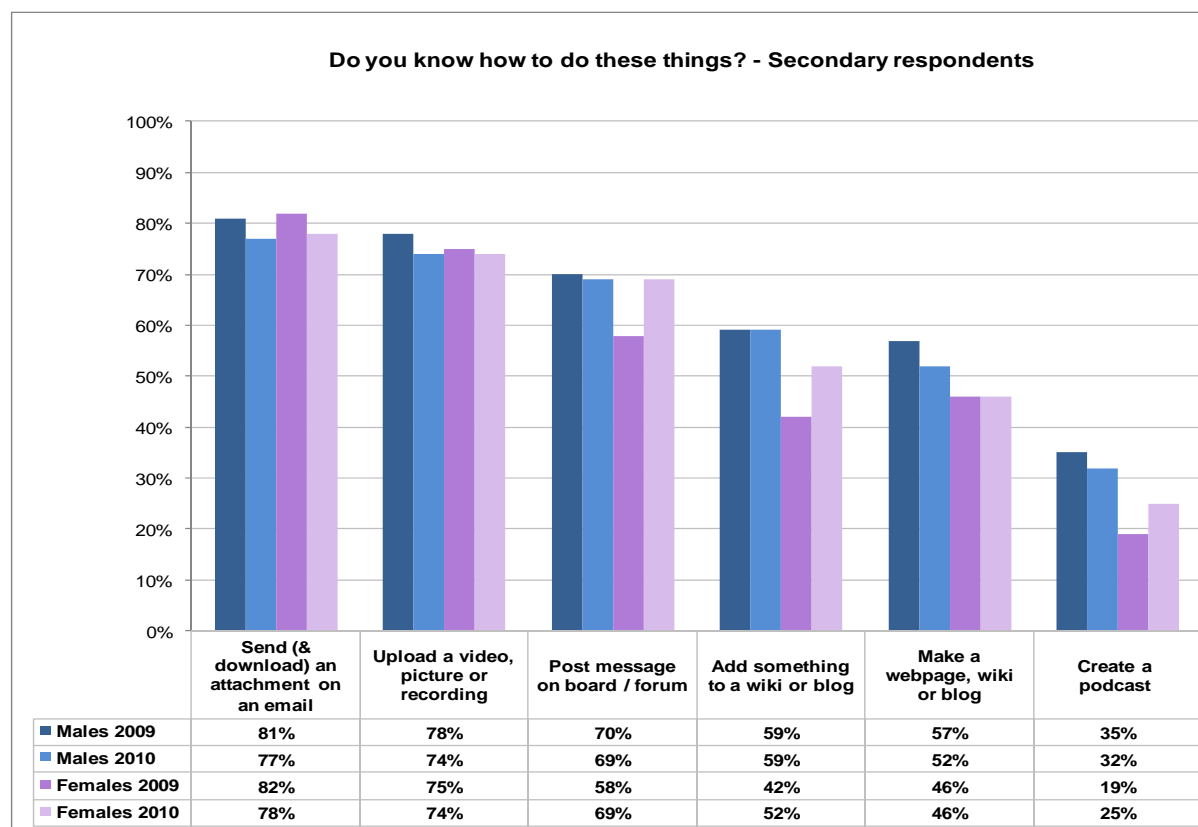


Figure 14B



The largest increase, year on year among primary respondents, was in those knowing how to send an attachment on an email. Whereas in the 2008/09 survey, 32 per cent of girls and 36 per cent of boys knew how to do this, in 2009/10, 54 per cent of girls and 55 per cent of boys were aware.

There was also an increase among primary respondents in numbers knowing how to upload a video picture or recording. In 2008/09, 36 per cent of girls and 46 per cent of boys knew how to do this. This year the figures were 47 per cent of girls and 57 per cent of boys. The number of girls knowing how to create a podcast increased year on year among primary respondents, so that boys' and girls' knowledge is now on a par.

The number of female primary respondents knowing how to make a webpage, wiki or blog declined, from 31 per cent in 2008/09 to 28 per cent this year. The same applies to instant messaging, with those girls knowing how to do this decreasing from 66 per cent to 62 per cent.

As far as the competency and knowledge of secondary school pupils is concerned, an increase was observed in girls' reporting their ability to create a podcast and add something to a wiki or a blog from 2008/09 to 2009/10. In 2008/09, 19 per cent of girls knew how to create a podcast compared to 25 per cent in 2009/10. This means approximately equal proportions of girls and boys surveyed in 2010 could create a podcast or add to a wiki or blog. In 2008/09, boys were significantly more likely than girls to say they had the ability to do these activities. Where last year 42 per cent of

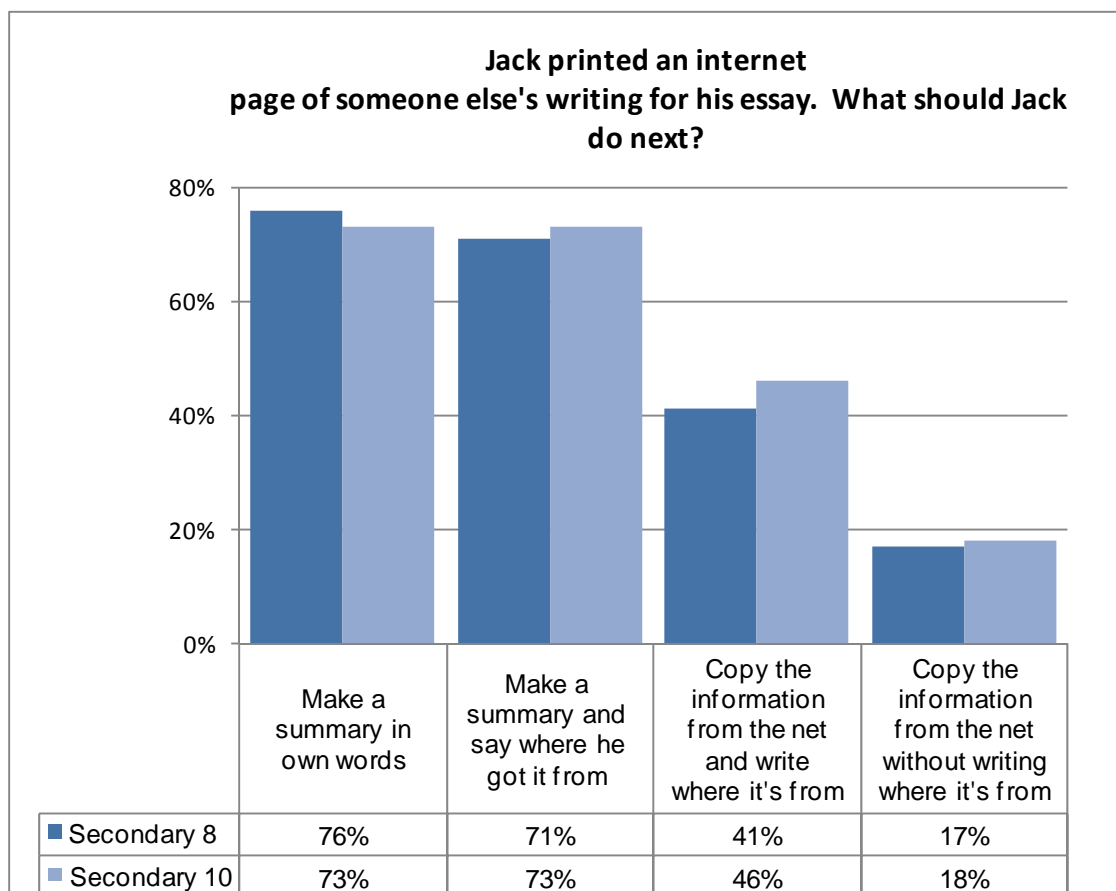
girls knew how to add to a wiki or a blog, compared to 59 per cent of boys, this year 52 per cent of girls did, against 59 per cent of boys.

Use of instant messaging decreased between 2008/09 and 2009/10 for both genders – from 93 per cent in 2008/09 to 91 per cent in 2009/10 in girls and from 88 per cent to 86 per cent in boys.

2.4 Using the internet

Secondary school respondents were asked what “Jack” should do if he printed an internet page of someone else’s for his essay. As figure 15 shows, around three quarters across all samples knew that they should make a summary in their own words. Two fifths agreed that copying the information from the internet was acceptable. Over seven in ten agreed they should say where the information came from.

Figure 15



Secondary school respondents were presented with a list of possible strategies that they might use when searching for information online, and figures 16A and B present the responses to this question in secondary schools.

The most commonly used strategy was using keywords to find information, followed by looking at other sources to check the information and then refining their search with extra keywords.

The least used strategies (used by fewer than 50 per cent of respondents) in descending order were: thinking about when the site was last updated (49 per cent of Year 8 and 46 per cent of Year 10), limiting the search with advanced tools (40 per cent and 41 per cent), looking to see how many times the website had been visited (36 per cent and 34 per cent), and looking for information about who created the website (32 per cent and 30 per cent).

Year 8 girls were more likely than Year 8 boys to use the first site listed, or to look at other sources to check the information, and Year 8 boys were more likely to look at how many times the site had been visited.

Year 10 boys were more likely than Year 10 girls to use advanced search tools, to think about when the site was last updated, to look for information about who created the site and to look at how many times the site had been visited.

Year 10 girls were more likely to look at other sources to check any information was correct.

Despite the fact that there was generally a greater level of competence found amongst Year 10 boys when compared with Year 10 girls, there was a greater proportion of Year 10 boys who said they found it difficult to find useful information online.

Figure 16A

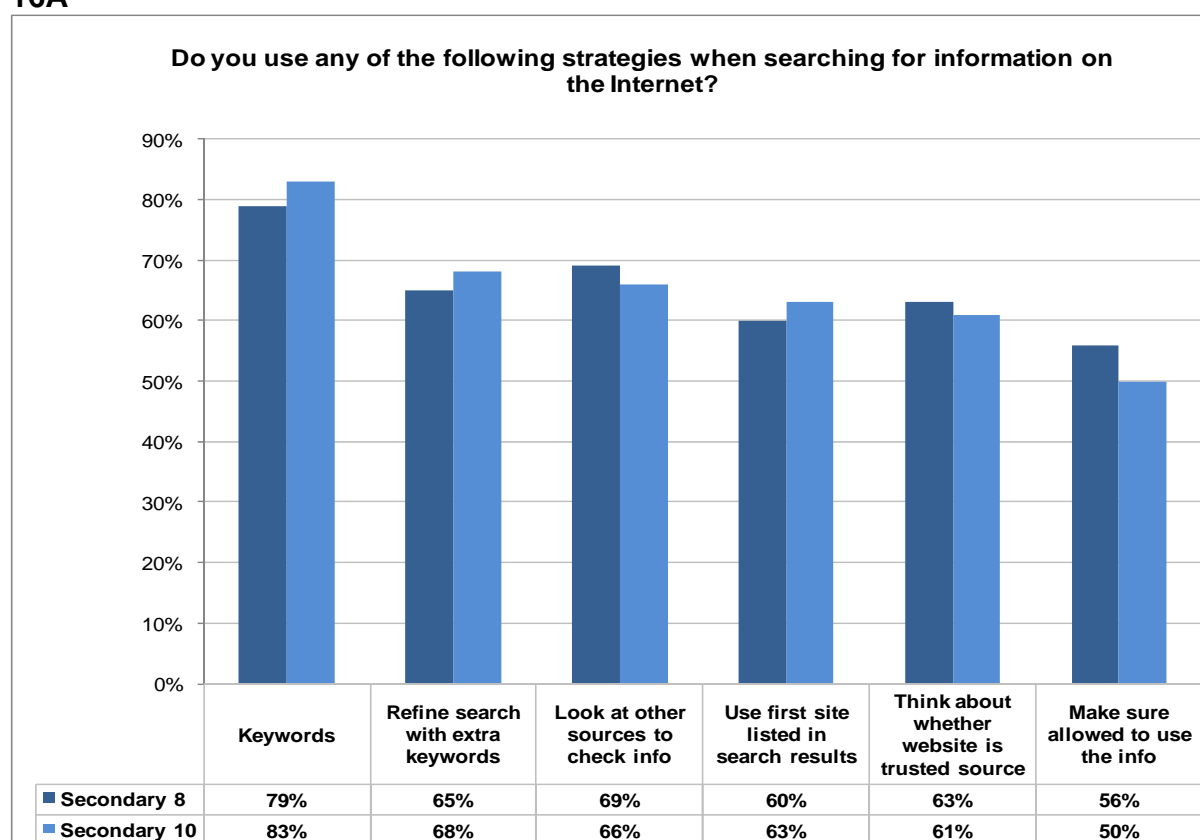


Figure 16B

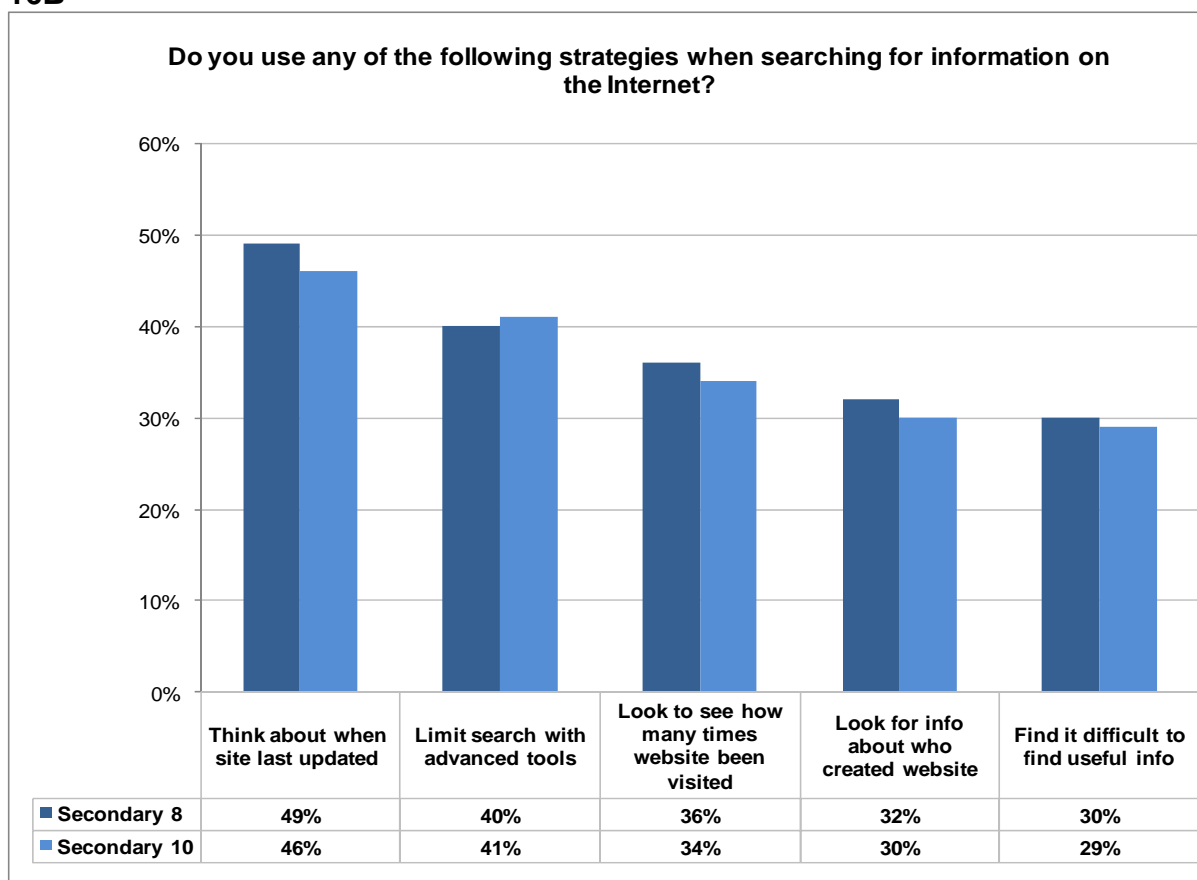
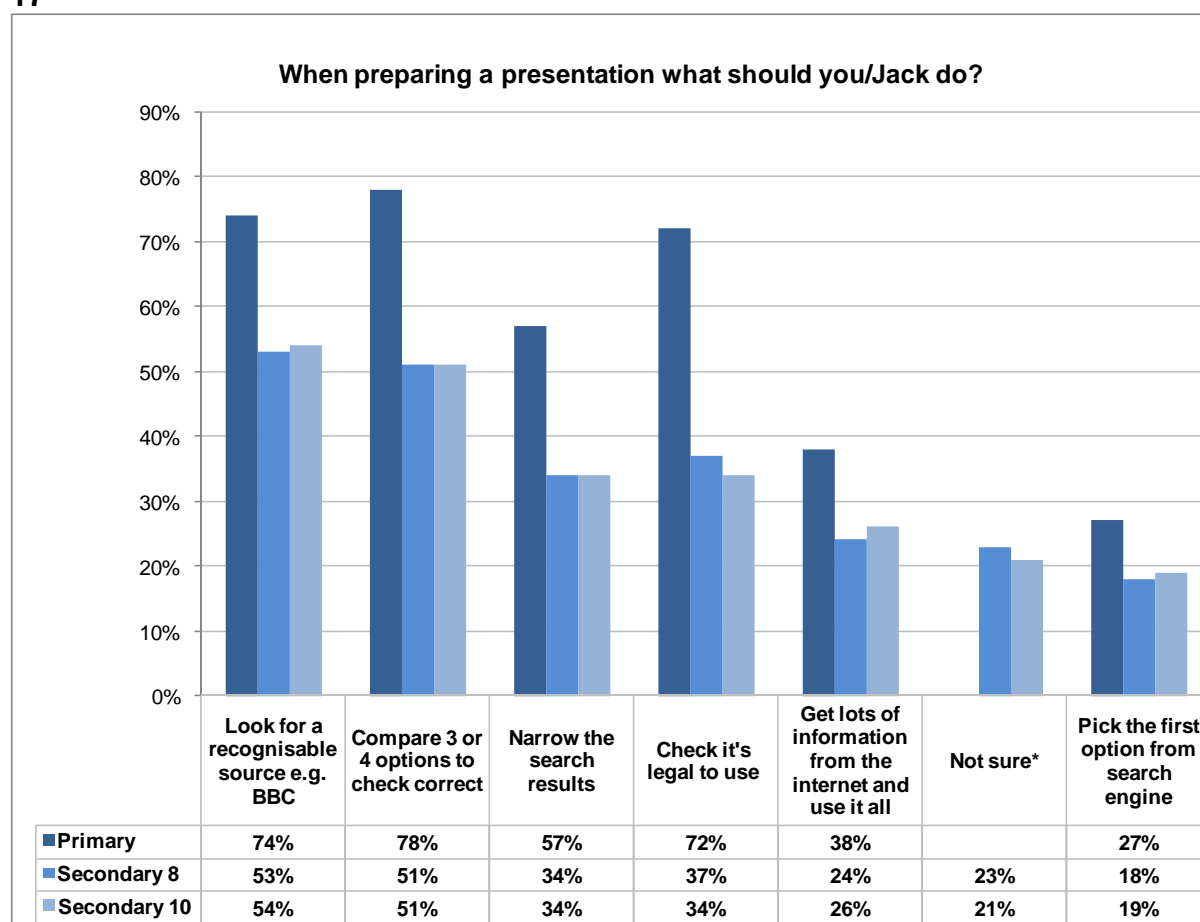


Figure 17 presents the results of a question asking Year 8 and Year 10 respondents what they should do when preparing a presentation. The question was also set to primary respondents, who were asked what ‘Jack’ should do. Please note that primary respondents were not asked to say whether they ‘did not know’ what to do in this scenario.

Figure 17



* Question not set to primary respondents

At least a quarter believed that they should use all of the information they found, rather than being selective.

Around a fifth believed that when seeing information for a presentation, they should use the first option from the search engine as it would be the most important. Over half said they would look for a source they recognised, such as the BBC, and just over a half said they would compare three or four options to check that the information was correct.

Over a third said they would narrow the search results, and the same proportion said they would check that the information was legal to use. A fifth was not sure what Jack should do.

From their answers to this question primary respondents were in many ways more effective users of technology than secondary respondents. For example 78 per cent of primary respondents said Jack should compare three or four options to check if they were correct, compared to 51 per cent of secondary respondents (both secondary years were the same here). Seventy two per cent of primary respondents

said Jack should check that any information was legal to use, and 74 per cent of primary respondents said Jack should look for a source he recognised.

Looking at secondary school respondents, 37 per cent of Year 8 and 34 per cent of Year 10 said that they should check that the information was legal to use, and 53 per cent of Year 8 and 54 per cent of Year 10 said they should look for a source they recognised.

Respondents were asked what aspect of technology they would like to know more about this year at school, as a possible indicator of competency gaps, and figures 18A and B present the overall findings.

Figure 18A

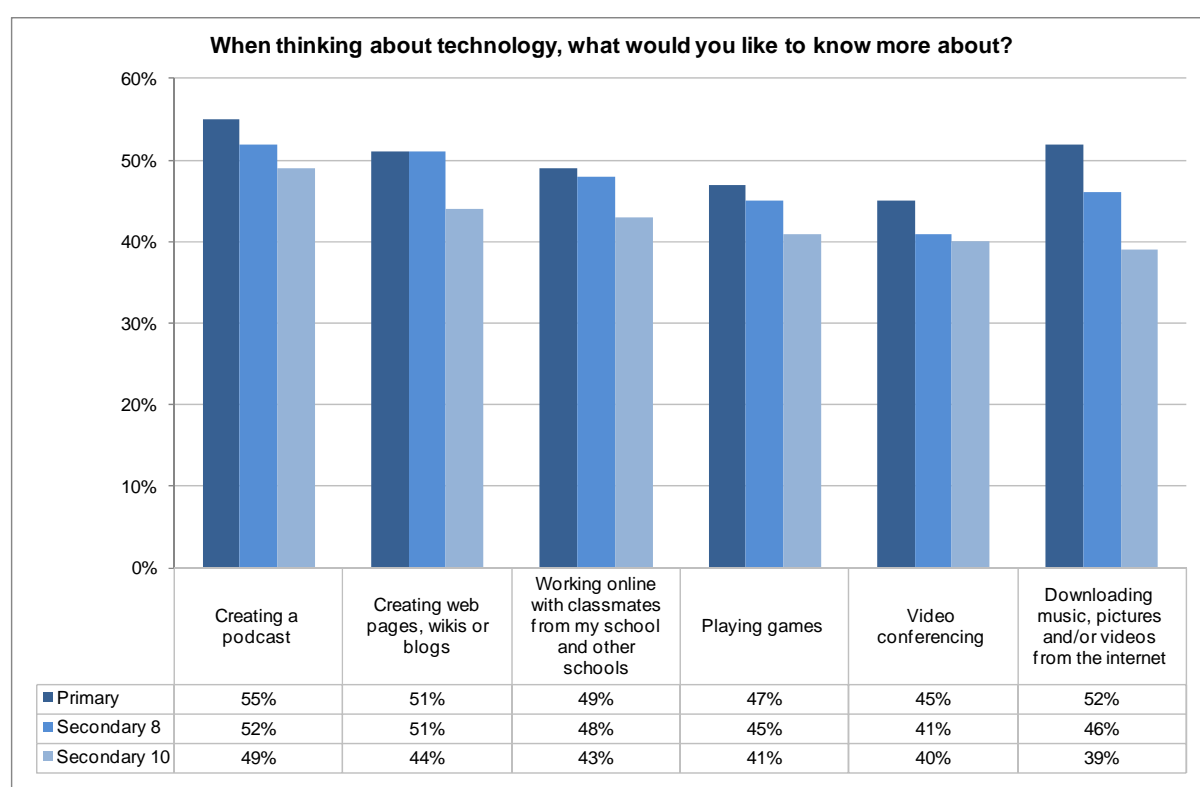
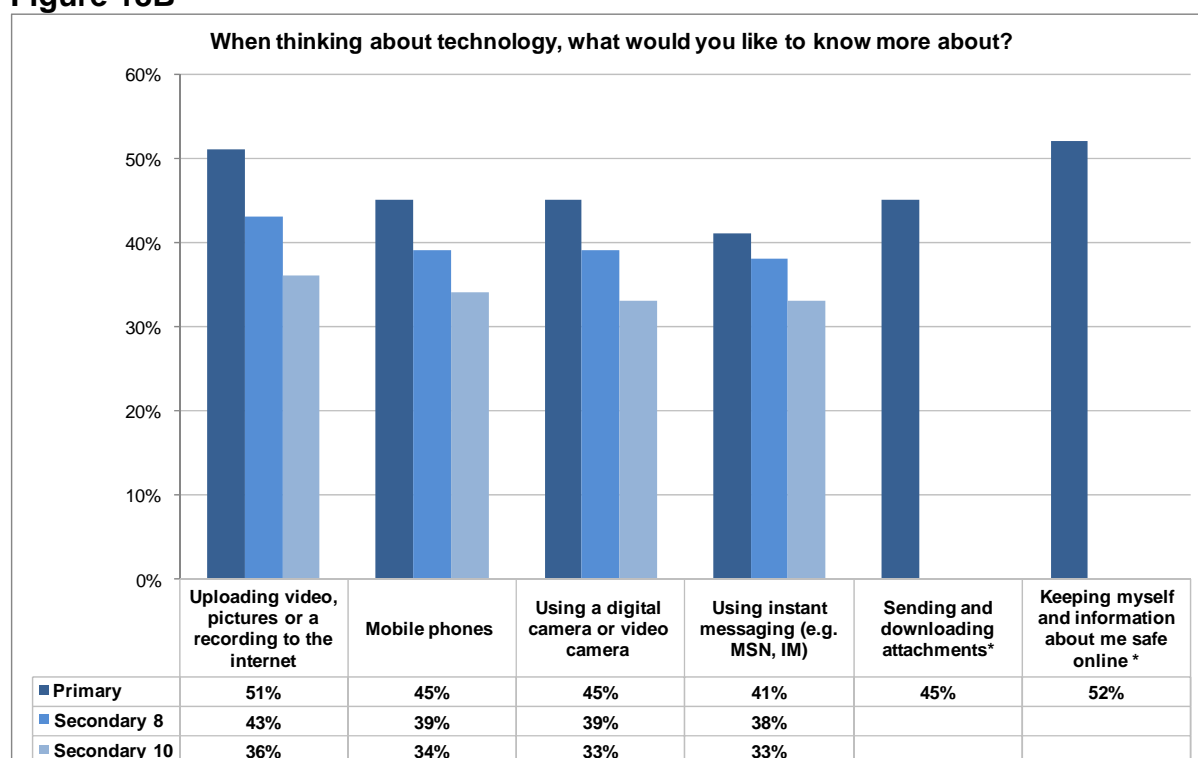


Figure 18B



* Question not set to secondary respondents

For primary respondents, the only activities which were scored differently between the genders were instant messaging, sending email and saving files, with primary boys more interested in all of these than girls (44 per cent and 37 per cent, 42 per cent and 36 per cent, and 39 per cent and 32 per cent). However, there were many more differences between the genders for secondary school respondents.

For Year 8, boys were significantly more interested in all of the following than girls: playing games (53 per cent boys, 34 per cent for girls), mobile phones (41 per cent and 34 per cent), instant messaging (38 per cent and 33 per cent), posting messages on a board or forum, sending and downloading attachments, visiting a chat room, finding information on the computer, sending email, creating presentations or slides, saving websites to favourite bookmarks and creating tables or charts.

A similar picture was discovered for Year 10 where boys were significantly more interested than girls in the following: playing games, downloading music, pictures or videos, uploading videos, pictures or a recording to the internet, mobile phones, visiting a chat room, sending and downloading attachments, posting messages on a discussion board or forum, finding information on the computer, creating tables or charts, creating presentations or slides, sending an email, saving files to a computer and saving websites to a favourite bookmarks list.

2.5 Safety

Respondents were asked several questions to determine how much they knew about safe practice online.

Figure 19

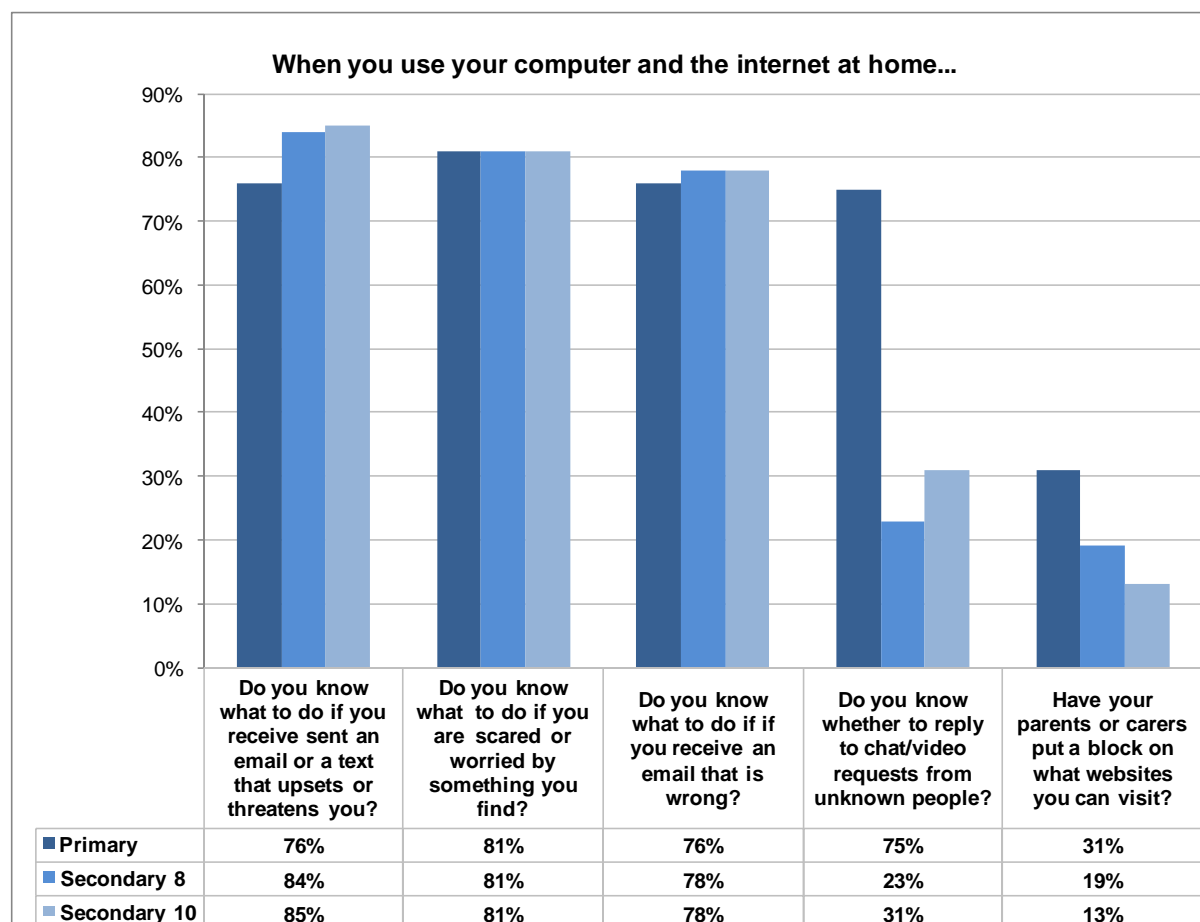


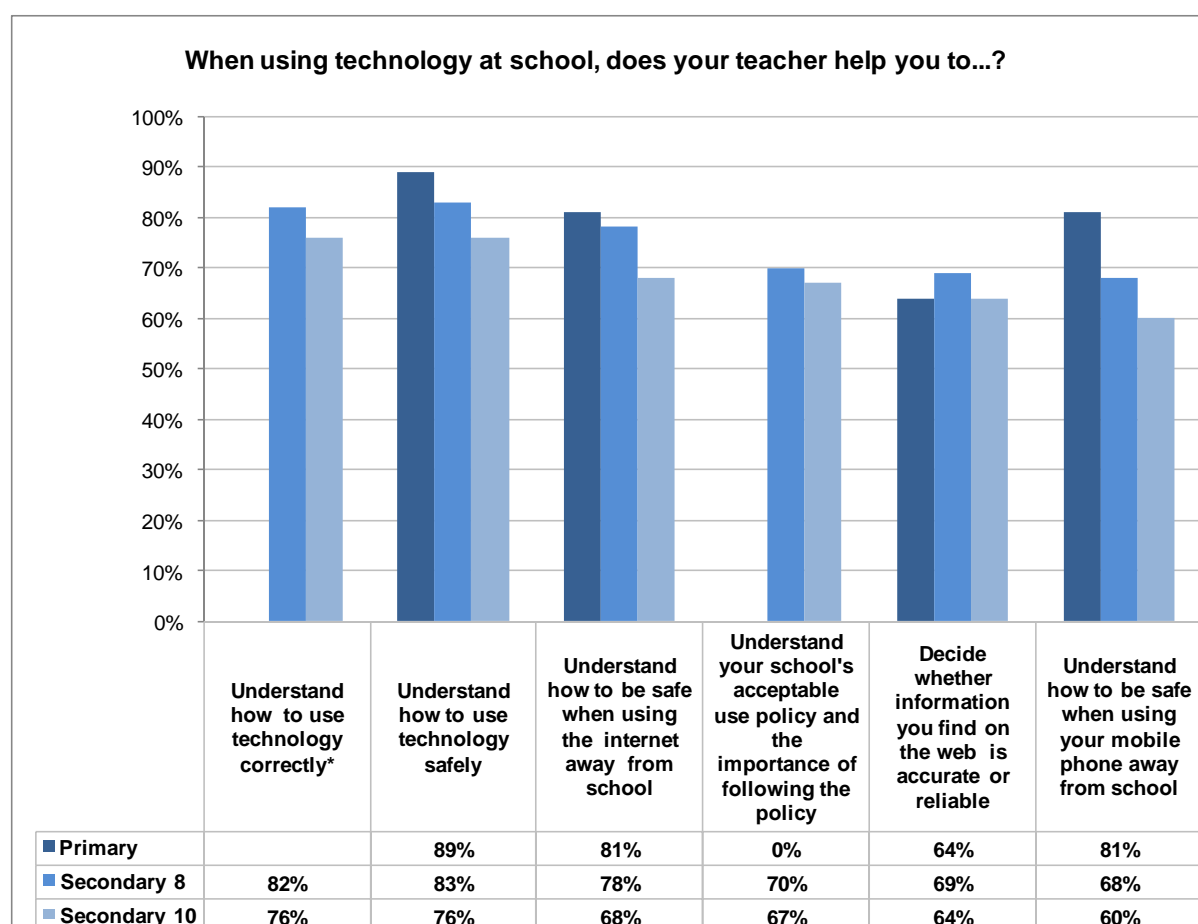
Figure 19 shows the overall responses for one set of questions about safe practice. One of these questions asked whether parents or carers blocked sites. More primary school respondents said that their parents or carers blocked what websites they could visit (31 per cent) than Year 8 (19 per cent), with even fewer in Year 10 (13 per cent).

For many of the set of questions asked in figure 19, girls were better aware and more informed than boys: primary school girls were more likely to know what to do if they were scared or worried by something online than were primary school boys (84 per cent and 79 per cent).

Secondary school girls were also more likely than boys to know what to do if they received a text or email upsetting or threatening them (88 per cent compared to 82 per cent in Year 10 and 87 per cent and 82 per cent in Year 8).

Primary school girls (80 per cent) were more likely than primary school boys (70 per cent) to say their parents had told them what to do if they were contacted by strangers. They were also more likely to know what to do if they were scared or upset by something they found online (84 per cent and 79 per cent) or if they were sent an email that they were unhappy about (80 per cent compared with 72 per cent).

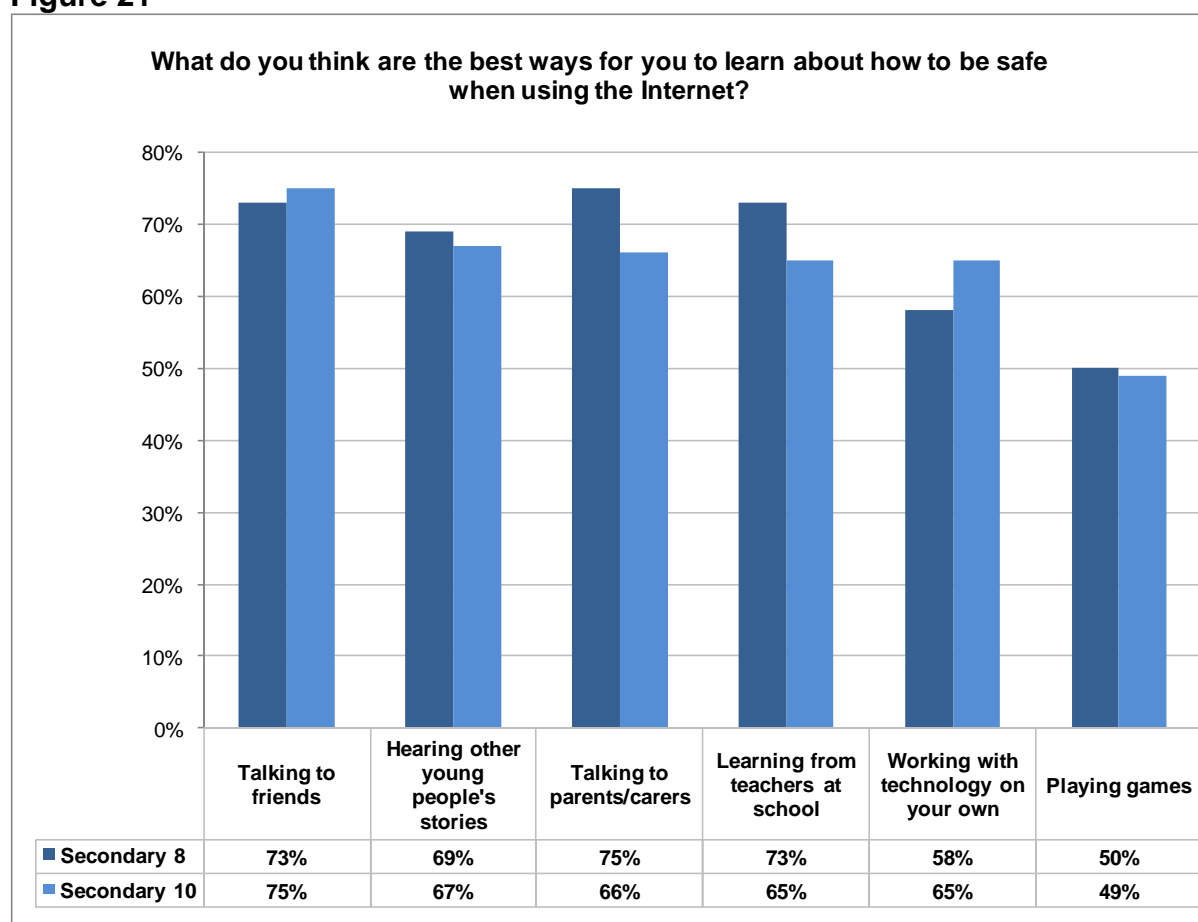
Figure 20



* Question not set to primary respondents

As figure 20 shows, nearly 9 in 10 primary respondents said their teachers helped them to understand how to use technology safely (88 per cent), though fewer Year 8 respondents said this (82 per cent) and yet fewer Year 10 respondents said this (76 per cent). Four fifths of primary school respondents said their teachers helped them to understand how to be safe when using the internet away from school (80 per cent), with 78 per cent of Year 8 saying this and 68 per cent of Year 10.

Figure 21

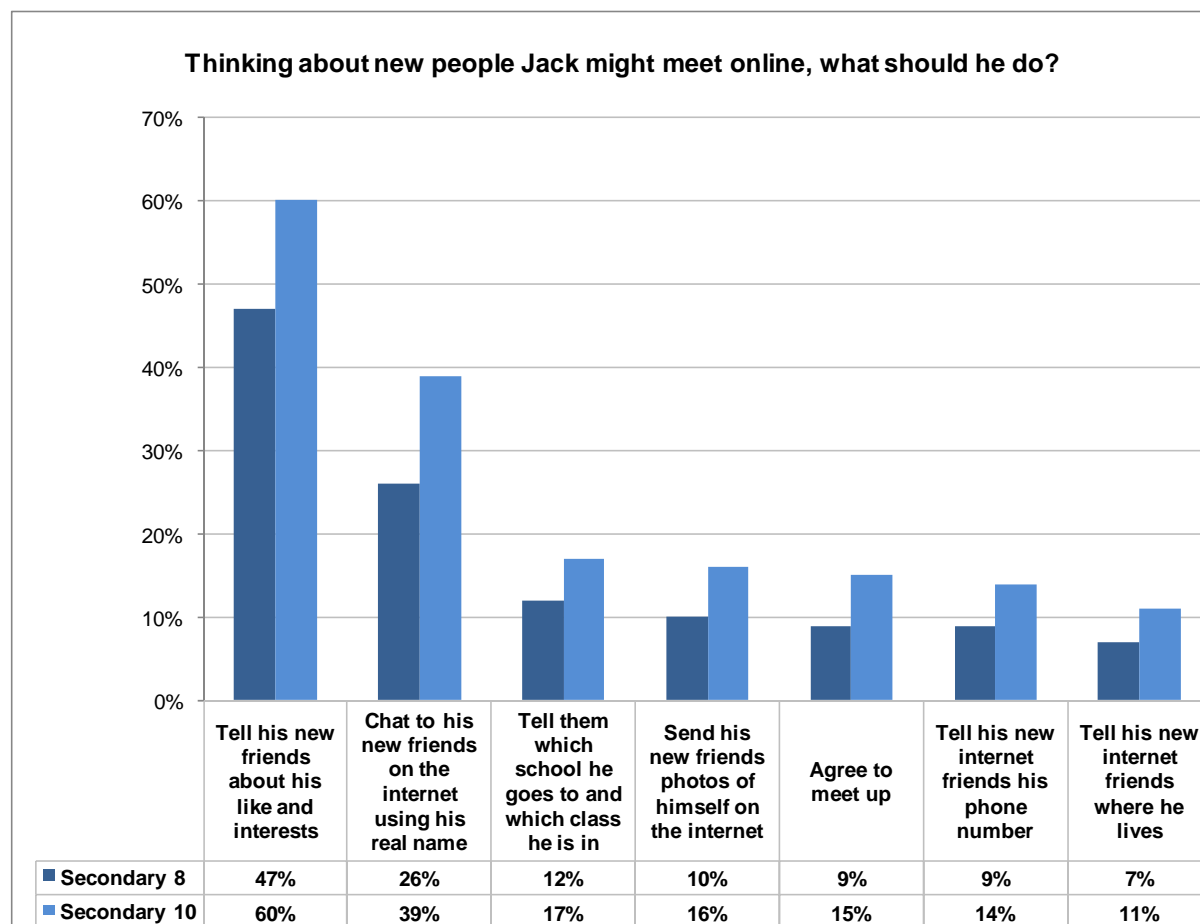


Secondary school respondents only were asked what they thought were the best ways to learn to be safe when using the internet (see figure 21). There were differences between Year 8 and Year 10 respondents, although talking to friends was ranked among the highest for both years (73 per cent for Year 8 and 75 per cent for Year 10).

Year 10 students were less likely to want to learn from parents or teachers than were Year 8, and instead were more likely to want to learn by working with the technology on their own.

Girls were more interested in learning by hearing other young people's stories than were boys (77 per cent and 57 per cent for Year 10, and 75 per cent and 63 per cent for Year 8) and by talking to friends (81 per cent and 71 per cent for Year 10). Also Year 10 girls preferred to learn by talking to parents/carers (69 per cent for girls and 64 per cent for boys), whereas boys were more interested in learning by playing games (58 per cent for boys and 40 per cent for girls for Year 10) or by working with the technology on their own (65 per cent for Year 8 boys and 51 per cent for Year 8 girls).

Figure 22



Secondary school respondents were asked to think about new people “Jack” might meet online, and what they should and should not do in this scenario (figure 22). Year 8 respondents were consistently more cautious across all scenarios than were Year 10, and so less inclined to carry out behaviour that may put them at risk. For most of the potentially unsafe activities suggested, between three quarters and four fifths were aware of what safe practice was. Respondents were most cautious about telling new friends where they lived or giving out their phone number. This leaves approximately 10 per cent to 15 per cent of respondents likely to practice, or already carrying out, potentially unsafe behaviour.

Female respondents were more aware of how to behave safely online. Fewer girls said Jack should chat using his real name, or tell his new friends where he lives. The same applies to sending photos of himself, telling his new friends his phone number and agreeing to meet up